
Bridge Inspection Records Information System

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State of California
Department of Transportation

**Division of Maintenance
Structures Maintenance & Investigations**



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0123
Facility Carried: BREA BOULEVARD
Location : 0.8 MI N CENTRAL AVE
City :
Inspection Date : 05-JUN-01

Bridge Inspection Report

Inspection Type

Routine ☒ Group A ☐ Underwater ☐ Special ☐ Other ☐

Name : BREA CANYON CHANNEL

CONSTRUCTION INFORMATION

Year Built : 1939
Year Widened : N/A
Length (m) : 28

Skew (degrees): 60
No. of Joints : 0
No. of Hinges : 0

Description of Structure : Simply supported 3-span CIP/RC T-beam (5 each) with RC pier walls and with RC open end diaphragm abutments, all supported upon concrete piles.

Span Configuration : (W) 3 @ 9.1 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : OTHER OR UNKNOWN

Inventory Rating : 30.8 metric tons

Operating Rating : 51.7 metric tons

Permit Rating : PPPPP

Posting Load : Type 3 N/A english tons

Calculation Method : LOAD FACTOR

Calculation Method : LOAD FACTOR

Type 3S2 N/A english tons Type 3-3 N/A english tons

DESCRIPTION ON STRUCTURE

Bridge width : (S) 0.3 m br, 0.2 m cu, 2 @ 4.6 m, 0.2 m cu, 0.3 m br (N)

Total Width : 10.1 m

Net Width : 9.10 m

Rail Description : Concrete Baluster

Min. Vertical Clearance : Unimpaired

No. of Lanes : 2

Rail Code : 0000

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth trapezoidal, RC rectangular through the site.

REVISIONS

The abutments and the pier have been retrofitted seismically. The columns have been replaced with a pier wall.

CONDITION OF STRUCTURE

The structure is in good condition.

MISCELLANEOUS

ELEMENT LEVEL INSPECTION RATINGS

F#	Elem	Element Description	Env	Total Units Quantity	Qty in each Condition State				
					St. 1	St. 2	St. 3	St. 4	St. 5
01 13		Concrete Deck - Unprotected w/ AC Overlay	2	250 sq.m.	250	0	0	0	0
01 110		Reinforced Conc Open Girder/Beam	2	140 m.	140	0	0	0	0
01 210		Reinforced Conc Pier Wall	2	40 m.	40	0	0	0	0
01 215		Reinforced Conc Abutment	2	40 m.	40	0	0	0	0
01 227		Reinforced Conc Submerged Pile	2	1 ea.	1	0	0	0	0
01 339		Concrete Railing (aesthetic/masonry)	2	74 m.	74	0	0	0	0

WORK RECOMMENDATIONS - NONE

Printed on : 08-JUN-2001 10:21:43 AM

Bridge No.: 55C0123

Location: 0.8 MI N CENTRAL AVE

Inspection Date: 05-JUN-01

Inspected By : M. Ogata

M. Ogata
Registered Civil Engineer



CC : TMRut
Orange County

Bridge No.: 55C0123

Location: 0.8 MI N CENTRAL AVE

Inspection Date: 05-JUN-01

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME - CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0123
 (5) INVENTORY ROUTE(ON/UNDER) - ON 1 40 0M003N
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED - BREA CANYON CHANNEL
 (7) FACILITY CARRIED - BREA BOULEVARD
 (9) LOCATION - 0.8 MI N CENTRAL AVE
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 56 MIN 27 SEC
 (17) LONGITUDE 117 DEG 53 MIN 16 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN: MATERIAL - CONCRETE
 TYPE - STRINGER/MULTI-BEAM OR GDR CODE 1 02
 (44) STRUCTURE TYPE APPR: MATERIAL -
 TYPE - CODE
 (45) NUMBER OF SPANS IN MAIN UNIT 3
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE - BITUMINOUS CODE 6
 B) TYPE OF MEMBRANE - NONE CODE 0
 C) TYPE OF DECK PROTECTION - NONE CODE 0

***** AGE AND SERVICE *****

(27) YEAR BUILT 1939
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON - HIGHWAY 1
 UNDER - WATERWAY 5
 (28) LANES: ON STRUCTURE 02 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 15000
 (30) YEAR OF ADT 1999 (109) TRUCK ADT 1%
 (19) BYPASS, DETOUR LENGTH 2 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 9.1 M
 (49) STRUCTURE LENGTH 28 M
 (50) CURB OR SIDEWALK: LEFT .2 M RIGHT .2 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 9.1 M
 (52) DECK WIDTH OUT TO OUT 10.1 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 8.2 M
 (33) BRIDGE MEDIAN - CLOSED (NO BARRIER) 2
 (34) SKEW 60 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 9.1 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF - NOT H/RR 0 M
 (55) MIN LAT UNDERCLEAR RT REF - NOT H/RR 0 M
 (56) MIN LAT UNDERCLEAR LT 0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL - NOT APPLICABLE CODE N
 (111) PIER PROTECTION - NOT REQUIRED CODE 1
 (39) NAVIGATION VERTICAL CLEARANCE 0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR 0 M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0

