### VOLUME I: INDEX

to

### California Highways and Public Works 1937-1967

Compiled by:
Jill Hupp
Environmental Program,
Cultural Studies Office

California Department of Transportation, Sacramento, June 1997

#### CALTRANS ENVIRONMENTAL PROGRAM CULTURAL STUDIES OFFICE 1120 N Street, M.S. 27 Sacramento, CA 95814

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#### INTRODUCTION AND ACKNOWLEDGMENTS

This two-volume index is meant to aid those wishing to use the *California Highways and Public Works* journal as an historic reference. An index to the earlier volumes, 1912-1936, was produced in 1937.<sup>1</sup>

The project was made possible by CALTRANS and the CSUS Foundation (California State University-Sacramento), and could not have been accomplished without the following:

Gregory King, Chief, History, Architecture and Community Studies (HACS) Branch, who originally brought the need for an index to the attention of the Environmental Program, and oversaw the entire project. His support and assistance throughout the indexing process was greatly appreciated.

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Public Historians are trained to serve as research historians, archivists, and museum curators, working within the community at large, rather than on the staffs of academic institutions. "Public History" is really about local history, which can be found throughout a community in its libraries and archives in the form of court documents, engineering reports, newspaper accounts, diaries, and countless other historical records. Knowledge of a community's history is important for the protection and preservation of its cultural resources. Public historians turn to the past in order to help solve contemporary problems regarding such issues as water rights, housing arrangements, land use, and neighborhood patterns. The Public History Program at CSU-Sacramento is structured to help history students acquire the skills and background necessary to succeed in the historical field outside of the academic world.

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<sup>&</sup>lt;sup>1</sup> John W. Howe, ed. *Index and List of Illustrations for California Highways and Public Works*. Sacramento: California State Printing Office, 1937.

#### California Highways and Public Works Journal, 1912-1967: A Brief History

#### **PUBLICATION HISTORY**

California Highways and Public Works was the official journal of the Department of Public Works (Caltrans' predecessor agency) from 1912 to 1967. The history of its publication is almost as involved as the California Highway System itself. Five issues of the journal, then called California Highway Bulletin, were published by the California Highway Commission and the Department of Engineering between 1912 and 1916. After a lapse in publication from 1916 to 1923 the journal, now renamed California Highways, was issued monthly through August, 1927 and bi-monthly for September-October, 1927. In November, 1927 the Department of Public Works took over publication and renamed the journal California Highways and Public Works. Under the Department of Public Works, the journal was issued intermittently monthly or bi-monthly through December, 1934 then on a regular monthly basis beginning in January, 1935 to February, 1943. Regular bi-monthly publication began in March-April, 1943 and continued until the final issue: January-February, 1967.

<u>Publication Title</u>		<b>Publication Dates</b>
– California Highway Bullet.	in	Oct. 15, 1912 May 1, 1913 July 1, 1914 Jan. 1, 1915 July 1, 1916
	(Lapse of publication 19161923)	

California Highways (issued monthly)
Jan. 1924--Aug. 1927

Sept/Oct. 1927

California Highways and Public Works (monthly or bi-monthly)
Nov. 1927--Nov/Dec 1934

Nov. 1927--Nov/Dec 1934

(monthly) Jan. 1935--Feb. 1943

(bi-monthly) Mar/Apr 1943--Jan/Feb 1967

#### CONTENT AND PURPOSE

The purpose of the journal remained steadfast despite its name changes and sporadic publication: it was to be "a forum for ideas," providing information about the state highway system, "to the end that the work and methods of the California Highway Department may be improved." In early 1916, State Highway Engineer Austin B. Fletcher ordered his division engineers to produce a "weekly story of about 1000 words on some phase of his work." Because the engineers' earlier efforts "dealt too largely in technicalities" Fletcher provided a number of suggestions for articles which might better appeal to the everyday citizen or the taxpaying motorist: "Mileage saved by completing new highway section; elimination of a steep, well-known grade, dangerous curve, or railroad crossing; description of a local celebration in honor of a finished highway; . . . the early history of California; the making accessible of a strange or picturesque new country or points of historic interest; [and] voluntary praise of the state highway system by distinguished visitors." Other related subjects, such as water resources, roadway-related legislation and litigation, and traffic were also covered, though on a limited basis.

California Highways was an important media in the pre-television era. Presiding at bridge and highway dedication ceremonies (which were inevitably heavily publicized in the journal) was one of the few ways in which the governor and other politicians could reach a mass audience. During World War II, its pages expounded the need for a system of national defense highways, and reported conservation efforts by the Public Works Department on behalf of the war effort, such as replacing the familiar solid traffic stripe with a broken-line version (called the "Victory Stripe") as a paint-saving measure.

Articles written for the journal were also frequently distributed to the local press in order to promote interest in a particular construction project and improve public relations. This was particularly important during the freeway construction-era; numerous articles in the 1950s address concerns about right-of-way clearance and the economic effect of highway bypasses on downtown commerce.

California Highways and Public Works still serves a valuable purpose as a historical reference for researchers and (inadvertently) as a record of changes in American culture and society throughout the first six decades of the twentieth century. Articles on the conversion of narrow wagon roads to paved one-lane roads, to two-lane divided highways, then four-lane highways, eight-lane expressways, and finally multilevel freeways reflect America's increasing abandonment of public transportation in favor of automobile travel. Highways, bridges, and tunnels had to become stronger and wider in the mid-1930s in order to accommodate not only more automobiles, but an increased volume of trucks, which had begun to surpass rail as the number one transporter of goods. There are a great many articles during this time period regarding the inadequacy of highways, bridges and tunnels for modern traffic needs.

Postwar issues reflect the mood of a far more somber nation. Dedication celebrations became less frequent, and those which were held fail to draw the large crowds of prewar

<sup>&</sup>lt;sup>2</sup> California Highways and Public Works, Vol. 1: January, 1924: 9.

<sup>&</sup>lt;sup>3</sup> Engineering Record, "Highway Engineers Must Write" Vol. 74: 248. New York 8/26/16. Republished in *California Highways* 1916.

days. By the late 1950s, some public opinion toward road-building had shifted, as increasingly it began to be acknowledged that freeways also sometimes had negative aspects, including the disruption of neighborhoods and the effect on certain businesses dependent on a steady stream of automobile traffic. The journal addressed these concerns indirectly by publishing a series of articles and economic studies on the positive effects of the bypasses.

#### DISCONTINUATION

The decision to discontinue *California Highways* was (at least officially) based on economics. Despite its usefulness as a promotional tool for the Division of Highways, by the mid-1960s the magazine (which boasted a worldwide circulation) had become too expensive to produce and mail.<sup>4</sup> In 1961, the State Senate Committee on Transportation considered levering a subscription charge for the publication. A readers' survey poll found that "while a great many people indicated a willingness to pay [a subscription charge], it was . . . evident that there would have to be a substantial reduction in circulation if a charge were established." The idea was dropped.

Then the journal's content was challenged. While most of the readers surveyed in the 1961 poll had "appeared to be in favor of the publication's long-established policy of carrying both technical and general-interest articles," others saw room for improvement. A 1965 *Los Angeles Times* editorial blasted *California Highways*, comparing it unfavorably to similar publications in other states, and lamenting that taxpayers should have to foot the bill for a "costly and dull" magazine. Ronald Reagan ordered a cease of publication shortly after taking office as governor in 1967.

Unofficially, political motives were held responsible for the journal's discontinuation. It was speculated that Reagan "squashed" the publication because it had featured former governor Pat Brown too prominently for his successor's liking. Other politicians were accused of using *California Highways* to further their own careers. 8

In any case, with the loss of its official journal the Department of Public Works began to place greater emphasis on other types of media such as television and radio to counter negative publicity and address public concerns. Though now a part of history, *California Highways* continues to educate and inform.

#### **Main Subject Headings**

### ACCIDENTS ARCHAEOLOGY & PALEONTOLOGY

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<sup>&</sup>lt;sup>4</sup> "Responses to Concerns Raised by Dist. 7 Employees." Memorandum. August, 1973. Caltrans Transportation Library History Center, Sacramento.

<sup>&</sup>lt;sup>5</sup> California Highways, July-August 1961: 65.

<sup>&</sup>lt;sup>6</sup> Robert M. Blanchard. "Costly and Dull Magazine Fails to Boost State," *Los Angeles Times*: July 22, 1965.

<sup>&</sup>lt;sup>7</sup> Francis N. Hveem, qtd. in Frank Durkee oral history interview, 1979, Transportation Library History Center.

<sup>&</sup>lt;sup>8</sup> Minutes of the Caltrans History Committee Meeting. June 14, 1984.

**AWARDS** 

BEAUTIFICATION--See LANDSCAPE & LANDSCAPE MAINTENANCE

BILLBOARDS--See OUTDOOR ADVERTISING

**BRIDGES** 

**BUDGETS & FUNDING** 

**BUILDINGS** 

BYPASSES--See ROADSIDE BUSINESSES & BYPASSES

CALIFORNIA HIGHWAY COMMISSION

CONVENTIONS--See EVENTS

**CONVICT LABOR** 

CULVERTS--See also EROSION CONTROL, Drainage

**CURBS--See SAFETY** 

DAMS & CANALS

DEPARTMENT OF PUBLIC WORKS --See also PERSONNEL/EMPLOYMENT RELATED

**DISTRICTS** 

**DOCUMENTS & RECORDS** 

DRAINAGE--See EROSION CONTROL

ECONOMICS--See BUDGETS & FUNDING; GASOLINE TAXES; ROADSIDE BUSINESSES

& BYPASSES

**EDUCATION** 

**ENVIRONMENTAL ISSUES--**See also LANDSCAPE & LANDSCAPE MAINTENANCE

**EQUIPMENT** 

**EROSION CONTROL**--See also FLOODING

**EVENTS** 

**EXHIBITS--See INFORMATIONAL SERVICES** 

FERRIES

FINANCE & FUNDING--See BUDGETS & FUNDING

**FLOODING** 

FOREST HIGHWAYS--See ROAD CONSTRUCTION

**FREEWAYS** 

GASOLINE TAXES

GRADE CROSSINGS, SEPARATIONS & INTERCHANGES

**GUARD RAILS--See SAFETY** 

HIGHWAYS--See ROUTES

HIGHWAY PLANNING & DESIGN

HISTORIC LANDMARKS & MONUMENTS

**HISTORY: PEOPLE, PLACES & HISTORIC EVENTS--See also EVENTS** 

INFORMATIONAL SERVICES

INTERCHANGES--See GRADE CROSSINGS, SEPARATIONS & INTERCHANGES

LANDSCAPE & LANDSCAPE MAINTENANCE

LEGISLATION

LIGHTING--See SAFETY

LITIGATION / LEGAL

LITTER REMOVAL--See LANDSCAPE & LANDSCAPE MAINTENANCE

MAINTENANCE--See also SNOW; LANDSCAPE & LANDSCAPE MAINTENANCE; EQUIPMENT

MEDIANS--See SAFETY

**MOTOR VEHICLES--**See also TRAFFIC

### **Main Subject Headings**

NATIVE AMERICANS

NATURAL DISASTERS--See also FLOODING

ORGANIZATION OF DEPARTMENTS--See DEPARTMENT OF PUBLIC WORKS

**OUTDOOR ADVERTISING** 

PALEONTOLOGY -- See ARCHAEOLOGY & PALEONTOLOGY

PAVEMENT MARKINGS--See SAFETY

PAVEMENT & PAVING--See also EQUIPMENT, Paving Related

PEOPLE--See NAMES INDEX

PERSONNEL/EMPLOYMENT-RELATED

PUBLIC RELATIONS--See INFORMATIONAL SERVICES

RECORDS MANAGEMENT--See DOCUMENTS & RECORDS

**REST STOPS & VISTA POINTS** 

RIGHT OF WAY

ROAD CONSTRUCTION--See also ROUTES; FREEWAYS

**ROADSIDE BUSINESSES & BYPASSES** 

**ROUTES** 

**SAFETY--**See also ACCIDENTS

**SCENIC HIGHWAYS** 

**SIGNALS** 

**SIGNS** 

**SNOW** 

TECHNOLOGY--See also EQUIPMENT; PAVING

TRAFFIC--See also MOTOR VEHICLES

TRAINING--See EDUCATION; PERSONNEL/EMPLOYMENT

TREES--See LANDSCAPE & LANDSCAPE MAINTENANCE

**TUNNELS & TUBES** 

**UTILITIES** 

VISTA POINTS--See REST STOPS & VISTA POINTS

WORLD WAR II-RELATED

#### **List of Abbreviations:**

AAPT Association of American Paving Technologies
AASHO American Association of State Highway Officials
AISC American Institute of Steel Construction
APWA American Public Works Association
ARBA American Road Builders Association
ARWA American Right-of-Way Association
ASCE American Society of Civil Engineers
ASF Automobile Safety Foundation
BHIF Better Highways Information Foundation
BPR Bureau of Public Roads
CH & PW California Highways and Public Works
CHC California Highway Commission
CPUC California Public Utilities Commission
CTBA California Toll Bridge Authority
CSAA California State Automobile Association
DHE District Highway Engineer
DBTC Division of Bay Toll Crossings [formerly DSFBTC]
DSFBTC Division of San Francisco Bay Toll Crossings
DWR Division of Water Resources
FAS Federal Aid Secondary [Highway Program]
FHA Federal Highway Administrator
ITE Institute of Traffic Engineers
ITTE Institute of Transportation and Traffic Engineering
NAS National Academy of Sciences; Naval Air Station
NPA National Production Authority
NRC National Research Council
PCI Prestressed Concrete Institute
PVS Professional and Vocational Standards
PW Public Works
SP Southern Pacific [Railroad]
UOP University of the Pacific
WASHO Western Association of State Highway Officials
and the second s
Alt Alternate
Br Bridge
Bus Business
Fwy Freeway
Hwy Highway
Leg. Rt Legislative Route
Pkwy Parkway
Rrd Railroad
Rt Route
Key
# symbol for 'illustration'
C, BC Cover, Back Cover
i.cvr inner cover
highway names/numbers in brackets [denotes former route names/number]

#### **ACCIDENTS**

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#### ARCHAEOLOGY & PALEONTOLOGY

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N/D '55 p19#; M/A '58 p23#; N/D '59 p25#; N/D '60 p63;	
J/F '64 p28#; J/A '64 p7#; J/F '65 p40#; J/A '65 i.evr.#;	S/O '66 p38#
Aluminum alloys developed	M/A '60 p64
Builders of hold weekly series of talks	J/A '49 p38
Bridge Dept., annual operations J/F '58 p35; J/F '59 p57; J/F '60 p42;	
N/D '60 p51; N/D '61 p53#; N/D '62 p55#; N/D '63 p51; N/D '64 p52;	N/D '65 p52
California Toll Bridge Authority	
approves two new San Francisco Bay crossings	N/D '47 p1
governor appoints new member of	M/A '44 p18
history of	S/O '50 p82
Clearances on highway structures improved	
	S/O '45 p10#
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48;	S/O '45 p10#
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;	-
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73;	M/A '64 p68;
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program	M/A '64 p68; J/F '48 p38
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges	M/A '64 p68;
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges Covered Bridges	M/A '64 p68; J/F '48 p38 M/A '47 p1#
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges Covered Bridges history of in California	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118#
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges Covered Bridges history of in California removal of (Humboldt Co.)	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12#
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118#
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  Design; bridges	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54#
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges Covered Bridges history of in California removal of (Humboldt Co.) Desert bridges Design; bridges county road bridge designs, quality of increased	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges Covered Bridges history of in California removal of (Humboldt Co.) Desert bridges  Design; bridges county road bridge designs, quality of increased Manual of Bridge Design Practice issued	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68
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Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges Covered Bridges history of in California removal of (Humboldt Co.)  Desert bridges  Design; bridges  county road bridge designs, quality of increased Manual of Bridge Design Practice issued design course based on conducted revised edition issued	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges Covered Bridges history of in California removal of (Humboldt Co.)  Desert bridges  Design; bridges county road bridge designs, quality of increased  Manual of Bridge Design Practice issued design course based on conducted revised edition issued models aid study of bridge design O '40 p27#;	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10#
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  County road bridge designs, quality of increased  Manual of Bridge Design Practice issued  design course based on conducted  revised edition issued  models aid study of bridge design  O '40 p27#;  "Strength and Beauty" used in	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28
Cost of bridge construction, annual 1934-1964 J/F '53 p30; J/F '54 p48; M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59; M/A '61 p73; M/A '62; M/A '63 p73; County, state, federal agencies cooperate on bridge program Counties statewide launch building of 55 bridges  Covered Bridges history of in California removal of (Humboldt Co.)  Desert bridges  county road bridge designs, quality of increased  Manual of Bridge Design Practice issued design course based on conducted revised edition issued models aid study of bridge design  "Strength and Beauty" used in styles, factors influencing	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28 J/A '49 p52#
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  Design; bridges  county road bridge designs, quality of increased  Manual of Bridge Design Practice issued  design course based on conducted  revised edition issued  models aid study of bridge design  "Strength and Beauty" used in  styles, factors influencing  unusual bridge designs adopted due to lack of materials	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28 J/A '49 p52# F '42 p2
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  Design; bridges  county road bridge designs, quality of increased  Manual of Bridge Design Practice issued  design course based on conducted  revised edition issued  models aid study of bridge design  "Strength and Beauty" used in  styles, factors influencing  unusual bridge designs adopted due to lack of materials  Detours, planning of for bridge construction projects	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28 J/A '49 p52#
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  Design; bridges  county road bridge designs, quality of increased  Manual of Bridge Design Practice issued  design course based on conducted  revised edition issued  models aid study of bridge design  "Strength and Beauty" used in  styles, factors influencing  unusual bridge designs adopted due to lack of materials	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28 J/A '49 p52# F '42 p2
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  Design; bridges  county road bridge designs, quality of increased  Manual of Bridge Design Practice issued  design course based on conducted  revised edition issued  models aid study of bridge design  "Strength and Beauty" used in  styles, factors influencing  unusual bridge designs adopted due to lack of materials  Detours, planning of for bridge construction projects  Division of Bay Toll CrossingsSee DEPARTMENT OF PUBLIC WORKS	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28 J/A '49 p52# F '42 p2 M/J '55 p54
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  Design; bridges  county road bridge designs, quality of increased  Manual of Bridge Design Practice issued  design course based on conducted  revised edition issued  models aid study of bridge design  "Strength and Beauty" used in  styles, factors influencing  unusual bridge designs adopted due to lack of materials  Detours, planning of for bridge construction projects  Division of Bay Toll Crossings—See DEPARTMENT OF PUBLIC WORKS  Double-deck viaduct construction, first in state	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28 J/A '49 p52# F '42 p2 M/J '55 p54
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  Design; bridges  county road bridge designs, quality of increased  Manual of Bridge Design Practice issued  design course based on conducted  revised edition issued  models aid study of bridge design  "Strength and Beauty" used in  styles, factors influencing  unusual bridge designs adopted due to lack of materials  Detours, planning of for bridge construction projects  Division of Bay Toll Crossings—See DEPARTMENT OF PUBLIC WORKS  Double-deck viaduct construction, first in state  Flood Damage to—See FLOODING	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28 J/A '49 p52# F '42 p2 M/J '55 p54 J/F '57 p31# N/D '50 p36# J/A '50 p47#
Cost of bridge construction, annual 1934-1964  M/A '55 p54; M/A '56 p28; M/J '58 p33; M/A '59 p27; M/A '60 p59;  M/A '61 p73; M/A '62; M/A '63 p73;  County, state, federal agencies cooperate on bridge program  Counties statewide launch building of 55 bridges  Covered Bridges  history of in California  removal of (Humboldt Co.)  Desert bridges  Design; bridges  county road bridge designs, quality of increased  Manual of Bridge Design Practice issued  design course based on conducted  revised edition issued  models aid study of bridge design  "Strength and Beauty" used in  styles, factors influencing  unusual bridge designs adopted due to lack of materials  Detours, planning of for bridge construction projects  Division of Bay Toll Crossings—See DEPARTMENT OF PUBLIC WORKS  Double-deck viaduct construction, first in state  Flood Damage to—See FLOODING  Foundation studies [load tests] conducted	M/A '64 p68; J/F '48 p38 M/A '47 p1# S/O '50 p118# N/D '50 p12# J/A '49 p54# M/A '55 p25 M/J '60 p68 J/F '61 p69 M/A '65 p53 F '42 p10# M/A '58 p28 J/A '49 p52# F '42 p2 M/J '55 p54 J/F '57 p31# N/D '50 p36#

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Lighting systems for		J/F '65 p34
Maintenance, structural, general	M/A '44 p12#;	N/D '61 p56
bulkhead and abutment replacement		J/F '45 p14#
concrete disintegration		M/A '46 p20#
expansion detail failures	J/F '46 p23#;	N/D '49p17#
floor maintenance		N/D '44 p10#
pile encasement, unique method used		J/F '47 p37#
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steel trusses, repair of		M/J '45 p4#
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National defense needs, bridges deemed inadequate for		D '40 p1#
Number, length of bridges in state highway system, statistics		N/D '64 p56
Painting		-
•	7; N/D '62 p58;	N/D '64 p55
corrosion resistant paint tested	J/F '62 p26#;	M/A '65 p60#
green paint used on bridges	1	J/A '60 p70
mobile units paint spans state-wide		May '42 p16#
Patrolled by armed guards as wartime security measure		Jan '42 p2
Pedestrian overcrossingsSee SAFETY		1
Poem, "I am a Bridge" by W.A. MacDonald		Apr '41 p24
Postwar Construction Program, bridge reconstruction and		J/A '44 p13#
Prefabricated steel decking used in bridge project		J/A '50 p26#
Prestressed highway bridge (first) planned (Fresno Co.)		J/A '52 p40
Prestressed pedestrian bridge, first of type, built (L.A. Co.)	J/F '51 p58;	M/A '51 p1#
Replacement of bridge by culvert and fill	1 /	M/A '47 p24#
Replacement of old bridges urged	Mar '37 p8#;	Mar '38 p4#
Research/special studies dept., annual operations	N/D '62 p58;	N/D '63 p53
Scrap Salvage	r . ,	
donation of old farm machinery for scrap steel urged		J/F '47 p40
bridge railing built from salvaged railroad rail		J/A '44 p10#
railroad span refabricated as highway bridge		M/A '44 p19#
steel scrap from old structures salvaged for new		Jan '43 p13#
"Stages of Bridge Production," illustrated		M/A '49 p38
war surplus bridges used		N/D '47 p10#
Skidproofing operations		J/F '63 p44#
Steel beams; one of largest all-welded steel beams used		M/A '52 p33#
Steel welds, radiography, ultrasonic waves used in testing of		J/F '67 p11#
Swing bridge (San Leandro Bay Br.), oldest in state to be repl	aced	M/A '51 p55#
Taiwanese engineer's view of California bridge building		J/F '54 p51#
Timber bridge survey of U.S. published		M/A '53 p64
Toll bridges, traffic and	M/J '60 p50;	N/D '61 p60
Traffic on bridges increases statewide	, v 00 p30,	J/A '59 p38
Truss pre-assembled in shop		N/D '48 p46#
World's largest bridges, comparative sizes of		J/A '56 p4
orra o rargest orrages, comparative sizes or		0,11 00 P

### **Bridges By County**

Alameda Co.		
Alameda Creek Br. (I-680; Niles Canyon Rd.) built		N '37 p18#
Alameda Creek Br. (I-680; Niles Canyon Rd.) [Rt. 21]		r. c. Prom
designed, constructed by F.W. Panhorst		M/A '48 p10#
Arroyo De La Laguna Br., Sunol	N '40 p8#;	Jan '42 p10
Arroyo Del Valle Br. (Santa Rita Rd., Pleasanton) built	· · · · · · · · · · · · · · · · · · ·	S/O '59 p47#
Cypress St. Viaduct (I-880; Oakland) [Rt. 17]		2. 2. P
first of kind in state, under construction		J/F '57 p31#
dedicated and opened		J/A '57 p43#
Dry Creek Br. (Alvarado-Niles Rd.) built using unusual met	thod	M/A '58 p46#
Dumbarton Br.		112/11 00 p 10//
purchased by state		S/O '51 p11
legal/right of way problems and		N/D '54 p55
temporary toll plaza constructed		J/A '60 p71
El Cerrito Overhead (I-80, Albany), deck of serrated		J/F '63 p44#
I-580; Boehmer Hill-Castro Valley unit, bridges planned for	r	J/A '57 p19
Mountain House underpass bridge (I-580) [US 50] planned		M/A '53 p26#
Posey (Alameda) Tube Overcrossing built		M/A '54 p5#
San Francisco-Oakland Bay BrSee San Francisco Co.		P
San Leandro Bay Br. to be replaced; oldest swing span in st	ate	M/A '51 p55#
replacement span opened to traffic		J/A '53 p46#
San Lorenzo Creek Channel Br. (Hayward) improved		J/F '61 p64#
San Mateo-Hayward BrSee San Mateo Co.		· · · · · · · · · · · · · · · · · · ·
Amador Co.		
Cosumnes River Br. (Rt. 49; Plymouth) built		J/F '53 p18#
Cosumnes River Br. (Rt. 49; Plymouth) truss replaced		M/A '44 p20#
Mokelumne River Br. (Rt. 49; south of Jackson) built		J/F '52 p17#
Butte Co.		1
Bidwell Bar Br. (Rt. 70) [US 40-Alt.] under construction		M/A '47 p1#
Butte City Br. across Sacramento River dedicated		J/F '49 p46#
West Branch Bridge (Rt. 70, Feather River) planned		M/J '57 p27#
completed		M/J '62 p2#
opened		S/O '62 p57
Calaveras Co.		•
N. Fork Calaveras River Br. (Rt. 49; San Andreas) built		J/F '53 p19#
Contra Costa Co.		-
Antioch Toll Br.		
state negotiates purchase of		Jun '40 p1#
purchased by State; ceremony for		S '40 p1#
operation of		N '40 p25
Martinez-Benicia Ferry, bridge purchase and	D '40 p12#;	Jan '41 p15
tolls reduced	Jan '41 p14;	Jun '42 p1#
history of span	•	Jun '42 p15#
becomes toll free		J/A '45 p10#
repairs made to		M/A '53 p30#
Benicia-Martinez BrSee Solano Co.		
Carquinez Toll Br.		
state negotiates purchase of		Jun '40 p1#
purchased by state; ceremony for		S '40 p1#
operation of		N '40 p25
Martinez-Benicia Ferry, bridge purchase and	D '40 p12#;	
tolls reduced	Jan '41 p14;	Jun '42 p1#
<b>BRIDGES Contra Costa Co., Continued</b>		
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history of span becomes toll free  parallel span proposed  financing of plans for progress on S/O '56 p26#; J/F '57 p37#; M/A '57 p40#; dedicated and opened traffic on J/A '62 p32; engineers win Hewes award for design and use steel I-680, Concord; Monument BlvdOlivera Rd. unit, bridges planned for Orinda Rd. Undercrossing (Rt. 24) planned Pacheco Slough Br. proposed Richmond-San Rafael Br.	Jun '42 p15# J/A '45 p10# J/A '55 p1# S/O '55 p58 J/F '56 p24# J/A '57 p36# J/F '59 p1# N/D '62 p61 M/A '62 p8# N/D '64 p53 N/D '54 p46 M/A '47 p1#
construction underway; history of project pier construction underway diver has accident operational innovations planned for Gov. Knight makes inspection of aluminum falsework, use of on bridge project progress on financing of injured steelworker drives last rivet nearing completion dedicated and opened pamphlet regarding available to motorists ten millionth crossing of	N/D '53 p1# M/A '54 p20# M/J '54 p60# J/A '54 p14 N/D '54 p20# M/J '55 p45# S/O '55 p39# S/O '55 p58 M/J '56 p55 J/A '56 p1# S/O '56 p12# M/J '60 p67 M/J '60 p68
five year anniversary traffic on made park of state highway system  Del Norte Co. Douglas Memorial Br. (US 101, Klamath) Howard Griffin Memorial Br. (Mid-fork Smith River; Crescent City) wins 1962 AISC award	S/O'61 i.cvr.# N/D '62 p61 S/O '65 p48# S/O '50 p3# J/F '64 p28#
Louis De Martin Sr. Br. (Wilson Creek, US 101; Klamath) built renamed Smith River Br. (US 101, Crescent City) dedicated South Fork Br. (Smith River; S. Fork Rd.) planned built, replaces old span El Dorado Co.	M/A '57 p67# M/J '57 p64 Apr '41 p1# M/A '47 p2 N/D '49 p11#
Aukum Road Br. (N. Fork Cosumnes River) built Bedford Ave pedestrian overcrossing (US 50; Placerville) planned Chili Bar Br. (Rt. 193, Placerville-Georgetown) [Rt. 93] emergency repairs to Coloma St. pedestrian overcrossing (US 50; Placerville) planned Hastings Creek Br. (Rt. 49; Coloma) built Locust St. freeway bridge (US 50; Placerville) built S. Fork American River bridge (Rt. 49; Coloma) built Washington St. freeway bridge (US 50; Placerville) built Webber Creek Br. (US 50) completed parallel span built wins AISC award of merit	M/A '61 p27# J/F '54 p35 M/J '52 p50# J/F '54 p35 J/A '63 p15# J/F '54 p35 J/F '53 p18# J/F '54 p35 Jul '38 p10# S/O '63 p58# J/F '65 p40#

DRIDGES, Continued	
Fresno Co.	3-5/1- /
Firebaugh; bridges across San Joaquin River planned	M/A '47 p2
Fresno; Tuolumne St., Stanislaus St. one-way bridges built	S/O '58 p62#
Hot Springs Canyon Creek Br. (Rt. 198, Warthan Canyon)	J/A '51 p22#
inadequate bridges bypassed	Aug '42 p2#
Kings River Br. (Rt. 99, Kingsburg) under construction	D '39 p10#
Lanes Bridge (San Joaquin River; Rt. 41) dedicated	N '41 p16#
Warthan Creek Br. (Rt. 198, Warthan Canyon) built	J/A '51 p22#
Weber Ave. Overcrossing (Fresno) planned	J/A '52 p40
bids for opened	N/D '52 p57
White's Br. (Kings Slough; Rt. 180) rebuilt	M/A '47 p15#
Glenn Co.	1
Butte City; swing span across Sacramento River proposed	Mar '41 p12#
Willow Creek Br. proposed	M/A '47 p3
Humboldt Co.	101/11 17 p3
Clear Creek covered bridge replaced by new structure	N/D '50 p12#
Dillon Creek covered bridge replaced by modern structure	N/D '50 p12#
Eagle Point Viaduct (US 101) under construction	J/F '62 p7#
completed	S/O '64 p24#
Eureka Slough Br. linking Eureka-Arcata completed (US 101)	S/O '56 p9#
George C. Cole Br. (US 101, S. Fork Eel River; Myers Flat)	T/E ( ( ) 5 //
under construction	J/F '62 p7#
wins AISC prize	J/F '63 p28#
George M. Leatherwood Memorial Br. (US 101, S. Fork Eel River)	
existing span to become part of interchange	M/J '58 p39#
proposed span named by Legislature	M/J '57 p64
wins award for beauty	N/D '59 p25#
Hoopa Br. (Rt. 96, Trinity River) [Rt. 84] destroyed by flood	J/F '56 p6#
replacement span constructed	S/O '57 p59#
Humboldt Bay Br., construction of deemed feasible	J/A '65 p27
North Scotia Br. (US 101, Eel River; Scotia-Rio Dell)	1
under construction	Mar '40 p14
dedicated	Apr '41 p1#
partially destroyed in 1964 flood	J/F '65 p6#
restoration underway M/A '65 p59;	S/O '65 i.cvr.#
Orleans Br. (Rt. 96, Klamath River) wins national award for beauty	Jun '41 p2#
dedicated	N '41 p22#
destroyed by flood	J/F '65 p15#
Robinson Ferry Br. (US 101, Eel Rvr.; Scotia) under construction	Mar '40 p14
dedicated	Apr '41 p1#
damaged in 1964 flood	M/A '65 p14#
South Scotia Br. (US 101, Eel River; Scotia), parallel span planned	•
· //1 1 1	N/D '59 p34
completed	M/A '61 p24#
Sylvandale Br. (US 101, S. Fork Eel River) built	M/A '66 p16#
Weitchpec Br. (Klamath River) truss assembled in shop	N/D '48 p46#
completed	M/A '49 p37#
Imperial Co.	
Colorado River Br. (I-8) [US 80] proposed	N/D '54 p49
nearing completion	M/A '56 p34#
dedicated and opened	J/A '56 p55#
New River Br. (Rt. 86; Brawley) [US 99] dedicated	S/O '53 p47#
Tamarack Creek bridge planned	M/A '47 p4

DRIDGES, Continued	
Kern Co.	
Caliente Creek Br. (Rt. 46) [US 466] built	M/A '61 p35#
Garces Circle Br. (Rt. 99, Bakersfield) built	M/A '57 p58#
Kern Ave. Ped. Overcrossing (Rt. 99, McFarland) wins design award	N/D '60 p63#
Kern River bridge near Bakersfield planned	M/A '47 p4
Poso Creek bridge railing built from salvaged railroad rail	J/A '44 p10#
Red Rock Canyon; bridge across main wash built (Rt. 14)	M/A '60 p47#
Rt. 58; Keene-Tehachapi Hwy., bridges built for S/O '47 p10#;	N/D '48 p41#
Tehachapi Creek Br. (Rt. 46) [US 466] built	J/F '63 p22#
Kings Co.	•
Kings River Br., Hardwick, proposed	M/A '47 p4
Kings River twin bridges built (Rt. 198)	J/A '63 p46#
Lake Co.	r
Kelsey Creek Br. (Rt. 175, Kelseyville) [Rt. 29] replaced	J/F '47 p35#
Lakeport-Upper Lake relocation compels replacement of bridges	J/F '47 p21
Los Angeles Co.	3/1 4/ p21
Aliso St. Br.	
	E '41 p12#
under construction	F '41 p13#
in relation to I-10 [Ramona Fwy], I-5 [Santa Ana Fwy.]	J/A '44 p2
dedicated	S/O '44 p18#
Arroyo Seco Br. dedicated (Pasadena)	N/D '53 p48#
Arroyo Seco flood control channel carrying beams win PCI award	J/A '64 p7#
Arroyo Seco Pedestrian Br. (Arroyo Seco Park)	
	M/A '51 p1#
completed	S/O'51 p50#
Arroyo Seco Pkwy., bridges built for D '37 p10#; Jun '39 p10#;	
Los Angeles River bridge under construction	N/D '43 p4#
Big Tujunga Wash Br.	F '38 p10#
Bridge Dept. of Los Angeles, general	J/F '59 p39
Cerritos Channel vertical bridge to be financed by Navy	J/A '46 p9
Colorado Fwy. Br. ["Pasadena Pioneers Br."]	
planned in addition to existing Colorado Blvd. span	N/D '50 p1
unusual design problems of	J/F '51 p22#
construction begins on	M/J '51 p5#
progress on M/A '52 p13#;	M/A '53 P15#
"sidewalk superintendents" and	M/J '52 p17#
arch construction on	M/J '52 p35#
westbound lanes opened to traffic	J/A '54 p18
Devil's Gate Dam Br. (Arroyo Seco; . I-210, Foothill Fwy.)	0/11 0 . p10
under construction	J/A '54 p49#
completed	M/J '55 p40#
Elysian Viaduct (I-5, Golden State Fwy.)	141/3 33 рчот
under construction	J/F '61 p17#
nears completion	S/O '61 p11#
girder design wins AISC award	M/A '62 p78
FAS Highway Program, bridges built for	J/A '52 p1#
Florence Ave. Br. over Los Angeles River Br. [FAS] planned	M/A '47 p4
completed	M/J '49 p34#
freeway bridges, general	M/A '63 p27
Grand Ave. Br. built over 4th St. open cut	M/J '56 p18
Highland Ave. Off-ramp Undercrossing (Hollywood Fwy., US 101)	
footings revised to clear obstruction	J/A '52 p60

### **BRIDGES Los Angeles Co., Continued**

AIDGES Los Angeles Co., Continued		
I-5; Santa Ana Fwy.		
Atlantic Blvd. bridge under construction		M/J '49 p48#
completed		M/J '50 p32#
bridges planned, built for, general		N/D '52 p19#
Daniels Railroad Spur Underpass, construction of		M/A '53 p61#
Los Angeles River Br., widening of		S/O '55 p6#
Rio Hondo Br. under construction		J/F '53 p21#
Simons Underpass built, temporary bridge removed		N/D '52 p39#
I-10; San Bernardino [Ramona] Fwy.		
Almansor Ave. Overhead, Alhambra, built		M/A '53 p49#
bridges planned, built for, general	J/F'52 p18#;	J/A '56 p40#
Evergreen Ave. pedestrian overcrossing built		N/D '52 p39#
Pomona-Claremont unit, bridges built for		N/D '54 p7#
I-110; Harbor Fwy.		
Dominguez Channel Br., construction of		J/F '60 p11
Figueroa St. bridge at 23rd. St. built		J/A '54 p46
21st St. Pedestrian Overcrossing built		J/A '54 p46#
Washington Blvd. Undercrossing built		J/A '54 p46#
I-710; Long Beach Fwy.		
Compton Creek Br. under construction		N/D '52 p15
Del Amo Undercrossing under construction		N/D '52 p15
Leonis St. Pedestrian Undercrossing planned		J/A '54 p30
Los Angeles River bridge at Belhart St. built		M/J '51 p14#
Triggs St. Undercrossing planned		J/A '54 p31
223rd StAtlantic Ave. unit; five bridges planned for	•	J/A '54 p24
Washington Blvd. Undercrossing planned		J/A '54 p30
Los Angeles River-Riverside Dr. bridge (I-5, Golden Stat	e Fwy.)	S/O '57 p20#
Ocean Ave. Br. enlarged to provide yacht harbor		S/O '44 p14#
Orange Grove Ave. Br. dedicated and opened		J/F '53 p53#
Malibu Creek Br., widening operations on (US 101)		M/A '49 p33#
Mulholland Drive Br. (Ventura Fwy., US 101) built		M/J '60 p5#
Rt. 10; Santa Monica Fwy.		
Los Angeles River Br., ground-breaking held		J/A '57 p23#
nearing completion		J/A '59 p39#
viaduct under construction, cast-in-hole piles used on	1	J/F '61 p13#
Santa Clara River Br. and overhead planned (Palmdale-Lo	os Angeles)	M/A '47 p4
completed		M/A '49 p12#
San Gabriel River Br. (US 101, Long Beach) raised		M/J '62 p59#
Sunset Blvd. overcrossing (I-405; San Diego Fwy.) [Sepu	ılveda Fwy.]	
ground-breaking held		S/O '54 p20#
Vincent Thomas Br. [San Pedro-Terminal Island Br.]		_
plans for; funding for approved	M/J '59 p39#;	J/F '60 p18
ground-breaking held	•	J/A '60 p20#
bids for opened		S/O '60 p56
survey controls established		S/O '60 p57#
bonds sold		M/J '61 p79
"San Pedro-Terminal Island Br." renamed		J/A '61 p33
progress on	M/J '62 p33;	M/A '63 p27#
toll schedule adopted	1 /	J/A '62 p28
cable spinning completed		J/F '63 p9#
dedication held; not yet opened to traffic		S/O '63 p6
wins AISC Award of Merit		J/F '65 p40#
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DRIDGES, Continued	
Madera Co.	
Chowchilla River Br. (Rt. 99)	O '41 p14
Cottonwood Creek Br. (Rt. 145, Madera-Friant) [Leg. Rt. 126]	Jun '41 p4#
Fine Gold Creek bridge proposed	M/A '47 p4
Lanes Br. (San Joaquin River, Rt. 41) dedicated	N '41 p16#
Marin Co.	
Corte Madre Creek Br. under construction (US 101)	M/A '59 p5#
Golden Gate BrSee San Francisco Co.	
Mill Crossing bridge built from war surplus (Lagunitas Creek)	N/D '47 p10
Petaluma Creek high-level bridge replaces draw-span (Rt. 37)	M/A '58 p25#
Richardson Bay Br., plans for (US 101)	M/A '54 p25
Gov. Knight makes inspection of	N/D '54 p20#
opened to traffic	S/O '56 p31#
Richmond-San Rafael BrSee Contra Costa Co.	
San Rafael highway viaduct proposed (US 101)	Jul '40 p6#
progress on D '40 p10#;	Jul '41 p20#
dedicated	N '41 p14#
entirely completed	Jan '42 p5#
Mariposa Co.	•
six small bridge structures planned	M/A '47 p5
Mendocino Co.	1
87 bridges replaced, eliminated or strengthened	S '39 p1#
Albion River bridge dedicated (Albion)	J/A '44 p4#
Alder Creek Br. (Rt. 1) [Leg. Rt. 56] replaced	J/F '47 p21#
Blue Slide Gulch bridge replaced (Rt. 1)	J/F '47 p21#
Bridges Creek Br. (US 101, Garberville) deck placement	Mar '39 p22#
Chamberlain Creek bridge planned	M/A '47 p5
Gualala Br. built; history of crossing (Rt. 1)	M/A '59 p18#
Hare Creek Br., (Rt. 1, Ft. Bragg) completed; dedicated to war veteran	N/D '48 p32#
Morrison Creek bridge planned	M/A '47 p5
Navarro River Br. (Rt. 1, Albion) nears completion	M/J '49 p32#
Noyo River Br. (Rt. 1, Ft. Bragg) proposed	J/F '47 p16
completed; dedicated to war veteran	N/D '48 p32#
posted bridges, replacement of	J/F '47 p20#
Rock Creek Br., emergency detour constructed	Jul '37 p16#
Rock Creek Br. (US 101, at junction with Eel River) planned	N/D '47 p32
completed; problems of construction	M/A '49 p52#
Russian Gulch Br. (Rt. 1, Ft. Bragg) opened Jul '40 p20#;	D '40 p19#
Schooner Gulch bridge built	Aug '41 p23#
Slick Rock Creek bridge replaced by culvert and fill (Rt. 1)	J/F '47 p21#
Ten Mile River Br. (Rt. 1, Ft. Bragg) dedicated	N/D '54 p22#
Merced Co.	1 11 2 C 1 P22 11
Gustine Canal bridge replaced (Rt. 33)	M/J '54 p46#
Livingston Canal Br. (Atwater; Bellevue Rd.) replaced	M/A '64 p54
Bear Creek Br. replaced (Rt. 140)	M/J '54 p48#
San Luis Forebay channel, twin bridges built (Rt. 152)	J/A '65 p2#
	00 P=

Monterey Co.	
	May '39 p8#
Bixby Arch (Rt. 1) [Leg. Rt. 56] built	Jul '37 p4#
Hot Springs Creek Br. (Rt., Big Sur) built	M/J '64 p52#
King City Br. (US 101, Salinas River) built	J/F '57 p26#
Neponset Br. (Rt. 156, Salinas River) built	S/O '44 p12
Rt. 1; timber bridges replaced; scenic bridges on route	-
	M/A '63 p52
Salinas River Br. (US 101, near Nacimiento River) to be replaced	D '39 p8#
Soledad Br. (US 101, Salinas River) opened	N '38 p22#
parallel span planned	S/O '59 p34
completed	M/A '61 p52#
Tembladero Slough Br. built (Rt. 156)	S/O '44 p26
Vicente Creek Br. (Rt. 1) wins PCI award of merit	J/A '65 i.cvr.#
Willow Springs Creek Br. replaced (Rt. 1)	M/A '63 p52#
wins PCI award of merit	J/A '64 p7#
Napa Co.	
Capell Valley Br. (Rt. 128, Monticello Dam) built	M/A '55 p17
Maxwell Br. (Rt. 29, Napa River) dedicated; history of project	N/D '49 p18#
nonskid grid-deck created with studs	M/J '65 p48#
Napa River Br. south of Napa planned	M/A '47 p5
Silverado Trail bridges (Silverado Trail Rd.) realigned	N/D '59 p27#
Soda Springs Creek Br. (Silverado Trail Rd.) planned	M/A '47 p5
Nevada Co.	
Truckee River Br. wins design award I-80 [US 40]	N/D '60 p63#
Orange Co.	102 00 posn
Artesia St. bridges (Rt. 91) [Leg Rt. 175]	J/A '53 p11#
Santa Ana River Br. (Rt. 91) [Rt. 175], Riverside Fwy.) built	J/A '55 p52#
Placer Co.	J/Λ 33 p32π
	N/D '55 n20#
N. Fork American River Br. replaced (Foresthill)	N/D '55 p20#
N. Fork American River Br. towers replaced (Rt. 49, Auburn)	M/J '44 p12#
replacement bridge built	M/A '48 p13#
S. Fork Yuba River Br. built (I-80, Cisco Grove)  J/A '63 i.cvr.;	S/O 63 p26
Plumas Co.	3.5/1./4= -
Hamilton Branch bridge planned	M/A '47 p5
Feather River [FAS] bridge under construction (Portola)	N/D '53 p12
Indian Creek Br. (Rt. 70, Keddie) receives award	N/D '55 p19#
Indian Creek bridge trusses repaired (Quincy)	M/J '44 p15#
Pulga steel arch bridge (Rt. 70) [US 40-Alt.]	J/A '45 p6
Rt. 70 (Feather River Hwy.) [US 40-Alt], bridges on	Aug '37 p4#
Wolf Creek Br. (Rt. 89 [Rt. 83], Greenville) replacement built	S '39 p14#
Riverside Co.	
Chino Creek Br. (Rt. 71) [Prado Dam Hwy.] built	J/A '50 p52
Colorado River Br. (I-10 [US 60-70] Blythe) built	M/J '59 p45#
Crestmore Br. [FAS project] (Riverside) lengthened	J/A '58 p33#
Horsethief Creek Br. (I-15 [Rt. 77], Temescal Canyon) replaced	O '41 p12#
Santa Ana River bridge (Rt. 71) [Prado Dam Hwy.] built	J/A '50 p52#
Smoky Gulch Br., (I-10, Indio) prefabricated steel decking used	J/A '50 p26#
Whitewater River bridges (RT. 99; Garner-Thousand Palms) built	J/A '54 p56#
	5,11 5 i p50ii