***** SUFFICIENCY RATING = 75.5 *****

STATUS = FUNCTIONALLY OBSOLETE

HEALTH INDEX = 100

***** CLASSIFICATION ***** CODE

(112) NBIS BRIDGE LENGTH - YES Y
 (104) HIGHWAY SYSTEM - NOT ON NHS 0
 (26) FUNCTIONAL CLASS - MINOR ARTERIAL URBAN 16
 (100) DEFENSE HIGHWAY - NOT STRAHNET 0
 (101) PARALLEL STRUCTURE - NONE EXISTS N
 (102) DIRECTION OF TRAFFIC - 2 WAY 2
 (103) TEMPORARY STRUCTURE -
 (105) FEDERAL LANDS HIGHWAY - NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
 (20) TOLL - ON FREE ROAD 3
 (21) MAINTAIN - COUNTY HIGHWAY AGENCY 2
 (22) OWNER - COUNTY HIGHWAY AGENCY 2
 (37) HISTORICAL SIGNIFICANCE - NOT ELIGIBLE 5

***** CONDITION ***** CODE

(58) DECK 7
 (59) SUPERSTRUCTURE 7
 (60) SUBSTRUCTURE 7
 (61) CHANNEL & CHANNEL PROTECTION 8
 (62) CULVERTS N

***** LOAD RATING AND POSTING ***** CODE

(31) DESIGN LOAD - OTHER OR UNKNOWN 0
 (63) OPERATING RATING METHOD - LOAD FACTOR 1
 (64) OPERATING RATING - 51.7
 (65) INVENTORY RATING METHOD - LOAD FACTOR 1
 (66) INVENTORY RATING - 30.8
 (70) BRIDGE POSTING - Equal to or above legal loads 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED - A
 DESCRIPTION - OPEN, NO RESTRICTION

***** APPRAISAL ***** CODE

(67) STRUCTURAL EVALUATION 7
 (68) DECK GEOMETRY 3
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 0000
 (113) SCOUR CRITICAL BRIDGES 8

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK - MISC STRUCTURAL WORK CODE 38
 (76) LENGTH OF STRUCTURE IMPROVEMENT 28 M
 (94) BRIDGE IMPROVEMENT COST \$339,000
 (95) ROADWAY IMPROVEMENT COST \$34,000
 (96) TOTAL PROJECT COST \$509,000
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 1999
 (114) FUTURE ADT 30000
 (115) YEAR OF FUTURE ADT 2019

***** INSPECTIONS *****

(90) INSPECTION DATE 06/01 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL - NO -1 MO A)
 B) UNDERWATER INSP - NO -1 MO B)
 C) OTHER SPECIAL INSP - NO -1 MO C)

Bridge Number 55C-123

Location 12 - Ora - FAS M003 - CR
Dist.-Co.-Rte.-City

Date of Investigation September 10, 1997

TYPE OF INVESTIGATION/REPORT

BIENNIAL	<u>X</u>	DAMAGE	___
CATEGORY A	___	OTHER	___
UNDERWATER	___	OFFICE	___

Name BREA CANYON CHANNEL (Brea Boulevard, 0.8 mile north of Central Avenue)

CONDITION RATINGS:

Element Level Inspection (ELI) form attached.

Channel & Channel Protection

8

SCOUR CRITICAL (REVISION):

The channel invert is constructed of concrete.

A scour rating of A-1 is appropriate.

MISCELLANEOUS DISCUSSION:

The inspection team consisted of Makoto Ogata and Faye Kirchhoff.

The structure is scheduled to be retrofitted seismically in 1999.

CONDITION OF STRUCTURE:

Less than 2% of the deck AC overlay has been repaired. (O)

There are numerous cracks in barrier railing and exterior due to age of the structure. (O)

Otherwise, the condition of the structure is good.

WORK RECOMMENDED:

None.

ENCROACHMENT:

One 0.30 m diameter wrapped steel pipe and ten 0.10 m PVC ducts attached to south exterior.

M. Ogata

M. Ogata



MO:cd

c: TMRut
Orange County
PRAskelson

INFORMATION ONLY - NOT FOR UPDATE	
SCOUR CRITICAL.....	NO
GROUP A INVESTIGATION.....	NO
FRACTURE CRITICAL.....	NO
ELIGIBLE FOR RAIL UPGRADE.....	NO
UNDERWATER INVESTIGATION...	NO

DISTRICT	12
COUNTY	ORA
ROUTE	
POSTMILE	
NAME	

55C SHAWN ZANGANEH

BY:

me

SUPPLEMENTARY BRIDGE REPORT

DS-M19 (REV. 2/93)

Bridge Number 55C-123

Location 12 - Ora - FAS M003-CR
Dist.-Co.-Rte.-City

Date of Investigation July 14, 1995

TYPE OF INVESTIGATION/REPORT

BIENNIAL X DAMAGE

CATEGORY A OTHER

UNDERWATER OFFICE

Name BREA CANYON CHANNEL (Brea Boulevard, 0.8 mile north of Central Avenue)

CONDITION RATINGS:

Condition ratings of all bridge elements are shown on the PONTIS DATA FORM (Attachment A).

Channel & Channel Protection

8

SCOUR CRITICAL:

A scour rating of A-3 is appropriate.

CONDITION OF STRUCTURE:

There are numerous cracks in barrier railing and exterior due to age of the structure.

Overall condition of structure is good.

WORK RECOMMENDED:

None.

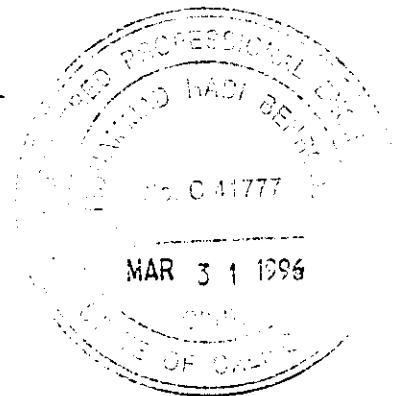
ENCROACHMENT:

One 0.30 m diameter wrapped steel pipe and ten 0.10 m PVC ducts attached to south exterior.

By M. Hadi Behrooj
G. P. Balinghasay

GPB:cd

cc: CDHarris
Orange County
W.Lindsey



INFORMATION ONLY - NOT FOR UPDATE

BRIDGE NUMBER	FRAME	INSPECTION DATE
55C0123	01	071495
1 8	9	11 16

SCOUR CRITICAL	NO
CATEGORY A	NO
FRACTURE CRITICAL	NO
ELIGIBLE FOR RAIL UPGRADE	NO
UNDERWATER INSPECTION	NO

DISTRICT _____ 12
COUNTY _____ ORA
ROUTE _____
POSTMILE _____
NAME _____

[illegible]

07/18/95

BY:

Bridge No. 55C-123

Name BREA CANYON CHANNEL (Brea
Boulevard, 0.8 mile north of
Central Avenue)

Location 12-Ora-FAS M003-CR
Dist.-Co.-Rte.-City

SUMMARY OF ENCROACHMENTS

Permit No. and Permittee	Date	Description & Location on Bridge
	Prior to 7-14-95	1 - 0.30 m diameter wrapped steel pipe and 10 - 0.10 m PVC ducts attached to south exterior.

HBD M 30

Bridge Number 55C-123

TYPE OF INVESTIGATION/REPORT

BIENNIAL	<u>X</u>	DAMAGE	___
CATEGORY A	___	OTHER	___
UNDERWATER	___	OFFICE	___

Location 12 - Ora - FAS M003-CR
Dist.-Co.-Rte.-City

Date of Investigation April 16, 1993

Name BREA CANYON CHANNEL (Brea Boulevard, 0.8 mile north of Central Avenue)

CONDITION RATINGS:

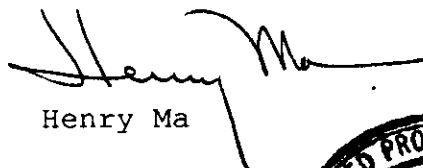
Condition ratings of all bridge elements are shown on the PONTIS DATA FORM (Attachment A).

Channel & Channel Protection

8

CONDITION OF STRUCTURE:

Condition of the structure is good.


Henry Ma

HM:cd

cc: INagai (2)
County of Orange



INFORMATION ONLY - NOT FOR UPDATE

BRIDGE NUMBER	FRAME	INSPECTION DATE
55C0123	01	041693
1	8	9
		11
		16

SCOUR CRITICAL	NO
CATEGORY A	NO
FRACTURE CRITICAL	NO
ELIGIBLE FOR RAIL UPGRADE	NO
UNDERWATER INSPECTION	NO

DISTRICT	12
COUNTY	ORA
ROUTE	***
POSTMILE	*****
NAME	

[illegible]

BY:

BRIDGE REPORT

DS-M38 (REV. 1/91)

14V32

Bridge No. 55C - 123

Location 12 - Ora - FAS M003-CR
Dist Co Rte City

REVISED ORIGINAL REPORT

Date of Investigation April 12, 1991

Name BREA CANYON CHANNEL (Brea Boulevard, 0.8 mile north of Central Avenue)

Lat. 33° - 56.5'N Long. 117° - 53.2'W

Custodian County of Orange Owner County of Orange

STRUCTURAL DATA AND HISTORY

Year Built 1939 By CALTRANS Contract No. Unknown

Designed by: Division of Structures Plans Avail. @ DOS

Description: 3 span simply supported CIP RC "T" beam (5 each) supported by RC pile bents and RC pile cap on treated timber pile abutments.

Spans (W) 3 @ 30' (E)

Length 92' NBIS Bridge Length Yes Skew 60° Left

Number Of Intermediate Joints: @Hinges None @Bents 2

Maximum Column/Pier Height: (Less than 20') X (20'-29') (30' & Over)

Design Live Load Unknown Design Method Unknown

DESCRIPTION - ON STRUCTURE

Bridge Width (S) 1'br, 0.8'cu, 30', 0.8'cu, 1'br (N)

Total Width 33' Net Width 30' Lanes 2 Tracks None

Median None Rail Type Concrete baluster

0000

Vert. Clearance over deck Unimpaired Appr. Rdwy. Width 27'

Deck Type 1 Wearing Surface/Prot. Sys. 600 AC/none

Alignment Tangent

DESCRIPTION - UNDER STRUCTURE

Roadway Section None

Clearances: Road: Vert. Horiz. Lt. ; Rt.

Lanes Tracks

Facilities Crossed Brea Canyon Channel (A 04)

April 12, 1991

DESCRIPTION - HYDRAULICS

Natural canyon channel, heavily vegetated. (RC rectangular Channel under bridge)

Navigable: Yes ☐ No ☒ Clearances: Vert. Horiz.