Sacramento Co.	
Arcade Creek Br. under construction (at Madison Ave.)	M/A '47 p5
Bear Slough Br. under construction	M/A '47 p5#
Cosumnes River Br. built (Dillard Rd.)	M/A '65 p76#
Dry Creek Br. built (Galt)	O '38 p14#
Elvas Br., progress on (American River at 30th St.)	J/A '51 p28
completed	N/D '54 p14#
widening of planned	M/A '65 p59
Elvas Fwy., bridges built for (I-80) [US 99E]	N/D '54 p14#
Ft. Sutter Viaduct under construction (29th-30th St.; I-80)	N/D '64 p53#
Georgiana Slough Br. wins AISC prize (Walnut Grove)	J/F '64 p28#
Hazel Ave. bridge planned (American River, Nimbus)	M/J '65 p22
H Street Br. widened (American River, Sacramento)	J/A '51 p28
	O '37 p16#
I Street Br., new approach dedicated (Sacramento)	-
Laguna Creek Br. built (Elk Grove)	M/A '47 p5#
Pioneer Memorial Br. (Sacramento River) [W-X Street Br.]	M/A '62 m15
construction begins on	M/A '63 p15
construction of superstructure planned	M/J '64 p65
progress on	S/O '64 p27#
Three Mile Slough Br. (Rt. 160 [Rt. 24], Rio Vista) built	S/O '49 p26#
Watt Avenue Br. (American River) built	S/O '61 p25#
San Benito Co.	NA/A 640 26
Pajaro Br. to be built east of Watsonville	M/A '48 p36
Pajaro River Br. (US 101, Sargent) replaces old structure Aug '41	p18#; Jan '42 p14#
San Bernardino Co.	T/A (50 50
Chino Creek Br. (Rt. 71) [Prado Dam Hwy.] built	J/A '50 p52
City Creek arch bridge (City Creek Rd., San Bernardino) built	M/A '48 p22#
City Creek Br. at E. 5th St. (San Bernardino) built	J/F '49 p32#
I-10 [US 70-99]; Ontario-Upland unit bridges built for	N/D '54 p7#
Mojave River Br. (Victorville Narrows, Rt. 18; Victorville) built	M/A '63 p50#
Needles; eight precast, prestressed bridges built (I-40) [US 66]	J/F '58 p56#
Red Rock Br. (I-40 [US 66], near Topock, AZ.) built	J/A '47 p20#
Santa Ana River bridge (Rt. 71) [Prado Dam Hwy.] built	J/A '50 p52#
Santa Ana River Br. (Waterman Ave., San Bernardino) planned	M/A '47 p6
built	J/F '49 p32#
Timoteo Creek Br. (San Bernardino) proposed	M/A '47 p6
built	J/F '49 p32#
San Diego Co.	
Cabrillo Fwy., bridges built for (Rt. 163) [US 395]	M/A '46 p5#
Coronado Br.	
studies regarding authorized S/O '61	
hearing on held	M/J '62 p62
plans for	S/O '62 p58#
test borings started	M/J '65 p16
Devil's Canyon Br. (I-8) [US 80] under construction	M/J'63 i.cvr.#
completed	J/F '64 p43#
wins AICS award for beauty	J/F '65 p40#
Green Valley Creek bridge (I-15) [US 395] built	N/D '50 p18
MacKinnon Ave. Overcrossing wins PCI award (I-5)	J/A '65 i.cvr.#
Penasquitos Creek Br. (I-15) [US 395] built	N/D '50 p18#
parallel span built	M/A '65 p64#
San Clemente Canyon Br. (I-15) [US 395] built	N/D '50 p18
BRIDGES San Diego Co., Continued	

San Luis Rey River Br. (I-8) [US 80] to be widened San Mateo Creek Br. (US 101) under construction M/J '46 p22#;	N/D '51 p34# M/J '47 p4#
Sweetwater River Br. (I-5) [US 101] built	J/F '51 p36#
Sweetwater River Br. (I-8, Descanso Junction) under construction	S/O'51 p38#
San Francisco Co.  Oth and 10th St. Viaduat judged best of its kind (Dayshare Fuzz. US 101)	S/O '54 n22#
9th and 10th St. Viaduct judged best of its kind (Bayshore Fwy., US 101)	S/O '54 p32#
Embarcadero Fwy. Viaduct completed  Golden Gate Br.	M/A '59 p35#
construction history of	S/O '50 p96
ready for dedication	May '37 p2#
Waldo Approach toSee ROUTES, Marin Co.	May 37 p2#
wardo Approach to-See ROCTES, main co. wartime fiscal problems of; State offers aid to	O '42 p13
Presidio Approach toSee ROUTES; TUNNELS, San Francisco Co.	O 42 p13
described	J/A '45 p5
20th Anniversary of	M/J '57 p39
San Francisco Bay Crossings, general	141/3 37 p37
additional bridges urgently needed	M/A '63 p78
Angel Island crossing, S.FMarin Co. proposed	S/O '61 p5
second/parallel Bay bridge proposed	5/0 01 p3
estimated location, cost of	J/F '47 p1
pertinent facts concerning	J/F '47 p4
foundation exploration in San Francisco Bay	J/F '47 p8#
financing	S/O '47 p1
two new Bay crossings, approval for given	N/D '47 p1
problems of to be studied	M/A '48 p35
consultants for project hired	M/J '48 p18#
recommendations for location	N/D '48 p1#
parallel crossing of S.F. Bay ordered	M/A '49 p1
Purcell recommends twin bridges	M/A '49 p
parallel bridge endorsed by Gov. Warren	M/A '49 p57
"Southern Crossing"	•
engineers' report to governor regarding	J/A '54 p45#
plans, engineering studies for	J/F '55 p31#
plans for approved by private consultant team	M/A '55 p57#
engineering and economical matters regarding	J/F '56 p32
experts report on financial feasibility of	N/D '56 p38#
all reports on ordered by CTBA	M/J '58 p48
Advisory Committee on named by governor	J/F '61 p37
San Francisco-Oakland Bay Br.	
accidents and D '40 p26;	M/J '43 p11
Andrew, Charles E. made Bay Bridge Engineer	F '37 p18
anniversaries N/D '44 p26; N/D '46 p3#;	N/D '56 p55#
twenty-fifth	N/D '61 p61#
construction history F '37 p10#; N/D '44 p26; N/D '46 p3#;	
S/O '50 p82#, p99;	N/D '56 p55#
description of	J/A '45 p6
emergency assistance on Mar '37 p21; Mar '38 p24#;	J/F '46 p21#
service charge for refueling motorists on span introduced	M/A '46 p7
mobile radio system used for	J/A '47 p18#
financingSee BUDGETS, Bonds, Bay Br.	N. (42. 2
insurance for assured	Mar '42 p3
landscaping I-80 approaches to	D '39 p17#

### **BRIDGES San Francisco Co., Continued**

GES San Francisco Co., Continucu		
lane control signals on lower deck to be installed		M/A '54 p18
maintenance, costs of estimated		N/D '44 p1
maintenance operations		N/D '60 p60
named one of "7 Civil Engineering Wonders"	N/D '55 p29;	M/A '58 p23#
painting		
"air analyzer" used to test paint resistance		Apr '38 p23#
	7 p22#; J/F '46 p5#;	S/O '61 p50#
history of	7 p2211, 3/1 40 p311,	J/A '61 p5#
problems of		•
•		Apr '40 p18#
parking provided for motorists of		Jun '37 p25#
Port of Oakland Overhead, work on underway		D '37 p20#
alterations to planned		M/A '54 p18
Purcell, C. H. honored for work on bridge		Apr '37 p16
railway system		
"Building Bay Bridge Railroad"		May '38 p8#
interurban train platforms, construction begin	is on	Mar '37 p17#
first railway tie laid		D '37 p23#
nearing completion		Apr '38 p23
train movements controlled by push buttons		S '38 p 24#
first train across		O '38 p18#
railway terminal building dedicated		F '39 p6#
removal of rail tracks		J/A '60 p35
reconstruction, conversion of to one-way per le	evel	1
lower deck paved, rail system removed		J/A '60 p35#
upper deck strengthening operations	J/F '62 p36#;	M/J '63 p58
reconstruction nearing completion	··	M/A '64 p48#
toll related		111/11 0 1 p 10//
automatic toll machines	J/A '59 p7#;	M/J '60 p46
	Mar '37 p27;	Ap '37 p21#
cat's whisker device used to prevent static	Mai 3/ p2/,	
revenues of over five-year period		May '41 p1
toll collectors, problems of		J/A '46 p8
toll-free privileges clarified by new law		J/A '46 p28
toll plaza and approaches to be widened		M/A '54 p18
	'39 p1#; J '40 p19;	Jun '40 p22
trucks; per axle charge replaces tonnage-base	ed toll	J/A '60 p62#
traffic		
	9 p23; N/D '62 p60;	N/D '63 p56
Golden Gate Exposition and		Jun '40 p20#
exceeds original estimates; second bay span p	proposed	J/F '47 p1
Key System strike, traffic problems on bridge	e during	M/A '54 p27#
monthly statistics published		Jun '37F '42
one-way traffic established		M/A '64 p49
peak traffic creates problems		J/F '46 p21
traffic records set by Jun '4	0 p20; S/O '58 p64;	M/J '64 p17
Treasure Island-Bay Bridge highway constructed		Jun '38 p22#
improvement of ramp connections planned		M/A '54 p18#
truck lane added to lower deck roadway		J/A '45 p26#
war effort and		N/D '44 p26
Yerba Buena Island, ramp connection to be impro	oved	M/A '54 p17#
Yerba Buena Island tunnelSee TUNNELS		1

San Joaquin Co.	
Austin Rd. overcrossing (Rt. 99; Ripon-Manteca) planned	N/D '53 p25
California Aqueduct twin bridges planned (I-5)	M/J '65 p15
Clements; posted bridge replaced (Mokelumne River, Rt. 88)	J/A '54 p36
Delta-Mendota Canal bridges (I-205) [US 50] under construction	M/A '53 p26#
Grant Line Canal Br. (Tracy Rd.) replacement planned	M/A '47 p6
double bascule span drawbridge built with FAS funds	J/F '60 p55#
wins design award	N/D '60 p63#
Jack Tone Rd. overcrossing (Rt. 99; Ripon-Manteca) planned	N/D '53 p25
Mokelumne River Br. (Peltier Rd.) planned	M/A '47 p6
completed	M/J '49 p24#
Mokelumne River Br. (Rt. 12, Lodi-Rio Vista) planned	Apr '41 p10
opened	S '42 p2#
Mormon Slough twin bridges (Rt. 99; Stockton)	M/A '50 p12#
Mossdale Br. (San Joaquin River, I-205/Rt. 120) planned	S/O '46 p19
Paradise Cut overflow bridge (Grant Line Rd./I-205) built	S/O '46 p19#
Rt. 99; Stockton expressway, highway bridges for	J/A '49 p30#
Stanislaus River Br. replaces flood-destroyed span	N/D '59 p26#
San Luis Obispo Co.	14/ <i>D</i> 37 p20//
Arroyo Grande Creek twin bridges built (US 101)	S/O '59 p36#
Leffingwell Creek Br., corrosion-resistant paint tested J/F '62 p26#	-
Salinas River Br., (US 101, Paso Robles) progress on	J/A '57 p5#
San Luis Obispo Creek bridge (US 101, Miles)	Aug '41 p10#
	; S/O '54 p46#
San Mateo Co.	, 5/0 54 р40//
San Mateo Co.	
San Francisquito Br. [Alpine Rd. FAS project] built	I/A '51 n10#
San Francisquito Br. [Alpine Rd. FAS project] built Dumbarton Br. purchased by state	J/A '51 p10# S/O '51 p11
Dumbarton Br. purchased by state	S/O '51 p11
Dumbarton Br. purchased by state legal/right of way problems and	S/O '51 p11 N/D '54 p55
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44;	S/O '51 p11 N/D '54 p55 N/D '63 p56
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44; Pescadero Creek Br. (Rt. 1) built	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44; Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44; Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24#
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44; Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38;	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44; Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38; San Mateo-Hayward Br.	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44; Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38; San Mateo-Hayward Br. purchased by state	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11#
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44; Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38; San Mateo-Hayward Br. purchased by state legal/right of way problems and	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55
Dumbarton Br. purchased by state legal/right of way problems and traffic on Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38; San Mateo-Hayward Br. purchased by state legal/right of way problems and widening of; fill work for begins	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38;  San Mateo-Hayward Br. purchased by state legal/right of way problems and widening of; fill work for begins mole fill construction planned	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71
Dumbarton Br. purchased by state legal/right of way problems and traffic on Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38; San Mateo-Hayward Br. purchased by state legal/right of way problems and widening of; fill work for begins mole fill construction planned traffic on M/J '61 p44; N/D '62 p60;	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56
Dumbarton Br. purchased by state  legal/right of way problems and  traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built  San Gregorio Br. (Rt. 1) built  San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned  design of S/O '64 p38;  San Mateo-Hayward Br.  purchased by state  legal/right of way problems and  widening of; fill work for begins  mole fill construction planned  traffic on M/J '61 p44; N/D '62 p60;  trestle construction planned  M/J '61 p21;	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51
Dumbarton Br. purchased by state  legal/right of way problems and  traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built  San Gregorio Br. (Rt. 1) built  San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned  design of S/O '64 p38;  San Mateo-Hayward Br.  purchased by state  legal/right of way problems and  widening of; fill work for begins  mole fill construction planned  traffic on M/J '61 p44; N/D '62 p60;  trestle construction planned  M/J '61 p21;  double-decked structure to replace lift span	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51 S/O '61 i.cvr.#
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38;  San Mateo-Hayward Br. purchased by state legal/right of way problems and widening of; fill work for begins mole fill construction planned traffic on M/J '61 p44; N/D '62 p60; trestle construction planned double-decked structure to replace lift span design of approved	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51 S/O '61 i.cvr.# J/F '62 p61
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38;  San Mateo-Hayward Br. purchased by state legal/right of way problems and widening of; fill work for begins mole fill construction planned traffic on M/J '61 p44; N/D '62 p60; trestle construction planned M/J '61 p21; double-decked structure to replace lift span design of approved construction begins on	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51 S/O '61 i.cvr.# J/F '62 p61 J/F '63 p25#
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38;  San Mateo-Hayward Br. purchased by state legal/right of way problems and widening of; fill work for begins mole fill construction planned traffic on M/J '61 p44; N/D '62 p60; trestle construction planned design of approved construction begins on contract for substructure work awarded	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51 S/O '61 i.cvr.# J/F '62 p61 J/F '63 p25# J/A '63 p48
Dumbarton Br. purchased by state  legal/right of way problems and  traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built  San Gregorio Br. (Rt. 1) built  San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned  design of S/O '64 p38;  San Mateo-Hayward Br.  purchased by state  legal/right of way problems and  widening of; fill work for begins  mole fill construction planned  traffic on M/J '61 p44; N/D '62 p60;  trestle construction planned  design of approved  construction begins on  contract for substructure work awarded  progress on; plans for	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51 S/O '61 i.cvr.# J/F '62 p61 J/F '63 p25# J/A '63 p48 S/O '64 p65#
Dumbarton Br. purchased by state  legal/right of way problems and  traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built  San Gregorio Br. (Rt. 1) built  San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned  design of S/O '64 p38;  San Mateo-Hayward Br.  purchased by state  legal/right of way problems and  widening of; fill work for begins  mole fill construction planned  traffic on M/J '61 p44; N/D '62 p60;  trestle construction planned  double-decked structure to replace lift span  design of approved  construction begins on  contract for substructure work awarded  progress on; plans for  unique lighting planned for	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51 S/O '61 i.evr.# J/F '62 p61 J/F '63 p25# J/A '63 p48 S/O '64 p65# J/F '65 p34
Dumbarton Br. purchased by state legal/right of way problems and traffic on M/J '61 p44; Pescadero Creek Br. (Rt. 1) built San Gregorio Br. (Rt. 1) built San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned design of S/O '64 p38;  San Mateo-Hayward Br. purchased by state legal/right of way problems and widening of; fill work for begins mole fill construction planned traffic on M/J '61 p44; N/D '62 p60; trestle construction planned design of approved construction begins on contract for substructure work awarded progress on; plans for unique lighting planned for steel welds tested with radiography, ultrasonic waves	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51 S/O '61 i.cvr.# J/F '62 p61 J/F '63 p25# J/A '63 p48 S/O '64 p65# J/F '65 p34 J/F '67 p11#
Dumbarton Br. purchased by state  legal/right of way problems and  traffic on M/J '61 p44;  Pescadero Creek Br. (Rt. 1) built  San Gregorio Br. (Rt. 1) built  San Mateo Creek Br. (I-280, Junipero Serra Fwy.) planned  design of S/O '64 p38;  San Mateo-Hayward Br.  purchased by state  legal/right of way problems and  widening of; fill work for begins  mole fill construction planned  traffic on M/J '61 p44; N/D '62 p60;  trestle construction planned  double-decked structure to replace lift span  design of approved  construction begins on  contract for substructure work awarded  progress on; plans for  unique lighting planned for	S/O '51 p11 N/D '54 p55 N/D '63 p56 S '41 p4 S '41 p4 M/J '64 p24# M/J '65 p36 S/O '51 p11# N/D '54 p55 M/J '60 p71 M/A '61 p71 N/D '63 p56 J/A '61 p51 S/O '61 i.evr.# J/F '62 p61 J/F '63 p25# J/A '63 p48 S/O '64 p65# J/F '65 p34

DRIDGES, Continued	
Santa Barbara Co.	
Canada del Refugio Br. (US 101) built	O '41 p8#
Cold Spring Canyon Br. (Rt. 150, San Marcos Pass) built	S/O '63 p14#
engineer wins design award	S/O '64 p59#
wins AICS award for beauty	J/F '65 p40#
wins Governor's Design Award	J/F '67 p37#
Dos Pueblos Br. (US 101) built O '41 p8#;	Mar '42 p10#
Eagle Creek Br. (US 101) built O '41 p8#;	Mar '42 p10#
Huasna River Br. (Rt. 166, Cuyama Rd.) under construction	M/J '59 p17#
wins design award	N/D '60 p63#
Robinson Br. (Rt. 246 [Rt. 149], Santa Ynez River) opens	Jun '39 p22#
Rt. 166; Cuyama Rd. welded bridges built	S/O '58 p25
Santa Maria River twin bridges (US 101) built	J/F '63 p4#
Santa Ynez River Br (US 101, Buellton) built	J/A '65 p28#
Santa Clara Co.	I/E 452 7#
Coyote Creek parallel bridges (I-880) [Rt. 17] built	J/F '53 p7#
I-880 [Rt. 17, Nimitz Fwy.], bridges built	J/F '53 p7
Marsh Rd. Overcrossing wins award for beauty (US 101)	N/D '59 p25#
Pajaro River Br. (US 101; Sargent) built Aug '41 p18#;	Jan '42 p14# May '40 p10#
Rt. 17; sidehill viaduct under construction	S '40 p8#
completed Santa Cruz Co.	3 40 po#
Corralitos Creek Br. (Watsonville) proposed	M/A '47 p7
Rt. 1; Rob Roy-Santa Cruz unit, 8 major bridges planned M/J '47 p18;	
San Lorenzo River Br. replaces old span (Bear Creek Rd.)	J/A '54 p44#
Shasta Co.	3/11 34 p44//
Antler Br. (I-5) [US 99] to carry relocated portion of highway	Jan '40 p14
constructing progress on	Jan '41 p18#
completed	Aug '41 p1#
Bear Creek Br. (Dersch Rd.) [FAS Rt. 1350] built	J/A '66 p39
Cow Creek Br. (Dersch Rd.) [FAS Rt. 1350] built	J/A '66 p39
Dog Creek Br. (I-5) [US 99] replaced	J/F '57 p24#
Dry Creek Br., (Dersch Rd.) [FAS Rt. 1350] construction of	J/A '66 p39
Hatchet Creek Br. replaced by arch culvert (Rt. 299E)	M/A '60 p34
Lake Britton Br. (Forest Rt. 77; Mt. Shasta-Mt. Lassen Hwy.) built	May '40 p24#
Lower Lack Creek Br., (Dersch Rd.) [FAS Rt. 1350] construction of	J/A '66 p39
Montgomery Creek Br. (Rt. 299E) built	M/A '60 p34
Oak Run Creek Br. replaced by prefabricated railroad span (Rt. 44)	M/A '44 p19#
Pit River Br. (Forest Rt. 77; Mt. Shasta-Mt. Lassen Hwy.) built	May '40 p24#
Pit River Br., contract awarded for (I-5) [US 99]	N '39 p16
plans for construction of	N '39 p4#
U.S., Southern Pacific Railroad to share operation of	Jul '41 p22
construction progress on Mar '41 p14#;	O '41 p1#
last span erected	D '41 p12#
to open soon	F '42 p13
opened to traffic	F '43 p1#
described	J/A '45 p5#
Redding; SP Railroad overhead replaced (Rt. 299E)	N/D '59 p17
Sacramento River Br. (I-5, Redding) widened	J/F '62 p15
Sulphur Creek Br. (I-5) [US 99] built	Mar '38 p12#
Upper Lack Creek Br. (Dersch Rd.) [FAS Rt. 1350] built	J/A '66 p39
Whiskey Creek Br. built on relocated unit (Rt. 299E)	M/A '62 p33#

BRIDGES, Continued	
Sierra Co.	
N. Fork Yuba River Br. to replace flood-damaged span	J/A '63 p18
Salmon Creek Br. (Rt. 49; Sierra-Bassetts) built	M/J '65 p4#
Siskiyou Co.	
Scott River Br. replaces washed-out span (Rt. 3; Ft. Jones) [Rt. 82]	N/D '59 p55#
Solano Co.	
Benicia-Martinez Br.	
plans for	J/A '58 p52
bond sale authorized	M/J '59 p13#
construction begins on	M/J '60 p35#
progress on J/A '61 p18#;	M/J '62 p33
toll schedule adopted	J/A '62 p28
opened; dedication held	S/O '62 p2#
traffic on	S/O '62 p35
annual operations	N/D '63 p55
Carquinez BrSee Contra Costa Co.	
Napa River Br., Vallejo	1/4 '62 5#
substructure work on replacement bridge completed Putah Creek bridges (Dixon-Davis Cut-off) S '40 p26; F '41 p24#;	J/A '63 p5#
Rindler Creek Br. (I-80, American Canyon Rd.) [US 40]	O 42 p10#
to be replaced by fill	M/A '43 p16#
Rio Vista Br. (Sacramento River)	W1/Α 43 p10#
built	J/F '46 p15#
lift span replacement under construction	J/A '59 p5#
completed	M/J '60 p51#
closed temporarily due to lift span cable mishap	J/F '63 p32
merchant vessel carries away entire truss span	J/F '67 p4#
Sonoma Co.	.,
Austin Creek Br. under construction (Rt. 12)	M/J '62 p30#
Fife Creek Br. (Rt. 116; Guerneville-Northwood Park)	O '39 p14
Hulbert Creek Br. (Rt. 116; Guerneville-Northwood Park)	O '39 p14
Jimtown Br. (Russian River, Healdsburg Rd.) planned	M/A '47 p7
completed	J/F '50 p54#
Petaluma Creek Br. (US 101) under construction	M/J '54 p38#
completed	M/J '55 p5#
Petaluma Creek high-level bridge to replace draw-span (Rt. 37)	M/A '58 p25#
Rt. 12, Guerneville; sidehill viaducts under construction	D '40 p6#
Rt. 37 [Rt. 48]; Cloverdale-Navarro River	
several bridges replaced, reconstructed	S '39 p2
Russian River Br. under construction (Hacienda)	M/A '47 p7#
US 101 (Redwood Hwy.); 18 unsafe timber bridges eliminated	D '40 p24
Stanislaus Co.	7/77 ( C A A 7 III
Grayson Road Br. replaced	J/F '64 p35#
Greer Road Br. (Stanislaus River) built	M/J '61 p67#
Laird Slough Br. replaced	J/F '64 p35#
Stanislaus River Br. replaces flood-destroyed span	N/D '59 p26#
Tuolumne River Br. (Santa Fe Ave., Empire) proposed	M/A '47 p8
completed  Tuelumna River twin bridges under construction (Rt. 90, Medeste)	N/D '48 p18#
Tuolumne River twin bridges under construction (Rt. 99, Modesto)	S/O '63 p42#

Sutton Co		
Sutter Co.		M/A 50 - 10#
Cross Canal Br. (El Centro Blvd.) built		M/A '50 p48#
Feather River Br. (Marysville-Yuba City)	0/0 (46 22/)	M/I (47 20#
progress on	S/O '46 p22#;	M/J '47 p20#
dedicated		S/O '47 p22#
Nicolaus Br. (Feather River) completed		J/A '59 p42#
Sutter Bypass Br. completed		N '38 p12#
Tehama Co.		
Blue Tent Creek Br. (Rt. 99) built		Mar '41 p16#
Dibble Creek Br. (Rt. 99) built		Mar '41 p16#
Elder Creek Br. (Gerber) planned		M/A '47 p8
Paynes Creek Br. [FAS] (Dales Station) built		N/D '49 p8#
Red Bluff Bridge (Red Bluff) dedicated		S '38 p10#
Reeds Creek Br. [FAS] planned west of Red Bluff		M/A '47 p8
built		N/D '49 p8#
Thomas Creek Br. [FAS] (Paskenta) planned		M/A '47 p8
built		N/D '49 p8#
Trinity Co.		1
Weaver Creek Br. (Rt. 299) replacement under construction	on	N/D '53 p27#
Tuolumne Co.		F
Moccasin Creek Br. (Rt. 49) built		J/F '53 p19
Stanislaus River Br. (Rt. 49; Melones) planned		M/J '52 p43
built		J/F '53 p16
Tuolumne River Br. (Rt. 49; Stephens Bar)		J/F '53 p18#
Tulare Co.		3/1 33 p10//
5 small bridge projects planned		M/A '47 p8
Kings River Br. near Kingsburg proposed		M/A '47 p8
St. Johns River bridges planned		M/A '47 p8
Tule River bridge near Porterville planned		M/A '47 p8
White River Br. proposed		M/A 47 p8 M/A 47 p8
Ventura Co.		M/A 4/ po
		S/O '52 m22
Arroyo Calleguas Br. (US 101, Camarillo) built	L	S/O '53 p22
Saticoy; prestressed span (Santa Clara River, Rt. 118) buil	ıt.	J/A '57 p26#
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California Aqueduct twin bridges planned (I-5)		M/J '65 p15
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#### **DEPARTMENT OF PUBLIC WORKS, Continued**

Maintenance Department--See MAINTENANCE Materials and Research Department M/A '58 p39# Administration and Services Section annual activities J/F '58 p36; J/F '60 p42; N/D '60 p23; N/D '61 p27; N/D '62 p29; N/D '63 p28#; N/D '64 p27#; N/D '65 p25#; N/D '66 p8# conference held by J/A '63 i.cvr.# Foundation Section J/F '58 p17# S/O '50 p158# history, functions of M/J '57 p10# operations and activities of **Technical Section** S/O '57 p14# Structural Materials Section N/D '57 p34# J/F '58 p40; J/F '60 p45; N/D '61 p9 organization of Division of Highways reorganization of Division of Highways S/O '60 p10; S/O '63 i.cvr. Safety Department--See Traffic Department Traffic Department [Safety Department] created Mar '38 p1 history, functions of N/D '51 p7# Division of Water Resources N/D '55 p29 temporary posts filled abolished; history of J/A '56 p70 S/O '63 i.cvr. Highway Transportation Agency activated Purcell, C.H. becomes Director of PW Jan '43 p2# State Engineer's Office abolished; history of J/A '56 p70 Water Projects Authority abolished J/A '56 p70 **DISTRICTS Dist. 1** (Del Norte, Humboldt, Lake, Mendocino) flood damage J/F '56 p2#; M/A '56 p53# highways, general progress J/A '58 p35; N/D '59 p31 roads, improvements needed Jan '39 p4# wartime construction projects, 1942-1944 J/F '45 p5# Dist. 2 (Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama) J/F '54 p61 five-year FAS construction program adopted flood damage J/F '56 p7# highways, general progress J/F '57 p61; M/J '58 p6#; J/A '59 p23#; N/D '59 p12# unpaved roads, improvements needed Jul '38 p1# Dist. 3 (Butte, Colusa, El Dorado, Glenn, Nevada, Placer, Sac., Sierra, Sutter, Yolo, Yuba) J/F '56 p10# flood damage highways, general progress J/A '58 p1# highways and bridges in need of improvement Aug '38 p1# safety achievement awards won by J/A '59 p38#; M/J '65 p16 Dist. 4 (Alameda, Contra Costa, Napa, Marin, S.F., S. Mateo, Sonoma., S. Clara, S. Cruz) access roads built for war effort N/D '44 p2# flood damage J/F '56 p12# highway/freeway development M/A '55 p1; J/F '57 p56; M/A '58 p1#; M/A '59 p17; M/A '60 p13; M/J '61 p3; M/J '64 p24#; M/J '65 p24 roads, improvements needed S '38 p1# Dist. 5 (Monterey, San Benito, San Luis Obispo, Santa Barbara) flood damage Apr '38 p9; J/F '56 p15# highways, general progress S/O '58 p17#; S/O '59 p31# roads, improvements needed O '38 p1#

J/A '45 p21

wartime construction projects, 1941-1944

## **DISTRICTS, Continued Dist. 6** (Fresno, Kern, Kings, Madera, Tulare)

flood damage	J/F '56 p16#;	J/F '67 p14#
highways, general progress on	S/O '58 p35#;	S/O '59 p7#
improvements needed		N '38 p1#
I-5 [Westside Fwy.] construction and		M/A '66 p36#
roadside business development creates traffic hazard		M/A '45 p14#

#### Dist. 7 (Los Angeles, Orange, Ventura)

access roads build for war effort

Administration Dept.

Bridge Dept.

Construction Dept.

J/F '45 p2#

J/F '59 p43

J/F '59 p39

J/F '59 p39

flood damage Mar '37 p12#; Apr '38 p6 freeway development I/E '54 p1#: I/E '55 p14#: I/E '56 p54#:

freeway development J/F '54 p1#; J/F '55 p14#; J/F '56 p54#; J/F '57 p1#; J/F '59 p23#; J/F '60 p3#; M/A '61 p3#;

M/A '63 p20#; M/A '64 p14#; M/A '65 p30; J/F '67 p8#

paper management operations M/J '64 p18#
Right-of-Way Dept. J/F '59 p37
roads, improvements needed D '38 p1#
road maintenance J/A '61 p52#

#### **Dist. 8** (San Bernardino, West Riverside)

flood damage Mar '37# p12#; Apr '38 p2 highways, general progress paper management and roads, improvements needed Mar '37# p12#; Apr '38 p2 M/J '59 p27#; M/J '59 p27#; M/J '64 p18# Jan '39 p1#

#### **Dist. 9** (Inyo, East Kern, Mono)

flood damage N/D '45 p24# highways, general progress J/A '52 p39#; S/O '58 p7# roads, improvements needed Jan '39 p6# US 395 and J/A '52 p39

### **Dist. 10** (Amador, Alpine, Calaveras, Mariposa, Merced, S. Joaquin, Solano, Stanislaus, Tuol.) flood damage J/F '56 p19#

highways, general progress J/A '58 p16#; J/A '59 p3#
I-5 [Westside Fwy.] construction M/A '66 p38#
roads, improvements needed Mar '39 p9#
Rt. 99 [US 99] fifty percent is 4-lane divided roadway N/D '47 p21#

**Dist. 11** (East Riverside, Imperial, San Diego)

access roads built for national defense
flood damage
Mar '37 p12#; Apr '38 p8, p13#;
highways, general progress
N/D '58 p33#;
roads, improvements needed
Roman numerals no longer used to designate districts

S/O '44 p2#
O '39 p6#
M/J '59 p3#
F '39 p3#
S/O '64 p50

#### **DOCUMENTS & RECORDS**

Bureau of Highways historic documents found J/A '46 p3# Official records salvaged from flood-swept maintenance shop M/A '56 p59# Paper management operations M/J '64 p18# J/F '53 p56 Public knowledge of traffic engineering measures, importance of Records Management program launched M/J '58 p1# Management Analysis Section, functions of N/D '60 p39; N/D '61 p45 N/D '60 p38 progress on M/A '49 p54# Records photographed to expedite title searches

#### **DOCUMENTS & RECORDS, Continued**

Reproduction of maps/plans		
reduced-size plans introduced		J/A '62 p45#
blueprint and diazo materials, use of		M/A '50 p61#
negative scribing used in place of conventional drafting methods		J/A '63 p32#
Tahoe Wagon Road, original deed found, given to Dept. of PW		F '42 p15
EDUCATION		
Bridge design classes offered		Jul '40 p19
Career guidance exhibits spur student interest		M/J '63 p7#
Construction course conducted at Marysville office	N/D (51 21. (	M/J '59 p44
Drainage design courses offered	N/D '51 p21; \$	S/O 34 p3 /
Engineering		N/D (50 - 51
classes offered	N/D (40 46	N/D '52 p51
examinations	N/D '49 p46;	N/D '55 p60
fellowships	J/F '54 p64;	S/O '54 p55
shortage of engineer graduates	J/A '52 p56;	N/D '55 p56
training in public relations		M/J '51 p50
Equipment Dept. holds on-job training classes		M/J '53 p1#
Filmstrip photos used as construction training aids		S/O '56 p34
Inspection Procedure course (cement concrete)	M/J '59 p40;	S/O '64 p61#
Institute of Transportation and Traffic Engineering (ITTE)		J/F '64 p13
Maintenance classes S/O '54 p38#	; M/A '59 p44;	J/F '62 p69#
Photogrammetry course conducted	_	M/J '51 p44#
Radiological Monitoring classes held		M/A '55 p60#
Right-of-way training academy instituted at UC Davis		S/O '63 p21#
additional academies conducted	J/A '64 p63;	S/O '65 p 53#
Students from foreign nations study California road building	1 /	S/O '45 p21#
Supervision Course given		M/A '59 p43
Traffic engineering textbook, first on subject, published		M/A '56 p29
Transportation, traffic engineering courses introduced at U.C.		J/F '49 p43
Welding engineering class attended by state employees		Apr '42 p15#

#### ENVIRONMENTAL ISSUES--See also LANDSCAPE & LANDSCAPE MAINTENANCE

Butterflies; arrival of monarchs celebrated in Pacific Grove		M/J '56 p64
California Condors, decreasing population of		M/A '58 p31
California Poppy, preservation of	J/A '48 p32;	N/D '48 p55
Fish and Game-Highways agreement set		M/A '62 p4
I-80; East Bay approach to Bay Bridge, sewage stench on		Jun '40 p11
Shasta Lake; effect of recreational activity on fish population		J/A '52 p31#
Smog, damaging effects of		S/O '66 p12#
Smoke from buses, trucks to be controlled		J/F '60 p28

### **EQUIPMENT**

EQUITMENT		
Atmometer (measures water evaporation)		J/A '62 p49#
Bridge painting equipment used by mobile units		May '42 p18#
Curb forms redesigned		Jan '39 p20#
Deflectometer (speeds surface deflection measurem	ient)	S/O '60 p41#
Equipment Department		
	; J/F '60 p41; N/D '60 p27;	
N/D '61 p32; N/D '62 p34; N/D '63 p30; N	I/D '64 p30; N/D '65 p28#;	
changes made to reduce costs		N/D '65 p28
expansion of	S/O'51 p26#; M/J '53 p1;	J/F '58 p36
history, functions of		S/O '50 p162#
wartime restrictions and		S/O '43 p8#
Excavation equipment		
boom attachment for heavy forklift devised		J/A '49 p63#
drilling rig cuts costs		S '37 p2#
elevating grader cuts road excavation costs		Apr '38 p25#
highway hand shovel		M/J '50 p52#
outrigger cutting template devised		Jan '39 p20#
Finishing operations equipment		
"Curry Comb" slope grader		Jan '39 p20#
dyke shaper devices made more efficient		F '42 p14#
float finisher, mechanical		O '38 p16#
rooter tooth, shoe used on		Jun '38 p24#
scraper made from converted grader		Jun '38 p24#
screed adjusting device for concrete finishing r	nachines improved	S '37 p24#
shoulder dyke shaper, attachment for devised		M/A '48 p20#
side ditch and back slope shaper, attachment fo		M/A '48 p20#
spreading and finishing machine improved by l	Dist. 4	M/A '45 p26
Horizontal drill used for slump landslide control		M/A '55 p26#
Litter removal equipment		I/E (50 0 0 //
street sweepers; various broom fibers tested	NI/D (71 AC)	J/F '52 p36#
vacuum cleaner for gathering litter developed	N/D '51 p46#;	J/A '52 p59#
Maintenance equipment, general		0/0/5/ 5/1
hydraulic tower platforms aid freeway sign/ligh	iting maintenance	S/O '56 p56#
new devices aid maintenance work	D 442 - 10.	J/F '46 p2#
rental procedures, survey regarding	D '42 p10;	M/J '43 p20
study of conducted	D '40 p21;	D '42 p10
types of evaluated, illustrated	D '42 p14#;	M/J '43 p20#
"Mercy Sled" helps rescue injured motorists in mou	intain areas	May '41 p20#
Metallic Tapes, new specifications needed Nuclear unit used to measure soil moisture, density		M/A '49 p30 M/J '65 p50#
Paint Analysis equipment improved		J/F '64 p32
Paving-Related Equipment		3/1 04 p32
Adnun Paver, attachment for devised		J/F '48 p16#
asphalt raker, traveling		Jan '39 p20#
automatic weighing device for asphalt concrete	<u>,                                     </u>	O '37 p12#
Bumpograph (measures pavement roughness)	F '37 p26#;	M/A '60 p51
concrete joint cutter [hand operated]	1 37 p20#,	M/J '46 p22#
crane and ball used in road compacting		Jun '37 p14#
drag finisher for Portland cement concrete pave	ement improved	Jan '37 p22#
edge cutting device for plant-mix oil surface	men mpro roa	Mar '37 p26#
grader blade level devised for oil mix		N '37 p27#
machine used to cut weakened plane joints dev	ised	M/J '46 p22#
machine about to out wouldness plane joints dev		1.1,0 10 P2211

<b>EQUIPMENT</b> , Continued	
motor grader, Preco automatic blade control device developed	J/A '57 p41#
mowing brush for controlling roadside vegetation	M/A '50 p58#
pavers; automatic grade control device tested	M/A '61 p48#
pneumatic roller, new type of used	S/O '56 p23
Profilograph (measures pavement roughness) M/A '44 p6#;	
J/F '60 p47#; M/A '60 p51#;	S/O '60 p40#
road mixing machine, P&H Soil Stabilizer tested	J/F '51 p54#
rock shaker-siever improved	O '37 p23#
roller and truck, ca. 1913	J/A '56 p66#
Roughometer (measures roughness of surfaces) S '40 p12#;	M/A '60 p51#
"Scooter Pot" expedites pouring of cracks and expansion joints	F '38 p22#
Viagraph (measures pavement roughness)	T/T ( ( 0 ) 1 = 11
history of development	J/F '60 p47#
improvement of	D '39 p12#
Volumeter; measures concrete pavement volumes	Mar '38 p14#
Pavement marking equipment	0 (40 10 1
broken traffic line striping machine developed	S '42 p12#
no-passing zones, new method of marking used	N '41 p26#
spotting wheel device for marking pavement developed	J/F '44 p16#
stripe marking machines	0420 2211
history of Jun '37 p22#;	Oʻ39 p22#
developments in O '37 p10#; M/J '47 p5#; M/A '50 p4#;	M/I 462 514
N/D '55 p49#; J/F '60 p62#; J/A '61 p31#; S/O '62 p47#;	M/J '63 p51#
Roadside vegetation removal equipment cutter developed to trim ground-cover vegetation	M/J '65 p61#
Evans spraybar used to eliminate roadside vegetation	Jan '42 p28#
spray proportioner developed	M/J '65 p61#
rotary flail for weed eradication on highways developed	M/J '55 p31
Rock saw  J/A '43 p16#;	M/J '49 p43#
Safety relatedSee SAFETY, Employee Safety	141/3 15 p 15//
Scribing equipment used in lieu of conventional drafting methods	J/A '63 p32#
Snifter for detecting gas leaks	J/F '50 p50
Spectroscope devise acquired for chemical analysis research	M/J '52 p9#
Sun exposure slope determination, device for determining	S/O '49 p30
Snow-related	
air hammer for driving snow poles devised	J/F '55 p35
snow removal; motor grader units prove worth	J/A '58 p13#
Survey equipment	1
Geodimeter developed M/J '60 p16#; M/J '62 p50#;	M/A '63 p79
Gyroscopic equipment (alignment, grade surveys)	J/A '52 p12#
listening aid used by road surveyors to defeat traffic noise	Jul '42 p2#
Plumb bob points, function of	N/D'51 p52#
Seismograph (portable recording camera) aids excavation study	M/J '60 p17#
Tellurometer used in bridge survey job	S/O '60 p57#
traffic flags, method of making simplified	S '42 p17
Traffic count/speed-determining equipment	
automatic equipment to replace manual counts	M/A '61 p74
electric roadside speed timer determines speed of traffic	May '42 p6#
photo electric recorders make count of highway traffic	Jun '37 p6#
portable automatic traffic counters used in road reinventory	S/O '43 p16#

### **EROSION CONTROL**

EROSION CONTROL		
Bank protection, methods of		
Antelope Valley Fwy. (L.A. Co.), Santa Clara Riv	ver and	J/F '64 p5#
book regarding published by Dept. of Highways		J/A '61 p70#
fence types: tetrahedrons and jackstraws		Aug '39 p10#
combined bank protection used on Eel River near		Jan '43 p4#
concrete ripraps and cribs laid to protect highway	(Trinity River)	Mar '41 p8#
concrete riprap bank protection (US 50)		Jan '40 p20#
crib protects highway (Rt. 84, Humboldt Co.) fro	m future erosion	Jul '37 p22#
jetties on Eel River combat floods, erosion		N/D '45 p21#
redwood timber deflectors built as (Eel River, Hu	mboldt Co.)	May '41 p2#
revetments, types of evaluated		Jul '39 p6#
riprap shore protection on US 101 (Ventura Co.)		J/F '55 p37
seven types of bank protection used along Santa G	Clara River Hwy.	May '42 p12#
Boring for soil surveys, foundation explorations		M/A '49 p60#
Coastal bluffs, erosion control and (I-5, San Diego Co	o.) [US 101]	M/J '60 p31#
Cut slopes, erosion control and (San Diego Co.)		J/A '44 p7#
Drainage		
Alameda Co.; Ward Creek drainage job features of		J/F '62 p63
drainage design in grade crossing projects improv		Mar '37 p20
Grapevine Canyon drainage operations (I-5)	Mar '42 p14#;	M/A '43 p1
hydraulic dredger used on Eastshore Fwy. fill		J/F '48 p36#
Hydraulic Energy Dissipater tested		J/A '61 p67#
hydrauger method of drilling horizontal drains		J/F '48 p6#
hydraulic structure designed by model experimen	t	N/D '44 p15#
Los Angeles Co.	C (27 0	. (20. 20
Angels Crest Hwy. (Rt. 2), unusual drainage		
Antelope Valley Fwy. (Rt. 14), large drainag	e system installed	J/F '64 p4#
Dominguez Channel improved	1 11	J/F '62 p50
Long Beach Fwy. (I-710), storm drain pump		N/D '52 p37
San Bernardino Fwy. (I-10), pipe-jacking dra		M/J '55 p34#
San Diego Fwy. (I-405), drainage facility bu	IIT	J/F '62 p45#
Santa Ana Fwy. (I-5), storm drain built for		N/D '52 p20
Napa Co.; Napa Cooperative Drainage Project		M/A '61 p56#
removing water from highways, new method of	u daniamad fam	N/D '48 p15#
Sacramento Co. freeway network, drainage system		J/A '65 p22#
Santa Barbara Co.; Glen Annie Creek channel ch	_	M/J '62 p38#
Santa Clara Co.; Guadalupe River channel impro		M/J '61 p74#
Sonoma Co.; Healdsburg Cooperative Drainage F Tehama Co., I-5; Red Bluff-Cottonwood, spillwa		M/A '61 p56
Ventura Co.; Rt. 126 drainage system	y checks built	J/F '65 p36# S/O '62 p43#
Economic aspects of erosion control		M/J '52 p22#
Embankment stabilization		1V1/J 32 p22#
Piercy, US 101 (Mendocino Co.)		N/D '48 p43#
Ridgewood Grade, US 101 (Mendocino Co.)		N/D '53 7#
sand drains		Ν/D 33 /π
foundation consolidation and		M/A '48 p6#
use of for marsh area fill (Solano Co.)		S/O '61 p74#
Scotia Bypass, US 101 (Humboldt Co.)		S/O '53 p6#
Terminal Island (Los Angeles Co.)		J/A '46 p9#
tie-down process (Rt. 24, Contra Costa Co.)		M/J '60 p27#
	'41 p14#; May '42 p8#;	D '42 p2#
Landscaping as means of erosion control	Aug '39 p17#;	M/A '61 p41
Zamaszaping as means of crosion control	1105 37 P1711,	01 P 11