Pier/Abutment Protection (For Navigation) ☐

TRAFFIC INFORMATION	DECK	YEAR	UNDER	YEAR
Average Daily Traffic & Year :	16,000	1989	N	
Average Daily Traffic (Future) :	18,000 Est	2010	N	
Average Daily Trucks (% OF ADT) :	1% Est		N	
Bypass Detour Length	1 mile		N	
Shell Route:	No		No	
Functional Classification :	09		N	
LOAD RATINGS:	Inventory HS 19	Operating	HS 32	
	Permit PPPPP	Computation Method	Load Factor	

CONDITION RATINGS:

Deck ☐ 7 Superstructure ☐ 7 Substructure ☐ 7
 Channel & Channel Protection ☐ 8 Culvert ☐ N Widenable ☐ No

APPRAISAL RATINGS:

Waterway Adequacy ☐ 9 Approach Roadway Alignment ☐ 8

Date of Revisions

CONDITION OF STRUCTURE:

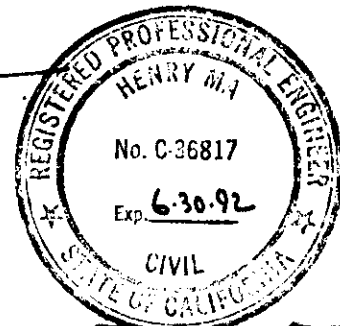
Due to advanced age of the structure, there are minor cracks and spalls in the concrete railing and exterior.

Condition of the structure is good.

ENCROACHMENT:

1-12" wrapped steel pipe and 10-4" PVC ducts attached to south exterior.

Henry Ma



HM:ms

cc: INagai (2)
County of Orange

SUPPLEMENTARY BRIDGE REPORT

DS-M19 (REV. 1/89)

Bridge No. 55C-123

Location 12-Ora - FAS M003 - CR
Dist. Co. Rte. City

Date of Investigation 4-17-89

Name BREA CANYON (Brea Boulevard, 0.7 mile west of Route 57)

CONDITION RATING:

Deck 5 Superstructure 5 Substr.&Pipes 5

Channel & Channel Protection 7 Culvert N

Widenable? No

TYPE OF INVESTIGATION/REPORT

BIENNIAL X DAMAGE

CATEGORY A OTHER

UNDERWATER OFFICE

CONDITION OF STRUCTURE:

As previously reported, due to advance age of this structure, there are numerous cracks and spalls in the concrete barrier and exterior of the superstructure.

Condition of the structure remains fair.

REVISION:

Location: 12-Ora-FAS M003-CR
ADT: 16,000 (1988)

WORK RECOMMENDED:

None.


RECOMMENDED POSTING:

None.

SUBSTRUCTURE CODING UPDATE:

2 RC pile cap on treated timber pile abutments.

2 RC pile cap on concrete piles.


Henry Ma

HM:ms

cc: INagai (2)
County of Orange (2)



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DH-OS M19 (REV. 1/74)

Bridge No. 55C-123
Location 7-Oran-FAS M003-CR
Dist - Co - Rte - PM - City
Date of Investigation April 23, 1987

Name BRECA CANYON (Brea Blvd., 0.7 mile west of Rte. 57)

CONDITION RATING:

Deck 5 Superstructure 5 Substr. & Pipes 5 Overall 4
Channel & Channel Protection 7 Retaining Walls N

APPRAISAL RATING:

Widenable? Yes ☐ No ☒ Conditional ☐

Action Required By County Yes ☐ No ☒

PRIORITY

A - Immediate Action
B - Early Scheduling
C - Routine Maint.
O - For Record Only

CONDITION OF STRUCTURE:

Condition of the structure is fair.

RECOMMENDED POSTING:

None

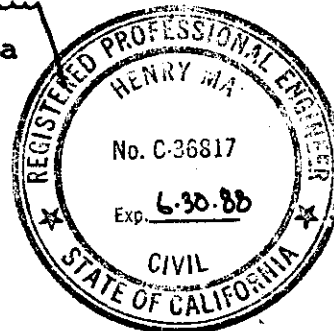
WORK RECOMMENDED:

None

HM:pht

cc: INagai (2)
Orange County (2)

Henry Ma



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DH-05 M10 (REV. 1/74)

Bridge No. 55C-123
Location 7-Ora-FAS M003-CR
Sta. Co. Rd. Pg. City (On Deck)
Date of Investigation November 14, 1985

Name BREA CANYON (Brea Blvd., 0.7 mile W. of Rte. 571)

CONDITION RATING:

APPRAISAL RATING:

Deck 5 Superstructure 5 Substr. & Pipes 5 Overall 4
Channel & Channel Protection (7) Retaining Walls (N)

Widenable? Yes ☐ No ☐ Conditional ☒

Action Required by County Yes ☐ No ☒

PRIORITY

A - Immediate Action
B - Early Scheduling
C - Routine Maint.
O - For Record Only

WORK DONE:

The previously recommended work to remove tree limbs has been done.

REVISION:

Condition Rating - Retaining Wall N
Channel and Channel Protection 7
Description - Hydraulics, Channel - RC rectangular.

CONDITION OF STRUCTURE:

There are numerous cracks and spalls in concrete barrier and exterior of overhang.

Otherwise, the condition of the structure is fair.

RECOMMENDED POSTING:

None

WORK RECOMMENDED:

None

HM:pdh

cc: INagai (2)
Orange County (2)

Henry Ma
C-36817

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DM-OS M19 (REV. 1/74)

Bridge No. 55C-123
Location 7-Oran-FAS M003-CR
Dist - Co - Rte - PM - City (On Deck)
Date of Investigation July 13, 1983

Name BREA CANYON (Brea Blvd., 0.7 mile W. of Rte. 57)

CONDITION RATING:

APPRAISAL RATING:

Deck 5 Superstructure 5 Substr. & Pipes 5 Overall 4
Channel & Channel Protection 4 Retaining Walls 6

Widenable? Yes ☐ No ☐ Conditional ☒
County
Action Required by ~~YES~~ Yes ☒ No ☐

PRIORITY

A - Immediate Action
B - Early Scheduling
C - Routine Maint.
O - For Record Only

WORK DONE:

The previously recommended work has been done.

CONDITION OF STRUCTURE:

Many tree limbs have collected around the two exterior piles on the west side of the channel.

Otherwise, the condition of the structure is fair.

RECOMMENDED POSTING:

None

RECOMMENDATION:

Remove the tree limbs from the piling in the creek.

E. L. Neff
E. L. Neff
C-28703

ELN:pdh
cc: DRHiggins (2)
Orange County (2)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DH-OS M19 (REV. 1/74)

Bridge No. 55G-123
Location 07-000-7AB N003-02 (on deck)
Dist - Co - Rte - PM - City
Date of Investigation July 16, 1981

Name ERRA CANYON (Erra Blvd., 0.7 mile west of Route 57)

CONDITION RATING:

APPRAISAL RATING:

Deck 5 Superstructure 5 Substr. & Pipes 5 Overall 4
Channel & Channel Protection 4 Retaining Walls 6

Widenable? Yes ☐ No ☐ Conditional ☒

Action Required by County ~~State~~ Yes ☒ No ☐

WORK DONE:

The previously recommended work has not been done, i.e., clear the debris and drift out from under the structure.

CONDITION OF STRUCTURE:

The overall condition of the structure is fair.

RECOMMENDED POSTING:

None.

RECOMMENDATION:

Clear the debris and drift out from under the structure.

E. L. Neff
E. L. Neff
6 28703

KLH:ed
cc: Haggins (2)
Orange County (2)

DIST ROUTE COUNTY STRU. NO POSTMILE RATING WIDTH-FT STRU TYPE YR ORIG CONST
 07 CO.RD 55 C 0123 . 032.8 CG

JUL. 15, 1980

	RATING FACTOR	PT	SPAN	ULT MOM CAP TOP IN COM	ULT MOM CAP BOT IN COM	POS HS20 MOMENT	NEG HS20 MOMENT	POS PURP MOMENT	NEG PURP MOMENT	DEAD LOAD MOMENT	SECONDARY MOMENT
INV	0.97	5	1	3186.7	0.0	923.8	0.0	1151.1	0.0	957.9	0.0
OPER	1.62	5	1	3186.7	0.0	923.8	0.0	1151.1	0.0	957.9	0.0
PURP	1.30	5	1	3186.7	0.0	923.8	0.0	1151.1	0.0	957.9	0.0

THE NUMBER OF AXLES ON THE TRUCK THAT CAUSES THE PURPLE RATING FACTOR IS 13.

FC = 1.00 FY = 33.

IF THE REPORTED ULTIMATE MOMENT CAPACITY IS 0, IT WAS DETERMINED NOT TO BE CRITICAL

- 2 BREA CANYON
- 3 6" AC OVERLAY 7-14-80
- 4 SPLIT TANDEM

DIST ROUTE COUNTY STRU. NO POSTMILE RATING WIDTH-FT STRU TYPE YR ORIG CONST
 07 CO. RD 55 C 0123 . 032.8 CG

JUL. 15, 1980

INFLUENCE LINE FOR CRITICAL INVENTORY RATING POINT SPAN 1 10TH POINT 5

MEM NO	LEFT	.1	.2	.3	.4	.5	.6	.7	.8	.9	RIGHT
1	0.0	1.500	3.000	4.500	6.000	7.500	6.000	4.500	3.000	1.500	0.0

THE CRITICAL OPERATING RATING POINT IS THE SAME AS THE CRITICAL INVENTORY RATING POINT

THE CRITICAL PURPLE RATING POINT IS THE SAME AS THE CRITICAL INVENTORY RATING POINT

- 2 BREA CANYON
- 3 6" AC OVERLAY 7-14-80
- 4 SPLIT TANDEM

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
BRIDGE REPORT
DS-M58 (REV. 1/75)