#### **EROSION CONTROL, Continued**

EROSION CONTROL, Continued	
Jetties/Levees	
Humboldt Co.; Eel River jetties combat floods, erosion	N/D '45 p21#
Sandy Prairie Levee built	S/O '62 p32
Los Angeles Co.; Alamitos Bay jetty built	S/O '44 p14#
Sonoma Co., Jenner; Russian River jetty project underway	O '40 p22#
completed	S '41 p17#
Methods of erosion control, general N/D '49 p36#; J/F '50 p34#;	1
M/A '50 p34#; M/J '50 p34#;	J/A '50 p34#
Monterey Co., US 101; Bradley-King City unit	M/A '43 p4#
San Bernardino Co.; City Creek Rd. S/O '48 p31#;	J/F '50 p46#
Santa Barbara Co.; US 101, Arroyo Quemado-Arroyo Hondo unit	J/F '50 p29#
Slides/Slipouts	· · · · · · · · · · · · · · · · · · ·
buttress fill, drains stabilize slide in Grapevine Canyon. (I-5)	F '41 p18#
horizontal drains, drilling of with hydrauger method	J/F '48 p6#
horizontal drill, use of in "slump" landslide control	M/A '55 p26#
Humboldt Co.; slipouts a problem on US 101 job	J/A '60 p22
Mendocino Co.; slide causes flooding on US 101	N/D '61 p26#
Monterey Co.; Rt. 1, huge slide south of Lucia	N/D '52 p56#
Orinda Slide (Rt. 24, Contra Costa Co.), repair work on	J/F '52 p45#
Pacific Palisades, Santa Monica (Rt. 1) [US 101-Alt]	0/1 02 p .c
prevention of slides as safety factor	May '40 p13#
slide occurs, maintenance superintendent killed	J/F '57 p56#
report made on possible solution to slides S/O '59 p2;	-
rock slide hazard on US 50 at Echo Summit removed	J/F '63 p14#
Santa Clara Co.; slipout problem on Rt. 17	D '41 p3#
Siskiyou Co., Dunsmuir; slides pose problem on I-5 [US 99] job	J/A '60 p17#
Slipouts, causes, prevention methods studied	Mar '38 p18#
types, causes, and repair of	Jul '41 p1#
Sonoma Co.; Jenner-Fort Ross slide closes road	M/J '54 p16#
Soil compaction control test using nuclear gages M/J '65 p50#;	M/A '66 p42#
Soil subsidence, problems of (I-5, San Joaquin Valley)	M/A '66 p40#
Soil surveys and foundation explorations, borings for	M/A '49 p60#
Son surveys and realisation expressions, serings for	111/11 15 poon
EVENTS	
American Assoc. of State Highway Officials (AASHO)	
annual meeting of N '39 p12; D '39 p20; N '41 p20; S/O '46 p5;	
N/D '46 p1; N/D '48 p30; N/D '49 p44; N/D '51 p56;	
J/A '58 p53; S/O '58 p34; J/F '59 p20#;	N/D '59 p24
33rd. annual meeting [Special AASHO edition issued]	
topics discussed at	Jan '47 p1#
AASHO Award of Merit presented	Jan '47 p15
highway improvement and PW concept	Jan '47 p22
Puerto Rician, Hawaiian delegates attend	Jan '47 p24#
wives entertained at	Jan '47 p15#
problems, hopes of highway builders in review	Jan '47 p16
radio communication demonstration given	Jan '47 p21
AASHO-AMA Urban Planning seminar	M/J '60 p63
American Society of Civil Engineers (ASCE) national convention	M/J '60 p67
American Water Works Association to meet in S.F.	S/O '46 p31
Bonneroo Stag [best contracts] N/D '52 p48#; M/J '53 p64#;	1
M/J '54 p30#; M/A '55 p21; M/J '56 p49#; J/A '57 p25; J/A '58 p48;	M/J '61 p78
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### **EVENTS**, Continued

California State Fair		
California State Fair	- 440 - 24:	
	g '40 p24; Aug '41 p20;	N/D 56261#
	59 p46#; S/O '61 p72#;	N/D '63 p61#
	'49 p34#; J/A '50 p24#;	
J/A '51 p28#; J/A '52 p52#; J/A		_,,,,,,
J/A '56 p68#; J/A '57 p38#; J/	A '58 p45; J/A '60 p42;	J/A '61 p57
100th Anniversary of		J/A '54 p34#
Treasure Island buildings reconstructed on fair gre	ounds	Aug '41 p20
Civil Defense, seminar on public works aspects of held	Ĺ	M/A '61 p72
Engineering productivity conference held		M/A '57 p35#
Donner Party Centennial held		M/J '46 p5#
Festival of Arts held at Laguna Beach		S/O '52 p6#
Gem and Mineral Show held in Sacramento		N/D '53 p43#
Golden Gate International Exposition, 1939/40		
Bay Br. highway connection to built		Jun '38 p22#
"Quarter Century of Highway Progress" exhibit d	isnlaved	Apr '39 p10#
traffic on Bay Bridge breaks all records at opening		Jun '40 p22#
Governor's Conference on Urban Areas and the State		M/A '60 p2#
Grand National Livestock Expo, Cow Palace, S.F. S.		M/A 00 p2#
		0/0 455 224
•	53 p37#; S/O '54 p42#;	S/O '55 p32#
Highway Communications representatives meet	3.5/4.65056	J/A '65 p47#
Highway Conference held at UOP (Stockton)	M/A '58 p56;	M/A '61 p72
Institute of Traffic Engineers (ITE) annual meeting		J/A '58 p52
ITTE annual Streets and Highways Conference J/A		
N/D '53 p55, 64; S/O '58 p6; N/D '58 p10; N/D		
M/A '61 p39; M/A '62 p64; S/O '62 p63; M/A		M/A '65 p54#
Los Angeles Co. Fair, Pomona; San Bernardino Fwy.	and	J/A '56 p38#
Mexican Road Congress, California sends delegates to	)	Apr '37 p24#
Mineralogical Societies of State, Nation to meet		M/J '49 p43#
National Boy Scout Jamboree held in California		S/O '53 p38#
National Highway Week observed M/J	'61 i.cvr.; M/A '62 p68;	-
M/J '62 i.cvr.#; M/A '63 i.cvr.; J/A		
S/O '64 i.cvr.; M/J '65 p23; J/A '		J/A '66 p16#
National Orange Show, San Bernardino	1 ,	M/A '47 p16#
National Shade Tree Conference held	J/A '46 p30#;	M/J '49 p42
Olympics, Winter 1960 (Squaw Valley, Nevada Co.)	5/11 10 pson,	M/A '60 p35#
Pasadena Diamond Jubilee; freeway exhibit displayed		J/A '61 p66#
Prestressed Concrete World Conference planned		M/J '57 p39
Public Works convention to be held		J/A '52 p34
	N/D '55 -17.	-
Redwood Empire Assoc. annual convention	N/D '55 p17;	N/D '56 p21#
	'49 p49#; J/A '51 p55#;	M/J '63 p50#
Safety Engineers Conference held		S/O '65 p54#
Visits to State		3.5/4./54. 60//
Australia; highway official Dr. L.F. Loder		M/A '54 p39#
Brazil	J/A '56 p65#;	J/F '65 p62#
Canada	M/J '56 p72;	M/J '61 p22#
Central America		N '40 p11#
engineers; foreign, out-of-state	S/O '55 p51;	J/F '60 p57#
foreign bitumen experts to study California roads		S/O '46 p32
France		J/F '65 p62#
Germany		M/A '57 p49#
Great Britain M/A '60 p65#; J/A '	60 p68#; S/O '61 p69#;	M/J '64 p64#
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<b>EVENTS, Continued</b>		
Japan	S/O '58 p34#; S/O '59 p50#;	M/J '65 p63#
Philippines	J/F '57 p36;	J/A '60 p68#
Rhodesia	3/1 3/ p30,	S/O '56 p50#
Turkey	J/A '49 p60#;	S/O '51 p63#
U.S. Congressmen	$J/\Lambda$ 49 poom,	J/F '61 p10#
U.S. House Public Works Committee	N/D '57 p3#;	J/F '62 p2#
Western Association of State Highway Offi		3/1 02 p2π
	p28; M/J '43 p18; M/A '52 p20;	
annual meeting Jun 40	M/A '64 p35; J/A '64 p18#;	M/A '65 p67
ARBA and to meet concurrently	W/A 04 p35, 3/A 04 p16π,	F '39 p13#
Frank W. Clark's address; review of	DW Program	Mar '39 p12
resolutions adopted by	1 w 110grain	Mar '39 p15#
30th annual meeting held		J/A '51 p31#
convention management praised		J/A '51 p42#
Gov. Warren's address a plea for saf	· otro	J/A '51 p36#
	ety	
wives of delegates entertained meets with Assoc. General Contractors o	f Amarica	J/A '51 p52
	America	J/A '49 p12
World Traffic Engineering Conference	15	M/J '61 p51
World's Fair 1939-40See Golden Gate Internation	itional Exposition	
EEDDIEG		
FERRIES		
Army pontoon ferry used to cross Klamath R		M/A '65 p18#
Butte City; state to provide ferry service during	ig building of bridge	Mar '41 p12
Cache Slough (Rio Vista)		
Division of Highways puts new ferry in		S/O '45 p25#
"Real McCoy" ferry becomes free-running	ng M/A '63 p74;	J/F '64 i.cvr.#
Carquinez Strait ferries, history of		J/F '57 p37
Ferries remaining in highway system, status of		M/J '52 p12#
Ferry operations, annual	N/D '61 p23;	N/D '62 p23
Gualala cable ferry (Mendocino Co.)		M/A '59 p18#
Martinez-Benicia Ferry		
cities take control of	D '40 p12#;	Jan '41 p15
Benicia-Martinez Br. and		M/J '60 i.cvr.#
service ends after opening of toll bridge		S/O '62 p5#
Richmond-San Rafael Ferry service to be disc	continued	N/D '53 p4
ferry goes out of service		S/O '56 p14#
Terminal Island-San Pedro ferry "Islander" su	iperseded by bridge	S/O '63 p6
FLOODING		
Damage Caused By		
1937/38		
bridges, damage to heavy		Apr '38 p10#
disastrous winter floods cause \$8,000,000	) damage	Apr '38 p1#
February storms wrought \$1,000,000 dar	nage	Mar '37 p12#
torrential rain storms sweep state		Jan '38 p12#
Sacramento Valley flooded		Jan '38 p16#
levees saved		Mar '38 p2#
1939; flooding in desert country causes \$500,	000 damage	O '39 p6#
1940	-	
floods cause catastrophic damage		Mar '40 p1#
state highways and bridges suffer damage	e from floods and slides	Apr '40 p5#
<i>C</i> , <i>CO</i>		1 1

### FLOODING Damage Caused By, Continued

1941	
storm damage will cost \$600,000 in maintenance funds	Mar '41 p1#
2.5 million dollars storm damage in Feb. and March	Apr '41 p11#
1942; Feather River flood does \$2,086,000 damage	Mar '42 p4#
1943	1
\$1,000,000 winter highway damage	M/J '43 p12#
Five-day storm sweeps California	F '43 p14#
1945	- <b>r</b>
flooding in Imperial Valley closes highways	S/O '45 p22#
record storm hits Mojave-Lone Pine area	N/D '45 p24#
1946; L.A. Aqueduct broken in earthquake, floods Rt. 14 [Rt. 23]	M/J '46 p30
1950; storm, worst since 1937-38, causes \$3,400,000 damages	J/F '51 p28#
1953; storm damage to highways in northern counties is \$1.5 million	M/A '53 p34#
1955	
storm damage sets new record	J/F '56 p1#
floods do property damage estimated at 200 million	J/F '56 p20#
damage to bridges  J/F '56 p34	
official records salvaged from flood-swept maintenance shop	M/A '56 p59#
road restoration jobs in Dist. 1 flood areas	M/A '56 p53#
Northern California; citizens repair damaged bridges	J/A '56 p57
, 1 0 0	
Trinity Co.; repair work near Vitzhums completed	M/J '57 p58#
1961; slide causes flooding on US 101 (Mendocino Co.)	N/D '61 p26#
1963	N/D ((2 :: 2(#
annual	N/D '63 p26#
rains in Sierra Co. cause damage to bridges and roads	J/F '63 p33#
Sierra Co. Supervisors express thanks (1963 flood)	J/F '63 p32
	-
storm damage is \$4 million	M/A '63 p9
storm damage is \$4 million 1964	M/A '63 p9
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage  J/F '65 p	M/A '63 p9 2#; M/A '65 p14#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state  J/F '65 p	M/A '63 p9 2#; M/A '65 p14# 0#; M/A '65 p2#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised  J/F '65 p10	M/A '63 p9 2#; M/A '65 p14# 0#; M/A '65 p2# M/A '65 p26#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised  J/F '65 p10	M/A '63 p9 2#; M/A '65 p14# 0#; M/A '65 p2# M/A '65 p26#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends	M/A '63 p9  2#; M/A '65 p14#  b#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage 1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage 1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL Alameda Co., Hayward; Ward Creek earth fill dam planned	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state flood damage elsewhere in state flood damage elsewhere in state flood highway workers praised flood northwest roads, repair work nearly completed flood employees donate funds to fellow employee flood victims flood temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co.	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state flood damage elsewhere in state flood damage elsewhere in state flood control-see also EROSION CONTROL Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co. Burbank-Western Channel [L.A. Co. Flood Control Channel]	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#  S/O '59 p18#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage  flood damage elsewhere in state  highway workers praised  northwest roads, repair work nearly completed  employees donate funds to fellow employee flood victims  temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned  Contra Costa Co.; Walnut Creek channel relocated  Humboldt Co.; Eel River training jetties combat floods  Los Angeles Co.  Burbank-Western Channel [L.A. Co. Flood Control Channel]  Dominguez Channel improved	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#   S/O '59 p18#  J/F '62 p50
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage 1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co.  Burbank-Western Channel [L.A. Co. Flood Control Channel] Dominguez Channel improved San Gabriel Dam flood control project, Los Angeles Co.	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#  S/O '59 p18#  J/F '62 p50  Aug '37 p8#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state flood highway workers praised flood northwest roads, repair work nearly completed flood employees donate funds to fellow employee flood victims flood temporary gas tax to reconstruct roads ends  1965; Southern California storm damage 1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co.  Burbank-Western Channel [L.A. Co. Flood Control Channel] Dominguez Channel improved San Gabriel Dam flood control project, Los Angeles Co. Merced Co., Rt. 99; divided highway solves flood problem	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#  S/O '59 p18#  J/F '62 p50  Aug '37 p8#  Jul '39 p16#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state J/F '65 pt highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends 1965; Southern California storm damage 1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co. Burbank-Western Channel [L.A. Co. Flood Control Channel] Dominguez Channel improved San Gabriel Dam flood control project, Los Angeles Co. Merced Co., Rt. 99; divided highway solves flood problem Modoc Co.; Tule Lake Reservoir saved by emergency construction	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#   S/O '59 p18#  J/F '62 p50  Aug '37 p8#  Jul '39 p16#  Jul '38 p22#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state J/F '65 pt highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co.  Burbank-Western Channel [L.A. Co. Flood Control Channel] Dominguez Channel improved San Gabriel Dam flood control project, Los Angeles Co. Merced Co., Rt. 99; divided highway solves flood problem Modoc Co.; Tule Lake Reservoir saved by emergency construction Napa Co. Cooperative Drainage Project	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p26#  M/A '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#  S/O '59 p18#  J/F '62 p50  Aug '37 p8#  Jul '39 p16#  Jul '38 p22#  M/A '61 p56#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage J/F '65 p flood damage elsewhere in state J/F '65 p flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co.  Burbank-Western Channel [L.A. Co. Flood Control Channel]  Dominguez Channel improved  San Gabriel Dam flood control project, Los Angeles Co.  Merced Co., Rt. 99; divided highway solves flood problem Modoc Co.; Tule Lake Reservoir saved by emergency construction Napa Co. Cooperative Drainage Project Sacramento Co.; 16 <sup>th</sup> St. Subway gets new flood gate	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#  S/O '59 p18#  J/F '62 p50  Aug '37 p8#  Jul '39 p16#  Jul '38 p22#  M/A '61 p56#  O '37 p27#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co.  Burbank-Western Channel [L.A. Co. Flood Control Channel] Dominguez Channel improved San Gabriel Dam flood control project, Los Angeles Co. Merced Co., Rt. 99; divided highway solves flood problem Modoc Co.; Tule Lake Reservoir saved by emergency construction Napa Co. Cooperative Drainage Project Sacramento Co.; 16th St. Subway gets new flood gate Sacramento River Flood Control Projects, new survey of urged	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#  S/O '59 p18#  J/F '62 p50  Aug '37 p8#  Jul '38 p22#  M/A '61 p56#  O '37 p27#  Apr '40 p2#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage J/F '65 pt flood damage elsewhere in state J/F '65 pt flood controles to repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods  Los Angeles Co.  Burbank-Western Channel [L.A. Co. Flood Control Channel]  Dominguez Channel improved  San Gabriel Dam flood control project, Los Angeles Co.  Merced Co., Rt. 99; divided highway solves flood problem Modoc Co.; Tule Lake Reservoir saved by emergency construction Napa Co. Cooperative Drainage Project  Sacramento Co.; 16th St. Subway gets new flood gate  Sacramento River Flood Control Projects, new survey of urged Santa Clara Co.; Guadalupe River channel improved	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#  S/O '59 p18#  J/F '62 p50  Aug '37 p8#  Jul '39 p16#  Jul '38 p22#  M/A '61 p56#  O '37 p27#  Apr '40 p2#  M/J '61 p74#
storm damage is \$4 million  1964  Redwood Hwy. (US 101) flood damage flood damage elsewhere in state highway workers praised northwest roads, repair work nearly completed employees donate funds to fellow employee flood victims temporary gas tax to reconstruct roads ends  1965; Southern California storm damage  1966; storm havoc in Dist. 6  Flood ControlSee also EROSION CONTROL  Alameda Co., Hayward; Ward Creek earth fill dam planned Contra Costa Co.; Walnut Creek channel relocated Humboldt Co.; Eel River training jetties combat floods Los Angeles Co.  Burbank-Western Channel [L.A. Co. Flood Control Channel] Dominguez Channel improved San Gabriel Dam flood control project, Los Angeles Co. Merced Co., Rt. 99; divided highway solves flood problem Modoc Co.; Tule Lake Reservoir saved by emergency construction Napa Co. Cooperative Drainage Project Sacramento Co.; 16th St. Subway gets new flood gate Sacramento River Flood Control Projects, new survey of urged	M/A '63 p9  2#; M/A '65 p14#  0#; M/A '65 p2#  M/A '65 p26#  M/J '65 p46#  M/J '65 p49#  S/O '65 p48  J/F '66 p31#  J/F '67 p14#   J/F '62 p63#  M/J '61 p76#  N/D '45 p21#  S/O '59 p18#  J/F '62 p50  Aug '37 p8#  Jul '38 p22#  M/A '61 p56#  O '37 p27#  Apr '40 p2#

#### FLOODING, Continued

FLOODING, Continued	
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levee breaks on Sacramento River, emergency repairs to	Jun '40 p12#
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Riverside Co.; Temescal Canyon highway rebuilt on new alignment	O '41 p12#
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State speeds program to restore revees damaged in storm	<b>Ар</b> г <b>40</b> р гπ
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J/F '60 p60#; N/D '60 p5; N/D '61 p7; N/D '63 p7;	N/D '64 p7
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Traffic flow on freeways, suggestions for controlling J/A '56 p5;	J/A '61 p44
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#### GASOLINE TAXES S/O '60 p69 Advertising campaign regarding Appointments to cities May '37 p13; N '37 p13; Jun '38 p17; Jun '39 p14#; N '39 p17; Jul '40 p1; Jul '41 p17; May '41 p1; Jul '41 p17; J/A '44 p19; N/D '53 p65; M/J '57 p55; S/O '57 p58; J/F '60 p44; N/D '60 p36 Benefits of gas tax expenditures within cities enumerated. Jul '39 p19# S/O '50 p135 Collier-Burns Hwy. Act, gas tax and N/D '64 p36 Collier-Unruh Local Transportation Development Act and Constitutional Amendment 28 approved; gas tax safeguarded. Jan '39 p12 Federal, increased by .5 cent for national defense Jun '40 p1 Apr '42 p16 Gasoline, tire rationing causes reduction of gas tax revenues M/A '50 p50 How money for highways is collected and spent, illustrated Increased 1-cent per-gallon by 1963 State Legislature S/O '63 p12 Laws and rulings regarding J/F '53 p61; M/A '53 p46; M/J '53 p58 Los Angeles gas tax projects, 1942 Apr '42 p15 Petroleum industry, relation of to gas tax programs Jan '47 p14 Policies, practices governing distribution of gas tax J/A '60 p47# Protection of gas tax urged by H. R. Judah Aug '38 p7 Revenues show sharp downward trend J/A '44 p20 Temporary increase to reconstruct flood-damaged roads ends S/O '65 p48 GRADE CROSSINGS, SEPARATIONS & INTERCHANGES Financing of, history S/O '54 p1# Grade crossing program, costs, safety problems of evaluated S '39 p11# Grade crossings closed, remaining on state highways, 1955-56 N/D '56 p43 N/D '64 p57 Grade separation projects, annual Grade separation projects 1935-1939 May '39 p11# Interchange structures design of M/A '43 p18#; M/A '45 p24#; Jan '47 p5; N/D '50 p58; J/F '51 p50#; M/A '51 p50#; N/D '58 p19#; M/A '59 p51#; M/J '61 p32# models of, technique for building improved M/J '65 p53# WPA grade separation projects F '37 p21 **By County** Alameda Co. Davis St. 4-quadrant cloverleaf structure (I-880, San Lorenzo) M/J '52 p7 East Bay Distribution Structure reconstruction progress on M/A '54 p5#; S/O '54 p4#; M/A '55 p9 dedicated and opened N/D '55 p24# Fifth Ave. Overhead started (I-880, Oakland) J/A '46 p16 First Ave. interchange (I-880, San Lorenzo) M/J '52 p7 Greenville overhead built (I-580, Altamont Pass) Mar '38 p11# I-880 (Nimitz Fwy.) [US 40, Eastshore Fwy.] Oakland; five major structures built for M/J '49 p8# I-880/Rt. 238 [Rt. 228] junction separation structure M/A '52 p33 Moraga Ave. Interchange built (Rt. 13, Warren Blvd Fwy.) M/J '64 p29# N '37 p18# Niles, Rt. 21; six grade separation projects completed Powell St. separation structures under construction [I-80, Oakland] J/A '54 p10# Redmond overhead built (I-580, Altamont Pass) Mar '38 p11# Sunol underpass (Niles Canyon Rd., Rt. 84) [Rt. 107], progress on Jan '42 p10# University Ave. grade separation (Berkeley) planned Apr '39 p 22#

dedicated

Jan '40 p22#

#### **GRADE CROSSINGS, Continued**

GRADE CROSSINGS, Conuniueu		
Contra Costa Co.		
El Cerrito Overhead completed (I-80) [US 40]		J/A '60 p57#
Pinole grade crossing project under construction (I-80) [US	40]	F '39 p20
completed		S '39 p22#
Rt. 4 (Industrial Hwy.)		
Willow Pass-Franklin Canyon unit, grade separation bu	ıilt	O '39 p28#
Wilbur Ave. (Antioch) overcrossing built [FAS]		J/A '59 p44#
El Dorado Co.		
US 50, Placerville; separation structures, planned		J/F '52 p32
Fresno Co.		
California Ave. overcrossing (Rt. 99; Fresno)		M/A '49 p27#
Monterey St. Overpass (Rt. 99; Fresno)		
clearing site for	J/F '47 p24#;	J/F '47 p 29#
built		M/A '49 p27#
Kern Co.		
Minkler Spur underpass built (Bakersfield)		J/F '49 p18#
Oak St./Rt. 204 [Rt. 141] overpass completed (Bakersfield)		N '39 p20#
Rt. 58 [Rt. 178]; Keene, Tehachapi overhead structures buil	t	N/D '48 p47#
Rt. 99, Famosa; grade separation underpass completed		Mar '37 p21#
overhead construction, improvement project underway		J/A '57 p8#
Rt. 99/Rt. 46 [US 466] separation under construction		J/A '57 p8#
Los Angeles Co.		•
Aliso St. grade separation projectSee BRIDGES		
Colorado Ave. grade separation (Santa Monica, Rt. 187/Rt.	1 junc.)	Aug '39 p6
completed	3 /	S '40 p18#
East Los Angeles Interchange ("East Loop")		1
design of		N/D '58 p20
plans for		J/F '59 p29
-	J/F '61 p13#;	N/D '61 p13
portion of completed; dedication held	,	M/J '61 i.cvr.#
Figueroa St. Viaduct nears completion		Apr '37 p14#
Figueroa-Temple St. grade separation project, progress on		N '39 p14#
Firestone Blvd. grade separation completed		F '37 p2#
Four-Level Separation Structure		1 3, p=
planned		M/J '44 p8
contract awarded for		J/A '47 p31
construction started on		N/D '48 p20
progress on J/F '49 p61#; J/A '50 p17	'· I/F '51 p13·	S/O '52 p22#
lowest level used for first time	, o/1 01 p10,	M/J '51 p15#
Henry Kuphal, Assoc. Bridge Engineer's contributions	to	J/F '53 p58
Interchanges		0/1 00 poo
Arroyo Seco Pkwy., traffic interchange designs for		M/A '51 p52#
Golden State-Glendale Fwy. Interchange (I-5/Rt. 2)		J/F '61 p17#
Golden State-San Bernardino Fwy. Interchange (I-5/I-1	0)	J/F '61 p17#
San Bernardino-Long Beach Fwy. (I-10/I-710), progres		J/F '60 p12#
nearing completion	.5 511	M/A '61 p12#
San Diego-Santa Monica Fwy. 3-level Interchange		01 p12π
design of supervised by pioneer female engineer		J/F '63 p46#
design of supervised by profiled remain eligificer		<i>υ</i> , 1 ου ρποπ
wins Governor's Design Award		I/F '67 n37#
wins Governor's Design Award	1/A '56 n30#·	J/F '67 p37#
	M/A '56 p30#;	J/F '67 p37# J/F '57 p9# J/F '56 p62#

GRADE CROSSINGS Los Angeles Co., Continued	
Santa Monica-Harbor Fwy. Interchange (Rt. 10/I-110)	J/A '59 p31#
progress on	S/O '59 p15
completed	M/A '62 p25
I-5, Santa Ana Fwy.	
separation structures built, general M/J '50 p32#; J/F '52 p22#;	N/D '52 p19
I-10; San Bernardino Fwy. [Ramona Fwy.]	1.02 C= p15
grade separations built, general	J/F '52 p18#
interchange structures for	M/A '43 p18#
I-110; Harbor Fwy,. separations planned for N/D '47 p17;	N/D '49 p52#
I-210, Foothill Fwy.	11/12 47 p32//
Rt. 159/118 [Rt. 165/9] separation under construction	J/A '54 p49#
I-710, Long Beach Fwy [Los Angeles River Fwy.]	3/Α 3 <del>4</del> μ <del>4</del> μ
Anaheim St. separation, progress on	M/A '52 p11
Cheli Rd. [Eastern Ave.] Undercrossing built	J/A '54 p28
Dominguez St. Underpass, progress on N/D '52 p15;	•
East Yard Overhead separation, progress on	J/A '54 p28
freight classification yard separations planned	J/A '53 p38
Hobart Yard Overhead separation, progress on	J/A '54 p27#
Pacific Way Overhead separation, progress on	J/A '54 p27
separation structures planned M/A '52 p13; N/D '52 p15#;	J/A '54 p30
	N/D '52 p14
Rt. 1/7 [Rt. 60/167] separation completed	
Rt. 91/7 [Rt. 175/167] separation, progress on	N/D '52 p15
Los Angeles International Airport	I/E 447 m0#
Century Blvd./Sepulveda Blvd. separation project completed	J/F '67 p8#
Mission Rd. grade separation completed	F '37 p2#
N & O St. Viaduct opened (Wilmington, Rt. 1) [Rt. 60]	Aug '37 p32#
Pico underpass completed (Rt. 164) [Rt. 168, Rosemead Arterial]	D '38 p22#
Rosemead Blvd. underpass completed (Rt. 164) [Rt. 168]	D '38 p22#
Rt. 71 [Rt. 77], Pomona; grade separation with channelized ramp	O '39 p16
Rt. 134; Colorado Fwy., separation structures planned for	J/F '48 p21
Soto St. grade separations completed	F '37 p2#
Spring St. structure, progress on	N/D '48 p38
completed	May '40 p6#
Terminal Island Fwy.; overhead structures built	N/D '47 p27#
US 101, Hollywood Fwy.	I/E (71 1)
Alvarado Blvd. undercrossing built	J/F '51 p16
Lankershim separation structure (Cahuenga Pass) built	M/A '49 p24#
grade separations built, general	J/A '50 p17
Western Ave. overcrossing, construction of	J/F '50 p22#
Marin Co.	3.6/T.(
Ignacio Wye Interchange built (US 101/Rt. 37 junction)	M/J '64 p32#
San Quentin Wye separation structure project underway (US 101)	S/O '53 p10#
US 101; Forbes Overhead-Ignacio unit, separations built for	J/A '52 p33#
Waldo grade separation built (US 101)	N/D '43 p6#
Merced Co.	E (20 - 17 II
Livingston subway under construction (Rt. 99)	F '38 p16#
opened	Mar '39 p12#
Rt. 99/Rt. 59 (J St.) separation built	J/A '64 p43#
W. Merced overcrossing built (Rt. 99)	J/A '64 p43#

#### **GRADE CROSSINGS, Continued**

GRADE CROSSINGS, Continued		
Monterey Co.		
Castroville overhead built (Rt. 156)		S/O '44 p26
Salinas; railroad grade separation planned		M/A '47 p5
US 101		
Bradley-San Ardo unit, interchanges built		M/J '65 p8
Salinas-Soledad unit, separations built M/A	A '54 p35#;	M/A '61 p52#
Napa Co.		
First St. Interchange under construction (Rt. 29, Napa)		M/J '64 p35#
Orange Co.		-
I-5, Santa Ana Fwy.; I-5/Rt. 55 [Rt. 2/43] separation built		J/A '55 p53#
Newport Beach Grade Separation opens		Jan '37 p6#
Placer Co.		<b>F</b> -
Auburn; East St., Walsh St. grade separations built (I-80) [US	S 401	S/O '47 p14
Bowman Overhead built (Applegate-Auburn, I-80)	, ]	M/A '51 p58#
Colfax; grade separation completed (I-80) [US 40]		D '39 p27#
East Auburn Underpass replaced (I-80) [US 40]		J/F '65 p55#
Roseville Underpass proposed		J/F '47 p12
ground breaking ceremonies for		N/D '48 p24#
dedicated and opened		M/A '50 p1#
<u>*</u>		WI/A 30 p1#
Plumas Co.		C 420 144
Greenville overhead completed (Rt. 89) [Rt. 83]		S '39 p14#
Portola Overhead [FAS] under construction		N/D '53 p12#
dedicated and opened		S/O '54 p25#
Riverside Co.		
Box Springs-Beaumont Overhead		Aug '37 p16#
I-10 [US 70-99], Redlands-Beaumont unit		
separation structure at intersection with Rt. 60 built		M/J '51 p25#
Rt. 111; Palm Springs-Rt. 86 [US 99] unit		
grade separation and underpass built		Mar '40 p10#
Sacramento Co.		
I-80; Bus-80 (Capitol City Fwy.)		
B St. Underpass constructed [Elvas Fwy.]		N/D '54 p14
Elvas Underpass constructed		N/D '54 p14#
North Sacramento Fwy.; separations built S/	/O '46 p15#;	S/O '48 p24
Jibboom St. Viaduct dedicated	_	O '37 p16#
North Sacramento Viaduct (Del Paso Blvd.) [US 40]		•
	F '41 p20#;	Jun '41 p20
ground-breaking ceremony for	1 /	Aug '41 p8#
progress on		D '41 p14#
dedicated and opened		O '42 p3#
12th St. subway (Bus-80/Capitol City Fwy.) under construction	on	S/O '48 p23
progress on		M/J '49 p22#
San Benito Co.		1.20 17 p2211
	S/O '58 p18;	S/O '59 p31
OS 101/Rt. 130 grade separation built	" o 50 pro,	5/0 5/ p31

#### **GRADE CROSSINGS. Continued**

GRADE CROSSINGS, Continued		
San Bernardino Co.		
Cedar Ave. separation structure built (I-10)		J/A '46 p20#
Colton interchange built (I-10)		N/D '58 p11#
Colton; Eighth St. Underpass dedicated		J/A '56 p26#
Crestline Interchange (Rt. 18/Rt. 138) built		J/A '66 p18#
Cross Roads three level interchange completed (I-10)		M/A '60 p2#
I-10 [US 70-99], San Bernardino Fwy.		
grade separated interchanges built	M/J '59 p29#;	M/J '60 p43#
Rt. 62/I-10 interchange built		M/A '63 p75#
San Bernardino; I St. Overhead built		S/O '51 p42#
San Diego Co.		
Four-level Interchange (I-5/Rt. 163) [US 101-US 395]		
<u>*</u>	M/J '60 p10#;	S/O '60 p13#
under construction		M/A '61 p61#
completed		J/A '64 p2#
landscaping and		S/O '65 p11#
interchanges, general problems of		N/D '58 p37#
Mission Valley Rd. (I-8) [US 80]		
clover-leaf grade separation overpassing I-5 [US 101]	built	N/D '43 p2#
interchange built as part of Cabrillo Fwy. (Rt. 163)		M/A '48 p1#
reconstructed		J/A '60 p2#
I-5 [US 101]; Montgomery Fwy., Chula Vista-National Ci	•	
grade separations built for	J/F '51 p36#;	S/O'51 p19#
I-5/I-8/Rt. 109 interchange (San Diego, Old Town)		
model of on display		M/J '65 p58
plans for		S/O '65 p12#
Oceanside; I-5 [US 101] grade separation		M/J '47 p4#
San Francisco Co.		
Bayshore Fwy. [US 101]		3.5/4.470
18th StBryant Overpass, pile driving for (US 101)	.•	M/A '52 p51#
I-280/US 101 [Rt. 82/US 101] interchange nearing comple	etion	M/A '60 p20#
construction history		J/A '64 p12#
San Joaquin Co.		M (27 10#
Charter Way Underpass opened (I-205, Stockton) [US 50]		May '37 p10#
Farmington Rd. Interchange built (Rt. 99, Stockton)		J/A '59 p4#
Harding Way Underpass opened (Stockton)	T/A 440 20#.	J/F '61 p66#
I-205 [US 50] rerouting, separations for	J/A '49 p30#;	M/A '50 p12#
Main St. Overhead (Rt. 99, Stockton)	J/A '49 p30#;	M/A '50 p13# J/A '59 p4#
Mariposa Rd. Overcrossing built (Rt. 99, Stockton)	ad	J/A '59 p4# J/A '57 p14
Mossdale; Rt. 120/I-205 [Rt. 66/US 50] interchange planner. Rt. 99; Stockton Fwy., separation structures for	J/A '49 p30;	M/A '50 p13#
Rt. 99/I-205 [US 50] separation structure	J/A 49 p30,	J/A '49 p30#
Wilson Way Underpass opened (I-205, Stockton) [US 50]		Aug '38 p16#
San Luis Obispo Co.		Aug 36 p10#
US 101; San Luis Obispo Bypass, grade separations built	I/A '52 n32.	J/A '53 p37#
Santa Barbara Co.	J/A 32 p32,	J/A 33 p3/#
N. Buellton Overcrossing built (US 101, Santa Barbara)		J/A '65 p28#
Salsipuedes overheads under construction (US 101)		M/J '48 p12#
completed		J/F '49 p55
Santa Rosa Rd overcrossing built (Buellton)		J/A '65 p28#
US 101/ Rt. 246 Separation built (Buellton)		J/A '65 p28#
55 101/10. 210 Separation built (Business)		0,11 00 P2011

#### **GRADE CROSSINGS, Continued**

GRADE CROSSINGS, Continued	
Santa Clara Co.	
Bascom AveWashington St. Interchange built (San Jose)	J/A '60 p10#
Embarcadero Underpass completed (Palo Alto)	F '37 p22#
Oregon Ave. Interchange built (Bayshore Fwy., US 101)	M/J '65 p40#
Polhumus St. underpass built (San Jose)	N '40 p20#
Rt. 17 Interchange built (Los Gatos)	J/A '60 p10#
Rt. 82/I-880 [US 101-Rt. 17] Interchange built	J/A '60 p10#
University Ave./Rt. 82 [US 101] grade separation (Palo Alto)	
planned	S '40 p24
dedicated	Mar '41 p3#
University Ave. railroad grade separation planned (Palo Alto)	S '40 p24
dedicated	Mar '41 p3#
University Ave. underpass under construction (Palo Alto)	D '39 p22
Santa Cruz Co.	- ** F
Rt. 1; Rob Roy Junction-Santa Cruz unit, separations for	N/D '48 p10#
Shasta Co.	10 p100
Redding; underpass replaces old subway (I-5) [US 99]	Jun '39 p20#
Siskiyou Co.	Jun 37 p20π
Bailey Hill Underpass nearing completion (I-5) [US 99]	J/A '48 p12#
completed	M/A '49 p56#
Solono Co.	M/A 49 p30#
	M/A 445 10#
Basalt Subway built by Basalt Rock Co. dedicated (Rt. 29)	M/A '45 p19#
Cordelia Underpass under construction (I-80) [US 40]	N/D '50 p44#
Fairfield Interchange built (I-80) [US 40]	M/J '63 p9
Magazine St. overpass and interchange planned (Vallejo)	J/F '56 p30
dedicated and opened	N/D '56 p37#
Pedrick Rd overcrossing under construction (I-80, Dixon) [US 40]	J/F '65 p52#
Sonoma Co.	
Rt. 1/Rt. 116 [Rt. 104] separation and overhead built	M/J '55 p8#
US 101/Rt. 12 Three-level interchange built (Santa Rosa)	M/J '64 p47#
Stanislaus Co.	
Turlock Overhead nearing completion (Rt. 99)	N '39 p24#
dedicated	Apr '40 p14#
Tulare Co.	
Rt. 99/Rt. 137 [Rt. 134] separation structure built	J/F '54 p18
Ventura Co.	
Borchard RdUS 101 (Ventura Fwy.) interchange built	S/O '62 p40#
Camarillo; SP Railroad grade separation (US 101)	_
construction to begin on	M/J '52 p31
progress on	S/O '53 p22#
completed; dedication held	M/A '54 p49
interchange projects, general	S/O '62 p42
Moorpark Rd. interchange built (Thousand Oaks)	S/O '62 p40#
Saviers RdRt. 1 [US 101-Alt.] grade separations built (US 101)	M/J '55 p58#
Yolo Co.	into de peon
I-80 [US 40]; Dixon-Davis unit, separation structures for	S/O '48 p24
West Sacramento Fwy. (I-80) [US 40]	5/5 10 p2 t
eight grade separation structures under construction	J/A '51 p28
Yuba Co.	3/11 31 p20
East Marysville Underpass reconstructed (Rt. 20, 12th St.)	J/F '65 p55#
Last marysmic Underpass reconstructed (Rt. 20, 12th st.)	J/1 03 p33#

### HIGHWAY PLANNING & DESIGN

IIIGIIWAT I LANNING & DESIGN	
Accident records, use of in highway planning and design	M/A '56 p41#
Advance Planning Dept., annual activities J/F '60 p40; N/D '60 p40;	
N/D '61 p46; N/D '62 p45; N/D '63 p41; N/D '64 p41; N/D '65 p38;	N/D '66 p13
ARBA-AASHO to make joint studies of highway system	N/D '49 p34
Aesthetics and highway design, engineers' view of	S/O '66 p2, 10
Basic principals of highway design established	O '38 p7#
Business community, highway planning and	S/O '51 p36
California Coordinate System, application of to highway surveys	J/F '51 p38
Design Dept., annual activities N/D '60 p44; N/D '61 p48;	_
N/D '62 p48; N/D '63 p44; N/D '64 p44;	N/D '65 p42
Design practices change with times	J/F '49 p9
Design standards established, tentative	N '41 p7
Design standards for country roads adopted	S/O '53 p48
Divided highway plan for 1937-38	N '37 p1#
Driving simulation device demonstrated	M/A '61 p79#
Freeway design, report on available	S/O '60 p12
Freeway traffic studies, application of to design	J/A '56 p8
Future of highway planning discussed in mathematical format	Jul '41 p14
Gyroscopic equipment used for alignment and grade surveys	J/A '52 p12#
Highway Planning Survey DeptSee Urban Planning Dept.	1
Highway Planning Survey, 1936	
motorists polled in regard to	Apr '37 p20
object and methods of	May '37 p12
instruments used, tests conducted for	Jul '37 p8#
maps redesigned	Aug '38 p13
partial results of	Apr '39 p1
Highway transportation needs 1956-1971 study launched	M/A '57 p50
"Highways, Water, and Planning"	J/A '60 i.cvr.
Intersection design, channelization Mar '39 p20#; F '40 p12#;	Mar '40 p17#
Fact-Finding committee on highways, streets and bridges	10 p1 / //
to study needs of state highway system	N/D '45 p31#
G. Donald Kennedy report on 10-year highway program	S/O '46 p1#
Long-term planning programs, benefits of	M/J '50 p60
Motor Vehicle Use study for U.S. Bureau of Public Roads underway	J/F '54 p56
National Cooperative Hwy. Research Program (NCHRP) initiated	J/A '62 p20
Planning adequate roads, "blueprint" for	M/J '54 p18
Photogrammetry (aerial photography)	W1/3 34 p16
aerial motion pictures aid traffic engineer	May '39 p20#
aerial photos used for road inventory	J/A '63 p49#
annual operations N/D '60 p41; N/D '61 p46;	J/Λ 05 p49π
N/D '62 p46; N/D '63 p42#; N/D '64 p42#;	N/D '65 p39
contour grading highway maps used S/O '52 p1;	M/J '55 p27
use of for mapping, highway design N/D '51 p24#; J/F '53 p39;	M/3 33 p27
	M/I '50 p14#
M/J '53 p52; M/A '56 p32#; N/D '56 p23#;	M/J '59 p14# N/D '60 p40
Photogrammetric-Advance Planning Sections combined	-
program expanded  Project Control Department added: functions of	M/J '56 p46
Project Control Department added; functions of	N/D '65 p41
Road maps, new sign routes added to	M/J '53 p42
Road reinventory made, 1941-42	S/O '43 p16