Bridge No. **152-111**

Other No. _____

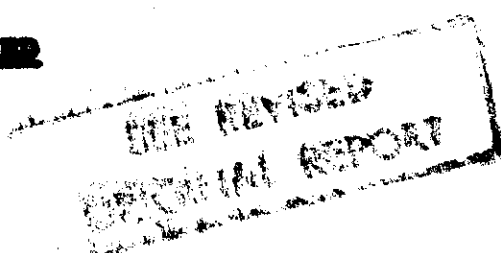
P.U.C. No. _____

Location **07-07a-FAS-1003**

Dist - Co - Rte - PM - City

Date of Investigation **May 8, 1980**

REVISION



Name **BREA CANYON (Brea Boulevard-.7 miles west of Route 57)**

Lat. **N33°- 36.5'** Long. **W117°- 53.2'**

STRUCTURAL DATA AND HISTORY

Year Built **1939** By **Division of Highways** Contract No. **Unknown**

Date of Revisions _____

Designed by: B.D. ☒ _____ Plans Avail. @ _____ County

Description: **Three RC girder (5) spans on RC pile (5) bents and RC open bents with crossbraced Douglas fir pile and redwood plank bulkheads.**

Spans **3 @ 30' e/c**

Length **92'** Skew **60° Lt** Design LL **Unknown**

Ratings: Inventory **HS 19.4/LF** Operating **HS 32.4/LF** Permit **PPPPP/LF**

DESCRIPTION - ON STRUCTURE

Bridge Width **1.2'br; .5'cu; 30'; .5'cu; 1.2'br**

Total Width **32.9'** Lanes **2** Tracks **None**

Median **None** Rail Type **Concrete (0000)**

Vert. Clearance over deck **Unimpaired** Appr. Rdwy. Width **26'**

Wearing Surface **AC (6"±)** Deck Seal **None**

Alignment **Tangent**

DESCRIPTION - UNDER STRUCTURE

Roadway Section **None**

Clearances: Vert. _____ Horiz.; _____ Lt. _____ Rt. _____

Lanes _____ Tracks _____ Pumpplant: None ☒ See Br. No. _____

Facilities Crossed **Brea Canyon (00FED-A02)**

cc:

Bridge No. 55C-123
Date 3-08-80

DESCRIPTION -- HYDRAULICS

Channel Unimproved, fairly well defined
Navigable: Yes ☐ No ☒ Clearances: Vert. 8 Horiz. 8

MAINTENANCE

Custodian Orange County Owner Same

**ORIGINAL
CONDITION RATING**

Deck	<u>5</u>
Superstructure	<u>5</u>
Substructure & Pipes	<u>5</u>
Channel & Channel Protection	<u>4</u>
Retaining Walls	<u>6</u>
Approach Rdwy. Alignment	<u>9</u>
Estimated Remaining Life	<u>20</u>

**ORIGINAL
APPRAISAL**

Overall	<u>4</u>
Deck Geometry	<u>7</u>
Underclearances	Vert. <u>8</u>
	Horiz. <u>8</u>
Safe Load Capacity	<u>9</u>
Waterway Adequacy	<u>4</u>
Approach Rdwy. Alignment	<u>7</u>

Widenable? Yes ☐ No ☐ Conditional ☒

Action Required by ^{County:} ~~Department~~ Yes ☒ No ☐

AVERAGE DAILY TRAFFIC - Road closed due to storm damage to Br. No. 55C-122.

BYPASS DETOUR LENGTH - 4 miles

ENCROACHMENTS - 12" ϕ pipe and a 4" ϕ pipe attached to the southerly side of the structure.

CONDITION OF STRUCTURE - There is a great deal of debris and drift in the channel under the structure. Otherwise, the structure is in fairly good condition.

LOAD CAPACITY - The inventory, operating and permit ratings shown were obtained through the "Frame Rate" program using the load factor (LF) method of analysis.

RECOMMENDATIONS - Clear the debris and drift out from under the structure.

RECOMMENDED POSTING - None.

Original signed by

FRANK J. WALLISER
C -19767

FJW:ll
cc:DHiggins
Orange County, (2)

SUPPLEMENTARY BRIDGE REPORT

CONVICT REPORT

~~XXXXXXXXXXXX~~ Oct. 1, 1973Name ~~XXXX~~ ~~XXXX~~

OLD 07-Orn-57

NEW 07-Orn-~~XXXX~~

Dist.-Co.-Rte.

Location ~~XXXX~~ 4.7 Miles N. of Jet. Rte. 72

.78 Miles N of Central Ave on Brea Blvd Post Mile

As a result of action taken by the California Highway Commission on August 22, 1973, Resolution R 2015, this structure was relinquished to the County of Orange.

RECOMMENDATIONS:

Remove from the bridge list, drop from the records, and assign Bridge No. 95C-123.

J. M. Dorik

R F Prodschl
By R. F. Prodschl

JMB:RFP:bc
cc: Dist. 07

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation April 25, 1973

Name BREA CANYON 07-Ora-57
 Location 4.7 Miles North of Jct. with Rte. 72 Dist.-Co.-Rte. Post Mile

WORK DONE:

The previous recommended work covered in the Supplementary Bridge Report dated October 20, 1971 has not been done.

Metal beam guard rail has been installed along the west side of the roadway.

CONDITION OF STRUCTURE:

There is a crack in the north face of Bent 3 cap at the east end (over the easterly column). There are approximately 7 concrete rail balusters spalled in the east rail and 6 in the west rail. The south face of Bent 2 cap is spalled at the east end.

Otherwise the structure is in good condition throughout.

RECOMMENDATIONS:

1. Do previous recommended work summarized below.

Chip and patch the concrete spalls with epoxy bonded cement mortar in the bottom of the east girder just south of Bent 3 and at the intersection of the overhang at the wingwall at the northeast corner.

2. Epoxy inject the diagonal crack in the north face of Bent 3 cap at the east end over the easterly column.
3. Chip out the spalled south face of Bent 2 cap at the east end and patch with epoxy bonded cement mortar.
4. Chip out the spalled areas of the east and west concrete rail balusters and patch with epoxy bonded cement mortar.

Estimated Cost: Item 1: Covered previously

Item 2 and 3: \$100

Item 4: \$200

Next Investigation: May 1974

J M Borik
 J. M. Borik

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation Oct. 20, 1971Name BREA CANYON07-0ra-57

Dist.-Co.-Rte.

Location 4.7 Miles N. of Jct. with Rte. 72Post Mile 27.10

WORK DONE:

The previously recommended work has not been done.

CONDITION OF STRUCTURE:

There is a vertical crack in the northeast wingwall in the vicinity of the most northerly bent. The upper portion of the crack is spalled leaving an opening ± 2 " wide with some steel exposed.

Otherwise, the structure is in about the same condition as previously reported.

EARTHQUAKE REVIEW - EVALUATION OF SUPPORT POINTS:

Good stability.

RECOMMENDATIONS:

1. Do the previously recommended work (patch the spall in the bottom of the east girder just south of bent #3).
2. Clean the steel and patch the crack at the intersection of the overhang at the wingwall at the northeast corner with Speedcrete.

Estimated Cost:

Item 1: Covered previously

Item 2: \$100

Next Investigation: October 1972

BB:cm

cc:Dist. 07

Investigated 9/5/72 By W.R.B.Changes Noted Res: Do patch spall

Work (Patch north spall
in bottom E. gdr. just S
of Bent 3 Clean steel &
patch crack @ int. overhang
& wingwall, N.E. Corner)

B. Baker

B. Baker

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation July 17, 1969Name BREA CANYON07-0ra-57

Dist.-Co.-Rte.

Location 4.7 Miles N. of Jct. with Rte. 72Post Mile 27.10

CONDITION OF STRUCTURE:

There is a concrete spall on the bottom of the east girder in the center span adjacent to the northerly pier cap.

There are numerous minor spalls in the baluster railing. These spalls are not detrimental to the railing.

Otherwise, the structure is in good condition throughout.

RECOMMENDATIONS:

At the location of spall described above, remove all unsound concrete, remove any rust in exposed reinforcing steel, and patch with epoxy bonded concrete.

Estimated Cost: \$75

Next Investigation: October 1969

JEB:cm
cc:Dist. 07
Hdq. Maint.

J. E. Bruce
J. E. Bruce

Investigated 10-16-69 By WWJChanges Noted REC: Do prec:

rec work. Note: PTPT
Lines on E. side of Edg.

Investigated 10/6/70 By PENChanges Noted REC: Do prec
rec work

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation Sept. 7, 1967

Name BREA CANYON 07-Ora-57
Location 4.7 Miles North of Jct. Rte. 72 Dist.-Co.-Rte. 27.10
Post Mile

CONDITION OF STRUCTURE:

There is a 1/16" diagonal tension crack in the cap of Bent 2 (from the north abutment) over the east column extending in toward the next column over. This is noted for the record only.

There is a void under the north abutment where the sand bags are sagging. Several small gullies are forming in the abutment slope at this location also.

Otherwise, the structure is in good condition.

RECOMMENDATIONS:

1. Fill the voids under the north abutment with PCC or AC.
2. Seal the junction of the top of the sandbags and the bottom of the north abutment with PCC or AC.
3. Backfill the gullies on the north abutment slope.

Estimated Cost: \$150.

Next Investigation: October, 1968

D. B. Jennings

P. A. Bizzigotti
By: P. A. Bizzigotti

PAB:mb
cc:Dist. 07
Hdq. Maint.

Investigated 10/24/68 By A.R.P.

Changes Noted Spec. rec. work.
done, A.R.

Date of Investigation

Name NEW CANYON

Location 2.5 miles north of ...

CONDITION OF STRUCTURE:

There is a 14' x 14' diagonal channel in the east of ...
(from the north abutment) ...
in some the west of the ...
... ..

There is a wide area of ...
... ..
... ..

... ..

... ..

... ..

... ..

... ..

... ..

Next Investigation: October, 1969

R. B. ...

[Signature]

By: R. B. ...

Bar: ...
... ..
... ..

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation October 4, 1966Name BREA CANYON 07-0ra-57
Dist.-Co. Rt.
Location 4.7 Miles N. of Jct. with Rte. 72 Post Mile 27.10

WORK DONE:

A 1" PMS blanket was recently placed on the deck.

The previously recommended work was done.

CONDITION OF STRUCTURE:

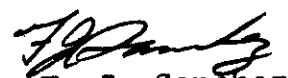
There is a total of 6 1/4" of PMS along the west edge of the roadway, 5" on the east edge, and approximately 7" along centerline.

DISCUSSION:

A stress analysis made for Bridge No. 55-37, which field measurements show to be similar, indicates that the upper limits of allowable stresses are approached when purple loads are imposed on the structure. The additional stresses are tolerable; however, any additional PMS will reduce the overload rating to "Green."