#### HIGHWAY PLANNING & DESIGN, Continued

HIGHWAY PLANNING & DESIGN	, Continued	
Roads Tests		
AASHO Road Tests	M/J '55 p30; J/F '61 p47;	M/A '62 p22
test track for road construction built		S '40 p12#
WASHO Road Test; test road for under con	istruction	N/D '52 p23
Rural Road Inventory to be made		J/A '53 p26
Traffic Engineering, highway planning and		J/F '52 p44
Urban Planning		
seminar regarding held		M/J '60 p63
need for coordination stressed at conference	<del>2</del>	M/A '63 p43#
mass transit, auto-oriented cities and		J/A '64 p47
progress on, annual	J/A '64 p22;	N/D '66 p18
Urban Planning Dept. [Highway Planning Surve		
annual activities of	N/D '60 p48; N/D '61 p51;	
= -	2; N/D '63 p48; N/D '64 p49;	N/D '65 p48
US 101; Redwood Parks Fwy. study completed		M/J '56 p25
HISTODIC I ANDMADIZE & N	ONLIMENTO	
HISTORIC LANDMARKS & M	IONUMENTS	
Donner MonumentSee Pioneer Monument	1	I/E 447 15
Historical Landmark markers erected on roadsic	ies	J/F '47 p15
Humboldt Co.	. 1	T/A 466 22
Ft. Humboldt; piece of historic flagpole loc		J/A '66 p32
Garberville, US 101; Culbert L. Olson Gro	ve dedicated	Jul '40 p18#
Inyo Co.		M (20 22
geyser is attraction on US 395 [Rt. 23]		Mar '38 p23
Panamint City kilns, Ballarat ghost town		J/F '51 p18#
Kern Co.	leans Coal d hereilt	T/A 446 10#
Garces Circle [statue of Father Garces], Ba	kersileid built	J/A '46 p18#
moved		M/A '57 p56#
Los Angeles Co.	M/I '40 - 17# I/E '51 - 17#.	M/I 451 46
Ft. Moore Hill	M/J '49 p17#, J/F '51 p17#;	M/J '51 p46
Newbury Park Stage Station	dal Canarra dan)	J/A '50 p29#
Governor Pio Pico adobe residence ( <i>Casa a</i> Mission Bells on El Camino Real, replacement		J/A '64 p35#
funding for authorized	31 proposed	M/J '52 p34 J/F '63 p63
S .		J/F 03 p03
Missions of California		M/A 4/7 m20
articles on to be published in brochure		M/A '47 p28
DoloresSee San Francisco de Assisi		S/O '44 p4
history of, general		-
La Purisima Concepcion (1787)		M/J '45 p17#
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San Francisco de Assisi [Mission Dolores]	(1770)	M/A '46 p17#
San Francisco Solano (1823) San Gabriel Arcangel (1771)		M/J '46 p17# J/F '45 p8#
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San Juan Bautista (1797)		N/D '45 p26#
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San Juan Capistrano (1776)		N/D '44 p9#
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San Luis Obispo Co.; Sen. Elmer S. Rigdon monument dedic	cated	Jul '37 p1#
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John C. Fremont ambush		S/O '50 p42#
Siskiyou Co.		
Henley [Cottonwood] Stage station site		J/F '50 p13#
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Anza, Don Juan Bautista de Automotive terms, origin of Beckwourth Pass (Lassen Co.) Butterfield Overland Mail	ORIC EVEN  S/O '50 p45#;	S/O '50 p14# M/J '57 p40 S/O '53 p20 S/O '54 p36
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Anza, Don Juan Bautista de Automotive terms, origin of Beckwourth Pass (Lassen Co.) Butterfield Overland Mail Donner Summit, crossing of El Camino Real Fages, Don Pedro takes over Portola's explorations Fremont, John C. Gaviota Pass and	ORIC EVEN  S/O '50 p45#;	S/O '50 p14# M/J '57 p40 S/O '53 p20 S/O '54 p36 J/F '65 p43 S/O '50 p28# S/O '50 p12# M/A '51 p6
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Anza, Don Juan Bautista de Automotive terms, origin of Beckwourth Pass (Lassen Co.) Butterfield Overland Mail Donner Summit, crossing of El Camino Real Fages, Don Pedro takes over Portola's explorations Fremont, John C. Gaviota Pass and San Marcos Pass and Fur trading in California, 19th century Grapevine Canyon (I-5) [US 99] N/D '45 p6#; J/A '49 p	ORIC EVEN  S/O '50 p45#; S/O '50 p60#;  S/O '50 p42#,	S/O '50 p14# M/J '57 p40 S/O '53 p20 S/O '54 p36 J/F '65 p43 S/O '50 p28# S/O '50 p12# M/A '51 p6 J/A '55 p44 S/O '50 p32# J/A '58 p10
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four lane paver devised, used for first time		M/A '66 p44#
Lewis slip-form paver, first use of		J/F '62 p15#
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new process brings marked cost savings	J/F '65 p63;	M/A '65 p68#
new techniques used in Fresno job		S/O '62 p24#
Soil stabilization		
lime treatment, experiments with	J/A '50 p7#;	J/F '66 p36#
P&H Soil Stabilizer successfully tested in Humboldt Co.		J/F '51 p54#
	Jun '38 p12#;	Jul '38 p12
Structural sections tested		M/A '62 p58#
Subgrade construction on Santa Ana Fwy.		M/A '49 p7#
Subsealing concrete pavement		S/O '50 p156#
Weakened-plane joints		
epoxy resin used for repair of		J/A '57 p45#
sawing weakened plane construction joint in pavement		M/J '53 p22#

#### PERSONNEL/EMPLOYMENT-RELATED

PERSONNEL/EMPLOYMENT-RELATED	
Army reserve program attracts state employees	M/A '56 p60#
Better Highways [Essay] Award Contest launched	N/D '48 p27
winners of	J/A '53 p40
Division of Highways bowling team	M/J '50 p55
Driver Training Program J/A '54 p38#; M/A '61 p64#; N/D '61 p64;	N/D '63 p61
Employee opinion survey to be conducted	S/O '56 p8
Engineers, shortage of S/O '51 p1; J/A '52 p56;	N/D '55 p56
Equal opportunity employment	
nondiscrimination policy reiterated S/O '63 p26;	J/F '64 i.cvr.
training sessions based on Governor's Code of Fair Practices	M/A '65 p52#
Ethnically diverse staff mans highway offices	M/J '55 p51#
Flood victims receive aid from fellow employees	M/J '65 p49#
Highway Dodgerettes women's' softball team M/J '51 p38#;	S/O '53 p56#
Highway engineer wins national tennis championship	S/O '53 p48#
Highway Hi-Lites women's' basketball team	N/D '51 p43#
Holiday greetings from Director Frank W. Clark	D '39 p5
Human relations coordinator position established	J/A '64 p60
Laws regarding standards of employee conduct	M/A '51 p42
Liability of state drivers	S/O '57 p44
Job rotation program for junior civil engineers M/J '63 p2#;	J/A '65 p45
Maintenance employees, C.H.P. honored at barbecue	N/D '50 p54#
Maintenance employee annual picnic held, Dist. 7	N/D '53 p49#
Mechanic saves drowning boy	S/O '65 p54
Merit Award Program (Employee Suggestions)	
launched	N/D '50 p53
first certificate of merit presented	J/F '51 p37#
five superior accomplishment awards approved	M/J '63 p61#
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S/O '56 p45; N/D '56 p46; J/F '57 p46; M/A '57 p46;	
M/J '53 p25; M/J '57 p51; J/A '57 p20; S/O '57 p56; J/F '58 p51;	
J/A '58 p47; S/O '58 p64; N/D '58 p56; M/J '59 p42; J/A '59 p56;	S/O '59 p4
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employee suggestions save taxpayers money	J/A '52 p59
Dist. 7 winners honored at annual dinner dance	J/F '54 p60
Personnel aides confer on new procedures	M/J '61 p78#
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Fresno Co.; Rt. 180, Kings River Canyon Hwy.		N '39 p6#
Humboldt Co.; US 101, McKinleyville vista point built overloo	king ocean	J/F '65 p31#
Kern Co.; Ridge Route (I-5), Lebec-Ft. Tejon unit, rest area bu		J/F '65 p21#
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	9; N/D '65 p4;	N/D '66 p5
first safety roadside rest dedicated (I-5, Siskiyou Co.)	,	J/A '65 p8#
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Sacramento Co.; Granite Bay, Lake Natoma beach areas impro	ved	S/O '60 p61#
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fair employment policy and contracts transferred due to overrun of time schedule penalties for overrun of time limits suggested  Cost ofSee BUDGETS & FUNDING  Dedication ceremonies, barrier-breaking methods Divided highways Mar '37 p18; N '37 p1; M/J '46 p28#; N/D '47 p21#;  J/F '53 p50;  Dust control, new methods of N/D '56 p47;  Engineer shortage, effect of on construction  Federal Aid Highway System, accomplishments of; need for  Federal Aid Secondary (FAS) Program  progress on, annual J/F '58 p38; J/F '59 p59; J/F '60 p43;  N/D '60 p34; N/D '61 p40; N/D '62 p40; N/D '63 p36; N/D '64 p38; contracts awarded, 1960  County Highway Aid Act 1945; secondary highway projects county roads, maintenance problems of FAS Highway Program outlined FAS jobs approved by CHC projects budgeted, 1958  Feeder road policies discussed by CHC	J/F '64 i.cvr. S/O '66 p42 J/A '51 p51 N/D '57 p20# M/A '62 p11# M/J '59 p37# M/A '56 p32 M/A '44 p1 N/D '65 p35 M/J '61 p22 N/D '46 p41 M/A '52 p17 M/A '59 p17 M/J '61 p79 M/J '58 p46 F '37 p16#
fair employment policy and contracts transferred due to overrun of time schedule penalties for overrun of time limits suggested  Cost of—See BUDGETS & FUNDING  Dedication ceremonies, barrier-breaking methods  Divided highways Mar '37 p18; N '37 p1; M/J '46 p28#; N/D '47 p21#;  J/F '53 p50;  Dust control, new methods of N/D '56 p47;  Engineer shortage, effect of on construction  Federal Aid Highway System, accomplishments of; need for  Federal Aid Secondary (FAS) Program  progress on, annual J/F '58 p38; J/F '59 p59; J/F '60 p43;  N/D '60 p34; N/D '61 p40; N/D '62 p40; N/D '63 p36; N/D '64 p38; contracts awarded, 1960  County Highway Aid Act 1945; secondary highway projects county roads, maintenance problems of FAS Highway Program outlined FAS jobs approved by CHC projects budgeted, 1958  Feeder road policies discussed by CHC Fencing along highways, installation of	J/F '64 i.cvr. S/O '66 p42 J/A '51 p51 N/D '57 p20# M/A '62 p11# M/J '59 p37# M/A '56 p32 M/A '44 p1 N/D '65 p35 M/J '61 p22 N/D '46 p41 M/A '59 p17 M/A '59 p17 M/J '61 p79 M/J '58 p46 F '37 p16# M/A '60 p61
fair employment policy and contracts transferred due to overrun of time schedule penalties for overrun of time limits suggested  Cost ofSee BUDGETS & FUNDING  Dedication ceremonies, barrier-breaking methods Divided highways Mar '37 p18; N '37 p1; M/J '46 p28#; N/D '47 p21#;	J/F '64 i.cvr. S/O '66 p42 J/A '51 p51  N/D '57 p20#  M/A '62 p11# M/J '59 p37# M/A '56 p32 M/A '44 p1  N/D '65 p35 M/J '61 p22 N/D '46 p41 M/A '52 p17 M/A '59 p17 M/J '61 p79 M/J '58 p46 F '37 p16# M/A '60 p61 S/O '59 p53
fair employment policy and contracts transferred due to overrun of time schedule penalties for overrun of time limits suggested  Cost of—See BUDGETS & FUNDING  Dedication ceremonies, barrier-breaking methods  Divided highways Mar '37 p18; N '37 p1; M/J '46 p28#; N/D '47 p21#;  J/F '53 p50;  Dust control, new methods of N/D '56 p47;  Engineer shortage, effect of on construction  Federal Aid Highway System, accomplishments of; need for  Federal Aid Secondary (FAS) Program  progress on, annual J/F '58 p38; J/F '59 p59; J/F '60 p43;  N/D '60 p34; N/D '61 p40; N/D '62 p40; N/D '63 p36; N/D '64 p38; contracts awarded, 1960  County Highway Aid Act 1945; secondary highway projects county roads, maintenance problems of FAS Highway Program outlined FAS jobs approved by CHC projects budgeted, 1958  Feeder road policies discussed by CHC Fencing along highways, installation of	J/F '64 i.cvr. S/O '66 p42 J/A '51 p51 N/D '57 p20# M/A '62 p11# M/J '59 p37# M/A '56 p32 M/A '44 p1 N/D '65 p35 M/J '61 p22 N/D '46 p41 M/A '59 p17 M/A '59 p17 M/J '61 p79 M/J '58 p46 F '37 p16# M/A '60 p61

#### **ROAD CONSTRUCTION, Continued**

ROAD CONSTRUCTION,	Continued	
Forest Highways		
forest highway program appro		N/D '58 p52
funding for allocated	J/F '62 <sub>I</sub>	
funding for, annual		N/D '63 p42
statistics regarding	M/J '50 p10	
Geology, construction and		M/A '48 p17#
Highway development: past, preser		J/F '48 p37
Highway development for 1940-19		D '40 p4
Highway improvement program an	d PW concept	Jan '47 p22
Highway terms defined		M/A '52 p58
History; highway history collection		J/A '61 p55#
<b>Interstate and Defense Highways</b>		
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building of recommended by A		N '39 p13
emergency legislation regarding	ıg	May '41 p1
plans for		M/A '45 p23
importance of	M/A '51 p	
construction limited by NPA		J/A '51 p49
potential engineer manpower p		S/O '51 p1
accelerated construction progr	am, need for	M/J '57 p23
CHC supports completion		J/A '60 p66
cost of estimated		J/A '61 p55
progress on, annual	N/D '63 p6; N/D '64	p7; N/D '66 p4
Lumber Roads		
damage to caused by overload		J/A '52 p9#
improvement of necessary to c		M/J '46 p1#
Minor Improvements Program imp		J/A '65 p32#
"accident spot" corrections int		S/O '65 p18
Mobile trailers, use of in field	N/D '49 p62#; M/J '56 p5	
Modernization of state highways, s		Jul '40 p9
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Post-war construction		
"California Enters New Highw		N/D '45 p17
California post-war projects, d		N/D '45 p18
housing, lumber shortages disc		M/J '46 p1
Interregional Highway Comm		May '41 p19
planning for urged	Jun '42 p7; N '42 p19; Jan '43	
plans for approved by CHC		N/D '43 p1
problems of anticipated		Jan '42 p6
problems of attacked at AASH	O annual meeting	Jan '47 p1
progress on		M/A '46 p1
Problems, hopes of highway builde		Jan '47 p16
Progress on construction made ava		S/O '60 p11#
	olished N/D '43; J/A '44; J/A '46; N/D	
	'48; M/A '49; N/D '51N/D '53; J/F '	
Statistics, annual	N/D '60 p29; N/D '61 p38; N/D '62 p	
Standard Specifications issued	Mar '41 p22; N/D '59 p	
Unpaved roads	Jul '38 p	-
Urban Extension Projects program		N/D '60 p34
progress on, annual	N/D '61 p41; N/D '62 p41; N/D '63 p	37; N/D '64 p39

#### **ROAD CONSTRUCTION, Continued Road Construction Outside California**

Australia; road construction practices Bolivia; jungle road building Denmark; Copenhagen Egypt; Materials and Research Chief is advisor England; Great North Rd. at Stamford Guam; Navy engaged in seal coating operations Hawaii [T.H.]	57 p61#; N/D '57 p52;	N/D '52 p60# N/D '55 p61 J/F '50 p33 M/A '59 p31# M/J '58 p43 M/J '46 p25#
California Bridge Engineer assists with Nuuanu Pa Oahau roads viewed by Frank B. Durkee India; State Transport Review published Japan Mexico	li tunnel M/A '57 p34;	S/O '54 p31 J/A '54 p33 N/D '52 p53 S/O '63 p55#
California highway engineer loaned for road project Tijuana-Ensenada Hwy. under construction Netherlands; articles from <i>CH &amp; PW</i> used by New Guinea; roadbuilding methods in New Zealand, observations of highways in Paris Super-highway nears completion South America; California engineer's impressions of	rt	J/A '51 p5# J/F '64 p39# N/D '52 p53 J/A '57 p3# M/J '56 p44 M/A '46 p32# S/O '54 p27#
United States  Bureau of Public Roads announces U.S. road totals detours and repairs to be expected nationwide Louisiana national highway program, statistics regarding Utah; travel not restricted by floods  Vietnam; California engineer aids improvement program		J/F '63 p39 J/A '48 p32 S/O '55 p29 S/O '56 p45 M/J '52 p60 J/F '62 p70#
ROADSIDE BUSINESSES & BYPAS Accidents, roadside businesses and Nut Tree, I-5 [US 40] (Solano Co.) Rt. 99, Dist. 6 Highway design, business community and Property value/economic growth studies	M/A '45 p1;	J/F '53 p34# M/A '45 p14# S/O'51 p36
N/D '47 p12; J/F '48 p11; M/A '48 p23; N/D '4 M/J '51 p27; M/A '53 p22; M/A '53 p59; S/O access rights acquisition profitable to vineyard co. Agricultural lands, effect of freeways on value Alameda Co., Oakland; industrial growth adjacent houses adjacent to freeways, market value and housing developments/subdivisions, freeways and Imperial Co., Imperial; effects of bypass on retail b Kern Co., Delano; bypass brings stability and deve	o '56 p65; N/D '58 p17; to I-880 M/A '57 p23#; pusiness	S/O '48 p21# M/J '61 p38# M/J '54 p22#
Los Angeles Co.  Crenshaw Blvd retail development El Monte; freeway increases retail business freeways key to downtown growth, renewal Glendale; preconstruction study shows freeway Santa Ana Fwy. increases industrial business shopping centers, L.A. area freeways and motels, freeway construction and	S/O '56 p68; y benefits J/A '54 p19#; J/F '54 p22;	M/J '48 p1# J/F '59 p15# S/O '61 p29# M/A '64 p42# S/O '55 p1# M/A '62 p51# M/J '60 p11#

#### **ROADSIDE BUSINESS & BYPASSES, Continued**

ROADSIDE DUSINESS & DITASSES, COMMINE	.1	
Orange Co.		
Newport Beach; Newport Blvd. thrives despite freeway	V	N/D '56 p61
San Clemente; community benefits from freeways		J/A '63 p21#
Santa Ana Fwy.; Disneyland, residential development a	and	S/O '55 p1#
Placer Co., Auburn; effects of freeway on downtown		M/A '61 p30#
remainder parcels; appraisal study underway	101/3 30 p1,	J/F '61 p38#
		J/F 01 p36#
Riverside Co.	CC + C	0/0//0 12
San Gorgonio Pass Fwy. (I-10), BanningBeaumont; e	effect of	S/O '62 p13
Temecula; bypass affects business district		J/A '51 p6#
Rural, undeveloped land, effect of freeways on value		M/A '61 p31
Sacramento Co.		
Del Paso Blvd. [US 40]		J/F '50 p3#
Folsom; bypass effects business district		M/J '51 p27#
I-80; effect of freeway on property values of adjacent h	nomes	J/A '66 p31
	I/A '51 p15#;	S/O '51 p5#
16th St., effect of one-way street on retail business	,	M/A '53 p24
San Diego Co., Escondido; city benefits from freeway bypa	ee	J/A '51 p11#
San Francisco Co.; Westlake housing development	133	M/A '51 p29#
, , , , , , , , , , , , , , , , , , , ,	,	M/A '51 p29# M/A '51 p30#
San Joaquin Co., Ripon; business benefits from expressway	<b>'</b>	M/A 31 p30#
San Luis Obispo Co.	.1	NI/D (51 20//
Shell Beach; expressway spurs residential, commercial		N/D '51 p38#
Templeton; removal of through traffic helps community	y	J/A '55 p23#
Santa Barbara Co.		
Anderson's Valley Inn		S/O '49 p3#
Buellton	S/O '49 p1#;	M/A '51 p15#
Santa Claus; successful on frontage road		M/A '56 p25#
Shasta Co., Anderson; frontage road business increase		J/F '53 p24#
Solono Co.		•
Fairfield; business gains from bypass project	J/F '51 p1#:	M/J '53 p34#
Milk Farm Restaurant	J/F '49 p38#; N	
Vallejo; restaurant owner anticipates freeway	., poo, 1	S/O '56 p51#
Vallejo; Safeway store benefits from freeway		M/J '51 p7#
Sonoma Co., Petaluma; effect of bypass on businesses, com	munity	J/A '62 p37#
		-
Tulare Co., Tulare; community makes adjustment to bypass	•	M/J '56 p39#
Ventura Co.		0/0/55 15//
Camarillo; economic gains along old highway route		S/O '55 p17#
US 101/Rt. 1; highway increases roadside businesses		J/A '49 p13#
Yolo Co.		
W. Sacramento Fwy. improves roadside merchandising	5	J/A '57 p52
farmlands, freeway construction and		M/J '61 p38#
Protecting roadsides from business encroachment		S '38 p 16#
Signs installed on freeway indicating roadside business exits		M/J '56 p8#
Urban Renewal		•
Long Beach waterfront development		S/O '66 p18#
Los Angeles downtown revitalization		S/O '61 p29#
		0 01 P2>"

### ROUTES

### **Routes by County**

Alameda Co.
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ameda Co.	
Alvarado-Niles Rd. reconstructed	M/A '58 p46
BART (Bay Area Rapid Transit)	
construction inaugurated by President Johnson	J/A '64 i.cvr.#
progress on, plans for	J/A '66 p36#
Berkeley	
Gilman St., improvements made to	M/J '45 p24#
Solano Ave. extension completed; tunnel converted	M/A '63 p61#
Castro Valley Project; I-580/I-880 [US 50/Rt. 17] connection	
completed; dedication held	S/O '56 p30#
Crow Canyon Rd. reconstructed	J/F '53 p50#
highway projects, general M/A '54 p1; M/A '55 p1; M/A '56 p1;	
M/A '57 p1; M/A '58 p1; M/A '59 p1#; M/A '60 p13;	
M/J '61 p3; M/J '62 p12; M/J '63 p29; M/J '64 p27;	M/J '65 p28
I-80 [US 40; East Shore Hwy.]	
Bay Br. approach to openSee also BEAUTIFICATION	Jun '37 p24
Oakland-San Jose route proposed	O '40 p10
reconstruction to freeway standards underway	J/A '54 p10#
I-580 [Rt. 5; US 50; I-5W]	
Livermore-Tracy realignment to begin	Aug '37 p20#
progress on O '37 p19#;	Mar '38 p10#
opened	S '38 p4#
Foothill Blvd.; San Leandro-Castro Valley unit dedicated	O '39 p9#
Livermore By-pass completed	N/D '50 p8#
Dublin-Livermore link, improvements underway	M/J '51 p28
Dublin By-pass nears completion	S/O '52 p36#
Altamont Pass-Tracy expressway under construction	M/A '53 p26#
completed and opened	N/D '54 p38#
development of from highway to freeway	M/A '54 p11
Castro Valley Bypass under construction	N/D '53 p22#
progress on	M/A '54 p12
completed	S/O '54 p4#
extension underway	M/A '55 p10
Boehmer Hill-Castro Valley unit improved	J/A '57 p15#
MacArthur Fwy.	
plans for	M/A '56 p13
planning, design, right-of way aspects	M/A '60 p8#
progress on, general M/J '61 p5#; M/J '62 p12#;	M/J '63 p29#;
distribution structure-Grand Ave. [first] unit opened	J/A '62 p2#
Park BlvdBuell St. unit opened	M/J '64 p28#
Durant AveSybil Ave. unit under construction	M/J '65 p26
Sybil Ave. (San Lenadro)-173rd. Ave. [final] unit	
progress on M/J '65 p26;	M/A '66 p12
overview of project	M/A '66 p12#
I-680 [Rt. 21]	3.51.1.7.5.
Warm Springs-Dublin route, improvements on	M/A '60 p24
progress on, general M/J '61 p15;	M/J '64 p28

### **ROUTES Alameda Co., Continued**

JUTES Alameua Co., Continueu	
I-880; Nimitz Fwy. [Rt. 17; Leg. Rt. 69, Eastshore Fwy.]See also BRIDGE	
plans for	J/F '46 p35#
description of route	J/A '46 p16
history of route, right of way acquisition	M/A '50 p9#
progress on J/F '48 p36; M/J '49 p6#; J/F '50 p19#; M/J '52 p7;	3.5/4./5= 0//
M/A '54 p4#; M/A '55 p8; J/F '56 p9#; M/A '56 p9#;	M/A '57 p9#
23rd. Ave-6th/Oak (Oakland) unit dedicated	J/A '49 p40#
23rd. Ave98th Ave. (Oakland) unit dedicated	J/A '50 p23#
98th AveLewelling Blvd. (San Lorenzo) unit	3.6/1.750 5
progress on	M/J '52 p7
dedicated and opened	J/A '52 p48#
Lewelling BlvdHayward (Jackson St.) unit dedicated	J/A '53 p42#
Fallon StMarket St. [last Oakland] unit underway	J/A '53 p42
progress on	J/A '57 p43
11th/Cypress-Market St. (Oakland) unit opened	M/J '55 p36#
San Jose-Warm Springs unit, progress on	J/F '53 p6#
opened	J/A '54 p11
Hayward (Jackson St.)-Beard Rd. unit dedicated	J/F '58 p53#
Warm Springs-Beard Rd. (Alvarado) unit opened widening planned M/J '62 p14; M/J '63 p31; M/J '64 p29;	N/D '58 p9 M/J '65 p28
widening planned M/J '62 p14; M/J '63 p31; M/J '64 p29; Niles Canyon Rd.	M/J 63 p28
I-680 [Rt. 21]; relocation compels moving of river bed	N '40 p8#
Sunol; Rt. 84 [Leg. Rt. 107] realigned	Jan '42 p10#
Oakland	Jan 42 pro#
Bancroft Ave. Parkway under construction	M/A '58 p37#
channelization projects completed Mar '39 p20#;	F '40 p12#
Grove-Shafter Fwy., portion of median to be used for BART line	J/F '64 p17
Park Blvd. improved	J/A '55 p19#
Shepherd Canyon freeway, plans for M/A '59 p52;	M/A '60 p28
West St.; widening and improvement project completed	S/O '57 p54#
Pleasanton; Santa Rita Rd. [FAS Rt. 1019] improved	S/O '59 p47#
projects recommended by civic leaders S/O '53 p45; S/O '56 p44#;	S/O '57 p43
Rt. 13 (Warren Blvd. Fwy.) [Leg. Rt. 227, Mountain Blvd.]	2. 2 . F .
Lake Temescal-San Leandro unit improved	M/A '54 p10
progress on, general M/A '55 p11; M/A '57 p12;	· · · ·
M/J '63 p32; M/J '64 p28, 29;	M/J '65 p28;
Broadway Terrace-Ascot Dr. unit	M/A '56 p13
Lincoln AveCarson St. extension planned	M/A '59 p52
Redwood RdLincoln Ave unit completed	M/A '60 p28#
Rt. 24	-
improvements made to M/A '54 p9;	M/J '61 p15
Lake Temescal-Caldecott Tunnel unit, improvement planned	M/J '63 p32
progress on M/J '64 p30;	M/J '65 p29
Rt. 84 (Mission Blvd.)	
improvements at Niles Canyon Rd. junction completed	M/J '64 p30
Rt. 92 (Jackson St.) [Leg. Rt. 105], Hayward	
Harder RdMission Blvd. unit widened	M/J '63 p33
San Mateo-Hayward BrHesperian Blvd. unit, progress on	M/J '65 p3
Rt. 238 [Rt. 9] (Mission San Jose)-Rt. 84 link, progress on	M/J '63 p33
completed	M/J '64 p28

### **ROUTES, Continued**

ROUTES, Continued		
Alpine Co.		
Rt. 88; Carson Pass Hwy.		
improvements made to, overview		S/O '64 p2#
Red Lake-W. Fork Carson River unit improved		S/O '57 p35#
Rt. 89 [Markleeville-Coleville Hwy.]		
Ebbetts Pass HwyUS 395 junction (Mono Co.)		
FAS road project underway		N/D '50 p28#
dedicated and opened		S/O '54 p22#
Amador Co.		
	/A '58 p16#;	J/A '59 p3
Rt. 16; Jackson Hwy.		
Jackson unit dedicated		S/O '48p3#
Sloughhouse unit, realignment underway		S/O '48 p34#
Rt. 49; Mother Lode Hwy.		
improvements made to		J/A '63 p11#
Sutter Creek area relocation recommended		J/A '63 p20#
Rt. 88; Carson Pass Hwy.		
Carson Spur-Alpine Co. line unit relocated		J/A '59 p5
history of route		J/F '61 p11#
improvements made to, overview		S/O '64 p2#
section wins PARADE scenic highway contest		M/A '66 p28#
Ione-Jackson unit improved		J/A '59 p47#
Jackson-Pine Grove unit improved		J/A '54 p36#
Jackson unit dedicated and opened		S/O '48 p3#
Picketts-Nevada state line unit, freeway routing adopted		J/A '60 p70
Pine Grove-Cook's Station unit improved		J/F '44 p8#
Red Lake-Blue Lake Rd unit improved		J/A '58 p21
San Joaquin Co. line-Jackson Creek unit improved		J/A '54 p36
Butte Co.		
Chico-Paradise Skyway [FAS Rt. 757] dedicated		N/D '50 p14#
highway planning survey map, section of		Aug '38 p14
highway projects, general		J/A '59 p23#
Oroville Bypass [FAS Rt. 1169] completed		J/F '56 p50#
Rt. 32 ["Deer Creek Hwy."]		
Chico-Hog Springs unit improved, dedication held		M/A '58 p45#
Rt. 70; Feather River Hwy. [US 40-Alt.; Leg. Rt. 24]		
dedicated and opened		Aug '37 p1#
construction history	J/A '45 p6;	S/O '50 p98
relocation compelled by Oroville Dam		M/J '57 p27
Wicks Corner-Jarbo Gap unit	•	•
progress on S/O '57 p27#;	J/A '58 p7#;	J/A '59 p29#
Oroville-Wicks Corner [final] unit completed	•	M/J '64 p56#
Union School-Rt. 21 junction unit, widening planned		M/J '57 p30
progress on		J/A '58 p7
Rt. 99 [US 99E]		
Chico Esplanade, history of		M/J '49 p12#
widening underway		J/A '59 p28
completed		J/F '60 p53#
Chico; Main St., one-way couplet built		J/A '59 p28#
Durham; improvements made to highway		J/F '45 p28#
Oroville Wye-Chico section improved; dedication held		J/F '55 p39#

### **ROUTES, Continued**

ROUTES, Continued		
Calaveras Co.		
Rt. 26 [Rt. 5] access road over Mokelumne Hill improved		M/J '44 p10#
Colusa Co.		
Rt. 99 [US 99W]		
Arbuckle; High School RdSalt Creek unit improved		J/A '58 p5#
Contra Costa Co.		-
BART (Bay Area Rapid Transit)		
construction inaugurated by President Johnson		J/A '64 i.cvr.#
progress on, plans for		J/A '66 p36#
Byron Hwy. improvement completed [FAS-bond issue pro	ject]	N/D '53 p14#
Crow Canyon Rd. [FAS Rt. 801] improved	•	N/D '49 p22#
Cummings Skyway [FAS Rt. 1256] built		S/O '61 p60#
	; M/A '55 p1;	•
M/A '56 p1; M/A '57 p1; M/A '58 p1; M/A '59 p1#;		
M/J '61 p3#; M/J '62 p15#; M/J '63 p33#;		M/J '65 p30#;
I-80 [US 40]	1 /	1 /
Crockett; Carquinez Br. approaches		
"Big Cut" under construction	J/F '57 p37#;	J/A '57 p36#
completed	1 /	J/F '59 p1#
improvements made, general		M/J '64 p32
Oakland-Carquinez Br. unit		
Oleum, Selby, Tank Farm Hill sections widened		Apr '42 p4#
Pinole link, construction of		F '39 p20#
Pinole-Rodeo unit under construction		S/O '48 p26
projects underway, planned		J/A '54 p5
Richmond-Carquinez bypass built		M/A '54 p9
Richmond-El Cerrito unit improved to freeway standar	rds	J/A '60 p57#
San Pablo Dam Rd. off-ramp widened		M/J '65 p31
Santa Clara StCounty Rd. 24 realignment planned		S/O '54 p6
I-680 [Rt. 21]		1
improved M/A '60 p24#; M/J '61 p15#; M/J '62 p1:	5; M/J '63 p33;	M/J '65 p30
Danville-Walnut Creek freeway planned	•	M/J '62 p15#
progress on	M/J '63 p33;	M/J '64 p30
completed		M/J '65 p30
Willow Pass RdBenicia-Martinez Br. unit completed		M/J '63 p34#
Monument Blvd. (Concord)-Willow Pass Rd. unit imp	roved	M/J '64 p30#
I-880 [Rt. 17]		
Richmond-San Rafael Br. approaches built	S/O '56 p16;	M/A '57 p15
Pleasant Hill Rd. connection to Rt. 4 improved		N/D '54 p27#
Richmond; access road projects		N/D '44 p2#
Rt. 4; Industrial Hwy. [Arnold Industrial Hwy.]		
Willow Pass-Franklin Canyon [first] unit completed		O '39 p20#
Concord-Pittsburg [Willow Pass Rd.] unit under constr	ruction	J/F '47 p19#
Pittsburg; Port Chicago RdRailroad Ave. unit under o	construction	M/A '51 p18#
dedicated and opened		J/A '51 p18#
future plans for; history of project		M/A '51 p19
Pittsburg-Antioch freeway unit under construction		N/D '52 p5#
completed, opened without fanfare		J/A '53 p52
	M/A '60 p29;	M/J '64 p31
Cummings Skyway-Howe Rd. (Martinez) unit		
freeway construction planned		M/J '64 p31
progress on		M/J '65 p31

### **ROUTES Contra Costa Co., Continued**

Rt. 24		
Lafayette Bypass, construction underway	1/Λ	'56 p14
nearing completion		
<u> </u>		'57 p14#
dedicated and opened	J/A	57 p21#
Orinda Crossroads [Bryant]		(54 4611
	54 p17#; N/D	
portion of opened to traffic		'55 p12
Orinda-LaFayette widening completed		'43 p18#
	61 p15#; M/J	63 p35
Walnut Creek Bypass under construction	M/A	'59 p12#
completed	M/J	'60 p27#
Caldecott Tunnel-Orinda unit, widening operations on	M/J	'64 p32#
completed	M/J	65 p31
Orinda-Walnut Creek unit		•
BART construction planned on median strip	M/J	'65 p31
Rt. 106 [Franklin Canyon Hwy.] reconstruction, first unit comple		'43 p8
Rt. 233; Moraga Valley	100	15 PO
Bollinger Canyon RdRt. 24 junction routing planned	Τ/Δ	'55 p29
Rt. 242; Monument BlvdOlivera Rd. unit completed		65 p31
Taylor Blvd. [FAS Rt. 1326] route extended		'61 p60#
Wilbur Ave. improved		59 p43#
Ygnacio Valley Rd. extended; becomes limited access expresswa	y M/J	'56 p68#
Del Norte Co.		
	'58 p35; N/D	59 p31
US 101		
Crescent City; one-way couplet project completed	N/D	'59 p37#
Klamath-Wilson Creek area; first 4-lane expressway built	M/A	. '57 p67#
modernization of, overview	S/O	'64 p14#
US 199		
Hazelview Summit area, relocation underway	N/D	'59 p37
progress on S/O '	60 p2#; M/J	'61 p27#
completed		'63 p19#
Jedediah Smith State Park unit		1
dispute regarding routing through National Tribute Grov	ve M/A	'65 p56
Smith River Br. unit		- P
freeway planned though forest; clearing underway	S/O	'54 p40#
El Dorado Co.	5/0	эч рчоп
Aukum Rd. [FAS Rt. 1234] realignment completed	M/A	'61 p27#
highway projects, general		<sup>4</sup> 59 p23
		59 p25 59 p29
Rt. 49; Pilot Hill-Hastings Creek unit, reconstruction planned		
completed	J/A	63 p15#
US 50 [Placerville-Lake Tahoe Hwy.; Lake Tahoe Wagon Rd.]	NI/D	(57 1211
Camino Bypass completed		'57 p13#
chain control, truck passing lanes added		'62 p62#
Echo Summit-Lake Tahoe unit realigned		'47 p15#
El Dorado-Clark's Corner unit to be realigned		7 p18#
opened		38 p10#
Five Mile Terrace-Camino expressway dedicated		'57 p20#
Folsom-Clarksville link, construction underway		'40 p20#
realignment completed		0 p22#
Lake Tahoe Wagon Rd., history, construction of	S/O	'50 p89#
original deed given to Dept. of Public Works	F '42	2 p15

#### **ROUTES El Dorado Co., Continued** Latrobe Rd. intersection improved by removal of cut bank J/A '59 p26# J/A '50 p45# Meyers-Mays [Tahoe Valley Wye] unit improved Aug '38 p4# Meyers Grade-Echo Summit relocation underway Aug '40 p18# completed rock slide threat removed J/F '63 p14# Pacific House-Riverton, construction underway N/D '57 p13# Perks Corner (Missouri Flat Rd.)-West Placerville freeway M/J '61 p30 planned completed S/O '63 p58# Placerville; expressway through city planned J/F '52 p32 J/F '54 p35; S/O '54 p4# progress on N/D '55 p10# completed; overview of project Placerville-Five-mile Terrace link improved N/D '51 p22# Pollock Pines-Camino Bypass completed J/F '66 p32# M/J '46 p1#; S/O '47 p15# Pollock Pines-Fresh Pond route realigned Shingle Springs-El Dorado unit reconstruction underway M/J '46 p4#; J/A '47 p16 S/O '47 p13# completed Shingle Springs-Missouri Flat Rd. unit, relocation planned M/J '62 p33 Fresno Co. flood damage J/F '67 p16 Fresno (city), highway pattern improvement planned J/A '57 p10# S/O '65 p19# Shields Ave widened, improved S/O '59 p7; N/D '65 p13 highway projects, general I-5 [Westside Fwy.], construction progress M/A '66 p36# Rt. 41; San Joaquin River unit realigned N '41 p16# Rt. 99 [Leg. Rt. 4, Golden State Hwy.] Fresno; Calwa Overpass-Church Ave. unit relocated N/D '43 p2# Fresno Bypass under construction S/O '55 p27# completed; dedication held N/D '57 p23# S/O '59 p7 extension to Madera Co. line underway completed; eliminates last 3-lane section on Rt. 99 J/A '60 p7# Fresno-Herndon unit completed Aug '37 p18# Fresno-Kingsburg-Tulare Co. line unit relocation, widening planned S/O '59 p10 S/O '62 p24# S. Fresno-Selma [first] unit, paving construction Kingsburg-Selma [final] unit completed J/F '65 p18# overview of project J/F '65 p18# S/O '48 p29 progress on, general F '39 p18# Selma divided highway unit opened Selma-Fowler divided highway unit completed N '41 p23# Rt. 145 [Fresno-Colinga road] improved near Five Points S/O '47 p25# Rt. 168; Shaver Lake-Huntington Lake unit improved S/O '58 p62# Jul '38 p4# Rt. 180; Kings River Canyon Hwy., progress on N '39 p6# officially dedicated: route described General Grant Grove approach road under construction Jun '40 p18# N '41 p8# completed construction history S/O '45 p6#; S/O '50 p102 improvements made S/O '59 p55# Rt. 198; Warthan Canyon Coalinga; highway realigned Aug '42 p2# Coalinga-San Lucas unit improved; dedication held J/A '51 p22#

**ROUTES, Continued** 

Glenn Co.	
I-5 [US 99W; Westside Fwy.]; Artois-Tehama Co. line unit planned	J/A '64 p17
Humboldt Co.	3/A 04 p1 /
Arcata; US 101-Rt. 299 intersection improved	N/D '56 p44#
county roads, problems of	M/A '52 p17#
highway projects, general	J/A '58 p35#
Rt. 299	3/11 30 p33//
Arcata-Willow Creek route improved	M/J '47 p20#
Mad River-Blue Lake Fwy. unit completed, dedicated	J/A '66 p28#
US 101; Redwood Hwy.	3/11 00 p20//
Arcata Bypass-See Michael J. Burns Memorial Fwy.	
Avenue of Giants Pkwy. opened	S/O '60 p70#
Freshwater Lagoon Sandspit improvement to begin	M/A '49 p15#
progress on	N/D '49 p12#
Fortuna-Fernbridge unit improved	N/D '59 p35#
Fortuna freeway completed	S/O '62 p31#
Little River-Trinidad unit, relocation underway	J/A '60 p22#
Loleta Bypass; Fernbridge-Beatrice unit, construction underway	M/A '57 p52#
completed	M/A '58 p17#
McKinleyville bypass freeway completed	J/F '65 p31#
Michael J. Burns Memorial Fwy.	3/1 03 p31π
dedicated as Arcata Bypass Fwy.	S/O '54 p56#
renamed Michael J. Burns Memorial Fwy.; dedication held	N/D '54 p37#
second unit dedicated	S/O '55 p25#
modernization of, overview	S/O '64 p14#
Patricks Pt. State Park-Big Lagoon unit, widening underway	J/A '58 p43#
completed	N/D '59 p31#
Redwood Parks FwySee also BRIDGES, Eagle Point Viaduct	N/D 39 p31#
plans for	M/J '56 p25#
Dyerville-Englewood [first] unit, construction underway	M/A '57 p54
construction progress marks several firsts	S/O '57 p52#
progress on M/J '58 p39#;	J/A '58 p40#
completed	N/D '59 p34#
Myers Flat-Dyerville [second] unit, construction underway	N/D '59 p33#
completed	J/F '62 p3#
Sylvandale-Maple Hills [third] unit planned	J/F '62 p7
Dean Creek-Miranda [final] unit completed	M/A '66 p16#
Scotia Bypass completed	S/O '53 p6#
Trinidad-McNeill's Ranch link under construction	Jun '37 p17#
Imperial Co.	Juli 37 μ17#
Dogwood Rd.; Heber-Brawley unit improved	S/O '60 p64#
highway projects, general N/D '58 p33#; M/J '59 p45; N/D '64 p13;	N/D '65 p11
I-8 [US 80]	14/D 03 p11
Mountain Springs Grade relocation, ground breaking ceremonies for	N '38 p20#
problems regarding construction	Apr '39 p16#
Sand Hills desert highway (Yuma-El Centro)	Αρι 37 μ10π
improvements made to	N/D '45 p9#
history of route N/D '45 p9#;	S/O '50 p110#
reconstruction to freeway standards underway	J/A '61 p11#
FAS highways improvement of	May '38 p22#
	N/D '66 p35
	N/D '48 p52
Rt. 86 [US 99], improvement projects underway	14/D 40 p32
ROUTES, Continued	
Inyo Co.	T/A 550 5 C !!
Glacier Lodge Rd. [FAS Rt. 1069] improved	J/A '53 p56#

Rt. 190		
Lone Pine-Death Valley Hwy., construction progress	on	Jul '37 p6#
dedication held	OII	N '37 p6#
history, origin of route	N/D '45 p8#;	S/O '50 p109
Keeler-Rt. 6/US 395 junction unit improved	11/12 43 pon,	M/A '55 p19#
trans-Sierra route adopted; scenic aspects of region		M/A '66 p20#
Onion Valley Rd. [FAS Rt. 1183] improved		M/A '62 p30#
Panamint Rd. [FAS Rt. 1065], Trona-Wildrose unit impro	wed	J/F '51 p18#
Rt. 127 [Towne's Pass Hwy.]	ved	3/1 31 p10//
Death Valley National Monument section		
state assumes maintenance of; description of rout	te	J/F '45 p30#
Panamint Sink-Death Valley link improved		Jun '38 p24#
US 395 [Leg. Rt. 23, Sierra Hwy.; Three Flags Hwy.]		
Bishop; improvements underway		J/A '52 p40
Sherwin Grade-Rock Creek relocation planned		S/O '55 p56
project completed ahead of schedule		N/D '56 p39#
surfacing improvements made		Mar '37 p18#
description of route		J/A '52 p39#
Kern Co.		1
Alfred Harrell Hwy. [FAS Rt. 885], Bakersfield		
China Grade Loop interchange completed		N/D '57 p11#
Union AvePanorama Dr. unit completed		M/A '60 p43#
Bakersfield		•
Garces Circle improved		M/A '57 p56#
Union Ave. widened to six lanes		S/O '47 p6#
21st StNile St. unit improved by city		M/J '55 p18#
Grove Street widened		S '37 p27#
H St., 3.3 mile section widened		J/F '49 p18#
Pierce Rd. relocated		J/F '49 p18#
Snow RdShafter Rd. route widening proposed		Jan '43 p15#
south city limits section of Rt. 99 completed		N/D '49 p57#
flood damage		J/F '67 p15
highway projects, general	S/O '59 p7#;	N/D '64 p16
I-5; Ridge Route-Grapevine Grade [US 99; Ridge Route A	Alt.]	
truck checking station opens		Mar '38 p24#
improved safety of		Jun '38 p8#
Grapevine Canyon widening planned		F '41 p18#
grading completed		Mar '42 p14
widening completed	N/D (40, 12	M/A '43 p1#
construction progress, general	N/D '48 p13;	J/A '49 p18#
construction history	S/O '50 p104;	S/O '65 p20#
four-lane widening underway	J/A '49 p18#;	J/F '50 p31
Gorman-Tejon Summit-Lebec unit completed		J/F '52 p29#
Weldon Canyon [last] unit completed	T/A '50 10#.	J/A '53 p4#
eight-lane widening project planned	J/A '58 p10#;	S/O '58 p35#
progress on		S/O '59 p7# S/O '60 p5#
completed		J/F '65 p21#
Lebec-Ft. Tejon unit widening completed realignment proposed		S/O '65 p20#
Oildale; Manor St. [FAS Rt. 887] expressway completed		M/A '60 p43#
		W/A 00 p43π
ROUTES Kern Co., Continued		
Rt. 14 [US 6, Leg. Rt. 23; Los Angeles-Reno Hwy.]		E '20 n10#
junction with Rt. 58 improved at Mojave Mojave-Ricardo link, improvement completed		F '38 p18#
Red Rock Canyon-Mojave unit improved	S/O '58 n8#.	May '41 p6# M/A '60 p47#
Red Rock Carryon-wojave unit improved	5,0 50 po#,	141/ <i>F</i> 1 00 p+/#

Rt. 33 [Leg. Rt. 138]; Taft-Maricopa Hwy. opens	F '38 p20#
Rt. 41 [Cholame Lateral]; Cottonwood Pass	
San Luis Obispo Co. line-Sun Flower Valley link realigned	S '41 p22#
Rt. 46 [US 466, Tehachapi Hwy.]	G/O / 1= 10//
Keene-Tehachapi highway under construction	S/O '47 p10#
dedicated and opened	N/D '48 p39#
Mojave-Boron route improvement completed	M/J '56 p70#
Tower Line RdBear Mt. Ranch unit, relocation underway	S/O '59 p55#
Bakersfield-Tehachapi route improved to freeway standards	M/A '61 p35#
Caliente RdKeene section improved to freeway standards	J/F '63 p22#
Rt. 58 [Rt. 178]; Tehachapi Pass route opens	Jan '40 p6#
Rt. 65 [Orange Belt Hwy.]	N. 640 0//
Ducor Cut-Off improvement, progress on	May '40 p8#
Deepwell Ranch/Famoso-Woody Rd. link completed	Jan '42 p25#
Rt. 99 [US 99; Leg. Rt. 4, Golden State Hwy.]	N/D ((2 10//
Bakersfield Bypass (West Bakersfield Fwy.), progress on	N/D '62 p19#
completed	S/O '63 p7#
Bakersfield-Grapevine Hwy. opens	Jan '39 p8#
Delano Bypass completed	J/A '56 p29#
improvement projects underway	S/O '48 p29
Rt. 155 [Rt. 142]; Bakersfield (N. Chester Ave.)-Oildale unit improved	Jun '42 p16#
Kings Co.	NAIA 666 2611
I-5 [Westside Fwy.], progress on	M/A '66 p36#
Rt. 41 [Morro Bay-Yosemite Park Hwy.]	1/4 50 - 454
Kettleman Hills unit relocated	J/A '59 p45#
Lemoore; freeway routing adopted	S/O '61 p68
Rt. 43 [Rt. 135, Central Valley Hwy.]	0/0 (61 71
becomes part of state highway system	S/O '61 p71
Rt. 198 ["Sierra-to-the-Sea" Hwy.]	Aug (20 m22#
Hanford-Armona unit completed	Aug '39 p22# M/J '55 p36
Hanford; 9th AveRt. 99 freeway routing adopted	-
Lemoore NAS-Rt. 41 unit improved as freeway <b>Lake Co.</b>	J/A '63 p45#
highway projects, general J/A '58 p35;	N/D '59 p31
Rt. 20 [Leg. Rt. 15, "Blue Lakes Hwy."]	11/D 39 p31
Laurel Dell Lake-Blue Lake route reconstructed	Aug '39 p8#
Laurel Dell-Tule Lake route; relocation underway	J/A '55 p16#
Tule Lake fill; constructed to raise elevation, stabilize highway	S/O '51 p46#
raising of necessitated by subsidence of foundation	J/A '55 p16#
Rt. 29; Lakeport area realignment planned	S/O '63 p49
Rt. 53; improvements underway, general J/A '58 p44#;	N/D '59 p38
Cache Creek-Rt. 20 unit relocated	N/D '59 p38#
Lassen Co.	14/ <i>D</i> 37 p30//
highway projects, general J/F '57 p61; M/A '58 p6#;	N/D '59 p12
Rt. 36; Susanville-US 395 junction unit relocated	S/O '64 p44#
Rt. 44 [Leg. Rt. 20, Feather Lake Hwy.]	5, 5 0 P
becomes part of state highway system	S/O '61 p71
improvement completed; dedication held	J/F '62 p33#
ROUTES Lassen Co., Continued	or or pro-
Rt. 147 [Leg. Rt. 183, Lake Almanor E. Side Rd.; Clear Creek Rd.]	
becomes part of state highway system	S/O '61 p71
Susanville-Adin Hwy. [FAS Rt. 988] improved	S/O '56 p24#
US 395 [Leg. Rt. 73; Susanville-Reno Hwy.]	5/O 30 p2 <del>1</del> π
Doyle-Bird Flat unit built	N/D 446 n10#
	N/I ) 40 0 10#
Ravendale-Madeline unit improved	N/D '46 p10# N/D '59 p17

	36 junction-Johnsonville			S/O '64 p44#
	ret Valley unit, improve	-		N/D '53 p40#
Vie	wland-Secret Valley uni	t resurfaced		S/O '46 p13#
Los Angeles				
	oads built for war effort			J/F '45 p2#
•	Seco ParkwaySee Rt. 1.			
	Rd. disposal area; acqui		f	S/O '52 p17#
	o Blvd./Fwy <b>See Rt. 13</b>	4		
	jects 1945-1952			J/A '52 p1#
-	a St. [Rt. 165] to be supe	-	wy.	M/A '52 p10
	BlvdSee also I-210, Fo	othill Fwy.		
	land link realigned			F '38 p10#
	remont-San Bernardino,			Jul '38 p16#
	St. open cut project comp			M/J '56 p14#
	y System, Los Angeles			
-		; M/J '52 p31; M/A '		
	F '55 p14#; N/D '55 p38			
J/	F '59 p23#; S/O '59 p11			
		M/A '63 p20; N/D '63		
	<b>.</b>	M/A '65 p30; N/D '	65 p11; J/F '67 p8#;	M/A '62 p42#;
	eficial aspects of			J/A '55 p6#
	boxes installed on			M/A '63 p41#
	elopment (business-resid		S/O '61 p29#;	M/A '65 p32
emb	oankment material stock	piled for		M/J '60 p22#
	ntenance operations and		J/F '59 p41;	M/A '63 p28
	ntings of done by local a			J/A '66 p17#
Garvey	Ave. [Rt. 26; Los Angel	es-Pomona Lateral]	-See also I-10, San Bern	ardino Fwy.
"su]	perhighway" built; origi	n of route		Apr '37 p4#
traf	fic congestion and			S/O '64 p51#
<b>I-5</b> [US	99, Golden State Hwy.]			
proj	jects underway, general			N/D '48 p34
Bur	bank Blvd. truck route of	ledicated		J/F '50 p14#
Gol	den State Fwy.			
	Weldon Canyon unit, p	rogress on		J/F '54 p38#
	progress on, general	J/F '54 p11#; J/F '	55 p22; J/F '56 p64#;	
			58 p10#; J/F '59 p29;	
			0 p9; M/A '61 p9#;	M/A '62 p47
	extension of to metropo			S/O '56 p3
	Glendale Blvd. (L.A.)	Ash St. (Burbank) ur	nit, progress on	J/F '57 p9#
	completed			S/O '57 p20#
	<b>Los Angeles Freeway</b>	Loop section, constr	ruction on; plans for	S/O '59 p11#
	progress on			J/F '61 p13#
	dedicated			M/A '62 p42#
	traffic on			S/O '62 p16#
	Lankershim BlvdOsb	orne St. extension un	ıderway	M/A '62 p47
	completed			M/A '63 p32
ROUTES	Los Angeles Co., C	Continued		
	Burbank-Western Char	nnel andSee FLOOD	ING, Flood Control	
	Mission RdPasadena			S/O '60 p36#
	landscaping on	•		J/F '63 p21
	Ridge Route-Grapevi	ne Canyon section		•
			it under construction	M/A '48 p11#
	progress on			J/A '49 p18#
	blasting required			N/D '50 p30#
	completed; histor			J/F '52 p27#
	1 /	- 1 3		

progress on, general	J/A '49 p18#;	J/F '50 p29#
Pico Canyon RdSaugus Rd. un	- ·	J/A '49 p22#
Gormon-Tejon Summit-Lebec u		J/F '52 p29#
Tunnel Station-Pico Canyon Rd.	unit, progress on	J/F '52 p46#
L.A. area freeway system and		M/A '52 p13
last unit of completed		J/A '53 p4#
eight-lane widening project plan	ned	J/A '58 p10#
progress on		S/O '59 p7#
completed		S/O '60 p5#
Castaic-Ridge Rt. Maint. Station		M/J '62 p33
eight-lane freeway conversion pl	anned	M/A '64 p29
progress on		M/A '65 p42#
construction history		S/O '65 p20#
realignment proposed; construct	on underway	S/O '65 p20#
Gorman unit to be widened		S/O '65 p50
progress on		J/F '67 p9
Santa Ana Fwy. [I-105; US 101]		•
proposed		J/A '44 p2
construction underway		M/A '46 p25#
Aliso Street BrSoto St. unit compl	eted	J/A '48 p1#
Soto StEastman Ave. unit under co		S/O '48 p41#
progress on	ynoti detron	N/D '48 p38
opens without fanfare		M/J '49 p44#
Atlantic BlvdAnaheim-Telegraph	Rd unit progress on	M/J '49 p48#
La Verne AveEastland Ave. unit of		M/J '50 p32#
Norwalk-Miraflores unit, progress of	±	N/D '50 p20#
Santa Ana; Broadway-First St. unit		J/F'52 p61#
		-
Norwalk Diagonal under construction		N/D '52 p16#
progress on, general J/F '52 p20#;		I/E '57 -74
	<sup>4</sup> ; J/F '55 p19#; S/O '55 p5#;	J/F '57 p7#
Camulos StOlympic Blvd. unit wi		M/J '56 p58#
westbound lane added to L.A. River		S/O '59 p21#
widening operations, progress on	J/F '60 p18;	N.F. (1.6.5 4.0
M/A '61 p20#; M/A '62 p50		M/J '65 p49
Disneyland; Santa Ana Fwy. develo		J/A '63 p21#
<b>I-10</b> , <b>San Bernardino Fwy.</b> [US 60-70-99, I	Rt. 26; Ramona Fwy.] <b>See also</b>	
proposed		J/A '44 p2
rapid development for assured		S/O '49 p58
City Terrace area extension under constr	ruction	M/J '50 p30#
pile-driving project underway	_	J/A '52 p57#
Pomona-Claremont unit under construct	ion	M/A '53 p18#
completed		N/D '54 p7#
scenic aspects of		M/A '55 p24#
Fremont AveAtlantic Blvd. (L.A.) unit	dedicated	J/A '53 p15#
<b>ROUTES Los Angeles Co., Continued</b>		
San Gabriel AveRosemead Blvd. unit	ledicated	M/A '54 p47#
progress on S/O '51 p12#	; J/F '52 p17#; M/A '52 p10;	-
	#; J/F '54 p9#; J/F '56 p60#;	J/A '56 p37#
Rosemead Blvd-San Gabriel River unit,		S/O '54 p20#
renamed "San Bernardino Freeway"		J/F '55 p20#
Kellogg Hills section, pipe jacking operation	ations S/O '55 p34#;	J/A '56 p46
El Monte unit dedicated	r ···,	J/A '56 p52#
W. Covina-Ganesha Blvd. (Pomona) [fir	nal] unit	J/F '57 p7
completed	<b>.</b>	M/J '57 p24#
widening operations, progress on	J/F '59 p34; J/F '60 p16;	0 . P2
	0.1 0. po i, 0.1 00 pro,	

M/A '61 p16#; M/A '62 p50; M/A '63 p37;	M/J '65 p48
I-105; Century Fwy., plans for	M/A '61 p6
I-110; Harbor Fwy. [Rt. 11; US 6]	marr or po
under construction	N/D '47 p17
all-over perspective study of	N/D '49 p52#
Temple StThird St. unit, ground-breaking held	J/A '51 p15#
dedicated and opened	S/O '52 p23
Figueroa St. to superseded by	M/A '52 p10#
helicopters land on	J/A '52 p58#
progress on M/A '51 p11#; J/F '52 p16; M/A '52 p9; M/A '53 p7;	J/F '54 p10#;
M/J '54 p1#; J/A '54 p46#; J/F '55 p21; J/F '56 p58#;	· · · · · · · ·
S/O '56 p19; J/F '57 p7#;	M/A '61 p10
Wilmington (Rt. 1)-San Pedro (Battery St.) unit	
ground-breaking ceremony held for	S/O '54 p29#
progress on	J/A '55 p57#
dedicated and opened	J/A '56 p53#
23rd. StSanta Barbara Ave. unit dedicated	S/O '56 p19#
Santa Barbara Ave88th Pl. unit dedicated	M/J '57 p41#
88th Pl124th St. unit, progress on M/J '57 p42;	J/F '58 p9#
slip ramp built at Fifth St. south of the "Four-Level"	S/O '59 p21#
190th St124th St. unit nearing completion	J/F '60 p3
unit wins best contract of year award	M/J '61 p78
208th StRt. 1 [final] unit under construction	M/A '61 p10
completed	M/A '63 p32
widening operations, progress on M/A '63 p32;	M/A '64 p32
extension to Rt. 7 (Long Beach Fwy.) junction planned	M/A '65 p43
I-210; Foothill Fwy.	
Hampton Rd. (La Canada)-Montana St. (Pasadena) unit	
under construction; plans for	J/A '54 p49#
progress on J/F '55 p25;	J/F '55 p25
completed	S/O '55 p40#
further development planned S/O '56 p7; J/F '57 p11; J/F '60 p8;	
M/A '61 p7; M/A '62 p48; M/A '63 p31; M/A '64 p27;	M/A '65 p41
conflict with Pasadena over route adoption	J/A '62 p33
I-405; San Diego Fwy. [Sepulveda Fwy.]	
planned	M/A '52 p13
progress on, general J/F '54 p13; S/O '54 p20#; J/F '56 p63;	
S/O '56 p6; J/F '57 p10#; J/F '58 p12#; J/F '59 p30;	3.5/5./6540
M/A '61 p18#; J/F '62 p45#; M/A '62 p44#; M/A '63 p37;	M/J '65 p48
renamed "San Diego Fwy."	J/F '55 p25
San Diego-Ventura Fwy. project, progress on	S/O '56 p5
Ohio StCasiano Rd., West L.A. unit dedicated	M/A '57 p32#
ROUTES Los Angeles Co., Continued	
Valley Vista BlvdBurbank Blvd. extension underway	J/A '57 p67#
West L.AMullholland Cut-Sepulveda Canyon unit	T/T ( 60 . 1 6 !!
construction underway	J/F '60 p16#
dedication held; replaces Sepulveda Blvd.	J/F '63 p2#
overall review of; history of project	J/F '62 p45#
Long Beach FwyAtlantic Ave. unit completed	M/J '65 p48
Atlantic AveBolsa Chica Rd. unit opened	M/J '65 p48
I-605; San Gabriel River Fwy.	I/E ((0 10
plans for J/F '59 p37;	J/F '60 p18
Peck Rd. (Whittier) project planned	M/A '61 p20
completed  M/A '62 p.47: M/A '63 p.38: M/A '64 p.27#:	M/A '63 p38 M/J '65 p48
progress on M/A '62 p47; M/A '63 p38; M/A '64 p27#;	1v1/J US p48

El Monte-Dairy Valley (166th St.) unit under construction overview, history of project	M/A '64 p27 J/A '64 p34#
Santa Ana FwySan Diego Fwy. unit opened	J/F '67 p8#
I-710, Rt. 7; Long Beach Fwy. [Los Angeles River Fwy.; Rt. 15]	
plans for	M/J '51 p13#
Rt. 1-223rd. St. [first] unit, ground-breaking held	J/A '51 p15#
construction progress on	N/D '52 p10#
dedicated and opened	J/F '53 p37#
223rd StAtlantic Ave. junction unit underway	J/A '54 p24
dedicated and opened	N/D '54 p34#
Firestone BlvdAtlantic Ave. unit, progress on	J/F '58 p10#
construction done by city of Long Beach	J/A '54 p62
design, status of	J/A '54 p31
progress on M/A '52 p11; N/D '52 p9#; M/A '53 p15#	,
J/A '53 p17; J/F '54 p14#; J/A '54 p23#; J/F '55 p21; J/F '56 p58	; J/F '57 p8#
plan and design of	N/D '57 p5#
officially opened, dedication held	S/O '58 p49#
Santa Ana FwySan Bernardino Fwy. unit planned	J/F '59 p36
progress on	J/F '60 p12#
nearing completion	M/A '61 p12#
San Bernardino FwyValley Blvd. unit planned	M/A '63 p35
progress on	M/A '64 p32
completed	M/A '65 p43#
Long Beach Traffic Circle	
built at State St./Lakewood Blvd./Hathaway Ave. intersection	Jun '42 p8#
Los Angeles Freeway Loop S/O '59 p11#; J/F '61 p13#	·•••••••••••••••••••••••••••••••••••••
M/A '62 p42; S/O '62 p16#;	M/A '65 p31
Manchester-Firestone Boulevard [Rt. 42; Leg. Rt. 174]	
Anaheim unit dedicated; origin of route	May '37 p18#
Downey unit dedicated	Jul '37 p14#
Olympic Boulevard [Rt. 26]-See also I-10, Santa Monica Fwy.	
development of into major L.A. arterial	F '37 p6#
Bronson Avenue-Rimpan Blvd. unit opened	Jul '37 p15
Beverly Glen BlvdPontius St. unit completed	Jan '41 p12#
Pontius StBundy Dr. unit completed	Jan '41 p12#
Lincoln Blvd. [Santa Monica]-Bundy Dr. [West L.A.]	
completed; history of route to date	J/F '49 p58#
portion of adapted to freeway standards	J/F '55 p26
projects budgeted, annual N/D '63 p78; N/D '64 p78; N/D '65 p77	; N/D '66 p36

### **ROUTES Los Angeles Co., Continued**

Rt. 1 [US 101-Alt., Leg. Rt. 60; Roosevelt Hwy., Coast Hwy.] Pacific Coast Hwy. improvement projects underway, general N/D '48 p38 freeway conversion, plans for M/A '64 p33 Long Beach; explosives used to settle transmission towers M/A '47 p9# Malibu Canyon Rd.-Pt. Mugu unit, widening planned M/A '63 p36 Malibu Creek-Las Flores Creek unit under construction M/A '49 p32# M/A '47 p18# Malibu Creek-Latigo Canyon link relocation, progress on completed J/A '48 p31# Malibu Ranch [Rancho Malibu] section Walnut Canyon-Encinal Canyon unit under construction Mar '38 p6# reconstruction completed Aug '38 p22# Solstice Creek-Walnut Canyon link under construction Apr '40 p8# Jan '41 p10# progress on M/J '55 p33# Ventura Co. line-Escondido Beach unit completed J/F '60 p14# Pacific Palisades; relocation around slide area completed Willmington unit dedicated Jun '37 p8# Rt. 2 Angeles Crest Hwy. [Leg. Rt. 61] Red Box-Charlton Flat link completed S '37 p8# Mar '41 p28# progress on construction halted as unessential to war effort D '42 p18# history of route, project J/F '46 p18; N/D '56 p1 construction work resumed S/O '48 p6# completed and opened N/D '56 p1# M/A '57 p69 maintenance operations and Glendale Fwy. [US 66; Allesandro Fwy.] planned M/A '52 p13# J/F '54 p13; J/F '55 p25; J/F '56 p65; progress on J/F '57 p13; J/F '60 p9; M/A '63 p32; M/A '64 p31 Allisandro Fwy. renamed "Glendale Fwy." S/O '55 p56 Los Angeles River-Eagle Rock Blvd. unit, progress on J/F '58 p14 Glendale Blvd.-Riverside Dr unit under construction M/A '61 p8 Ave. 36-Verdugo Blvd. unit, routing adopted S/O '62 p49 landscaping on J/F '63 p21 Rt. 10, Santa Monica Fwy. [Olympic Fwy.] progress on J/F '57 p4; M/A '61 p20#; M/A '62 p49; M/A '63 p38; M/A '64 p28; M/J '65 p49 Hoover St.-Santa Ana Fwy. junction unit, plans for J/F '58 p15 Los Angeles Freeway Loop unit, construction begins on S/O '59 p11# J/F '61 p13# progress on dedicated M/A '62 p42 traffic on S/O '62 p16 Oak St.-Hoover St. extension planned J/F '60 p18 Bundy Dr.-Santa Monica Tunnel unit under construction M/J '65 p59 M/J '65 p49 Vermont Ave.-La Cienega Blvd. unit completed

### **ROUTES Los Angeles Co., Continued**

JOTES LOS Angeles Co., Continued	
<b>Rt. 14</b> [Leg. Rt. 23, US 6; Sierra Hwy.]	
Antelope Valley reconstruction completed	M/J '59 p43#
Antelope Valley Fwy.	
construction to begin on	J/F '60 p6
excavation study conducted	M/J '60 p17#
relocation survey conducted	M/J '60 p16
progress on M/A '61	
Solamint-Escondido Canyon Rd. unit completed	M/A '63 p29#
Soledad Canyon RdWard Rd. unit dedicated S/O '6.	
overview of project, plans for	J/F '64 p2#
Vincent-Palmdale (Ave. P-8) unit, plans for	M/A '65 p40
completed	J/F '67 p9
Mint Canyon Cut-offSee also TUNNELS, Newhall	
construction proposed	Jan '38 p10#
progress on	N '38 p4#
construction history of	Jan '40 p16#
Tunnel Station-Solamint [final] unit nears completion	Mar '40 p8#
history of route S/O '54 p	34#; M/A '64 i.cvr.#
Rt. 19; Lakewood-Rosemead Blvds. [Leg. Rt. 168]	
Beverly BlvdGarvey Ave. unit, improvement planned	J/F '49 p60
completed	J/F '50 p18#
construction history of route	J/F '50 p16
Lakewood Blvd. relocated at Long Beach Muni. Airport	M/A '61 p3#
Pasadena improvement completed	S/O '46 p26#
Rt. 27; Topanga Canyon Blvd. reconstruction completed	J/A '56 p23#
Rt. 39 [Rt. 62]; Crystal Lake Rd. under construction	M/A '59 p39#
Rt. 60; Pomona Fwy.	
plans for J/F '59	p34; J/F '60 p14
right of way acquisition underway	M/A '61 p16
East L.A. Interchange-3rd St. unit, construction to begin on	M/A '63 p36
progress on, general M/A '64	p34; M/A '65 p45
Rt. 71; Corona Fwy.	
Pomona-San Bernardino Co. line expressway completed	M/A '61 p6
Rt. 90; Imperial Hwy., improvement of planned	M/A '61 p11
Rt. 91 [Rt. 14; Leg. Rt. 175]	
Artesia Blvd.	
Artesia unit improved to highway standards; dedicated	J/A '53 p11#
extension completed	S/O '54 p50#
Artesia Fwy.	
routing partially revised	N/D '57 p65
progress on J/F '57 p13#; S/O '57 p1#; J/F '59	9 p33; M/A '61 p5
additional routing adopted	J/F '60 p6
Santa Ana FwyRiverside Co. line unit completed	M/A '63 p37
additional units planned M/A '63	p30; M/A '64 p30
conversion of expressway to full freeway, progress on	M/A '65 p40
Rt. 110; Arroyo Seco PkwyPasadena FwySee also BRIDGES; LANDSCAPE MAII	
ground breaking begins on	Apr '38 p21#
construction of	Jun '39 p10#
progress on	Aug '40 p16#
officially dedicated	Jan '41 p3#
Orange Grove Ave., S. Pasadena-Ave. 40, L.A. unit opens	Aug '40 p14#
5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5	P

#### **ROUTES Los Angeles Co., Continued** Elysian Park-downtown L. A. extension proposed O '40 p6# construction begins on Apr '41 p8# S '41 p6# progress on partially opened; history of, progress on project J/F '44 p2# added safety features of Jul '42 p7#; M/J '48 p8# J/F '46 p33 history of project saves gasoline compared to surface streets M/A '47 p32 effect of on adjacent land values N/D '47 p12# traffic interchange designs for M/A '51 p52# Arroyo Seco Pkwy. renamed "Pasadena Freeway" J/F '55 p15 20th anniversary of; history of project J/F '61 p57# improvements underway M/A '61 p15 Rt. 118; Simi Valley Fwy., plans for M/A '64 p34 Rt. 126; Santa Paula-Santa Clara River Fwy. Ventura Co. line/I-5 route planned M/A '61 p21 M/A '63 p39# progress on Rt. 134; Colorado Blvd. [Colorado Fwy.]--See also BRIDGES N/D '50 p1 location of M/A '53 p15; J/F '54 p13#; J/A '54 p18; J/F '55 p25 progress on Holly St.-64th Ave. (Los Angeles) unit opened to traffic J/A '54 p18 extension to Golden State Fwy., studies for conducted J/F '60 p6 M/A '64 p30 Glendale extension planned M/A '65 p45 progress on Rt. 138 Palmdale Blvd. improvements completed, planned M/A '61 p7 S/O '65 p50 widening planned east of I-5 Rt. 170; Hollywood Fwy. extension--See also US 101, Hollywood Fwy. plans for J/F '55 p18: J/F '56 p59# S/O '56 p4; J/F '57 p6#; J/F '58 p8#; M/A '63 p34 progress on Lankershim Blvd.-Moorpark St. unit J/F '58 p8#; J/F '60 p11# Vineland Ave.-Chandler Blvd. unit M/A '61 p11 Golden State Fwy.(I-5) extension planned M/A '64 p32 M/A '65 p43 progress on Magnolia Blvd-Victory Blvd unit completed J/F '67 p9 San Fernando Rd.; Bus Rt.-5 [US 6-99] improvement of; bypass [Rt. 213] under construction M/J '50 p28# San Fernando Valley freeways, general progress on S/O '56 p1; M/J '60 p2# M/A '58 p35# Governor, newspaper editors' tour of Sepulveda Blvd.--See also I-405 San Fernando Rd.-Brand Blvd. link opened Mar '39 p16# O '40 p24# San Fernando Valley unit rebuilt as divided highway San Diego Fwy. [Sepulveda Fwy.] planned M/A '52 p13 signals, medians used to control peak hour traffic S/O '57 p8# section of replaced by San Diego Fwy. J/F '63 p3 Terminal Island access road project financed by Navy J/A '46 p9 Terminal Island Fwy. J/A '46 p9 plans for progress on N/D '47 p25# S/O '48 p11# completed

### **ROUTES Los Angeles Co., Continued**

ROUTES Los Angeles Co., Continued	
US 101 [Leg. Rt. 2]	
Calabasas-Agoura bypass unit completed	J/A '50 p58#
improvement projects underway, general	N/D '48 p14
Hollywood Fwy. [Cahuenga Pass Fwy., US 6]	
first unit dedicated	Jul '40 p2#
Barnam BlvdVentura Blvd. unit completed	M/A '49 p20#
history of route since days of padres	M/A '49 p20
Ft. Moore Hill, portion of razed M/J '49 p17#;	J/F '51 p17#
history of project to date; first concrete poured	J/A '50 p17#
Glendale BlvdVirgil Ave. unit under construction	J/A '50 p17#
Grand AveSilver Lake Blvd. unit dedicated	J/F '51 p12#
"extensive and varied" construction underway	M/J '51 p17#
Silver Lake AveWestern Ave. link dedicated	S/O '51 p17#
Spring St. (Civic Center)-Ventura Fwy. unit dedicated	J/F '52 p13#
construction operations broadcast on local television	M/J '52 p17
Cahuenga BlvdGower St. unit opened to traffic	S/O '53 p27#
progress on, general Mar '41 p24#; M/J '49 p17#;	J/F '54 p2#
Hollywood BlvdMulholland Br. [last] unit dedicated	M/J '54 p20#
history, overview of entire project	S/O '54 p7#
church benefits from [letter]	J/A '56 p64
extension ofSee Rt. 170	
Ventura FwySee also Rt. 134	
Calabasas-Sepulveda Blvd. unit completed	J/F '54 p12#
progress on, general J/F '55 p23; J/F '56 p63#; J/F '60 p19;	M/A '61 p21
Sepulveda BlvdEncino Ave. unit, progress on J/A '57 p67#;	J/F '58 p10#
Encino AveKelvin Ave. unit, progress on J/F '58 p10#;	J/F '60 p19
dedicated	M/J '60 p2#
Laurel Canyon BlvdSan Diego Fwy. unit dedicated	M/J '60 p2#
Hollywood FwyBuena Vista St. (Burbank) unit	3-11-12-
progress on	M/A '61 p75
completed	M/A '63 p39
Willow StKatella Ave. divided highway dedicated	S/O '62 p28#
Madera Co.	010 (50 511
highway projects, general	S/O '59 p7#
Rt. 41; south approach to Yosemite Valley realigned	D '39 p14#
Rt. 99	0 (41 1411
Chowchilla-Merced divided highway under construction	O '41 p14#
Chowchilla Bypass (Califa-Merced Co. line), progress on	M/A '57 p61#
completed	S/O '58 p40#
Madera Bypass, construction of S/O '58 p40#;	J/F '59 p49#
reduces accidents, congestion	J/F '60 p60#
Rt. 145 [Leg. Rt. 126]; Madera	In 140 m4
Friant Dam approach road, improvement underway	Jan '40 p4
completed and officially dedicated	Jun '41 p4#
Marin Co. highway projects, general M/A '54 p1; M/A '55 p1; M/A '56 p1;	
M/A '57 p1; M/A '58 p1; M/A '59 p1#; M/A '60 p13; M/J '61 p3; M/J '62 p17; M/J '63 p35#; M/J '64 p32;	M/J '65 p32
Marin Access Road at Tiburon Peninsula completed	N/D '44 p2#
Nicasio Rd. [FAS Rt. 1278] relocation completed	J/A '61 p49#
Point Reyes Station-Novato Rd. project completed	M/A '49 p14#
I onit Reyes Station-Ivovato Ru. project completed	1V1/A 77 P14#

DOUTES Marin Co. Continued		
ROUTES Marin Co., Continued  I-580 [Rt. 17]; Richmond-San Rafael Br. approach planned	4	M/A '56 p17
progress on	S/O '56 p17;	M/A '56 p17 M/A '57 p18
completed	5/O 50 p17,	N/D '57 p29#
Rt. 37; Black Point Cut-off [Ignacio-Sears Point]		11/1D 37 p2)#
junction with Sears Point Cut-off improved		J/A '50 p40#
improved as freeway		M/A '54 p7
progress on, general		M/A '60 p30#
Rt. 131; Tiburon Blvd.		141/11 00 p30//
Alto Wye-Strawberry Dr. unit, widening underway		M/J '64 p34#
Sir Francis Drake Blvd. [FAS Rt. 608] improved		N/D '58 p31#
US 101; Redwood Hwy.		10/12 30 p3 111
Alto; Richardson-Bay Br. approach		M/A '57 p16#
Hamilton AFB unit (Novato) improved	S/O '45 p23#;	
Forbes Overhead-Ignacio section completed	5, c .c p25,	J/A '52 p33#
Ignacio-Petaluma unit, widening operations on		J/A '46 p14#
Marin-Sonoma Hwy.		5/11 10 p1 III
San Rafael-Novato-Petaluma unit dedicated		S/O '47 p5#
modernization of, overview		S/O '64 p14#
Novato-Golden Gate Br. unit converted to full freewa	V	M/J '65 p32#
San RafaelSee also BRIDGES	,	or P
widening project though city underway		Jul '41 p20
Greenbrae intersection project underway		M/J '48 p20
improvements underway	M/A '55 p15;	M/A '57 p16#
nearing completion		M/A '60 16#
third [final] unit nearing completion		M/J '61 p6#
completed		M/J '62 p17#
San Rafael-Ignacio Hwy., widening planned		May '38 p1#
project completed		D '38 p11#
Waldo (Marin) Approach, Golden Gate BrSee als	o TUNNELS, Wa	•
grading nears completion		Jan '37 p2#
construction of		May '37 p4#
dedicated		Jun '37 p2#
dedication speeches for		Jun '37 p12#
lighting system, experiments with		D '37 p14#
freeway project planned		J/A '53 p8#
ground breaking held; construction plans for		S/O '53 p14#
excavation poses problem		M/J '54 p55#
progress on	M/A '54 p6#;	M/A '55 p13#
dedicated and opened		M/A '56 p19#
further improvements planned		M/J '62 p18
natural restoration of		M/J '65 i.cvr.#
Mariposa Co.		
highway projects, general	J/A '58 p16;	J/A '59 p5
Mariposa (city) road relocation project completed		Aug '41 p4#
road improvement underway		M/J '54 p44#
Rt. 49; Mother Lode Hwy.		
Bagby-Bear Valley unit improved		J/A '59 p5#
Mariposa; improvement project underway		M/J '54 p45#

#### **ROUTES Mariposa Co., Continued** Rt. 120; Tioga Pass Rd. repaying completed N/D '50 p3# US public land funds allocated for improvement of M/J '64 p67 S/O '65 p55 closed to traffic due to construction Lee Vining Canyon section realigned, improved J/F '66 p6# J/F '66 p14# scenic, recreational aspects of Rt. 140 [Leg. Rt. 18; Yosemite All-Year Hwy.] Briceburg Grade section improved M/J '54 p42# improvements made to J/A '58 p22# redbud planting project underway J/F '66 p34# Mendocino Co. highway projects, general J/A '58 p35; N/D '59 p31 Rt. 1 [Rt. 56; Westport-Leggett Valley Rd.] Westport-Leggett Valley (Hardy Creek) unit reconstructed M/J '58 p35# Rt. 20; relocation around Russian River reservoir underway M/J '57 p1# Rt. 128 [Rt. 28; McDonald-to-the-Sea Hwy.] Boonville unit, realignment underway N/D '52 p54# Flynn Creek-Navarro link to be realigned on lateral Aug '42 p16# Rt. 253 becomes part of state highway system; history of route J/A '66 p26# Ukiah-Boonville unit improved J/A '66 p26# US 101; Redwood Hwy. Eleven Oaks-Willits link realigned May '37 p6 Farmhouse Inn-Tan Oak Park unit, widening planned M/A '58 p52 N/D '43 p16# Hopland-Crawford's Ranch unit improved Laytonville realignment completed O '37 p14# modernization of, overview S/O '64 p14# Outlet Creek-Reeves Creek realignment completed May '37 p6# Red Mountain Creek-Piercy unit completed N/D '48 p43# Ridgewood Grade expressway [first 4-lane in county] under construction N/D '53 p7# N/D '54 p34# dedicated and opened Tan Oak Park-Humboldt Co. line relocation planned M/A '62 p71 M/A '66 p46# Ukiah Bypass completed Ukiah; improvement projects underway N/D '59 p31 Willits Bypass planned J/A '58 p40# N/D '59 p31 progress on Merced Co. Bellevue Rd. [FAS Rt. 1354] improved between Atwater-Castle AFB M/A '64 p53# J/A '59 p3# highway projects, general J/A '58 p16; Rt. 33; section south of Gustine improved M/J '54 p46# I-5 [Westside Fwy.] Rt. 152 junction-Stanislaus Co. line unit under construction J/F '65 p30 M/A '66 p38# progress on Los Banos-Turlock Rd. [FAS Rt. 914], 17-mile road completed M/J '61 p43# Merced (city); G St.-Santa Fe Dr. improved J/A '66 p44# Rt. 99 [US 99; Rt. 4, Golden State Hwy.] Atwater Bypass completed J/F '58 p46# Livingston-Atwater unit, construction of M/A '49 p25# Merced-Chowchilla divided highway under construction O '41 p14# Merced; divided approach to city opened Jul '39 p16#; O '41 p14 Merced; Gerard Ave.-Buhach Rd. unit freeway completed J/A '64 p43# S/O '48 p29 progress on, general

<b>ROUTES Merced Co., Continued</b>	
Rt. 140; Gustine-Merced Hwy., improvements made to	M/J '54 p48#
Rt. 152 [Pacheco Pass Hwy.]	1417 3 1 p 1011
Los Banos; Pacheco Blvd. parking problem alleviated	J/F '56 p46#
relocation around San Luis Reservoir underway	M/A '63 p45#
completed	J/A '65 p2#
Modoc Co.	•
highway projects, general J/F '57 p61;	M/A '58 p6#
Surprise Valley Rd. improved	M/J '47 p22#
Rt. 299 [Rt. 28]	
Adin-Alturas expressway completed	S/O '64 p11#
Alturas, approach to improved	Mar '38 p12#
Alturas-Cedarville Rd.	
Bonner Grade modernized; origin of route	M/A '51 p39#
surfacing completed; plant-mix hauled long distance	S/O '57 p26
Hot Creek-Alturas stretch completed	May '38 p3
Rush Creek Canyon unit improved	S/O '64 p11#
Susanville-Alturas Rd. improved	M/J '56 p36#
US 395; Cedarville-New Pine Creek unit, progress on	J/A '48 p29
Mono Co.  Bridgeport; Sweetwater Rd. [FAS Rt. 580] improved	M/A '55 n/10#
Bridgeport Wagon Rd. to be modernized	M/A '55 p40# S/O '53 p17#
Hawthorne; Pole Line Rd. modernized, dedicated	N/D '57 p20#
Minarets Summit Rd. [FAS Rt. 1195] improved	J/F '55 p41#
Rt. 89 [Markleeville-Coleville Hwy.]	3/1 33 p+1//
Ebbetts Pass Hwy. (Alpine Co.)-US 395 junction unit	
FAS road project underway	N/D '50 p28#
dedicated and opened	S/O '54 p23#
Rt. 120; Tioga Pass Hwy. ["Great Sierra Wagon Road"]	5, 5 ° 6 ° P=5
completed; construction history of route	Jul '41 p4#
US public land funds allocated for improvement of	M/J '64 p67
Rt. 168, description of route	J/A '66 p34#
Rt. 203; Mammoth Lakes Hwy. completed	D '37 p6#
Rt. 266 ["Oasis to state line"] becomes part of state highway system	J/A '66 p34#
US 395 [Leg. Rt. 23, Sierra Hwy.]	
Conway Summit unit, improvements made S/O '58 p8#;	M/A '63 p16
description of route	J/A '52 p39#
Sherwin Grade realigned; origin of route	Aug '37 p10#
reconstruction of planned; construction history	N/D '55 p14#
surfacing improvements made	Apr '37 p18#
Monterey Co.	T/A (45 01/
access road projects	J/A '45 p21#
highway projects, general	S/O '59 p31
Los Laureles Grade Rd. [FAS Rt. 660] reconstructed	M/A '61 p69#
Rt. 1 [Monterey Coast Hwy.]	M/A '62 n51#
Cambria Bypass completed Cayucos-Cambria section improved	M/A '63 p51# M/A '63 p51#
Carmel-San Simeon Hwy. dedicatedSee also BRIDGES	Jul '37 p1#
construction history  J/A '45 p8;	S/O '50 p101
description of route	J/A '45 p8
designated as first unit of state scenic highway system	J/A '65 i.cvr.#
guard rail installed on	N '40 p12#
Morro Bay-Cayucos unit improved	M/A '63 p51#
ROUTES Monterey Co., Continued	- F
210 0 220 Million of Continuous	

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Rt. 68; Salinas-Monterey Hwy., routing adopted J/A '61 p33; Rt. 156; Castroville-Prunedale road improved Del Monte Junction-US 101 [Leg. Rt. 2] unit completed	J/F '62 p66 F '43 p18# S/O '44 p10#
Rt. 198 [Sierra-to-Sea Hwy.]	•
Mustang Ridge-Peachtree Valley unit realigned, dedicated	O '41 p4#
Rt. 183 [Leg. Rt. 118]; Salinas-Castroville Hwy., route adopted	J/F '62 p66
Toro RdSee Los Laureles Grade Rd.	
US 101 [Leg. Rt. 2, Coast Hwy.]	NA/A 442 2#
Bradley-King City route via Jolon improved access roads constructed for war effort	M/A '43 p3#
Bradley-San Ardo unit improved to freeway standards	J/A '45 p21# M/J '65 p6#
Bradley-San Miguel unit realigned	D '39 p8#
Chualar-Spence Underpass project completed; origin of route	J/F '52 p53#
Gilroy unit; improvement planned	J/A '54 p4
Gonzales-Chualar expressway completed	J/A '54 p4#
Gonzalez Bypass planned	J/A '58 p30
progress on	M/A '61 p52
Greenfield Bypass planned	J/A '58 p32
progress on	M/A '61 p52
Greenfield-King City expressway completed	S/O '58 p18#
improvement projects, general	J/A '58 p25#
King City; Canal StSalinas River unit improved	J/F '57 p26
Prunedale Cut-off	
Santa Rita-Crazy Horse Summit unit, widening underway	J/A '46 p6#
completed	J/A '47 p24#
Salinas area bottleneck eliminated	J/F '47 p30#
Salinas Bypass planned	M/J '52 p33
progress on J/A '53 p38#;	J/A '54 p4#
Market StN. Main St. [first] unit opened	M/A '54 p35#
Salinas-King City route improved to freeway standards	M/A '61 p52
Soledad Bypass planned	J/A '58 p30
construction underway	S/O '59 p34
completed	M/A '61 p52#
Napa Co.	C/O 444 m0
access road projects, progress on highway projects, general M/A '54 p1; M/A '55 p1; M/A '56 p1;	S/O '44 p8
M/A '57 p1; M/A '58 p1; M/A '60 p30; M/J '61 p3; M/J '62 p19#; M/J '63 p37; M/J '64 p34;	M/J '65 p33
I-80 [US 40], American Canyon Cut-off; sections of widened	D '41 p10#
Rt. 29	2 11 pro
improvement projects planned M/J '61 p19;	M/J '62 p19
Rt. 121 [Rt. 37] and Rt. 29 become controlled access freeway	M/A '54 p8
Napa; Old Sonoma RdTrancas St. (Redwood Rd.) unit	1
widening planned	M/J '63 p37
completed	M/J '65 p33
Vallejo-Napa unit; military access road under construction	S/O '44 p8#
Yount RdOakville unit widened	M/J '64 p34
Yountville Bypass completed	M/A '60 p30#

#### **ROUTES Napa Co., Continued** Rt. 121 [Rt. 37] linked with Rt. 29 as controlled access freeway M/A '54 p8 M/A '55 p15 improvement near Sonoma Co. line underway M/A '56 p17 project completed M/J '65 p33 Vichey Ave. widening project completed Silverado Trail Rd. [FAS Rt. 607] improved N/D '59 p27# Nevada Co. I-80 [US 40] Soda Springs-Donner Summit units improved O '37 p1# Donner Summit route, improvement underway J/A '48 p2# Boca-Floristan-Nevada Co. line unit widening of planned S/O '56 p40# traffic delays due to construction M/J '57 p20#; N/D '57 p55 progress on N/D '57 p13, p43; J/A '58 p3#; J/A '59 p26 N/D '59 p2# completed Truckee Bypass under construction J/A '59 p25 completed N/D '59 p2# Hampshire Rocks-Soda Springs unit completed N/D '59 p2# Rt.. 20-Hampshire Rocks unit, progress on M/A '63 p2# completed J/F '65 p44# freeway conversion, progress on N/D '59 p2#; J/F '62 p8#; M/A '63 p2# Donner Summit; split-level roadway relocation underway M/A '63 p2# completed J/F '65 p42# Emigrant Gap-Rt. 20 unit completed J/F '65 p44# overview of project; history of route J/F '65 p42# trans-Sierra route wins ASCE engineering achievement award M/A '66 p8 wins Governor's Design Award J/F '67 p37# Rt. 20 [Tahoe-Ukiah lateral], Parks Bar Bridge link completed S '37 p4# Rt. 49; Mother Lode Hwy. Auburn-Grass Valley unit realigned O '40 p20# M/J '49 p50# Grass Valley-Auburn highway improved Grass Valley-Nevada City unit, realignment planned J/A '52 p58 Nevada City-Downieville route improved M/J '46 p1# Rt. 89 [Truckee-Quincy Hwy.] Hobart Mills; relocation planned S/O '55 p43 intersection with I-80 (Squaw Valley turn-off) improved N/D '59 p2# Rt. 267; Brockway-Truckee Shortcut becomes part of state highway system M/A '66 p43# Orange Co. access roads built for war effort J/F '45 p2 arterial highways, financing of S/O '60 p17# Brookhurst-Wright St. [FAS Rt. 747] first section of arterial highway to beach completed M/J '52 p38# freeways, general--See also Los Angeles Co. J/F '58 p47#; J/A '63 p21 Harbor Blvd. (Garden Grove) FAS project completed N/D '47 p9# reconstruction completed S/O '64 p47# Houston St. (Placentia) [Rt. 14; Houston Expressway]

J/A '56 p56#

Cypress Ave.-Santa Ana Cyn. Rd. unit dedicated

### **ROUTES Orange Co., Continued**

$\mathbf{\circ}$	o i Es orange co., continued		
	I-5; Santa Ana Fwy. [US 101-By.]		
	Norwalk-Miraflores [first] unit, progres	s on	N/D '50 p20#
	Browning Ave. (Santa Ana)-1st St. (Tus	tin) unit	J/A '55 p51#
	progress on, general	S/O '55 p12#; J/F '57 p7#;	J/F '59 p30
	Anaheim-Buena Park unit, progress on		J/F '58 p49#
	Irvine (El Toro Rd.)-Laguna Canyon Rd	. unit completed	J/A '58 p23#
	final link completed		S/O '58 p13#
	benefits of		J/A '63 p21
	I-405; San Diego Fwy.		
	progress on, general	J/F '58 p12; J/F '59 p31#;	J/F '62 p45
	San Juan Capistrano unit under construc	tion	J/F '58 p47#
	San Clemente unit completed		N/D '58 p41#
	San Juan Capistrano-San Clemente unit	underway	J/F '60 p16#
	completed		M/A '61 p18
	Bolsa Chica Rd. unit under construction		M/A '62 p44
	community benefits from		J/A '63 p21#
	Costa Mesa; Beach BlvdHarbor Blvd. ı	unit	
	embankment construction to begin		M/A '64 p28
	completed		J/F '67 p10
	Katella Ave. divided highway dedicated; orig	gin of name	S/O '62 p28#
	Manchester-Firestone Boulevard [Rt. 42; Leg	g. Rt. 174]	
	Anaheim unit dedicated; origin of route		May '37 p18#
	projects budgeted, annual N/D '63 p79	9; N/D '64 p79; N/D '65 p78;	N/D '66 p37
	Rt. 1; Pacific Coast Hwy. [US 101-Alt.]		
	Huntington Beach-Newport Beach unit,	widening planned	J/F '60 p14

### **ROUTES Orange Co., Continued**

ROUTES Orange Co., Continued	
Rt. 22; Garden Grove Fwy.	
name, routing for adopted	N/D '57 p56
progress on J/F '59 p33; M/A '61 p8; M/A '63 p31#;	M/A '65 p42
Los Cerritos Channel-Knott Ave. unit completed	J/F '60 p8
Knott Ave-Newland St. unit under construction	M/A '63 p31
progress on	M/A '64 p31#
completed	M/A '65 p42
Haster StManchester Ave unit completed	M/A '65 p42
Rt. 39; Beach Blvd. [Rt. 171]; Buena Park unit realigned	Jan '43 p16#
Rt. 55 [Leg. Rt. 43]	
Costa Mesa; limited access freeway project completed	N/D '53 p44#
Newport Blvd. expressway completed (Costa Mesa)	N/D '53 p44
Newport Fwy. [Santa Ana Canyon Fwy.]	
name, routing for adopted	N/D '57 p56
plans for	J/F '59 p33
progress on J/F '60 p13; M/A '61 p12;	M/A '65 p44
Chapman AveSanta Ana Fwy. unit under construction	M/A '61 p12
Santa Ana-Riverside Fwy. link opened	M/A '63 p35#
Warner AveBristol St./Palisades Rd. unit completed	J/F '67 p10
Newport overhead solves traffic problem	Jan '37 p6
Rt. 57; Orange Fwy.	1
plans for M/A '61 p12; M/A '63 p36;	M/A '65 p44
Rt. 73 [Rt. 184; Corona Del Mar Fwy.]	1
Santa Ana-Corona del Mar link underway	Jun '41 p22#
improvement of planned	M/A '61 p6
Rt. 90; Imperial Hwy. [Rt. 176]	· · · · · · · · · · · · · · · · · · ·
Yorba Linda unit opened	Aug '37 p30
Yorba Linda BlvdRiverside Fwy. unit J/F '60 p11;	M/A '61 p11
Orangethorpe AveYorba Linda Blvd unit completed	M/A '64 p35#
Rt. 91; Artesia-Riverside Fwy. [Houston Fwy., Rt. 175 Fwy.]	v · P···
progress on J/A '55 p51#;	J/F '57 p13
Fullerton-Anaheim [last] unit completed	J/F '60 p15#
Lemon St. (Fullerton)-Rt. 55 unit converted to freeway	J/F '67 p10#
Rt. 133; Laguna Canyon Rd. [Laguna Blvd., Rt. 185]	F
Laguna Canyon section widened	S/O '52 p6#
freeway route adopted	M/A '58 p50
relocation job completed	J/A '58 p23#
progress on, general J/F '59 p32;	J/F '60 p11
Laguna-Santa Ana Fwy. unit improved	M/A '61 p12
Santa Ana Canyon Rd. [Rt. 18]; last link of completed	J/A '52 p36#
US 101; railroad finances realignment of Trabuco Creek Br. unit	F '42 p8#
Placer Co.	1 .= po
highway projects, general J/A '58 p1#;	J/A '59 p23#
I-80 [US 40, Leg. Rt. 37]	0/11 55 p25//
Applegate-Auburn unit, improvement underway	J/A '49 p50#
project completed	M/A '51 p58#
extension east of Applegate planned	J/A '54 p6
Auburn; realignment west of Nevada St. underway	N/D '46 p8#
nearing completion	S/O '47 p13#
summary of project	S/O '48 p2
precast reflective curbs tested	J/A '55 p35#
Process remove agree serves	20 poon

#### **ROUTES Placer Co., Continued** Baxter-Emigrant Gap, realignment underway J/A '59 p24# Colfax unit nearing completion May '39 p18# Colfax-Heather Glen widening project, progress on J/A '57 p32# J/A '58 p2 completed, dedication held Magra-Monte Vista, freeway project underway J/A '59 p24# N/D '59 p2# completed Newcastle-Auburn (Elm St.) unit realignment nearing completion N/D '57 p13# J/A '58 p2 completed, dedication held N/D '59 p2# progress on, general J/A '58 p1, 51; O '37 p1 Rocklin-Loomis unit, pavement replaced S/O '47 p16 Roseville Fwy. [US 40-99E] relocation project proposed under construction J/A '53 p43 progress on J/A '54 p6# J/A '55 p28 Roseville-Newcastle unit planned J/A '59 p24 progress on S/O '56 p41#; completed N/D '59 p2# Rt. 49; Mother Lode Hwy. [Leg. Rt. 17] Auburn-American River Br. route improved, dedicated N/D '53 p38# M/J '49 p50Auburn-Grass Valley unit improved Grass Valley-Nevada City freeway planned J/A '63 p52# I-80 [US 40] junction; Auburn-Rock Creek units, progress on S/O '47 p14 Rt. 65 [US 99E, Leg. Rt. 3], Roseville; realignment through city planned J/F '47 p12 Rt. 96 [Mosquito Ridge Nat Forest Hwy.] Forest Hill unit under construction N/D '46 p29# Plumas Co. highway projects, general J/F '57 p61; M/A '58 p7# Rt. 70; Feather River Hwy. [US 40-Alt.] dedicated Aug '37 p1# improvements made Aug '42 p12# J/A '45 p6; S/O '50 p98 construction history relocation of for Oroville Dam project--See Butte Co. Beckwourth Pass-US 395 unit improved; origin of route S/O '53 p20# Rt. 89 [Sierra Way]; Crescent Mills-Greenville link improved Aug '42 p14 Rt. 147 [Rt. 183; Lake Almanor E. Side Rd.; Clear Creek Rd] becomes part of state highway system S/O '61 p71 Riverside Co. Alessandro; "Jack Rabbit Trail" replaced by new I-10 [US 60-70] unit Aug '37 p16# Arlington-Mira Loma Expressway [FAS project] opened M/J '55 p14# N/D '58 p33; M/J '59 p3#; highway projects, general N/D '63 p13; N/D '64 p14; N/D '65 p12 I-10 [US 60-70-99, Leg. Rt. 26] Banning; San Gorgonio Pass Fwy. unit completed S/O '56 p32# Banning-Palm Springs Jct. unit under construction May '41 p10# Beaumont-Redlands unit improvements made Mar '38 p 8#; M/J '50 p22# expressway completed, history of route M/J '51 p23# Beaumont-Banning unit, improvements made Mar '41 p18; J/F '62 p13# Box Springs-Badlands-Beaumont unit improved Aug '37 p16# Indio-Thousand Palms (Edom) unit

M/J '59 p45

improvement of planned

### **ROUTES Riverside Co., Continued**

ROUTES Riverside Co., Continued	
I-15; [Rt. 77, US 395; "Inland Route" Hwy.]	
Corona-Elsinore unit (Temescal Canyon) realigned	O '41 p12#
Escondido freeway, progress on N/D '58 p12;	M/J '59 p27
La Cadena freeway-Riverside unit	M/J '52 p3
modernization of planned	N/D '46 p18
Perris Bypass completed; history of region	J/F '54 p31#
Perris-March AFB unit, plans for	M/J '52 p5
Riverside-Perris unit widened	N '42 p14#
Temecula relocation; history of area J/F '49 p33#;	M/J '52 p1
Temecula-Perris Cut-off under construction	M/J '52 p3#
Mission BlvdSee Rt. 60	· · · · · · · · · · · · · · · · · · ·
projects budgeted, annual N/D '63 p77; N/D '64 p78; N/D '65 p79;	N/D '66 p35
Rt. 60 [Mission Blvd., US 60]	P
Badlands expressway under construction	M/J '59 p34#
Mira Loma-Riverside route under construction	J/A '46 p22#
Mira Loma-county line unit resurfaced for first time in 30 years	N/D '56 p49#
Moreno Badlands unit improved; dedication held	M/A '56 p22#
Riverside Bypass, Sunnyslope-Orange St. unit planned	M/J '61 p37
project completed	J/F '63 p36#
West Riverside; B StRt. 60 junction unit completed [FAS project]	J/F '48 p4#
West Riverside unit improved  West Riverside unit improved	Apr '41 p6#
Rt. 71 [Prado Dam Hwy.; Corona Fwy.]	лрі 41 роπ
Corona freeway, progress on N/D '58 p13#;	M/J '59 p34#
Euclid AveRt. 91 [Rt. 18-91] junction relocation underway	J/F '50 p49
progress on; history of route	J/A '50 p50#
Rt. 74 [Rt. 64, "Palms to Pines Hwy."] completed	N '40 p26#
Rt. 86 [US 99, Rt. 26]; Garnet-Thousand Palms unit improved	J/A '54 p56#
Rt. 91 [Rt. 43; Rt. 18-91]	3/ <b>Λ</b> 34 p30π
Ri. 91 [Ri. 43, Ri. 16-21] Riverside Fwy.	
·	N/D '59 n11#
progress on "missing link" unit under construction	N/D '58 p11# M/J '59 p29#
dedicated	M/A '60 p3#
Riverside-Corona unit under construction	
	M/J '59 p29
palm trees transplanted	M/J '59 p35#
Corona Bypass completed	J/A '61 p27#
Santa Ana Canyon Hwy. section [Mountain-to-Sea Hwy.]	M (20 1.4#
Prado Dam project compels relocation of	Mar '39 p14#
Corona-Orange Co. line unit completed	F '40 p19#
Colton-Riverside link completed	N '39 p10#
Rt. 111; Palm Springs-Rt. 86 [US 99] unit realigned	Mar '40 p10#
Rt. 371; Cahuilla Rd. [Rt. 277] becomes state highway	S/O '61 p71
Sacramento Co.	
Bus-80 (Capitol City Fwy.) [I-880]	31/5 (54 14/1
Bus-80 (Capitol City Fwy.) [I-880] Elvas Fwy. completed [US 99E]	N/D '54 p14#
Bus-80 (Capitol City Fwy.) [I-880] Elvas Fwy. completed [US 99E] dedication ceremony held	N/D '54 p14# M/J '55 p10#
Bus-80 (Capitol City Fwy.) [I-880] Elvas Fwy. completed [US 99E] dedication ceremony held North Sacramento Fwy. [US 40-99E]	M/J '55 p10#
Bus-80 (Capitol City Fwy.) [I-880] Elvas Fwy. completed [US 99E] dedication ceremony held North Sacramento Fwy. [US 40-99E] progress on	M/J '55 p10# S/O '46 p15#
Bus-80 (Capitol City Fwy.) [I-880] Elvas Fwy. completed [US 99E] dedication ceremony held North Sacramento Fwy. [US 40-99E] progress on summary of project	M/J '55 p10# S/O '46 p15# S/O '48 p2
Bus-80 (Capitol City Fwy.) [I-880] Elvas Fwy. completed [US 99E] dedication ceremony held North Sacramento Fwy. [US 40-99E] progress on summary of project second unit under construction	M/J '55 p10# S/O '46 p15# S/O '48 p2 J/A '53 p43
Bus-80 (Capitol City Fwy.) [I-880]  Elvas Fwy. completed [US 99E]  dedication ceremony held  North Sacramento Fwy. [US 40-99E]  progress on  summary of project  second unit under construction dedicated and opened	M/J '55 p10# S/O '46 p15# S/O '48 p2 J/A '53 p43 M/J '56 p29#
Bus-80 (Capitol City Fwy.) [I-880] Elvas Fwy. completed [US 99E] dedication ceremony held North Sacramento Fwy. [US 40-99E] progress on summary of project second unit under construction	M/J '55 p10# S/O '46 p15# S/O '48 p2 J/A '53 p43

### **ROUTES Sacramento Co., Continued**

ROUTES Sacramento Co., Continued	
Folsom Blvd. [US 50]	
34th StBrighton route adopted	S/O '62 p50
Brighton-Alder Creek highway project underway	N/D '57 p20
Folsom Blvd. widened near Perkins; dedication held	N/D '57 p20#
Folsom Bypass opened	N/D '49 p34#
Nimbus intersection improved	J/A '59 p26#
highway projects, general J/A '58 p1#; J/A '59	-
I-80 routing adopted	M/J '61 p2
W-X St. Br. approaches [first unit] planned	M/A '63 p15
progress on	S/O '64 p27
Rt. 16; Jackson Hwy.	2, 2 1 F=
Sloughhouse unit, realignment underway	S/O '48 p34#
Rt. 99 [US 50-99]	5/ 6 10 ps 11/
Galt; freeway conversion underway	S/O '56 p55
Galt-Dry Creek unit, realignment planned	S '37 p25
completed	O '38 p14#
•	
	'54 p5; M/A '56 p37
completed; supersedes Stockton Blvd. route	J/F '62 p16#
Rt. 160 [Rt. 24; River Road]	N. / I. (5.6 20)
history of in relation to national Victory Hwy. (I-80) [US 40]	M/J '56 p38
Sacramento Freeway System	
drainage system designed for	J/A '65 p22#
model of exhibited	M/A '64 p59#
status of	S/O '64 p27#
Stockton Blvd. [US 50-99]	
Elk Grove RdFlorin Rd. unit improved to freeway standards	M/A '56 p37
San Joaquin Co. line-Cosumnes River unit, widening planned	M/A '56 p37
Cosumnes River-Elk Grove Rd. unit, widening planned	M/A '56 p37
superseded by S. Sacramento Fwy. (Rt. 99)	J/F '62 p16#
Watt Ave.; Fair Oaks BlvdFolsom Blvd. [US 50] extension comp	oleted S/O '61 p25#
San Benito Co.	1
Rt. 25 [Rt. 119]; Pinnacles Hwy., Tres Pinos-Paicines unit opened	Aug '38 p10#
	38 p6#; S/O '59 p31
US 101 [Rt. 2; Coast Hwy., El Camino Real]	· · · · · · · · · · · · · · · · · · ·
Pajaro River-Sargent realignment completed	Aug '41 p18#
San Bernardino Co.	1145 11 11011
Archibald Ave. improved at Valley Blvd.	J/F '49 p32#
Barton Rd. [Pigeon Pass Rd.; FAS Rt. 714]	3/1 17 p32//
improvement completed	J/F '50 p42#
origin of name	M/A '50 p33
Barton RdWashington St. widening completed	J/F '61 p54#
Bloomington Diagonal [Colton-Onterio Fwy.)]	J/F 01 p34#
	I/E (40 22
FAS improvement project completed	J/F '49 p32
City Creek Hwy. [City Creek Rd. alt. highway]	
Highland Aveold City Creek BrPlunge Creek unit	3.5/4.64014//
under construction	M/A '48 p14#
E. 5th St. improved	J/F '49 p32#
Etiwanda Ave. improved	J/F '49 p32#
Patton-City Creek Br. unit under construction	J/A '46 p22
progress on	J/F '47 p17#
	8 p31#; J/F '50 p46#
completed and dedicated	S/O '51 p35#

### **ROUTES San Bernadino Co., Continued**

OUTES San Bernadino Co., Continued	
Foothill BlvdSee Rt. 66	
freeway routes adopted, general	J/A '63 p64
highway projects, general N/D '58 p11#; M/J	'59 p27#;
N/D '63 p13; N/D	'64 p14; N/D '65 p12
I-10 [US 60-70-99; Los Angeles-Imperial Valley Hwy.]	
Colton-Redlands link completed	Aug '37 p15#
Redlands-Crystal Springs Canyon unit to be realigned	May '38 p18#
realignment completed	Jan '39 p14#
reconstruction underway	D '40 p8#
completed	S '42 p4#
	46 p22#; M/A '47 p10#
Redlands Fwy. [US 70-99]	,,
Redlands-Loma Linda units completed	S/O '62 p7#
newspaper editor cites advantages of	S/O '62 p9
San Bernardino Fwy.	5/O 02 p)
Colton-Ontario unit under construction	J/A '46 p20#
	J/A '48 p4#
completed; history of project	*
Ontario-Upland unit under construction	M/A '53 p18#
completed	N/D '54 p7#
scenic aspects of	M/A '55 p24
progress on	J/F '56 p60#
acquiring borrow material for	S/O '56 p60#
Colton unit dedicated and opened	M/A '57 p21
San Bernardino; Rt. 66-Rt. 30 [last] unit, progress on	N/D '58 p11
"missing link" unit under construction	M/J '59 p29#
dedicated	M/A '60 p3#
full freeway status achieved	M/J '60 p43#
I-15 [National Old Trails Hwy.; Arrowhead Trail; Mormon Trail	
Baker Bypass completed; construction history of route	S/O '65 p15#
Baker Grade unit improved to freeway standards	S/O '61 p2#
Baker-Nevada state line unit improved	J/F '64 p53#
Barstow Fwy. [US 66-395]	
San Bernardino (27th St.)-Devore unit completed	M/J '59 p27
Cajon Pass Hwy. [US 395]	
Devore-Camp Cajon link, restoration of	Jul '39 p18#
Devore-Gish Underpass unit under construction	M/J '52 p5#
progress on; origin of route	M/J '53 p7#
Gish Underpass-Palmdale Rd. unit widened	N/D '55 p27#
Mountain Pass-Las Vegas Hwy. unit realigned [US 91-466	
origin, construction history of route	S/O '65 p14#
Victorville-Barstow expressway [US 66-91]	1
under construction	S/O '57 p1#
	'58 p44#; N/D '58 p47#
completed; dedication held	J/F '59 p61#
safety record of noted	M/J '59 p27
Barstow Bypass completed	S/O '61 p57#
I-40 [US 66]	Sign of period
Ludlow-AZ state line unit, plans for	M/J '59 p34
Ludlow-Java freeway route adopted	M/A '63 p72
Needles; realignment completed, dedication held	J/F '58 p56#
Needles; reconstruction through downtown completed	M/J '61 p56#
projects budgeted, annual N/D '63 p77; N/D '64 p78; N/I	
projects oudgeted, aimaai 17/D 03 p//, 17/D 04 p/6, 17/1	5 05 p17, 111 00 p35

ROUTES San Bernadino Co., Continued	
Riverside Ave. [FAS Rt. 707] south of Rialto widened	J/F '61 p54#
Rt. 18 [Rim of the World Hwy.]	_
history of route	J/A '66 p19
Victorville unit to be improved	S/O '47 p19#
Rt. 38 [Big Bear Loop] highway to San Bernardino Nat. Forest dedicated	S/O '61 p15#
Rt. 62	
Morongo Canyon Fwy. completed	M/A '64 p7#
Twenty-nine Palms Hwy. becomes part of state highway system	S/O '61 p71
interchange connection to I-10 built	M/A '63 p75#
Rt. 66 (Foothill Blvd.) [Rt. 9]	
widening to begin on	S '37 p6#
San Bernardino-Claremont, final unit dedicated	Jul '38 p16#
Rt. 71 [Prado Dam Hwy.; Corona Fwy.]	
Corona freeway, progress on N/D '58 p15#;	M/J '59 p34
Euclid AveRt. 91 [Rt. 18-91] junction, relocation underway	J/F '50 p49
progress on; history of route	J/A '50 p50#
Rt. 178; Salt Wells Canyon Rd. [Rt. 212]	
US public land funds allocated for improvement of	M/J '64 p67
Rt. 330; [Rt. 30, Big Bear Rd.; Big Bear Hwy.]	T/1 (60 50
Big Bear Rd., date of construction disputed (letter)	J/A '63 p70
Lakeview PtBig Bear Dam unit improved	J/F '63 p18#
Waterman Ave., San Bernardino	I/E (40 21
Baron [Pigeon Pass] RdE. city limits unit improved	J/F '49 p31
Nan Hiego ( o	
San Diego Co.	M/A 445 m21#
access road projects completed S/O '44 p2#;	
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed	M/J '59 p21#
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13;	M/J '59 p21#
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real]	M/J '59 p21# N/D '65 p11#
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real] Balboa Ave. Bypass under construction	M/J '59 p21# N/D '65 p11# N/D '58 p35
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real] Balboa Ave. Bypass under construction improvement projects underway, description of route	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real] Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22#
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real] Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real] Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed Montgomery Fwy.	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52#
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real] Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on J/F '51 p34#;	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real] Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on Chula Vista-National City unit, progress on	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34#
access road projects completed S/O '44 p2#; Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13; I-5 [US 101; El Camino Real] Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on Chula Vista-National City unit, progress on completed to Mexican border	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20#
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general  N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on completed to Mexican border dedication held	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34#
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general  N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on Chula Vista-National City unit, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy.	M/J '59 p21# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46#
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general  N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on  Chula Vista-National City unit, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy.  plans for approved	M/J '59 p21# N/D '65 p11# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46# M/J '50 p47
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general  N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on Chula Vista-National City unit, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy. plans for approved progress on N/D '51 p30#;	M/J '59 p21# N/D '65 p11# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46# M/J '50 p47 M/J '52 p30
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on Chula Vista-National City unit, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy. plans for approved progress on N/D '51 p30#; fill construction across three sloughs underway	M/J '59 p21# N/D '65 p11# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46# M/J '50 p47 M/J '52 p30 M/J '53 p11#
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on Chula Vista-National City unit, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy.  plans for approved progress on N/D '51 p30#; fill construction across three sloughs underway dedicated and opened; history of project	M/J '59 p21# N/D '65 p11# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46# M/J '50 p47 M/J '52 p30 M/J '53 p11# N/D '53 p16#
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general  N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on  Chula Vista-National City unit, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy.  plans for approved progress on  N/D '51 p30#; fill construction across three sloughs underway dedicated and opened; history of project reduces accident rate, traffic congestion  M/A '54 p34#;	M/J '59 p21# N/D '65 p11# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46# M/J '50 p47 M/J '52 p30 M/J '53 p11# N/D '53 p16# M/J '54 p31#
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general  N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy.  plans for approved progress on N/D '51 p30#; fill construction across three sloughs underway dedicated and opened; history of project reduces accident rate, traffic congestion M/A '54 p34#; relocation; fill settlement technique used in lagoon areas	M/J '59 p21# N/D '65 p11# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46# M/J '52 p30 M/J '53 p11# N/D '53 p16# M/J '54 p31# J/A '63 p35#
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general  N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on  Chula Vista-National City unit, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy.  plans for approved progress on  N/D '51 p30#; fill construction across three sloughs underway dedicated and opened; history of project reduces accident rate, traffic congestion  M/A '54 p34#;	M/J '59 p21# N/D '65 p11# N/D '65 p11# N/D '58 p35 S/O '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46# M/J '50 p47 M/J '52 p30 M/J '53 p11# N/D '53 p16# M/J '54 p31#
access road projects completed  Del Dios Hwy. [FAS Rt. 728] improvement completed highway projects, general  N/D '58 p33#; N/D '62 p13; N/D '63 p13;  I-5 [US 101; El Camino Real]  Balboa Ave. Bypass under construction improvement projects underway, description of route Las Flores-San Clemente link widened Leucadia highway improvement completed  Montgomery Fwy.  plans for, progress on Chula Vista-National City unit, progress on completed to Mexican border dedication held  Oceanside-Carlsbad Fwy.  plans for approved progress on N/D '51 p30#; fill construction across three sloughs underway dedicated and opened; history of project reduces accident rate, traffic congestion M/A '54 p34#; relocation; fill settlement technique used in lagoon areas Oceanside (San Luis Rey Br.)-Aliso Creek unit widened	M/J '59 p21# N/D '65 p11# N/D '65 p11# N/D '65 p11 M/J '46 p22# S/O '53 p52# S/O '51 p19 J/F '51 p34# M/J '55 p20# S/O '55 p46# M/J '50 p47 M/J '52 p30 M/J '53 p11# N/D '53 p16# M/J '54 p31# J/A '63 p35# M/J '46 p22#

### **ROUTES San Diego Co., Continued**

OUTES San Diego Co., Continued		
San Diego Fwy.		
clearing operations underway in downtown San Die	ego	S/O '60 p13#
Crosstown Fwy. section, first two units opened	-	M/A '62 p19#
progress on, overview of project		J/A '64 p2#
Miramar RdCarmel Valley Rd. unit planned		J/A '64 p17
I-8 [US 80; "Broadway of America"]		0/11 0 i p i /
Alvarado Canyon		
Mission Valley-Alvarado Cyn. expressway dedicate	nd.	M/A '50 p42#
	tu	N/D '55 p1#
La Mesa expansion nearing completion		
Fairmont Ave70th St. unit, improvement planned		M/J '59 p4
El Cajon freeway units completed		S/O '61 p64#
Lake Jenning Rd. unit completed; progress on, general		S/O '65 p40#
La Mesa-El Cajon Cut-off completed		S '41 p20#
Mountain Springs Grade realignment planned		Jan '40 p26#
progress on		Apr '41 p20#
	Jan '40 p26;	J/F '64 p43
Devil's Canyon section improved		J/F '64 p43#
	/F '58 p54#;	N/D '58 p36#
San Diego; I-8/Rt. 163 [US 80-395] interchange	-	•
Fairmont Ave. unit; eight lane expressway complete	ed	M/J '61 p23#
Torrey Pines Grade, history of 1932 relocation project		S/O '45 p9#
Walker Canyon; Boulevard-Imperial Co. line unit		o, o le p>
freeway project underway		J/A '66 p10#
Willows, Viejas Grade unit realigned		S/O '51 p21#
I-15 [US 395]-See also Rt. 163		5/O 31 p21#
Escondido expressway, routing for adopted		C/O '61 n60
		S/O '61 p68
Pomerado-Miramar Rd-Escondido section		M/A 465 62
under construction; progress on	. 1	M/A '65 p63
San Diego-Miramar/Miramar-Lake Hodges units dedica	ted	N/D '50 p17#
Mission Gorge Rd. realignment completed		M/A '65 p17#
Mt. Palomar Hwy. [Palomar Observatory Rd; "Highway to the	ne Stars"]	
under construction		Jan '37 p16#
progress on		S '39 p8#
history of project		N/D '45 p5#
projects budgeted, annual N/D '63 p80; N/D '64 p80;	N/D '65 p79;	N/D '66 p35
Rose Canyon widening completed		D '38 p14#
new equipment shortens job by five months		Jan '39 p 20#
Rosecrans Blvd. [La Playa Trail]		1
Lytton StCanon St. unit widened		Jul '40 p10#
Rosecrans-Mission Valley Hwy. completed; modern design to	features of	N/D '43 p2#
routes adopted, general	catares or	S/O '63 p49
Rt. 54 [Sweetwater Rd., South Bay Fwy.]		5/ O 05 p 15
bypass unit completed; history of project		J/F '64 p18#
Rt. 75		J/1 04 μ10π
		M/I '56 214
Coronado; Silver Strand project nearing completion		M/J '56 p21#
Palm City-Coronado project completed and dedicated		M/J '55 p38#
Rt. 78 [Leg. Rt. 198, Lakeside-Ramona road]		T/E ( 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
San Vicente Dam, relocation around completed		J/F '44 p14#
Oceanside-Vista limited access freeway built		N/D '55 p1#
Vista-Escondido expressway planned		N/D '58 p46
completed		J/F '65 p53#

#### **ROUTES San Diego Co., Continued** Rt. 94-67 (San Diego-La Mesa) freeway routing of adopted N/D '55 p6# M/J '59 p9# improvement projects underway N/D '58 p40; Wabash Blvd.-La Mesa (I-8) [US 80] unit converted to full freeway J/A '57 p45# Rt. 163 [US 395; Leg. Rt. 77] modernization work on N/D '46 p18 freeway system, general N/D '64 p13 N/D '55 p1#; Cabrillo Fwy. [US 395] six lane freeway through Balboa Park planned May '41 p22 ground-breaking ceremony for M/A '46 p5# N/D '46 p18#; J/A '47 p3# progress on M/A '48 p1# dedicated and opened expansion of planned N/D '55 p2 Wabash Blvd. Rd. (I-15)[Leg. Rt. 283; Murphy Canyon Rd.] development of as major freeway route J/A '60 p26# San Francisco Co. BART construction planned J/A '66 p36 freeway system, general M/A '54 p1#; M/A '55 p1; M/A '56 p1#; F '57 p31; M/A '57 p1#; M/A '58 p1; M/A '59 p1#; M/A '60 p13#; M/J '61 p3#; N/D '61 p14; M/J '62 p10#; N/D '62 p16; M/J '63 p25#; N/D '63 p18; M/J '64 p24#; N/D '64 p19; M/J '65 p24#; N/D '65 p17 I-280 [Rt. 82; Southern Fwy., US 101] plans for M/A '55 p6; M/A '56 p5; M/A '57 p7; M/A '58 p5 first unit nearing completion M/A '60 p20# M/J '61 p10; M/J '62 p20; M/J '63 p38; M/J '65 p34 progress on, general Milton St.-Bayshore Fwy. interchange unit M/A '60 p64 routing adopted under construction M/J '62 p20 progress on M/J '63 p38 M/J '64 p36# completed M/J '62 p21# Embarcadero Fwy. (I-480) extension, plans for Ocean Ave.-Mission St. unit, construction underway M/J '64 p36# overview of project; progress on J/A '64 p9# Orizaba Ave-Mission St. unit completed M/J '65 p34 I-480; Embarcadero Fwy. plans for M/A '54 p15 construction to begin on M/A '55 p6 progress on M/A '56 p5#; M/A '57 p4 double-deck viaduct construction J/F '57 p31#\ M/J '57 p46# first unit dedicated M/A '59 p35# Embarcadero Viaduct section completed M/A '61 p2# temporary sightseeing area installed I-280 [Rt. 82., Southern Fwy.] extension M/J '61 p11; M/J '62 p21#; M/J '63 p39 M/J '62 p22 M/J '63 p39; additional ramp connections for M/J '64 p38 Clay St.-Washington St. ramps completed M/J '65 p34# projects recommended by Chamber of Commerce S/O '55 p50; S/O '57 p43 Rt. 1 (19th Ave.) [I-280; Leg. Rt. 56] Nineteenth Ave. widened N '40 p16# Park Presidio Fwy. approach, Golden Gate Br.--See also TUNNELS Jun '39 p4# progress on Mar '40 p22# construction nears completion dedicated May '40 p2#

### **ROUTES San Francisco Co., Continued**

JUTES San Francisco Co., Continued		
Junipero Serra Fwy. [I-280;*]*no relation		
	I/A '57 p7; M/A '59 p15;	M/A '60 p25
history of project; plans for		J/F '62 p19#
Daly City-S.F. (Palmetto Dr.) unit plan	ıned	M/J '63 p41
design of stresses aesthetics		S/O '64 p33#
progress on		S/O '64 p33#
San Francisco-Santa Cruz unit, improveme	nt plan adopted	M/A '61 p67
Rt. 35; Skyline Blvd. [Rt. 5]		
as entrance to city M	/A '54 p9#; M/A '55 p13;	M/A '57 p7
Edgemar RdLake Merced Blvd unit under	rway	M/A '56 p8
Rt. 87, plans for		M/J '65 p34
Treasure Island-Bay Bridge Hwy. built		Jun '38 p22#
US 101 [US 101-By.]		
Bay Br., lower deck approaches to built		J/A '60 p35#
Bayshore Fwy. [James Lick Memorial Fw	y.]	-
plans for proposed	-	Aug '40 p6#
engineers' details and route of		Aug '40 p10
relocation of near S. F. Municipal Airg	oort planned	S/O '44 p1
units scheduled for	1	J/F '46 p35#
work begins on		M/A '46 p3
San Francisco-Burlingame units under	construction	J/A '47 p10#
first unit within city of S. F. under con		M/J '50 p26#
dedicated and opened		M/J '51 p1#
Army StBryant St. unit opened		S/O '53 p44
dedicated		N/D '53 p39#
Third StAlemany Blvd. unit under co	onstruction	M/A '54 p4#
Bay Br., connection to under construct		J/A '54 p5
Sierra Point-Candlestick Cove Open		· · · · · · · · · · · · · · · · · · ·
test section to be constructed across		N/D '51 p49
experimental tideland fill successfu		S/O '52 p13#
construction plans for		J/A '54 p4#
progress on	M/A '55 p4#;	M/A '56 p7#
nearing completion	N/D '55 p8#;	M/A '57 p9#
dedicated and opened	1 /	J/A '57 p57#
skyway approaches to Bay Br. under c	onstruction	J/A '54 p7#
completed and dedicated		J/A '55 p11#
Gov. Knight makes inspection of cons	truction progress	N/D '54 p20#
all units within city completed	1 2	M/A '58 p5
progress on, general	M/J '52 p34; J/F '53 p1#;	· F-
M/A '54 p2#; J/A '54 p4#; M		
	'A '59 p1#; M/A '60 p16;	M/J '61 p3#
completed San Francisco-San Jose; his		M/A '62 p5#
Bayshore Hwy. converted to freeway	reary are project	M/J '63 p26#
Central Fwy.		
13th StMission St. [first] unit opened	1	M/A '55 p6
progress on, general		M/A '56 p4
S. Van Ness AveTurk St. [second] ur	nit planned	M/A '57 p6
progress on	M/A '58 p5#;	M/A '59 p10#
opened to traffic	· r-·,	M/J '59 p41#
landscaping and parking lot projects		M/A '60 p20
		00 P20

### **ROUTES, Continued**

ROUTES, Continued	
San Joaquin Co.	
Grant Line Rd. [FAS Rt. 908]	
reconstruction project near Tracy (Fremont Rd.) completed	M/A '51 p32#
highway projects, general J/A '58 p16#; J/A '59 p3;	N/D '64 p16
I-205 [US 50]	
Mossdale-French Camp unit, improvement underway	J/A '57 p14#
nearing completion	J/A '58 p20
Stockton; Wilson Way-Rt. 99 extension underway	J/A '49 p30
progress on	M/A '50 p12#
Tracy-Stockton units completed	J/A '59 p4
Tracy-Alameda Co. line relocation planned	M/A '62 p71
Tracy-Altamont Pass expressway under construction	M/A '53 p26
progress on	S/O '54 p4#
completed and opened	N/D '54 p38#
Pacific Ave. [FAS Rt. 543] reconstructed	J/F '54 p53#
Rt. 12; Lodi-Rio Vista Cut-Off proposed	Apr '40 p16
construction underway	Apr '41 p10
opened	S '42 p2#
Rt. 88; Clements	·
Rt. 12 [Rt. 24] junction-Mokelumne River unit improved	J/A '54 p36
Rt. 99 [US 50-99]	C, C C P C C
Calaveras River-Lodi unit, divided highway completed	J/A '47 p16
Lodi-Lind's Airport unit opens ahead of schedule	M/J '57 p44#
Manteca Bypass planned	S/O '54 p3
completed	N/D '55 p22#
Ripon-Manteca expressway under construction	N/D '53 p25#
completed	S/O '54 p3#
Sacramento-Lodi Expressway	
Jahant RdSacramento Co. line [first] unit planned	M/A '54 p29
ground-breaking held	N/D '54 p43#
completed	M/A '56 p36#
Stockton; Mariposa RdCalaveras River unit being rerouted	J/A '49 p30
progress on	M/A '50 p12#
Stockton Bypass under construction	S/O '48 p26#
converted to full freeway status	J/A '59 p4#
Stockton-Lodi unit widened, made limited access freeway	N/D '46 p7#
converted to full freeway status	J/F '65 p25#
Rt. 120/I-205 [US 50] intersection (Mossdale)	•
improvement nears completion	S/O '46 p19#
Stockton Crosstown Fwy. proposed, model of on display	M/J '63 p12#
San Luis Obispo Co.	•
access road projects	J/A '45 p21#
highway projects, general S/O '58 p17; S/O '59 p31;	N/D '64 p18
Los Osos Rd. [FAS hwy.] improved	S/O '58 p28#
Rt. 1	_
Hearst Castle access road improved	S/O '59 p37#
Morro Bay-San Luis Obispo unit, improvement planned	S/O '58 p26
project nearing completion	S/O '59 p38
San Simeon-Carmel unit, construction history J/A '45 p8;	S/O '50 p101
Rt. 41 [Rt. 125]; Atascadero-Morro Bay Hwy. opens	Jul '38 p19#
Rt. 46-41 [US 466] Cholame Lateral (Paso Robles to I-5) modernized	M/J '60 p40#
Rt. 58; Salinas River-Rinconada Creek unit relocated	F '42 p5#

### **ROUTES San Luis Obispo Co., Continued**

KOUTES San Luis Obispo Co., Contino	icu	
US 101 [Coast Hwy.]		
Arroyo Grande-Pismo Beach unit improv		S/O '58 p20
Arroyo Grande Bypass under constructio	n	S/O '58 p20#
completed		S/O '59 p34
Atascadero-Templeton Expressway comp	oleted	M/J '52 p33
Cuesta Pass realignment underway		Aug '37 p12#
progress on, overview of project		May '38 p4#
completed; history of route		D '38 p6#
widening project underway		S/O '58 p20#
Cuesta Pass-Santa Margarita unit comple	ted	N/D '50 p22#
Miles Station realignment underway		Aug '41 p10#
Miles Station-San Luis Obispo unit, prog	ress on	S/O '48 p43
completed	1000 011	J/F '49 p17#
Nipomo-Mesa Fwy. under construction		J/F '57 p22
Paso Robles Fwy. project underway		J/F '57 p22
progress on	J/A '57 p5#;	S/O '58 p20#
completed	3/A 37 p3π,	N/D '58 p9
Paso Robles-San Miguel Expressway und	lar construction	J/A '54 p3
	iei construction	1
completed; unusual design of		M/J '55 p27#
Pismo Beach Fwy. completed		J/A '61 p2#
Pismo Beach-Miles Station unit, progress	on	S/O '48 p43
completed		N/D '49 p42#
progress on, general	7/4 (50 00	J/F '57 p22
San Luis Obispo Bypass, progress on	J/A '52 p32;	J/A '53 p36
completed		S/O '54 p46#
San Luis Obispo-Cuesta Pass unit comple	eted	S/O '48 p43#
San Miguel Bypass completed		M/A '58 p48#
San Mateo Co.		
access road projects		N/D '44 p22
Alpine-Portola Rd. [FAS Rt. 1048] improved		M/A '54 p40#
	; M/A '59 p1; M/A '60 p13;	
M/J '61 p3#; M/J '62 p22	; M/J '63 p40; M/J '64 p39;	M/J '65 p36
I-280; Junipero Serra Fwy.		
plans for	M/A '57 p7; M/A '59 p15;	M/A '60 p25
overview of project to date; plans for		J/F '62 p19#
Daly City-S.F. (Palmetto Dr.) unit planne	ed .	M/J '63 p41
progress on; plans for	M/J '64 p39; S/O '64 p33#;	M/J '65 p36
design of stresses aesthetics	_	S/O '64 p33#
Daly City (Eastmoor Ave.)-Arroyo Dr. (S	South S.F.) unit	-
grading and paving job planned	,	M/J '65 p15
Hillsborough; Bunker Hill DrBlack Mt.	Road unit, progress on	M/J '65 p36
Rt. 1; Cabrillo Fwy. [Ocean Shore Hwy.]	71 &	1
San Pedro Mt. Grade; Rockaway Beach-l	Farallone City unit	
construction underway		Jun '37 p1#
completed		D '37 p1#
right of way deal secured for		Jul '40 p12#
Pescadero-San Gregorio unit dedicated		S '41 p4#
Pacifica; Skyline BlvdManor Dr. unit in	nproved	M/A '58 p19#
Monterey RdWestport Dr. unit und		M/J '63 p41
Sharp Park RdManor Dr. unit und		M/J '62 p22
progress on	i construction	141/3 OZ PZZ
DIUZIC33 UII		M/I '64 p40
		M/J '64 p40 M/J '65 p37
completed		M/J '64 p40 M/J '65 p37

ROUTES San Mateo Co., Continued	
San Francisco-Santa Cruz route, improvement plan adopted	M/A '61 p67#
progress on, general M/J '64 p40;	M/J '65 p37
Rt. 82 [US 101*; El Camino Real]	_
Redwood City-Menlo Park unit widened	J/A '43 p8#
Millbrae; Taylor BlvdSanta Helena Ave. unit widened	M/J '62 p23
Millbrae-San Bruno unit, improvement underway	M/J '63 p41
completed	M/J '64 p40
Rt. 92 (19th Ave.) [Leg. Rt. 105]	_
19th Ave. Fwy. planned	M/J '61 p16
W. Hillsdale BlvdS. Delaware St (San Mateo) unit	
construction underway	M/J '62 p22#
progress on	M/J '63 p40
completed	M/J '64 p41
Sand Hill Rd. [FAS Rt. 1004] improvement completed	M/J '60 p61#
San Mateo city streets improved	J/A '61 p42#
US 101; Bayshore Fwy. [US 101-By.*]	
plans for shown	Aug '40 p6#
Burlingame-San Mateo link, progress on	N/D '46 p34#
San Francisco-Burlingame units under construction	J/A '47 p10#
San Mateo-S. San Francisco; 9-mile section completed	M/J '49 p1#
San Mateo (16th Ave.)-San Carlos unit under construction	M/A '54 p4
Redwood City; Bransten RdMarsh Rd. relocation completed	M/A '59 p7#
San Francisco-San Jose route completed; history of project	M/A '62 p5#
Grand AvePeninsular Ave. (Burlingame) unit widened	M/J '62 p23
landscaping, improvement projects underway	M/J '63 p42
Whiskey Hill Rd. [FAS Rt. 1048] improved	M/A '54 p40
[*In 1964 US 101-By became US 101 (Bayshore Fwy.); US 101 became R	t. 82]
Santa Barbara Co.	
access road projects	J/A '45 p21#
highway projects, general S/O '58 p17;	S/O '59 p31
Lompoc-Casmalia Rd. improved	J/F '64 p51#
Rt. 1	
Lompoc-Las Cruces unit to be improved	S/O '58 p18
Lompoc-Santa Maria section improved	J/F '67 p33#
Rt. 154 (San Marcos Pass Rd.)	
routing adopted	J/A '61 p33
San Marcos Pass Rd. realignment completed	M/J '64 p12#
Surf-Lompoc unit reconstructed	J/F '64 p49#
Rt. 166 (Cuyama Rd.)	
	M/J '59 p17#
Turnpike Rd. improvement completed	S/O '59 p34#
US 101 [Coast Hwy.]	
Arroyo Quemado-Arroyo Hondo unit widened	J/F '50 p29#
Buellton Bypass completed	J/A '65 p28#
Buellton widening projects S/O '48 p38#;	S/O '58 p22#
Buellton-Rt. 150 intersection unit, expressway completed	S/O '59 p34#
Carpinteria Fwy.; Carpinteria-Ortega Hill unit, progress on	M/J '52 p31
opened to traffic	M/A '55 p42
El Capitan Creek unit, reconstruction underway	Jun '40 p8#

### **ROUTES Santa Barbara Co., Continued**

ROUTES Santa Barbara Co., Continued	
Gaviota PassSee also TUNNELS	
Nojoqui Canyon-Buelton route, construction underway	O '38 p22#
Gaviota Pass-Santa Ynez River unit completed	Jun '39 p8#
Gaviota Gorge-Nojoqui Summit unit, widening underway	M/A '51 p6#
progress on M/J '52 p32;	J/A '54 p3
expressway built	J/A '56 p60#
Goleta; El Sueno RdElwood Station widening completed	M/J '62 p34#
Los Alamos Bypass built	S/O '58 p17#
Montecito; Miramar Ave-Olive Mill Rd. unit opened	Jan '38 p2#
Montecito Pkwy (Santa Barbara-Summerland)	· ····································
Sheffield DrSan Ysidro Rd. unit completed	M/J '48 p9#
Arroyo Parida-Ortega Hill unit under construction	N/D '51 p54#
Orella-Canada del Refugio unit under construction	O '41 p8#
completed	Mar '42 p10#
Ortega Hill section, improvements made	J/F '57 p19
Park Place-Rancheria St. unit completed	J/F '49 p27#
progress on, general N/D '48 p34;	J/F '57 p19#
San Marcos Pass Hwy.; improvement underway	J/A '55 p44#
Santa Barbara; De La Vina-Montecito StPueblo St. unit improved	M/A '64 p2#
Santa Barbara-Tecolote Canyon route relocated	M/A '47 p21#
•	
Santa Maria Bypass planned	S/O '59 p34
completed	J/F '63 p4#
Tecolote Creek-Las Varas Creek reconstruction underway	O '41 p8#
completed	Mar '42 p10
Vandenburg AFB road improved to modern freeway standards	J/F '67 p33#
Santa Clara Co.	010 150 <b>01</b> 11
Almaden FAS Expressway, San Jose; first unit of completed	S/O '60 p34#
Gilroy; Monterey St. improvement completed and dedicated	M/J '55 p36#
highway construction program approved	M/A '61 p66
highway projects, general M/A '54 p1; M/A '55 p1; M/A '56 p1;	
M/A '57 p1; M/A '58 p1; M/A '59 p1; M/A '60 p13; M/J '61 p3;	
M/J '62 p24#; M/J '63 p42#; M/J '64 p42;	M/J '65 p38#
I-280; Junipero Serra Fwy.	
plans for M/A '57 p7; M/A '59 p15; M/A '60 p25;	J/F '62 p19#
Forest AveDoyle Ave. (San Jose) [first unit] underway	M/J '63 p42
completed	M/J '64 p42
Rt. 17-Saratoga Ave. (San Jose) unit completed	M/J '64 p42
progress on, general M/J '64 p42; S/O '64 p33#;	M/J '65 p38
design of stresses aesthetics	S/O '64 p33
Saratoga AveStelling Rd. (Cupertino) unit completed	M/J '65 p38
Rt. 1; Waddell Bluffs unit completed	S/O '48 p8#
Rt. 9; Alviso Bypass under construction	M/A '57 p8
Cupertino-Mountain View section to be replaced	M/J '63 p43
Oak Place-Azule unit, widening planned	M/J '64 p45
Saratoga-Sunnyvale unit widened	M/J '63 p43
Rt. 17, Los Gatos-Santa Cruz Hwy. [Rt. 5]	_
Scott's Valley link completed	Apr '37 p2#
Scott's Valley link completed Oaks Road-Inspiration Point unit, realignment proposed	Apr '37 p2# N '37 p22
Oaks Road-Inspiration Point unit, realignment proposed	N '37 p22
Oaks Road-Inspiration Point unit, realignment proposed construction underway	N '37 p22 Jun '38 p4#
Oaks Road-Inspiration Point unit, realignment proposed construction underway retrospective of project	N '37 p22 Jun '38 p4# O '38 p4#
Oaks Road-Inspiration Point unit, realignment proposed construction underway	N '37 p22 Jun '38 p4#

### **ROUTES Santa Clara Co., Continued**

OUTES Santa Clara Co., Continued		
Oaks Road-Los Gatos [final] unit under o	construction	May '40 p10
dedicated		S '40 p8#
construction history	J/A '45 p7;	S/O '50 p100
Los Gatos Bypass planned		M/A '54 p14
progress on	M/A '55 p13;	M/A '56 p15
completed		M/A '57 p9#
Charles St. connection dedicated		M/J '57 p47#
San Jose-Los Gatos widening completed		J/A '59 p2
•	M/A '60 p21#; M/J '61 p14;	M/J '63 p43
freeway connections to, plans for		M/J '64 p43
Rt. 82 [US 101*]		
Bay Shore Hwy.; San Jose-Agnew Under		Jul '37 p19#
Coyote-Morgan Hill-Llagas Creek unit w		Aug '38 p16#
Gilroy divided highway improvements	Jan '42 p14#;	M/J '52 p33
Gilroy-San Jose freeway route adopted		M/J '61 p2
Gilroy-Sargent unit widening completed		M/A '54 p13
Pajaro River-Sargent realignment comple	eted	Aug '41 p18#
history of new location		Jan '42 p14#
Palo Alto; University AveMatadero Cre		M/J '63 p43#
San Jose Bypass	N/D '48 p34; M/A '54 p13;	M/A '56 p15
San Jose; Ford RdCurtner Ave. unit wie	dened	M/J '65 p39
Palo Alto; widening completed		M/J '64 p43
San Jose; Ford RdCurtner Ave unit, wie	dening planned	M/J '64 p43
Rt. 85; Stevens Creek Fwy.		3.5/5./2040
Cupertino-Mountain View unit, construc	_	M/J '63 p43
progress on	M/J '64 p43;	M/J '65 p39
completed		J/A '66 p45#
Rt. 152	1 34/4 651 24//	NA/A 454 10
Cape Horn-Merced Co. line unit realigne		M/A '54 p12
Pacheco Pass Hwy. realignment planned		F '39 p10#
completed; opens without formalitie		S '39 p6#
San Luis Reservoir relocation, progress of	on	M/A '63 p45#
completed	ati an	J/A '65 p2#
Rt. 237; Mt View expressway under constru	CHON	M/J '64 p45
completed		M/J '65 p40
San Jose		I/A '60 m10#
highway projects, general		J/A '60 p10#
Lincoln Ave. widened		S/O '55 p48#
US 101; Bayshore Fwy. [US 101-By.*] plans for shown		Aug '40 p6#
E. Santa Clara StUS 101 link dedicated		J/A '47 p8#
Fourth St13th St. unit to become freewa		M/A '51 p28
efforts to remedy congestion, accident sit	-	M/J '52 p34
Moffett Field section under construction	uation made	M/A '59 p6#
San Jose; Sterlin RdMorse Ave. unit un	derway	J/A '60 p11
San Jose; Morse AveBrokaw Rd unit un	-	J/A '60 p11
completed	idei way	M/A '62 p7#
San Francisco-San Jose section complete	ed: history of project	M/A '62 p/#
landscaping, improvement projects plann		M/J '64 p43
Oregon Ave. interchange unit completed		M/J '65 p40#
[*In 1964 US 101-By became US 101 (Baysh		
I in 1904 OB 101-Dy Decame OB 101 (Baysi	iore rwy.j, OB 101 became K	ւ. ∪∠յ

### **ROUTES, Continued**

ROUTES, Continued	
Santa Cruz Co.	
highway projects, general M/A '59 p1; M/A '60 p13;	
M/J '61 p3; M/J '63 p45#; M/J '64 p45;	M/J '65 p41;
Mt. Hermon Rd. improved [FAS project]	N/D '54 p31#
projects planned for 1950-51	N/D '49 p48
Rt. 1 (Cabrillo Hwy.) [Rt. 56, Ocean Shore Hwy.]	-
Davenport-Waddell Creek unit under construction	May '39 p16#
opened, dedication ceremonies for	O '39 p10#
Watsonville-Rob Roy Junction Hwy.	1
construction underway	Mar '41 p20
nearing completion	Jul '41 p18#
opened	N '42 p12#
construction on as part of access road project	N/D '44 p22
conversion of to freeway status planned	M/A '60 p26
Rob Roy Junction-Santa Cruz Fwy.	141/11 00 p20
under construction	M/J '47 p18
nearing completion	N/D '48 p1#
dedicated	N/D '49 p1#
converted to freeway standards	M/J '63 p45#
Laguna Creek improvement project underway	J/A '54 p12
Santa Cruz Bypass planned	M/A '55 p13
completed	M/A '57 p9#
San Francisco-Santa Cruz unit, improvement plan adopted	M/A '61 p67
Watsonville Bypass planned	M/J '63 p45
progress on	M/J '65 p41#
Aptos Creek-Soquel Wharf Rd. unit; widening completed	M/J '64 p45#
Pajaro River-Roache Rd. unit improvement planned	M/J '64 p46
Rt. 17; Los Gatos-Santa Cruz Hwy.	
construction ofSee Santa Clara Co.	
improvements made to M/A '60 p21#; M/J '61 p14#;	M/J '63 p46
landscaping, improvement projects, progress on	M/J '64 p46
Santa Cruz roads, early history of	N/D '48 p11
Shasta Co.	
Dersch Rd. [FAS Rt. 1350] improved	J/A '66 p38#
Forest Rt. 77 [Mt. Shasta-Mt. Lassen Nat. Forest Hwy.]	
Sierra Way; Lake Britton-Burney Falls link completed	May '40 p24#
highway projects, general J/F '57 p61; M/A '58 p6; N/D '59 p12;	N/D '64 p17
Redding; one-way street program underway throughout city	N/D '59 p12#
Rt. 44 [Leg. Rt. 20; Feather Lake Hwy.]	
becomes part of state highway system	S/O '61 p71
reconstruction completed; dedication held	J/F '62 p33#
expressway completed on new alignment	M/J '65 p20#
I-5 [US 99; Rt. 3]	-
Castella-Dunsmuir freeway proposed	N/D '53 p42
Cottonwood freeway unit completed	J/F '65 p38#
Cottonwood-Red Bluff unit opened	J/F '65 p35#
Cottonwood-Redding limited access freeway	- r
Cottonwood-Anderson unit	
reconstruction underway	S/O '48 p27
completed	M/A '49 p34#
Anderson-Redding unit completed	J/A '50 p43#
dedicated	J/A '50 p42
dodiodiod	5/11 50 p=2

ROUTES Shasta Co., Continued	
improvements made, general	Mar '38 p12#
Mountain Gate-Bass Hill project completed	N/D '55 p48#
Redding-Red Bluff unit, progress on	S/O '51 p8#
Redding; SP Subway-Hill St. channelization completed	O '41 p22#
Sacramento River Canyon section	
reconstruction underway; history of route	M/J '56 p32#
six mile unit improved to freeway standards	J/F '57 p24#
improvements completed	N/D '59 p12#
Redding-Dunsmuir expressway completed	M/J '63 p17#
Shasta Dam relocation	37.000 111
proposed	N '39 p1#
Bass Hill-O'Brien link under construction	Jun '40 p6#
grading operations on Apr '41 p14#;	O '41 p1
completed and opened without fanfare	F '43 p1#
overview of project J/A '45 p5#;	S/O '50 p97
Rt. 299E [Redding-Eureka Hwy.]	N/D '51 p/0#
Hatchet Mountain improvement completed  Montgomery Creek-Burney Valley unit	N/D '51 p49#
improvements planned S/O '55 p56;	N/D '50 p17
completed	M/A '60 p33#
Montgomery Creek Double Loop improvement planned	S/O '55 p56
Shasta-Schilling route improved; history of region	N/D '47 p6#
Whiskey Creek Dam compels relocationSee also BRIDGES	M/J '61 p52#
Sierra Co.	111,0 01 p32,1
I-80 [US 40]; Floristan-Nevada Co. line unit	
freeway conversion planned	S/O '56 p40#
traffic delays due to construction M/J '57 p20#;	-
progress on N/D '57 p13, p43;	J/A '58 p3#
Rt. 49; Yuba Pass Hwy.	_
Downieville-Nevada City unit improved	M/J '46 p1#
Sierra City-Bassetts unit, expressway planned	J/A '63 p18#
completed	M/J '65 p2#
Siskiyou Co.	
highway projects, general J/F '57 p61; M/A '58 p6; N/D '59 p12; I-5 [US 99; Leg. Rt. 3]	N/D '64 p17
Big Canyon-Mott realignment planned	S/O '51 p64
Black Butte; Spring Hill-Weed unit dedicated and opened	S/O '51 p6#
Dunsmuir Fwy. proposed (Sacramento River Canyon)	N/D '53 p42
progress on	M/J '58 p9#
Dunsmuir-Castella unit, problems encountered	J/A '60 p15#
Dunsmuir; Spring StBig Canyon unit, improvement planned	S/O '51 p2#
progress on; work resumes after winter shut-down	M/J '53 p18#
interstate project completed D '40 p22#;	S/O '51 p2#
Klamath River-Oregon line link improved	J/F '50 p12#
Mt. Shasta (city) unit, freeway unit planned	J/F '63 p49
completed Sighiran Mt. California Oragon unit completed	M/A '65 p57# D '40 p22#
Siskiyou Mt., California-Oregon unit completed projects underway, general	S/O '48 p27
I-5 Cut-off [US 99-97] completed; history of route	M/A '55 p37#
Rt. 3 [Rt. 82]	141/FA 33 P3/#
Greenville-Ft. Jones unit improved	N/D '59 p55#
FAS Rt. 1089 [Oregon Trail], Scott Valley section improved	M/A '60 p45#
ROUTES Siskiyou Co., Continued	30 P .o.

Rt. 96; improvements underway at Clear Cr	eek	N/D '59 p55
Rt. 139 [Rt. 210, State Line Hwy.]		
taken into state highway system, impro-	vements made	N/D '59 p55#
US 97; Cougar-Macdoel unit opened		D '38 p 18#
Dorris-Oregon State line unit complete	d	M/A '55 p22#
Solano Co.		
access road projects		S/O '44 p8#
highway projects, general	J/A '58 p2	1; J/A '59 p3
I-80 [US 40]		
American Canyon unit widened	S/O '48 p26#; M/A '50 p5	
	S/O '61 p6#;	M/J '63 p8
Carquinez Bridge-Cordelia unit, section		D '41 p10#
Cordelia Underpass-Ledgewood Creek	unit improvement underway	y N/D '50 p44#
progress on		J/A '51 p63#
Dixon-Davis realignment underway		Mar '40 p13
progress on	S '40 p26; F '41 p24	#; Jul '41 p8#
opened		O '42 p10#
Dixon; Midway RdPedrick Rd. unit re	econstructed	M/J '63 p11#
Fairfield Bypass, progress on		J/A '49 p44#
overview of project		M/A '50 p5#
Fairfield-Vacaville unit; Travis Blvd. w	videned	M/J '63 p9#
freeway conversion underway		J/F '65 p51
progress on, general	S/O '61 p6#; M/J '63 p8	8; J/F '65 p48#
Vacaville Bypass under construction	1	F '37 p4#
opened		Jun '37 p15#
Vacaville-Dixon (Midway Rd.) unit, w	idening underway	J/A '46 p11#
completed	c ,	J/F '47 p26#
conversion to freeway status under	way	J/F '65 p52
Vacaville	,	1
frontage road built for Nut Tree, P.	G. & E. substation	J/A '51 p64#
Ulatis-Alamo Creek unit, improver		M/A '50 p5#
progress on	-	J/A '51 p63#
Vacaville/I-505 junction unit converted	to freeway	J/F '65 p50
Vallejo; widening project underway	J/A '48 p8	
Magazine St., improvements to	J/F '56 p30	
Vallejo Fwy. project underway	1	S/O '57 p62#
completed		J/A '59 p4#
accident rate reduced		J/A '61 p25#
Vallejo Wye-Redwood St. unit widened	1	J/A '59 p4
I-505; Vacaville-Dunnigan Cut-off officiall		S/O '47 p27
I-680 [Rt. 21; Vallejo-Benicia Fwy.]	,	· ·
Cordelia-Benicia unit, widening planne	d	S/O '61 p9
Vallejo (Cedar St.)-w. Benicia [first] ur		J/F '62 p29#
Rio Vista, Main St.; Front-5th St. unit impro		S/O '65 p10#
Rt. 12	, , ear ey early	or or provi
Rio Vista-Lodi Cut-off proposed		Apr '40 p16
construction underway		Apr '41 p10
opened		S '42 p2
Rio Vista BrMokelumne River Br. un	it. relocation underway	J/A '59 p5#
Suisun-Denverton unit; freeway constru	•	J/A '57 p30#
Rt. 29; Vallejo-Napa Hwy., progress on	S/O '44 p8	
Rt. 37 [Rt. 48]; Napa River Br. approach fil		S/O '61 p74#
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Sonoma Co.	-1. M/A '60 -12. M/I '61 -	-2.

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M/A '59 p1; M/A '60 p13; M/J '61 p3;

highway projects, general

M/J '62 p28; M/J '63 p46#; M/J '64 p46#;	M/J '65 p41#;
Rt. 12	
Duncan Mills-Monte Rio unit improved	M/J '63 p48#
Sebastopol-Santa Rosa unit	
Luther Burbank Memorial Hwy. dedicated	N '41 p14
expressway project underway	M/J '63 p47#
progress on	M/J '64 p47
Rt. 37 [Black Point Cut-off]	
junction with Sears Point Cut-off [Rt. 48] improved	J/A '50 p40#
improved as freeway	M/A '54 p7
progress on M/A '57 p18; M/A '59 p56#;	M/A '60 p30#
Rt. 116 [Russian River Hwy.; Gravenstein Hwy.]	7.1/20 4//
Northwood Park-Guerneville unit realignment, progress on	Jul '39 p4#
dedicated and opened	O '39 p14#
US 101; Redwood Hwy.	3.5/7.7.60 45
Asti Bypass under construction	M/J '63 p47
nearing completion	M/J '64 p46#
completed	M/J '65 p41
Healdsburg Bypass completed	M/A '60
Ignacio-Petaluma route, widening operations on	J/A '46 p14#
Marin-Sonoma Hwy.; San Rafael-Novato-Petaluma unit dedicated	S/O '47 p5#
Petaluma Bypass under construction	M/J '54 p38
progress on M/A '55 p14#;	M/J '55 p5#
completed	M/A '57 p18#
Santa Rosa Bypass construction underway	N/D '48 p13
dedicated and opened	M/J '49 p61#
Santa Rosa expressway unit	3.5/1.465 43/1
conversion of to full freeway, progress on	M/J '65 p43#
Santa Rosa-Windsor freeway project underway	M/J '62 p29#
completed	M/A '63 p65#
Wilfred-Santa Rosa Bypass unit widened; dedication held	N/D '57 p27
Windsor-Healdsburg freeway project underway	M/J '62 p29
completed	M/A '63 p65#
Valley Ford-Bodega Bay Hwy. [FAS Rt. 777]	3.6/T.657 511
modernized; becomes part of state highway system	M/J '57 p5#
Stanislaus Co.	I/E (() 25
Carpenter Rd. FAS project completed	J/F '64 p35
East Modesto Rd. [FAS Rt. 1226]	C/O 550 20#
improvement project completed	S/O '58 p29#
traffic increase compels intersection project	M/J '62 p7
FAS Rt. 912 paralleling 9th St. (Rt. 99) completed	N/D '48 p18#
Grayson Rd. FAS project completed	J/F '64 p35
Greer Rd. [FAS Rt. 914]; Turlock-Oakdale unit improved	M/J '61 p67# N/D '64 p16
highway projects, general I-5 [Westside Fwy.]	14/D 04 p10
Merced Co. line-Stuhr Rd. extension planned	J/F '65 p30
grading and paving project, plans for	M/J '65 p15
Maze Road; Modesto-Tracy unit	Jul '37 p17#

#### **ROUTES Stanislaus Co., Continued** Rt. 99 [Leg. Rt. 4, Golden State Hwy.] Modesto-Keyes unit nearing completion O '41 p14# Modesto-Salida divided highway completed May '39 p6#; O '41 p14 S/O '54 p3 Modesto-Ripon expressway completed Modesto-Ceres Fwy. bypass under construction S/O '63 p39# S/O '65 p6# completed M/J '60 p58# Rt. 108 [Leg. Rt. 109]; McHenry Ave., Modesto widened Rt. 120 relocated east of Oakdale J/A '58 p20# Rt. 132 (Yosemite Ave.)-Vista-Snowden Ave. Modesto; channelized intersection FAS project completed M/J '62 p7# Sutter Co. Drescher Blvd. [FAS road] improved J/A '59 p42# El Centro Blvd. [FAS Rt. 926], improvements underway M/A '50 p48# FAS program completed J/A '59 p42# J/A '59 p23 highway projects, general repair construction work completed S/O '45 p28 Rt. 20 [Tahoe-Ukiah Hwy.]; Sutter bypass completed N '38 p12# Rt. 70-99; site of frequent accidents improved S/O '65 p18 RT. 99 [US 99E]; Marysville-Yuba City route Feather River Br. approach, realignment underway S/O '46 p25 Tehama Co. Aramavo Wav [FAS project] Los Molinos-Gerber unit improved, named for engineer J/A '59 p56 N/D '59 p12 highway projects, general J/F '57 p61; M/A '58 p6; I-5 [US 99, Pacific Hwy.] Red Bluff-Cottonwood unit opened J/F '65 p35# Redding-Red Bluff Hwy. Red Bluff; relocation work underway O '40 p16# completed Mar '41 p16# progress on, history of project S/O '51 p8# Rt. 36 M/J '55 p38 Button Canyon; Tedoc Rd.-Dry Creek realignment planned improvements made to, general N/D '59 p18# new highway dedicated; 11 fords eliminated N/D '57 p53# Rt. 99 [US 99E] Butte Co. line-Los Molinos unit, paving completed N/D '55 p26 Trinity Co. highway projects, general M/A '58 p9# Rt. 3 [Rt. 82]; FAS Rt. 1089 [Oregon Trail] relocation compelled by Trinity Dam M/A '60 p45# Rt. 299W [Trinity Lateral] Sayler-Burnt Ranch improvement underway; history of route J/A '47 p14# Vitzhums-Tom Lang Gulch unit improved M/J '57 p58 Weaverville-Douglas City project underway; history of area N/D '53 p27# project completed M/J '57 p58 Weaverville-Helena section improved M/J '57 p58# Weaverville-Junction City Hwy.; cut through Oregon Mt. completed Aug '39 p2#

### **ROUTES, Continued**

Tulare Co.	
flood damage	J/F '67 p15
highway projects, general	S/O '59 p7
Rt. 65 [Leg. Rt. 129; Orange Belt Hwy.]	5/O 59 p7
Ducor Cut-Off; Thermal School-Ducor unit completed	Jul '40 p22#
	Jul '40 p22#
Exeter-Venida Substation unit completed	Aug '39 p25#
Porterville link opens	Jul '38 p8#
relocation project underway	S/O '54 p31
Strathmore-Cairns Corner link realigned	S '37p12#
Rt. 99 [US 99]	0/0/50 20//
Earlimart Bypass constructed	S/O '58 p38#
highway projects, general	S/O '48 p29
Pixley-Tulare Airport freeway unit completed	J/F '63 p40#
Tipton Bypass constructed	S/O '58 p38#
Tulare Bypass dedicated	J/F '54 p17#
Visalia Airport interchange extended to Goshen	S/O '58 p38#
Rt. 190	
pack mules used for fencing job	M/A '60 p61#
relocation compelled by Success Dam S/O '58 p41#;	S/O '59 p10#
trans-Sierra route adopted; scenic aspects of region	M/A '66 p20#
Rt. 198; Visalia	
Mineral King Ave. divided highway completed	Jun '42 p10#
Terminus Dam compels relocation of	S/O '59 p55
Tulare; Cherry Ave. improved by city	J/F '52 p42#
Tuolumne Co.	-
Rt. 108 [Leg Rt. 13; Sonora Pass Hwy.]	
freeway routing adopted	J/A '60 p70
Jamestown relocation completed	S '41 p18#
Twain Harte Grade improvement completed	J/F '64 p22#
Rt. 120 [Leg. Rt. 40]; Big Oak Flat Hwy.	V V P
Priests Grade; Moccasin Creek-Priests unit completed	M/J '54 p40#
Tuolumne-Sonora Rd. [FAS Rt. 954] improved	M/A '58 p22#
Ventura Co.	111/11 20 p22//
access roads built for war effort	J/F '45 p2
highway projects, general S/O '62 p36#;	N/D '64 p18
Rt. 1; Pacific Coast Hwy. [US 101-Alt; Leg. Rt. 60]	14/D 04 p16
Little Sycamore Canyon-L.A. Co. line unit completed	M/J '55 p33#
Point Mugu unit reconstructed	O '40 p12#
Oxnard-Calleguas Creek unit improved to freeway standards	J/F '60 p14
Oxnard Bypass planned	M/A '61 p14
Rt. 23; Moorpark Fwy., plans for S/O '62 p46;	M/A '65 p44
	M/A 03 p44
Rt. 33 [US 399]; Ojai Fwy	I/E '56 m66
W. Main St. (Ventura)-Mills Schools unit, progress on	J/F '56 p66
completed and opened	J/F '57 p13#
SP RrdFoster Park unit, plans for J/F '59 p36;	J/F '60 p14
progress on, general M/A '61 p13; S/O '62 p44;	M/A '63 p35
Rt. 34; Calleguas Fwy., plans for	S/O '62 p46
Rt. 118; Simi Valley Fwy.	010 (60 45
Madera RdL.A. Co. line unit, routing adopted	S/O '62 p45
E. Simi Valley-De Soto Ave. (W. San Fernando Valley) unit	M/A '63 p39
freeway routing adopted	M/J '65 p50#
ground-breaking held; development of Simi Valley area	S/O '66 p 30#
ROUTES Ventura Co., Continued	

Rt. 126 [Leg. Rt. 79]	
Piru Creek-Los Angeles Co. line unit realigned	Apr '42 p6#
plans for, general	M/A '64 p34#
Montalvo-L.A. Co. freeway unit planned J/F '59 p36;	J/F '60 p19
progress on M/A '61 p21#;	S/O '62 p43#
Sespe Ranch-Fillmore unit realigned	O '37 p12#
Ventura-Saticoy unit opened	M/A '63 p39
Wells RdSanta Paula extension planned	S/O '62 p44
Rt. 150; Santa Paula Fwy., plans for	S/O '62 p46
Thousand Oaks; Moorpark Rd. improvement underway	S/O '62 p40#
US 101 [Leg. Rt. 2; Ventura Blvd]	
Camarillo unit dedicated	May '37 p8#
Camarillo Expressway, progress on	S/O '53 p22#
dedicated and opened	J/A '54 p3
Central Ave-Santa Clara River highway project completed	M/J '55 p58#
Conejo Summit-Conejo Creek unit realigned	Jan '37 p20#
Oxnard-Ventura unit	**** ** P=***
Montalvo-Santa Clara River Br. unit improved	M/J '52 p31
Montalvo freeway completed	J/A '52 p23#
Punta Gorda-Santa Barbara Co. line, widening underway	J/A '54 p3
progress on	J/F '55 p37
Seacliff-Mussel Shoal unit	on co pon
reconstruction underway	J/F '49 p56#
completed; history of route	S/O '49 p10#
Ventura Fwy.	2, 2 P - 1
Ventura (city) extension planned	J/F '56 p63#
progress on S/O '56 p5; J/F '57 p9#; J/F '59 p33;	· · · · · · · · · · · · · · · · · · ·
J/F '60 p19; M/A '61 p21#; S/O '62 p38;	M/J '65 p50
Conejo Grade-Camarillo unit, construction underway	J/F '58 p10#
progress on; history of route	M/A '58 p30#
Telephone RdPalm St. unit J/F '60 p49;	M/J '60 p7
dedication ceremony planned	S/O '62 p38
completed	M/A '63 p39
Palm StVentura Overhead unit, progress on S/O '62 p39;	M/A '63 p39
completed through city of Ventura	M/A '64 p34#
Yolo Co.	1
I-80 [US 40]	
Dixon-Davis realignment started	Mar '40 p13
progress on S '40 p26; F '41 p24#;	Jul '41 p8#
opened	O '42 p10#
progress on, general	S/O '61 p6#
W. Sacramento Fwy.; progress on, overview of project	M/A '53 p37#
opened	J/A '54 p6#
I-505 [Leg. Rt. 90]; Vacaville-Dunnigan Cut-off officially dedicated	S/O '47 p27
improvement under construction	J/A '59 p3#
Netherlands Rd. [FAS Rt. 1156]	1
Jefferson BlvdClarksburg link completed	N/D '48 p50#
Rt. 16; Woodland-Sacramento River Rd.	•
E St., Woodland-Yolo Bypass unit improvement underway	M/J '51 p28
Kiesel Crossing section realigned	N/D '52 p52#
Rt. 128 [Rt. 6]; Monticello Dam highway relocation	•
portion of abandoned; new route under construction	M/A '55 p17
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### **ROUTES, Continued**

VI C	
Yuba Co.	T/A 472 20
1912 state highway project recalled	J/A '52 p29
highway projects, general	J/A '59 p23
Rt. 20 [Rt. 15], Tahoe-Ukiah Hwy.; Parks Bar Bridge link completed	S '37 p4#
Rt. 65 [US 99E]	010 (46 0511
approach to Feather River Br. underway	S/O '46 p25#
repair work on completed	S/O '45 p28#
Routes by number	
Rt. 49 [Mother Lode Hwy.]	0/0/50 101
construction history	S/O '50 p101
description of route S/O '45 p4#;	J/A '63 pl 1#
improvements made to J/F '53 p19;	J/A '63 p11#
scenic, recreational aspects	M/J '66 p40#
Rt. 99 [Rt. 4, Golden State Hwy.]	0/0/50 100
construction history	S/O '50 p103
construction progress, general S/O '48 p1; N/D '48 p13; J/A '49 p36;	3.5/3./55 25
S/O '54 p1#; S/O '56 p55; J/F '57 p58;	M/J '57 p37
Interstate-5	010 (65 001)
Ridge Route [US 99], construction history N/D '45 p6#; J/A '49 p18#;	S/O '65 p20#
San Diego-San Joaquin Valley unit, description of route	J/A '66 p22#
Westside Fwy., plans for J/A '58 p18;	S/O '60 p49#
routing adopted	J/A '62 p33
construction begins on; overview of project	S/O '63 p27#
soil subsidence, problems of	M/A '66 p40#
Interstate-80 [US 40]	0/0 /50 00
construction history	S/O '50 p99
history of in relation to national Victory Hwy.	M/J '56 p38
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progress on, overall S/O '48 p1; J/A '54 p5; S/O '56 p40#;	J/F '57 p57
right of way problems and	-
right of way problems and Sacramento-Nevada route N/D '57 p13#, 43#; N/D '59 p2#;	J/F '57 p57 J/A '46 p11
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;	J/F '57 p57 J/A '46 p11 J/F '65 p42;
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route  S/O '61 p6#;  wins ASCE award for engineering achievement	J/F '57 p57 J/A '46 p11 J/F '65 p42;
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route  S/O '61 p6#;  wins ASCE award for engineering achievement  US 50	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8#
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route  S/O '61 p6#;  wins ASCE award for engineering achievement  US 50  becomes an all year highway; history of route	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8# S '41 p1#
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route  S/O '61 p6#;  wins ASCE award for engineering achievement  US 50  becomes an all year highway; history of route history of, in relation to national Lincoln Hwy.	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8# S '41 p1# M/J '56 p38
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right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route S/O '61 p6#;  wins ASCE award for engineering achievement  US 50 becomes an all year highway; history of route history of, in relation to national Lincoln Hwy. construction progress, general  S/O '54 p4#;  US 101	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8# S '41 p1# M/J '56 p38
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route S/O '61 p6#;  wins ASCE award for engineering achievement  US 50 becomes an all year highway; history of route history of, in relation to national Lincoln Hwy. construction progress, general  S/O '54 p4#;  US 101 construction, general progress  N/D '48 p13; J/A '49 p37;	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8# S '41 p1# M/J '56 p38 N/D '57 p13#
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route S/O '61 p6#; wins ASCE award for engineering achievement  US 50 becomes an all year highway; history of route history of, in relation to national Lincoln Hwy. construction progress, general  US 101 construction, general progress N/D '48 p13; J/A '49 p37; M/J '52 p30; J/A '54 p1#; J/F '57 p58;	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8# S '41 p1# M/J '56 p38 N/D '57 p13#
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route S/O '61 p6#; wins ASCE award for engineering achievement  US 50 becomes an all year highway; history of route history of, in relation to national Lincoln Hwy. construction progress, general  S/O '54 p4#;  US 101 construction, general progress N/D '48 p13; J/A '49 p37; M/J '52 p30; J/A '54 p1#; J/F '57 p58; description, history of route overall  N/D '48 p14;	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8# S '41 p1# M/J '56 p38 N/D '57 p13# M/J '57 p36 S/O '50 p106
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right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route  wins ASCE award for engineering achievement  US 50  becomes an all year highway; history of route history of, in relation to national Lincoln Hwy. construction progress, general  S/O '54 p4#;  US 101  construction, general progress  N/D '48 p13; J/A '49 p37;  M/J '52 p30; J/A '54 p1#; J/F '57 p58; description, history of route overall El Camino Real, history, origin of mission bells, replacement of  M/J '52 p34;	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8# S '41 p1# M/J '56 p38 N/D '57 p13# M/J '57 p36 S/O '50 p106
right of way problems and Sacramento-Nevada route  N/D '57 p13#, 43#; N/D '59 p2#;  J/F '62 p10#; M/A '63 p2#;  Vallejo-Sacramento route S/O '61 p6#;  wins ASCE award for engineering achievement  US 50 becomes an all year highway; history of route history of, in relation to national Lincoln Hwy. construction progress, general  S/O '54 p4#;  US 101 construction, general progress N/D '48 p13; J/A '49 p37; M/J '52 p30; J/A '54 p1#; J/F '57 p58; description, history of route overall El Camino Real, history, origin of mission bells, replacement of Redwood Hwy.	J/F '57 p57 J/A '46 p11 J/F '65 p42; J/F '65 p48 M/A '66 p8# S '41 p1# M/J '56 p38 N/D '57 p13# M/J '57 p36 S/O '50 p106 J/A '50 p29#
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tripods painted to protect surveyors	N '37 p25#	,,
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flared guard railing, reduces accidents at bridge approaches	M/A '54 p54	
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metal guard rails replace curbs at intersections	Jul '42 p12#	
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Regulatory sign group described and illust Road conditions, warning signs on freew radio-controlled signs give road conditions. Route numbering system  history of, U.S. and California national standards for revised renumbering system policy updated route renumbering bill passed renumbering in effect  Sign washing operations	strated ays proposed ditions warning  M/A '52 p54#, M/J '60 p10;  M/A '64 p11;	Jan '37 p13 J/A '56 p12 M/A '59 p34# M/J '52 p54# J/F '61 p42 O '37 p13 M/J '63 p11 N/D '64 p11 J/A '59 p21#
Regulatory sign group described and illustrated Speed limit signs  Regulatory sign group described and illustrated Speed limit signs  Route numbering system  history of, U.S. and California national standards for revised renumbering system policy updated route renumbering bill passed renumbering in effect  Sign washing operations  Slow sign group described and illustrated Snow related signs devised to enhance sat Speed limit signs	strated ays proposed ditions warning  M/A '52 p54#, M/J '60 p10;  M/A '64 p11;	Jan '37 p13 J/A '56 p12 M/A '59 p34# M/J '52 p54# J/F '61 p42 O '37 p13 M/J '63 p11 N/D '64 p11 J/A '59 p21# F '37 p13
Regulatory sign group described and illustrated Snow related signs group described and illustrated Speed limit signs group described and illustrated signs group described and illustrated signs group described and illustrated speed limit signs ignored by most motorists	strated ays proposed ditions warning  M/A '52 p54#, M/J '60 p10;  M/A '64 p11;  I fety	Jan '37 p13 J/A '56 p12 M/A '59 p34# M/J '52 p54# J/F '61 p42 O '37 p13 M/J '63 p11 N/D '64 p11 J/A '59 p21# F '37 p13 M/A '52 p56# S/O '53 p5
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Regulatory sign group described and illustrated signs washing operations. Slow sign group described and illustrated signs give road conditions, warning signs on freew radio-controlled signs give road conditions. Route numbering system  history of, U.S. and California national standards for revised renumbering system policy updated route renumbering bill passed renumbering in effect. Sign washing operations. Slow sign group described and illustrated snow related signs devised to enhance satisfied speed limit signs ignored by most motorists safe speed warnings on curves tested 65 MPH zone signs posted.	strated ays proposed ditions warning  M/A '52 p54#, M/J '60 p10;  M/A '64 p11;  Infety  J/F '60 p1;	Jan '37 p13 J/A '56 p12 M/A '59 p34# M/J '52 p54# J/F '61 p42 O '37 p13 M/J '63 p11 N/D '64 p11 J/A '59 p21# F '37 p13 M/A '52 p56# S/O '53 p5 D '38 p24# M/A '60 p66
Regulatory sign group described and illust Road conditions, warning signs on freew radio-controlled signs give road conditions. Route numbering system  history of, U.S. and California national standards for revised renumbering system policy updated route renumbering bill passed renumbering in effect  Sign washing operations Slow sign group described and illustrated Snow related signs devised to enhance sat Speed limit signs ignored by most motorists safe speed warnings on curves tested 65 MPH zone signs posted "Speedometer Check Ahead" signs instal	strated ays proposed ditions warning  M/A '52 p54#, M/J '60 p10;  M/A '64 p11;  I fety  J/F '60 p1;	Jan '37 p13 J/A '56 p12 M/A '59 p34# M/J '52 p54# J/F '61 p42 O '37 p13 M/J '63 p11 N/D '64 p11 J/A '59 p21# F '37 p13 M/A '52 p56# S/O '53 p5 D '38 p24# M/A '60 p66 M/A '60 p58#
Regulatory sign group described and illust Road conditions, warning signs on freew radio-controlled signs give road conditions. Route numbering system  history of, U.S. and California national standards for revised renumbering system policy updated route renumbering bill passed renumbering in effect  Sign washing operations Slow sign group described and illustrated Snow related signs devised to enhance sate Speed limit signs ignored by most motorists safe speed warnings on curves tested 65 MPH zone signs posted  "Speedometer Check Ahead" signs instal Uniform, international traffic control signs	strated ays proposed ditions warning  M/A '52 p54#, M/J '60 p10;  M/A '64 p11;  I fety  J/F '60 p1;	Jan '37 p13 J/A '56 p12 M/A '59 p34# M/J '52 p54# J/F '61 p42 O '37 p13 M/J '63 p11 N/D '64 p11 J/A '59 p21# F '37 p13 M/A '52 p56# S/O '53 p5 D '38 p24# M/A '60 p66 M/A '60 p58# M/J '52 p53#
Regulatory sign group described and illust Road conditions, warning signs on freew radio-controlled signs give road conditions. Route numbering system  history of, U.S. and California national standards for revised renumbering system policy updated route renumbering bill passed renumbering in effect  Sign washing operations Slow sign group described and illustrated Snow related signs devised to enhance sat Speed limit signs ignored by most motorists safe speed warnings on curves tested 65 MPH zone signs posted "Speedometer Check Ahead" signs instal	strated ays proposed ditions warning  M/A '52 p54#, M/J '60 p10;  M/A '64 p11;  I fety  J/F '60 p1;	Jan '37 p13 J/A '56 p12 M/A '59 p34# M/J '52 p54# J/F '61 p42 O '37 p13 M/J '63 p11 N/D '64 p11 J/A '59 p21# F '37 p13 M/A '52 p56# S/O '53 p5 D '38 p24# M/A '60 p66 M/A '60 p58#

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Avalanche control	J/F '63 p16
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"Sierra Crews Fight Drifts" by Jack Welter, S.F. Examiner	J/F '52 p11
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#### completed **TUNNELS**, Continued

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Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49#
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40
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Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40 F '42 p17 May '42 p2
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures luminescent paints for use in blackouts studied	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40 F '42 p17 May '42 p2 F '42 p6
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40 F '42 p17 May '42 p2
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures luminescent paints for use in blackouts studied traffic signal unit designed to meet blackout regulations Bridges 700 bridges deemed inadequate for defense needs	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40 F '42 p17 May '42 p2 F '42 p6
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures luminescent paints for use in blackouts studied traffic signal unit designed to meet blackout regulations Bridges 700 bridges deemed inadequate for defense needs patrolled by armed guards	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40  F '42 p17 May '42 p2 F '42 p6 Aug '42 p4# D '40 p1# Jan '42 p2
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures luminescent paints for use in blackouts studied traffic signal unit designed to meet blackout regulations Bridges 700 bridges deemed inadequate for defense needs patrolled by armed guards truck lane added to Bay Bridge benefits vital war traffic	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40  F '42 p17 May '42 p2 F '42 p6 Aug '42 p4# D '40 p1#
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures luminescent paints for use in blackouts studied traffic signal unit designed to meet blackout regulations Bridges 700 bridges deemed inadequate for defense needs patrolled by armed guards truck lane added to Bay Bridge benefits vital war traffic WORLD WAR II-RELATED, Continued	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40  F '42 p17 May '42 p2 F '42 p6 Aug '42 p4# D '40 p1# Jan '42 p2 J/A '45 p26#
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures luminescent paints for use in blackouts studied traffic signal unit designed to meet blackout regulations Bridges 700 bridges deemed inadequate for defense needs patrolled by armed guards truck lane added to Bay Bridge benefits vital war traffic WORLD WAR II-RELATED, Continued Broken traffic stripe ("Victory stripe") adopted	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40  F '42 p17 May '42 p2 F '42 p6 Aug '42 p4# D '40 p1# Jan '42 p2
Alamitos Bay/Ocean Park project (Los Angeles Co.) Cable relocation offers challenge on bridge job (Alameda Co.) Cable moving, skidding technique used Freeway clearance operations and utility lines Publicly owned utilities show net earnings Relocation of a problem on San Diego project Telephone cable protected during construction job Telephone cable relocated for freeway job (Los Angeles Co.) Texas-to-California gas line, relocation of "What's under a highway: locating pipe lines and conduits"  WORLD WAR II-RELATED Air Raid attacks, effect of on schools studied Army engineers study foundation test methods for runway design Blackout measures luminescent paints for use in blackouts studied traffic signal unit designed to meet blackout regulations Bridges 700 bridges deemed inadequate for defense needs patrolled by armed guards truck lane added to Bay Bridge benefits vital war traffic WORLD WAR II-RELATED, Continued	J/F '61 p64# J/F '62 p44# M/A '58 p21# N '41 p24 S/O '60 p13# M/J '50 p25 S/O '60 p36# J/F '50 p49# N/D '51 p40  F '42 p17 May '42 p2 F '42 p6 Aug '42 p4# D '40 p1# Jan '42 p2 J/A '45 p26#

expenditures as of Aug. 1, 1942 Federal defense road projects, funding for Federal gas tax increased by .5 cent for national defense funds voted to repair highways damaged by wartime traffic second wartime budget adopted by Highway Commission California signs mark island road in South Pacific Carpooling	Aug '42 p1 May '41 p5 Jun '40 p1 Jun '42 p12 N/D '44 p1 N/D '43 p20#
"Drive For Victory" campaign started among motorists	Apr '42 p18
Highway Division car pool efforts, results of F '43 p9;	M/A '43 p2
regulations for pooling state-owned automobiles issued	O '42 p1
speed restrictions and group riding urged	Jun '42 p3;
Central Valley Project, war effort and S '42 p16; F '43 p10;	M/J '43 p14
Changes in highway activities caused by war	Jan '43 p3
Department of Public Works, participation of in defense efforts	May '42 p1
continued affects of war upon through 1945	J/F '45 p1
Employees	
Casualties	
Blackwell, Robert Lee	M/J '44 p19
Davis, Earl David	M/J '45 p26
Davis, George R.	J/F '44 p20
Evensen, Emil H., bridge dedicated to memory of	N/D '48 p32#
Greenwood, George H. dies as prisoner of war	S/O '45 p27
Larson, Charles, bridge dedicated to memory of	N/D '48 p32#
Miller, Carl T.	J/F '44 p20
Svedeen, Robert E.	M/J '46 p30
enlistments F '41 p9; N '42 p1;	J/F '44 p20
Grayson, H.L. cited for valor	N/D '44 p22
Grumm, Fred J., made consultant on War Production Board	Aug '42 p18
Harris, Milton, awarded Latheran Cross by Pope	M/A '49 p41#
highway men hold reunion in South Pacific	J/F '45 p25#
Kenfield, Keith, praised for heroic conduct	M/J '45 p27#
King, William H. promoted to Lt. Colonel	J/A '45 p30
Jantzen, Herman R. wins citation for bravery	S/O '45 p27
Murray, Edward J. awarded bronze star for heroism	M/A '45 p25
roster of Public Works employees serving in armed forces	N '42 p10 M/A '45 p32
Williams, Claude L. invents bomb-loading device Metal highway signs replaced by masonite to save war material	J/A '44 p16
	J/A 44 p10
National Defense Highway Program access roads built S/O '44 p2#, p8#; N/D '44 p2#; J/F '45 p2#;	J/A '45 p21#
designated military and naval access roads $Jan '42 p18;$	N '42 p1
demands of compel revisions, postponements of other projects	N '41 p1#
how Priorities Control System affects construction activities	Mar '42 p1
need for evaluated	N '40 p1#
problems caused by	F '41 p1#
progress on as of Aug. 1, 1942	Aug '42 p1
takes precedence over normal Public Works activities	Jan '42 p1
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### WORLD WAR II-RELATED, Continued

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Roaus		
asphalt rationing, restrictions on highway work broken glass on roads, increase of; deliberate sabo	M/A '43 p15 Jan '43 p20	
effects of war emergency on highways	The state of the s	Jun '42 p13
maintenance		
problems of due to war emergency	Mar '42 p12; N '42 p1;	S/O '43 p12#
roads damaged by wartime traffic to be repair	red	Jun '42 p12
wartime maintenance, retrospective		S/O '50 p140
mountain highway improved to increase war-need	ed lumber output	J/F '44 p8#
road building program speeds up		F '42 p1
Rubber conservationSee also Carpooling		
California strides ahead in rubber conservation		N '42 p2#
Division of Water Resources saves 288,800 miles	with tire usage plan	D '42 p16
guayule shrubs planted to produce raw rubber		F '43 p12#
Snow removal operations curtailed by war emergency	needs	D '42 p17
Traffic		_
gas rationing and		Jan '43 p12
congestion in vicinity of defense plants		F '41 p1#
control of by short wave radio aids defense effort		F '42 p1
wartime trends shown by survey		Jun '42 p4
wartime truck traffic, volume, tonnage of increase	d	J/A '43 p1#
Transportation problems in wartime discussed by WAS		M/J '43 p18
War surplus materials purchased by PW Dept.		M/J '47 p1#
war surplus bridges used by Div. of Hwys.		N/D '47 p10#
Women employed to work on highways		J/A '43 p17

#### CALIFORNIA HIGHWAYS AND PUBLIC WORKS 1937-1967

#### **EMPLOYEES**

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		M/J '58 p48
Adams, John C.; retires		J/A '60 p69
Adams, Kenneth C.; retires		N/D '57 p25#
Aeppli, Ernest; retires		J/A '61 p60#
Akers, Ray Spencer [obit]		N/D '57 p54
Aldrich, Gladys Elizabeth [obit]		S/O '57 p34
Allan, Rex J. [obit.]		M/A '46 p31
Allen, Clifton M. [obit]		M/A '54 p51
Allison, Bryan [obit]		N/D '48 p56
Amesbury, H. Clyde; retires		S/O '57 p48#
Ammon, Wendell H. [obit]		S/O '54 p30
Andersen, Neal E.; promoted		S/O '63 p48#
Anderson, A.L.; retires		N/D '55 p45#
Andrew, Charles E.; made S.FOakland Bay I	Br. Engineer	F '37 p18
Aramayo, Luis; Tehama Co. street named for		J/A '59 p56
Asbill, J.M.; promoted		M/A '61 p23#
Ashcroft, Glenn B. [obit.]		M/J '46 p29
Austgen, Frank R.; retires		J/A '55 p48#
Avery, George B.; biographical sketch		M/A '66 p48#
Axtman, William F.; retires		J/A '55 p48#
Ayanian, Haig; promoted	M/A '62 p70#;	J/F '63 p59#
В		
Badger, Richard S.; retires		N/D '45 p36
Bagshaw, Fred; made assistant to Director of I	$_{ m W}$	M/J '53 p50#
becomes Director of PW		N/D '58 p9#
Baker, Francis R. [obit]		O '42 p16
Baker, Louis O., diographical sketch		S/O '66 p44#
Baker, Louis O.; biographical sketch Balfour, Frank C. [ARWA founder]; given AR	WA award	S/O '66 p44# J/A '58 p49#
	WA award	-
Balfour, Frank C. [ARWA founder]; given AR	WA award	J/A '58 p49#
Balfour, Frank C. [ARWA founder]; given AR retires	LWA award	J/A '58 p49# J/F '61 p48#
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA	WA award	J/A '58 p49# J/F '61 p48# J/F '64 p42
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit]	WA award	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires	WA award	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR	WA award	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29#
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit]	WA award	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires	N/D '54 p36#; J/A '56 p35#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60#
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires	N/D '54 p36#; J/A '56 p35#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires Baxter, Frank E.; promoted trades position Beaton, John L.; promoted		J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65 S/O '63 p48#
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires Baxter, Frank E.; promoted trades position Beaton, John L.; promoted Beach, Oscar; retires	N/D '54 p36#; J/A '56 p35#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65 S/O '63 p48# J/F '64 p60
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires Baxter, Frank E.; promoted trades position Beaton, John L.; promoted Beach, Oscar; retires Beckley, C. Warren [obit]	N/D '54 p36#; J/A '56 p35#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65 S/O '63 p48# J/F '64 p60 J/F '49 p60
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires Baxter, Frank E.; promoted trades position Beaton, John L.; promoted Beach, Oscar; retires Beckley, C. Warren [obit] Bedford, Thomas A.; retires	N/D '54 p36#; J/A '56 p35#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65 S/O '63 p48# J/F '64 p60 J/F '49 p60 Jul '39 p22#
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires Baxter, Frank E.; promoted trades position Beaton, John L.; promoted Beach, Oscar; retires Beckley, C. Warren [obit] Bedford, Thomas A.; retires activities of since retirement	N/D '54 p36#; J/A '56 p35#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65 S/O '63 p48# J/F '64 p60 J/F '49 p60 Jul '39 p22# M/A '51 p21#
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires Baxter, Frank E.; promoted trades position Beaton, John L.; promoted Beach, Oscar; retires Beckley, C. Warren [obit] Bedford, Thomas A.; retires activities of since retirement [obit]	N/D '54 p36#; J/A '56 p35#; J/F '63 p57#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65 S/O '63 p48# J/F '64 p60 J/F '49 p60 Jul '39 p22# M/A '51 p21# M/A '53 p59
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires Baxter, Frank E.; promoted trades position Beaton, John L.; promoted Beach, Oscar; retires Beckley, C. Warren [obit] Bedford, Thomas A.; retires activities of since retirement [obit] Beer, Charles G.; promoted	N/D '54 p36#; J/A '56 p35#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65 S/O '63 p48# J/F '64 p60 J/F '49 p60 Jul '39 p22# M/A '51 p21# M/A '53 p59 M/A '62 p29#
Balfour, Frank C. [ARWA founder]; given AR retires retires from ARWA Balloch, Roger T. [obit] Banes, Walter M.; retires Banks, Harvey O.; becomes head of DWR Barry, Richard [obit] Batham, Lloyd A.; retires Baumgart, Walter M.; retires Baxter, Frank E.; promoted trades position Beaton, John L.; promoted Beach, Oscar; retires Beckley, C. Warren [obit] Bedford, Thomas A.; retires activities of since retirement [obit]	N/D '54 p36#; J/A '56 p35#; J/F '63 p57#;	J/A '58 p49# J/F '61 p48# J/F '64 p42 M/J '56 p49 J/A '59 p20 J/A '56 p70# D '40 p28 M/A '52 p29# M/A '64 p67 J/F '62 p60# M/J '64 p65 S/O '63 p48# J/F '64 p60 J/F '49 p60 Jul '39 p22# M/A '51 p21# M/A '53 p59

#### CALIFORNIA HIGHWAYS AND PUBLIC WORKS 1937-1967

### **B** Continued

Belknapp, Fred R.; retires Bender, O.; wins honorable mention for bridge design		J/A '53 p48# S/O '66 p39#
Benedict, Charles K. [obit]		J/F '58 p64
Benedict, H. W.; biographical sketch		M/A '66 p48#
Berg, Carl E.; retires		J/F '49 p26
Bergman, Rynard A.; retires		J/A '51 p21
Bergren, Gustave N. [obit]		N/D '47 p36
Bergroth, Rudolph; retires		J/F '63 p56#
Bertken, Les; retires		S/O '54 p62
Beuthel, Raymond L.; retires		J/A '55 p47#
Bezzone, A.P.; wins bridge design award honorable mention		S/O '66 p39#
Bigelow, Howard Thayer ("Tom"); retires		S/O '63 p63#
Biggs, Charles L.; retires		J/F '64 p60
Birnie, A.C.; promoted		M/A '62 p70#
Blackwell, Robert Lee [obit]		M/J '44 p19
Blacow, Mervyn R. [obit]		S/O '63 p62
Block, William; retires		J/F '62 p35#
Blotter, Wayne M.; retires		M/J '63 p58
Boggs, Wallace B.; honored		J/A '52 p47
Bolin, Harry W.; retires		M/A '54 p57
Bolstad, William L. [obit]		S/O '60 p71
Booker, B.W.; promoted		M/A '52 p25#
retires		M/J '59 p26
[obit]	J/A '60 p14;	S/O '60 p68
Boren, Albert L. [obit]	0/11 00 p1.,	N/D '58 p30
Bosso, Oliver R.; becomes assistant, DBTC		J/F '48 p3#
Boswell, Gladys; retires		S/O '58 p63
Botts, Dr. E.D.; retires		J/F '60 p59#
Boucher, Fred L.; awarded Medal of Valor		J/F '65 p58#
Bovey, Clarence E.; promoted		M/J '53 p50#
retires		N/D '58 p10#
Bower, Evan G.; killed on job [obit]		M/J '64 p68
Bowers, H.; Dana cited as shade tree pioneer		J/A '64 p54
retires		S/O '64 p60#
Boyd, Anson; named State Architect		Jun '40 p11#
retires		M/A '62 p72#
Boyle, Charles K.; killed on job [obit]		J/A '59 p56
Bradford, Robert B.; named Director of PW		J/F '59 p13#
made Hwy. Transportation Agency head		S/O '61 p1#
Bradshaw, Marion; retires		S/O '61 p79
Braker, William J.; retires		N/D '58 p49
Brianas, Chistos; biographical sketch		J/A '66 p48#
Briney, Albert C.; retires		J/A '62 p54#
Brinkerhoff, O.B.; retires		M/J '53 p48#
Bromm, George E. [obit]		S/O '53 p51
Brown, Elbert C. [obit]		J/A '63 p71
Brown, Paul; biographical sketch		M/A '66 p48#
Brunk, George C.; sets safety record		M/J '51 p42#
Bryan, Everett N. [obit]		Jan '40 p28
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Buell, T.T.; retires	S/O '57 p49
Burke, Norris J. [obit]	S/O '59 p30
Burns, C.R. [Bob]; retires	M/A '62 p78#
Burnside, Frank E.; retires	J/A '53 p48#
Burrill, John C.; promoted	M/A '62 p69#
Burroughs, Spencer R. [obit]	J/F '49 p53
Busby, Forest N.; retires	S/O '56 p38#
Byroads, Harold; retires	M/A '58 p53#
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$\mathbf{C}$	
Caffrey, Joseph A. [obit]	S/O '64 p71
Caine, Chester L. [obit.]	M/J '45 p26#
Call, James McCulloch [obit]	F '41 p28
Campbell, L.V.; retires	M/J '53 p48#
[obit]	J/F '60 p64
Cardwell, Mark L.; retires	M/J '62 p33#
Carleton, C.C.; retires	J/F '49 p23#
Carlisle, Robert J.; retires	S/O '57 p48#
Carlstad, Edwin [obit]	J/F '52 p61
Carr, Francis J.; becomes U.S. Navy Lietenant	N/D '43 p20
Carter, Edward F.; retires	J/F '63 p57
Carter, F.M. ["Nick"]; honored by Traffic Institute	N/D '50 p54
[obit]	M/J '54 p59
Carter, Harry F. [obit]	J/F '57 p46
Carson, Edward Whitney [obit]	Jun '38 p28
Carver, Arnold; wins Hewes Award for radio communication	S/O '54 p33#
Casey, Richard T.; promoted	J/A '63 p69#
Chaffee, John M.; promoted	M/A '55 p60
Chambers, Frank A.; made Chief Deputy Director	N/D '59 p19#
Chase, Ralph V.; retires	J/F '62 p25#
Chatters, Ford A.; appointed to State Personnel Board	M/J '47 p29
Cheeseman, Glenn H. [obit]	M/J '59 p40
Church, Hartley R. [obit]	May '41 p24
Clark, A.C.; retires	S/O '57 p49
Clark, Frank W.; named Director of PW	Jan '39 p3#
Cobb, Samual A. [obit]	Jun '41 p18
Cobb, William R.; retires	J/F '58 p59#
Coghill, John W. ("Wes"); retires	M/A '64 p67
Collins, Ray; retires	N/D '58 p45#
Colwell, Brian T.; biographical sketch	J/A '66 p48#
Comly, Harry S. [obit]	J/F '50 p52
Compagnon, Henri; retires	M/J '63 p58
Conkling, Harold; resigns	M/J '45 p26
Cook, George N.; retires	M/A '62 p73#
Cooney, Russell J.; promoted	N/D '59 p19#
Cooper, Herbert L.; retires	S/O '52 p26#
and wife, [obit]	J/F '53 p33
Corey, Lester G. [obit]	M/J '51 p26
Corey, Desici G. [only	141/3 31 p20

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retires	S/O '49 p19#;	N/D '49 p46
Angeles Crest Hwy. (Rt. 2, L.A. Co.) and		N/D '56 p7
[obit]		S/O '62 p46
Cotter, William N. [obit]		N/D '57 p54
Cowgill, Paul; retires		M/J '64 p70#
Craemer, Justus		O '37 p16
Craig, Lloyd Dunbar [obit]		J/F '58 p58
Cramer, I.F. ("Ferd"); retires		J/F '61 p70#
Crandall, Richard R.; biographical sketch		J/F '67 p46#
Cravens, Jethro J. killed on job [obit]		J/F '65 p30
Crawford, Wayne H.; retires		M/J '65 p63#
Crayton, George A. [obit]		S/O '49 p58
Creed, John H.; retires		M/J '62 p31#
Crespo, Zacharias [obit]		J/A '47 p27
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Cressy, Frank B.; retires		M/A '63 p77#
Cruza, George F. [obit]		N/D '58 p30
Cully, William S.; retires		J/F '63 p58#
Curry, Edward Brooks [obit]		M/J '59 p43
Curry, Joseph M. [obit]		S/O '53 p51
Cushman, Freeman H.; retires		J/A '49 p38#
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Dahlquist, John; retires		S/O '55 30
Dallas, Eli [obit]		O '39 p28
Daniels, W. K.; retires		J/F '55 p56#
Darby, Claud H.; wins welding foundation award		N/D '47 p34#
Darling, Harry C.; retires		M/A '51 p31#
Darling, W. V.		Jan '37 p25
Darlington, Francis George [obit]		F '37 p28
Datel, Robert J.; biographical sketch		S/O '66 p44#
Dauchy, Fred B.; retires		M/A '55 p48#
Davenport, Berle Joy [obit]		M/A '49 p59
Davidson, John B.; retires, honored at banquet		N/D '53 p60#
Davies, Stewart R. [obit]		J/A '60 p67
Davis, Chester Ross [obit]		J/A '45 p27
		•
Davis, Coral Porter; retires		J/F '62 p79#
Davis, Earl David [obit]		M/J '45 p26#
Deady, Wayne J. [obit]		J/A '57 p13
Deffebach, Richard; promoted		J/F '63 p43#
De Haven, Harry W. [obit]	0/0/55 51//	J/F '50 p51
Dekema, Jacob; promoted	S/O '55 p51#;	J/A '62 p35#
Delaney, Ralph E.C. [obit]		J/A '53 p38
Dennis, T.H.; retires		S/O '49 p24#
Deuel, Norman B. [obit]		J/F '64 p59
Devine, Patrick; retires		M/J '63 p58
Dobbins, Wiliam E. [obit]		M/A '46 p29
Dobrotin, Michael N. [obit]		J/A '52 p8
Dobson, James B. [obit]		M/J '47 p32

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### **D** Continued

Dolliver, William S.; retires		J/A '60 p71#
D'Ooge, Leonard; made Administrative Assistant		Apr '42 p9#
Dougherty, Clementine; retires		M/A '59 p45#
Douglass, Walter A.; retires		S/O '55 p47
Downes, Nate W.; retires		J/F '55 p56#
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Drew, Eldridge D.; retires		M/J '64 p68#
DuCray, Justin J.; promoted		M/J '61 p53
Dudman, Arthur F.; promoted		N/D '59 p21#
Duffy, Raymond P.; retires		S/O '55 p45#
Dunckhorst, Paul; retires		J/F '54 p50#
Dunham, Neil; first computer systems engineer		M/A '64 p69#
Dunn, Ruth K. [obit]		J/A '50 p54
Durkee, Frank B.		NA/T (40 44
promoted		M/J '48 p44
named interim Director of PW	3.6/1.45.6	J/A '51 p1
career of	M/J '56 p47;	S/O '64 p51
retires		J/F '58 p41#
Dwyer, L. B.; biographical sketch		M/A '66 p48#
$\mathbf{E}$		
Easterday, Ora T.; retires		J/A '52 p28#
Eastman, Thomas [obit]		M/A '51 p25
Ebberts, Alfred R. [obit]		J/F '49 p53
Edmonston, A.D.; career of		J/F '50 p11#
retires		S/O '55 p44#
[obit]		M/A '57 p45
Edwards, Raymond Phillip [obit]		J/A '46 p29
Eggert, Robert J. [obit]		May '40 p32
Eidson, Milo E. retires; honored at banquet		N/D '53 p60#
Elliottt, A.L.; promoted		S/O '53 p49#
Enger, Arthur L. [obit]		S/O '49 p42
Epperson, Wiliam H.; retires		M/J '52 p28#
Eremin, Anatol A.; gives advice to Hawaii [T.H.]		S/O '54 p31#
retires		J/F '61 p71#
Erreca, John; appointed to CHC		J/F '61 p37#
appointed Director of PW		M/A '63 p42#
Escobedo, Frank J.; returns to PW		S/O '54 p32
made Deputy Director of PW		J/A '56 p65#
[obit]		J/F '57 p62
Eslick, Charles L. [obit]		S/O '56 p36
Estep, Alvord C.; promoted		J/A '64 p55#
Evans, Edward L.; retires		J/A '52 p27#
		M/J '51 p12
Evans, Don G.; promoted retires		N/D '54 p37#
Evensen, Emil H.; bridge dedicated to memory of		N/D '48 p32#
· · · · · · · · · · · · · · · · · · ·		N/D '58 p18
Everitt, F.L.; promoted Ewing, Merle E.; promoted		J/A '63 p69#
Ewing, Metie E., promoted		3/A 03 p09#

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Fahey, William L.; retires		N/D '55 p44#
Fahy, Leo S. [obit]		S/O '60 p71
Farnsworth, George; retires		M/A '54 p60#
Faustman, William F.; retires		N/D '50 p32#
Fenton, Harry S.; appointed legal head		S/O '63 p42#
Fite, Preston L.; retires		M/A '50 p32
Flack, Charles L. [obit]		S/O '54 p30
Fletcher, Austin B. [pioneer road builder]		
reprint of 1928 tribute to		S/O '50 p81
Fluter, George; biographical sketch		M/A '66 p48#
Foley, E.R.; promoted		J/A '56 p35#
transfered		M/J '61 p31#
made head, DBTC		N/D '63 p57#
Forschler, Homer T.; retires		J/A '62 p54#
Fosgate, Marc C.; retires		J/A '56 p59#
Fraleigh, Douglas M.; wins bridge design award		N/D '59 p45#
Frankland, Bamford; promoted		J/A '64 p56#
Freeman, Harry D.; promoted		N/D '59 p19#
Frykland, Basil; retires		J/A '58 p51#
Fulton, Rex H. [obit]		J/F '61 p74
Funk, L.L.; to head photogrammetry unit	M/J '56 p46#;	J/F '57 p51
promoted		N/D '59 p20#
retires		J/A '63 p67#
$\mathbf{G}$		
Gallagher, Bernard M.; retires		S/O '57 p51#
Gallagher, James; retires		S/O '54 p60#
Gallagher, John D. [obit]		J/A '56 p56
Garcia, Kenneth M. [obit]		N/D '58 p30
Garrigan, Elred G. [obit]		J/A '49 p33
Garrison, Fred R.; retires		M/A '62 p77#
Gatoura, N.G.; promoted		J/A '63 p69#
Gay, Harvey P.; retires		S/O '52 p27#
George, Abram N. [obit]		J/A '46 p29
German, Art; biographical sketch		J/F '67 p46#
Gibson, Lester H. [pioneer road builder]; retires		N/D '49 p15#
Gilbert, A.K.; retires		J/A '56 p64#
Gillis, Lyman R.; promoted	M/J '56 p48#; S/O '57 p38;	J/F '60 p2#
Gillis, R.M.; promoted		Apr '38 p27#
made Deputy State Hwy. Engineer		N/D '50 p10#
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returns to PW post		S/O '57 p39
becomes Director of PW		J/F '58 p41#
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Glenn, Michael G. [obit]		M/A '52 p20
Gloe, Robert [obit]		J/F '49 p45
Godwin, Merle H. [obit]		N/D '50 p63
Good, Clifford David [obit]		N '42 p9
Goodwin, James H.; retires		S/O '55 p45#
Gough, William J.; retires		M/A '53 p44#
Graham, Clyde A. [obit]		J/A '47 p27
Grant, Eric P.; biographical sketch		S/O '66 p44#
Grant, Frederick N. [obit]		N/D '49 p28
Grayson, H.L.; cited for valor in South Pacific		N/D '44 p22
Greeley, Douglas Hunter [obit]		Apr '41 p23
Green, Clifton F.; ressigned		J/F '63 p59#
Green, Everett R. [obit]		S '42 p20
Green, Frank F.; retires		J/A '62 p54#
Green, John D. [obit]		J/A '43 p17
Green, John W.; retires		M/A '60 p63#
Green, P. Renwick; retires		M/A '53 p45
Greene, George A.; retires		M/A '63 p11#
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[obit]		S/O '45 p32
Griffin, A. D.; retires		J/A '60 p69#
Gripper, Edward S.; retires		S/O '49 p23#
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Gustafson, Charles F.; biographical sketch		J/A '66 p48#
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Halstead, Wade O.; retires		S/O '59 p50#
Halsted, Helen; retires		M/A '62 p18
Hamblin, W.H.; returns to Naval service		N/D '50 p49#
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Hampton, Earl W.; promoted	J/A '55 p22;	N/D '59 p21#
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Hatton, Mary; retires Haverstick, Robert Mellous [obit	1		S/O '56 p39# M/J '50 p48
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Hawkins, Helen; early career of			J/F '53 p45
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Hayler, R.A.; promoted	CITID A		J/F '57 p47#
Haynie, Robert M.; appointed to	CIBA		M/A '64 p35
Hazen, Howard Spencer [obit] Hellesoe, George F.			May '39 p28 J/F '46 p20
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Henderlong, Carl A.; retires			N/D '58 p57#
Henderson August H.; promoted		F '43 p9#;	M/J '48 p44
appointed Duputy Director o	f PW		M/J '55 p18
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Hess, Rudolph; promoted	S	S/O '56 p38#;	J/F '61 p48#
Higgins, E. Roy; retires			M/A '62 p69#
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Hills, George A.; trades position Hilton, Albert A.; retires	L		M/J '64 p65 J/A '62 p55#
Himelhock, Alfred L.; promoted			S/O '57 p38#
Hine, Paul; retires			J/F '61 p74#
Hineman, Howard R.; promoted			J/A '65 p27#
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Hippenstiel, Clyde; wins tennis	championship		S/O '53 p48#
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Hollis, Robert L.; retires	J/F '52 p49#
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Hollister, Leonard C.; retires	J/A '63 p71#
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retires	S/O '52 p27#
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Hopkins, Harry A. [obit]	S/O '57 p64
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Hyatt, Edward; retires	J/F '50 p9#
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Irish, Wilburn H. [obit]	J/F '53 p47
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Jahlstrom, I.O.; promoted	S/O '53 p49#
retires	J/A '65 p27#
Jain, Ted; retires	J/A '55 p50
[obit]	M/A '58 p50
Jantzen, Herman R.; wins citation for bravery	S/O '45 p27
Jerrett, H.D.; retires	M/A '48 p37
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Johnson, Grover Shirley [obit]	M/J '47 p32
Johnson, Harry D.; retires	J/F '58 p58#
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Jones, Robert Leroy [obit]		S '40 p25#
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Jorgenson, J. Frank; promoted	J/F '57 p47#;	S/O '62 p59#
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Kagan, Harry L.; promoted		J/A '64 p56#
Kahl, Louis H.; retires		S/O '59 p52
Kane, Clyde V.; promoted	S/O '52 p25#;	M/A '53 p52#
Kane, Joseph M.; retires	5/O 52 p25//,	S/O '56 p39#
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Katerndahl, Ella; retires		M/A '59 p51#
Keating, Albert; retires		M/A '62 p79#
Keaton, Morgan; made Deputy Director of PW		Mar '40 p12#
Kelso, W.P.; retires		N/D '55 p43
Keller, Robert N.; biographical sketch		J/A '66 p48#
Kenfield, Keith; praised for heroic conduct		M/J '45 p27#
Kenyon, Margaret; retires		M/J '55 p48#
King, Edward F.; retires		J/A '61 p65#
King, William H.; promoted to Lt. Colonel		J/A '45 p30
Kile, Harry L.; retires		J/A '55 p47#
Kinsey, Ralph D.; retires		M/J '65 p63#
Kinsman, J.K. [obit]		J/F '49 p53
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retires		S/O '63 p13#
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Kono, Tommy; sets weight-lifting record Koritz, Lester S.; made editor of CH & PW		N/D '54 p30, p64
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Kozak, John J.; appointed to DBTC		J/F '65 p74#
promoted  Vriagh II P : ratings		J/A '65 p47
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Kuphal, Henry; work on Four-level Structure praised		J/F '53 p58
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Larson, Charles; bridge dedicated to memory of	N/D '48 p32#
Latham, Earl R.; wins bridge design award honorable mention	S/O '66 p39#
Lathrop, Scott H.; promoted	M/A '57 p48
recieves 'Engineer of Year' award	M/A '60 p62#
named first human relations coordinator	J/A '64 p60
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Latour, B.W.; retires	J/A '55 p50
Leaphart, Frank E.; retires	N/D '58 p56#
Leatherwood, George M. [obit]	S/O '56 p54
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LeBeau, Richard J.; bridge design wins honorable mention	S/O '66 p39#
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Leedom, Sam R.; retires	S/O '57 p48#
Ledden, Charles T.; named to new post	J/A '62 p36#
Legarra, John A.; promoted N/D '55 p47#; M/A '57 p48; N/D '59 p20#;	J/F '62 p60#
Lejonhud, Ralph; promoted	M/J '56 p46#
Lemos, Joseph S.; retires	M/A '53 p44#
Lendecke, H.R.; retires	M/A '59 p43#
Lentz, William J. [obit]	M/J '50 p64
Lernhart, Albert A.; retires	M/J '58 p44#
Levy, Edwin F.; made assistant, DBTC	J/F '48 p3#
retires	M/A '64 p69#
Lewis, K.D.; retires	N/D '59 p44#
Lichthardt, George H.P. [obit]	J/F '45 p31
Long, Walter J.; retires	S/O '55 p45#
Lowden, Perry R.; retires	N/D '59 p30#
Lowden, Spencer W. [pioneer engineer] [obit]	J/F '53 p33
Lund, Alexander N.; retires	M/A '54 p56#
Lusk, Hilton F.; career of	M/J '53 p2#
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	N/D (52 (2))
Macaulay, F.C.; retires	N/D '53 p62#
MacBride, Dexter D.; promoted	J/F '61p48#
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MacDonald, Thomas H.; retires	M/A '53 p23
MacLachlan, Helen R.; retires	S/O '54 p60#
MacLachlan, Kenneth A. [obit]	M/J '63 p62
Mahoney, Henry L.; retires	M/J '57 p50#
Malkson, Earl; retires	J/F '60 p63#
Manhart, Forrest R.; retires	M/A '62 p78
Marckhoff, Carl S. T. [obit]	M/A '50 p60
Marsden, Warren P.; appointed to Judicial Council	J/F '64 p48#
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McAlpine, Harry Scott [obit]		M/J '46 p30
McCarthy, Leo J., Sr.; retires		M/J '55 p48#
McCarty, Henry C.; retires		J/F '65 p73#
McCarton, Albert P. [obit]		S/O '61 p79
McClung, Charles A.; retires		S/O '48 p45#
McComber, Mattie; retires		M/J '48 p44
McCorkle, Nathan C.; retires		J/A '63 p63#
McCoy, George T.		1
appointed State Highway Engineer		F '43 p8#
elected vice president of AASHO		N/D '53 p29#
becomes president of AASHO		N/D '54 p59
elected Western District VP of AASHO		J/F '55 p64
Legislature lauds career of		J/A '59 p19
retires		S/O '59 p3#
recieves Golden Beaver Award		J/F '61 p75
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McCurdy, Andrew Wilfred [obit]		N '39 p28
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McDougall, George B.; retires		O '38 p15#
[obit]		M/J '57 p64
McElvy, Carl C. appointed State Architect		M/J '63 p58#
McFarland, Robert C. [obit]		J/A '55 p27
McGinness, Gillette G.; promoted		N/D '58 p18
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McIvor, George [obit]		Jun '37 p28
McKinney, Guy; retires		M/J '57 p50
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McManus, Frank W.; retires		M/A '54 p58#
McMillan, D.H.; retires		J/F '56 p47#
McNamara, Leslie Taylor [obit]		S/O '45 p14
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McPartland, John W.; retires		S/O '54 p61#
McWaters, James L. [obit]		N/D '57 p22
McWilliams, James T.; wins Dr. L.I. Hewes award		J/A '52 p19#
Meder, Lester C. [obit]		Mar '42 p17
Meehan, Andrew J. [obit]		J/A '58 p46
Mego, William Lewis [obit]		J/F '53 p60
Meier, Henry F. [obit]		J/A '52 p35
Mendenhall, Kenneth; retires		J/F '52 p48#
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Miller, John O. [obit]		M/A '52 p31
Milner, Harry B. [obit] Milton, R.E. [obit]		N/D '59 p45 M/J '59 p44
Mitchell, Stewart; honored by ASCE	N/D '47 p17;	J/A '55 p22
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promoted retires		S/O '53 p49#
Moffitt, John A. [obit]		M/A '55 p48# M/A '50 p54
Montell, Frederick W.; wins Samuel A. Greeley Service Awar	d	S/O '54 p59
retires	u	J/A '65 p47#
Montgomery, Clifton R. [obit]		M/J '50 p9#
Montgomery, Cranston P.; retires		M/A '52 p27#
Montgomery, Mr and Mrs. Z.J.; retire		N/D '50 p33#
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Moore, Fred C.; retires		S/O '65 p53#
Moore, John D.; retires		M/J '54 p62#
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Morton, Oliver L.; retires		Mar '41 p16
Moses, Herbert Lea [obit]		N/D '54 p64
Moskowitz, Karl; wins Hewes Award for traffic engineering re	esearch	J/A '64 p19#
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Myers, Ralph Cather [obit]		N/D '50 p63
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Nash, A.M.		
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retires	,	S/O '62 p59#
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Nelson, Myron F. ("Mique"); retires		S/O '62 p59
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Nickerson, Merrit R. [Division of Hwys. photographer]		•
gets 25-year service pin		M/J '55 p39#
retires		J/A '60 p54#
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Norris, Harry B.; wins prize in photography		M/J '55 p35
Norton, Harold P.; retires		M/A '52 p26#
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Osofsky, Sam [obit]	N/D '59 p46
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Paley, John M. [obit]	S/O '61 p70
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elected director of ASCE	J/F '46 p15
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named Deputy State Highway Engineer		N/D '55 p47#
made State Highway Engineer		S/O '59 p3#
[obit]		J/F '60 i.cvr.#
von Bergen, Harold Emil; looses life in line of duty	Mar '40 p4#;	Apr '40 p28
$\mathbf{W}$	•	
• •		N/D (51 21
Waddell Thomas B.; promoted		N/D '51 p21
retires		S/O '55 p44#
Waight, Vernon H.; biographical sketch		J/A '66 p48#
Waite, Charles E.; promoted		N/D '50 p10#
named Deputy State Hwy. Engineer		N/D '55 p47#
Waggoner, Russell J.; awarded Silver Star medal		M/A '51 p38
Wagner, Elton F.; retires		S/O '60 p70#
Waite, Charles E.; heads Streets Conference		N/D '58 p10#
retires		S/O '63 p46#
Waite, Clement F.; retires		J/F '57 p51#
Wallace, E.E.; retires; dinner held for		S/O '55 p42#
Wallauer, Ruth; retires		M/J '54 p61#
Walsh, Archibald M.		S/O '54 p60#
Walsh, Everett L. retires		J/F '65 p73#
Walsh, J. Frank [obit]		J/A '58 p50
Wanee, Lessley D.; retires		M/J '61 p66#
Ward, R.E.; retires		J/A '50 p54#
Warren, Donald R.; resigns		D '39 p28

#### CALIFORNIA HIGHWAYS AND PUBLIC WORKS 1937-1967

### W Continued

Warren, Willard R.; promoted	S/O '60 p10#;	J/A '64 p55#
Waterman, C Clark; retires	5/0 00 pro//,	J/A '64 p61
Waterman, Herbert A.; retires		J/F '57 p50#
Watson, Paul R.; retires		S/O '54 p61#
Weaver, Frank V.; retires		J/F '57 p50#
Webb, George M.; promoted	M/J '53 p50#;	J/F '63 p43#
retires	W1/3 33 p30π,	M/A '63 p68#
awarded top ITE honor		J/F '65 p71#
Webb, John C.; retires		S/O '60 p71#
Weber, Clifford M.; retires		N/D '50 p34#
Weber, William G.; biographical sketch		M/A '66 p48#
Weigel, Fred C. [obit.]		M/A '45 p32
Welch, William L.; promoted		N/D '55 p43#
Wells, R. Kenneth; biographical sketch		M/A '66 p48#
West, Melbourne H.; promoted		N/D '58 p10#
[obit]		M/J '62 p63
Weymouth, L.A. [obit]		J/F '63 p58
Whalen, Thomas J.; retires		M/A '52 p29#
White, S. Alan; becomes personnel director		J/A '57 p66
White, Walter W. wins honorable mention for bridge design		S/O '66 p39#
Whitlock, Harold J.; retires		M/A '62 p77
Whitehurst, William S.; retires		M/J '63 p6#
Whitmore, Charles H.; retires		S/O '52 p24#
[obit]		N/D '56 p64
Whittemore, Edward N. [obit]		N/D '50 p64
Wildy, Harry H.; retires		J/A '53 p49#
Wieman, Don S.; retires		M/J '65 p16
Wilkinson, Roy; saves drowning boy		S/O '65 p54
Willett, D.C.; retires		M/A '54 p56#
appointed to ASCE Committee		J/A '50 p56
Williams, Hall G. [obit]		J/A '58 p54
Williamson, Hans P.; retires		J/F '56 p31#
Wilson. F.E. ("Ed"); retires		M/A '59 p44#
Wilson, J.E.; promoted		S/O '63 p46#
Wilson, Richard A.; retires		M/A '59 p45#
Wilson, Richard H.; biographical sketch		J/F '49 p11#
retires		S/O '57 p47#
[obit]		S/O '60 p63
Wing, Robert L. [obit]		M/J '52 p49
Wingerd, Norman; biographical sketch		J/F '67 p46#
Winkler, Wyatt C. [obit]		J/F '64 p58
Winn, Richard; made editor of CH & PW		S/O '57 p7
resigns		S/O '59 p54
Winslow, George R.; retires		Jun '41 p13#
[obit]		J/F '54 p64
Winslow, Jean P. [obit]		J/A '56 p68
Winter, C.C. ("Buck"); retires		M/J '63 p11#
Wise, Earl S.; retires		M/A '54 p60#
,		

W Continued		
Withycombe, Earl; promoted		N/D '50 p10#
retires		M/A '57 p47#
made ASCE life member		M/A '63 p41
Witt, Freeman C. [obit]		M/J '58 p48
Wolfe, Edward A. [obit]		M/A '50 p31
Womack, J.C.		
promoted	N/D '55 p47#;	N/D '59 p20#
made State Hwy. Engineer		J/F '60 p2#
elected WASHO VP	J/A '60 p25;	J/F '61 p37
elected WASHO president	M/J '61 p31;	N/D '61 p6
honored by APWA		S/O '63 p50#
appointed to Highway Research Board		J/F '65 p24
wins George S. Bartlett Award		J/F '67 p36#
Wonacott, Dwight [obit]		S/O '61 p56
Wood, Eleanor; biographical sketch		J/A '66 p48#
Wood, Howard C.; retires		M/A '62 p73#
Woodhams, H.E.J.; retires		J/A '61 p60#
Woodin, Clarence F.; retires		N/D '53 p61#
Woodson, James B.; retires		J/A '54 p60#
[obit]		J/F '63 p60
Wotton, George Ernest [obit]		F '40 p28
Wright, Albert F.; retires		J/F '53 p48#
Wright, James F.; made Deputy Director of PW		J/F '59 p13#
made Deputy Director, Dept. of Water Resources		S/O '59 p53
Y		
Young, F.H. ("Fair"); retires		S/O '60 p69#
Young, J.C.; resigns		M/A '57 p48
Young, R.L. [obit]		J/A '47 p27
Younger, Robert C.; retires		J/A '61 p60#
$\mathbf{Z}$		
Zander, Gordon; promoted		N/D '51 p21
retires		J/F '53 p48#
Zeeman, Jacques T.; retires [obit]		S/O '63 p63 M/J '64 p67
Zerswah, Robert E.; wins honorable mention for bridge desi	σn	S/O '66 p39#
Zook, Clarence V.; retires	511	M/J '59 p46#
Zook, Ralph W. [obit]		M/A '61 p64#
Zube, Ernest; wins Emmons Award (AAPT)		M/A '64 p13
Zuov, Ernest, wins Eminons Award (AAT 1)		171/11 OT P13

NAMES LISTS (no biographical information) In Memoriam published N/D '59S/O '60; J/FS/O '61; M/AJ/A '62;	
J/FS/O '63; J/FS/O '64; <b>Retirements</b> published N/D '58; M/J '59; N/D '59; J/FS/O '60;	J/FS/O '65
J/FS/O '61; M/AJ/A '62; J/FM/A, J/A '63S/O '63; J/FS/O '64;	J/FS/O '65
<b>Twenty-Five-year Service Award Recipients</b> published M/A '51; S/O '51; N/D '52; M/J '53; S/O '53; J/F '54; M/J '54; S/ON/D '54;	
M/AN/D '55; M/AM/J'56; S/ON/D '56; J/FM/J '57; M/JN/D '58;	
M/A '59; J/A '59; J/F '60; M/J '60S/O '60; J/F '61S/O '61; M/AJ/A '62;	
M/JJ/A '62; J/FM/A '63; J/A '63; J/F '64; M/J '64; J/F '65;	J/F '66
PEOPLENon Employees	
Armstrong, Ellis L.; heads BHIF	M/A '61 p77
Booe, Floyd O.; conducts ARBA survey	N/D '47 p32
Brown, Elbert C. [U.S. BPR]; retires	M/A '57 p72#
Bugge, William A. [Washington State]; made president of AASHO	J/F '57 p51#
elected chairman, Highway Research Board	J/F '61 p75
Burns, Senator Michael J. [co-author, Collier-Burns Hwy. Bill] [obit] freeway named in memory of (Humboldt Co.) N/D '54 p37#;	M/J '49 p64
freeway named in memory of (Humboldt Co.) N/D '54 p37#; Caldecott, Thomas E.; Broadway Tunnel renamed in honor of	S/O '55 p25# S/O '60 p60
Camarillo, Don Adolfo; Camarillo Fwy. dedication (Ventura Co.) and	S/O '53 p26#
California Highway Commission	5/ 5 F2 F2 6/
Baker, Harrison R.; appointed	S/O '43 p5#
Ballou, Walter T.; made Secretary	O '40 p19#
Barrett, Lawrence; appointed	Apr '39 p8#
Bishop, Robert L.; appointed	J/F '56 p33#
speaks on public right to know	N/D '57 p54
Bozzani, Amerigo; appointed	Apr '39 p8#
Bronson, John O.; appointed Brown, Homer P.; appointed	M/A '58 p51# S/O '43 p4#
[obit]	N/D '52 p47
Chambers, Frank A.; named Secretary	J/F '59 p13#
Chambers, Walter; named Secretary	Aug '40 p20#
Chase, H. Stephen; appointed N/D '51 p21#;	J/F '55 p65#
Cooper, Jack; named Secretary	N/D '59 p19#
Cristina, Vernon J.; appointed	J/F '67 p13#
Darlington, Newell Dyke [member of original CHC]; recollections of	M/J '56 p47#
[obit]	J/F '61 p72
Erreca, John; appointed	J/F '61 p37#
Fratessa, Paul F. [attorney for CHC] [obit] <b>Guthrie, James A.</b>	M/A '52 p64
appointed CHC	S/O '43 p4#;
honored by San Bernadino (city)	J/F '57 p43#
reappointed J/F '61 p37#;	M/A '65 p67#
[obit]	S/O '66 p40#
Heller, Alfred E.; appointed	J/A '64 p21#
Hitchcock, L.G.; appointed	Apr '39 p8#
Houghteling, Joseph C.; appointed	J/F '65 p24#
Jennings, Fred C.; appointed	J/F '67 p12#
Kennedy, Rolland Cashel (Cass); appointed Secretary	N/D '50 p54#
[obit]	J/F '62 p79

#### CALIFORNIA HIGHWAYS AND PUBLIC WORKS 1937-1967

### CHC, Continued

CHC, Continued		
Kofman, Abraham; appointed	S/O '61 p5#;	M/A '64 p35#
made Vice-chairman		J/A '64 p61
Lee, Moon Lim; appointed		J/F '67 p13#
Leigh, Charles Thompson; appointed		M/J '49 p56#
Luce, Gordon C.; appointed		J/F '67 p12#
Luddy, Arthur T.; appointed		J/F '63 p17#
resigns		J/A '64 p61
McClure, Robert E.; appointed	J/F '54 p45#;	J/F '58 p24#
Maghetti, C.A.; appointed		J/F '55 p59#
Martin, Ben D.; named Secretary		S/O '58 p6
past members, lists of S/O '50 p75; N/D '60 p4; N/D '6	1 p4; N/D '62 p4;	N/D '63 p4
Nielsen, Iener W.; appointed		Apr '39 p9#
Payne, Franklin S.; appointed		J/F '62 p2#
Penfield, L.L.; made Secretary		Jul '42 p18#
Purchio, John L.; appointed		J/F '60 p46#
becomes judge		S/O '61 p5
Sandelin, Walter F. appointed	S/O '43 p5#;	J/F '52 p35
Savage, George W.; appointed	J/F '48 p33#;	S/O '49 p30#
[obit]		S/O '61 p95
Scott, Byron N.; appointed Secretary		Apr '39 p9#
Smith, Arnholt C.; appointed	S/O '43 p4#;	M/A '49 p58
Speers, Fred W.; appointed		J/F '55 p65#
Vaughn, Bert L.; appointed		Apr '39 p9#
Warlow, Chester H.		
appointed	S/O '43 p5#;	J/F '57 p43#
elected Vice Chairman		M/A '58 p50
honored for "Years of Devoted Service"		J/A '58 p47#
[obit]		J/F '64 p36
Whitehurst, William S.; reappointed		M/A '65 p67#
Woolley, Roger S.; appointed	M/A '59 p33#;	J/F '63 p17#
elected vice-chairman		J/F '65 p24
Craemer, Justus F. [CPUC] retires		N/D '56 p43
Davis, J.A. [Auto. Club of S. California counsel] retires		J/A '59 p52
East. E.E. [Auto. Club of S. California Chief Engineer]; retire	es	J/A '57 p22
[obit]		N/D '57 p56
Ellis, James W.; teen appointed mock Director of PW		J/A '56 p66#
Evans, Don G. [veteran engineer]; made Asphalt Institute Di	st. Engineer.	J/A '55 p63
Graham, John R. [pioneer roadbuilder] [obit]		M/J '55 p39
Hadley, George C. [L.A. Deputy Chief Council] retires		J/F '64 p27#
Hale, Hal H. [AASHO] resigns		N/D '54 p33
Hendee, Clare; named Assistant Chief of Forest Service		S/O '55 p31
Heslep, Edward A.; named aid to Bridge Authority		M/J '59 p44
Hewes, Dr. L.I. [veteran road builder] [obit]		M/A '50 p33
Hislop, John K.; gets post with state Chamber of Commerce		N/D '51 p35

Historical Figures		
Anza, Don Juan Bautista de		S/O '50 p14, p21
Beckwourth, James P.; Beckwourth Pass and		S/O '53 p20
Donner party survivors		M/J '46 p5#
Fremont, John C.; Gaviota Pass and	S/O '50 p42#;	M/A '51 p6
Marlette, S.H. (first Surveyor General)		S/O '50 p69#
Serra, Junipero		S/O '50 p3#
Hoberg, George; California Safety Council president		M/J '53 p51#
Johnson, Alfred E.; assumes post with AASHO		J/F '55 p59#
Judah, H. Ray [former State Senator] [obit]		M/J '60 p68
Kelleher, Dennis J. [Bay Bridge employee] [obit]		S/O '56 p54
Knudsen, Mrs. Valley M.; Los Angeles Beautiful founder		J/F '67 p46#
MacDonald, Thomas H. [U.S. BPR] [obit]		M/J '57 p19
MacLachlan, Kenneth A. [pioneer highway economist]; retires		M/J '58 p47#
Mattson, Joe O.; named president ASF		N/D '53 p49
McCormack, Sen. Thomas [good roads leader] [obit]		S/O '49 p57
Merrill, Gen. Frank D.; dies two days after election to AASHO		J/F '56 p53#
Mickle, D. Grant; appointed Deputy FHA		J/F '62 p15
named director, NAS-NRC		J/F '64 p21
Monahan, Robert M.; named BHIF executive		M/A '62 p10
Moore, Edwin S.; elected secretary and general manager of CSAA		N/D '53 p55#
Morrisey, N.J.; named State Director of PVS		N/D '53 p63#
Morrison, D.L. [project manager for Guy F. Atkinson Co.] [obit]		J/F '54 p18
O'Neill, J.E.; elected head of AAA		N/D '51 p58#
Penn, Hamilton P. [Portland, Oregon]; sudden death of		J/F '46 p14
Pegram, Reginald B.; made L.A. Deputy Chief Council		J/F '64 p27#
Polk, Martin C. [pioneer engineer]; recalls early road-building days		J/A '52 p29#
[obit]		J/F '56 p69
Prentiss, Gen. Louis W.; becomes Executive VP of ARBA		M/J '56 p72
S.F. Bay Second Crossing Project Consultants		
Freeman, George L.		M/J '48 p18
Pirkner, Herbert R.		M/J '48 p19
Porter, O.J.		M/J '48 p19
Smillie, Ralph		M/J '48 p18
Stewart, Bert; made general manager of National Auto Club		J/F '57 p29
Tallamy, Bertram D.; named Federal Hwy. Administrator		M/A '57 p51#
Teichert, Adolph A., Jr. [well-known contractor]; memory of	honored	M/J '53 p38
Thacher, James F.; appointed to Toll Br. Authority		M/A '61 p34
Vanderlip, Loran C.; promoted by State Chamber		N/D '58 p53
Watkins, D.E.; retires from CSAA		N/D '53 p55
Whitton, Rex M. [Missouri]; becomes president of AASHO		J/F '56 p53#
appointed FHA		J/F '61 p75#