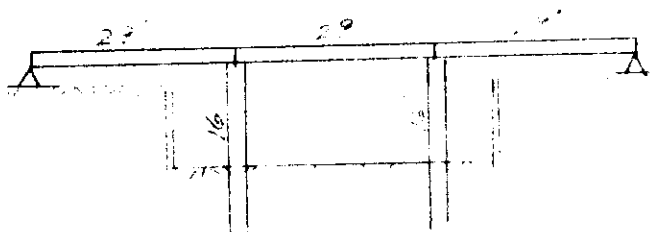
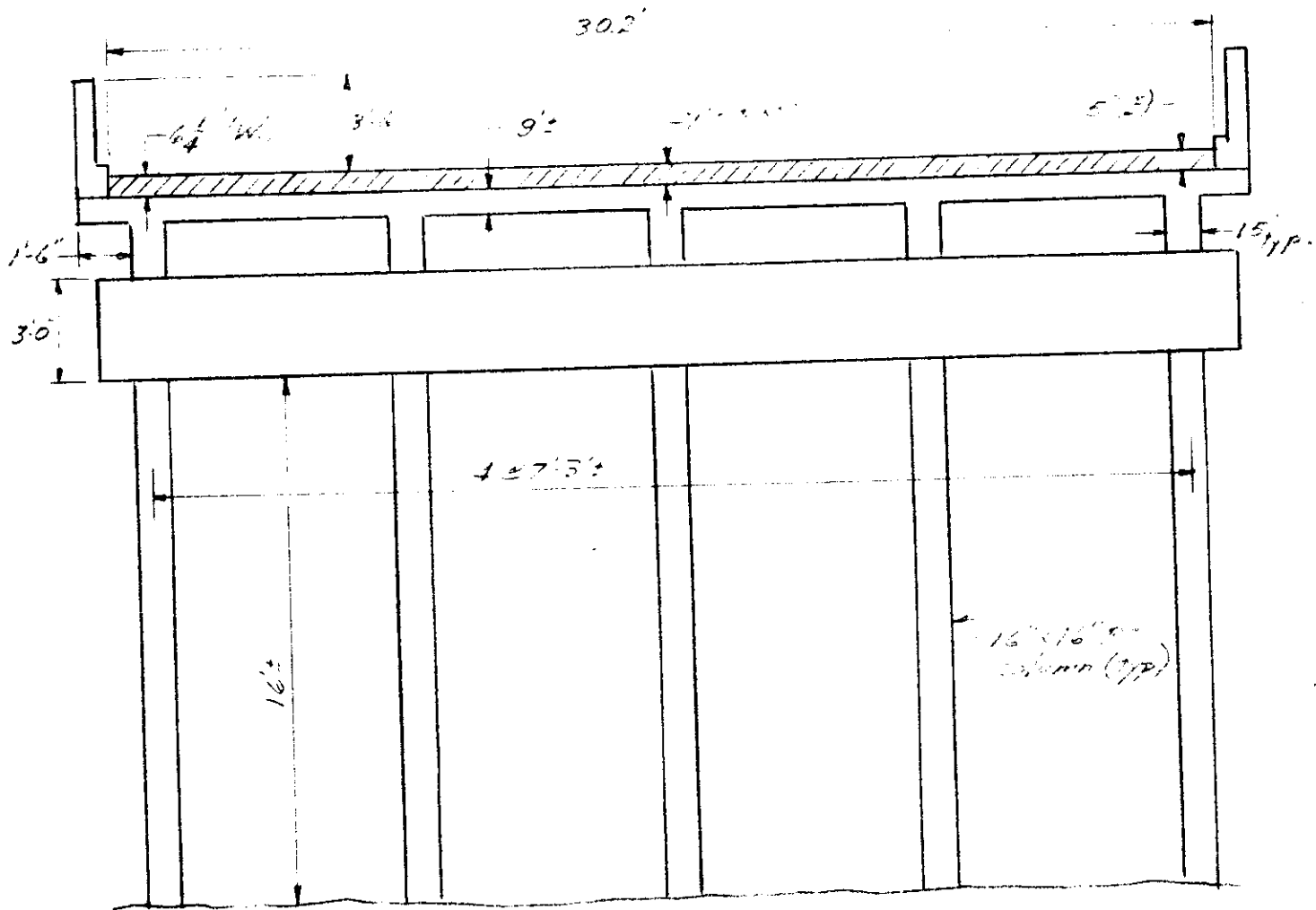
RECOMMENDATIONS: None

Next Inveztigation: October 1967


F. J. Sanchez

FJS:cm
cc:Dist. 07
Hdq. Maint.

336-123
 Br. No ~~55-76~~
 Brea Canyon
 07-081 57



Field Measurement by: F.J. Sanchez
 9-21-66

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation August 27, 1965Name BREA CANYON 07-Ora-57
Location 4.7 Miles N. of Junction with Rte. 72 Post Mile 27.10
Dist.-Co. Rt.

WORK DONE:

~~approach~~ slab by the west abutment in the west bound lane has been patched with PMS.

CONDITION OF STRUCTURE:

There are numerous spalls on both reinforced concrete barrier rails, but no reinforcing steel is exposed.

There is a crack on the east end of the north abutment pile cap and a spall on the west end of the south abutment.

The approach fill underneath both reinforced concrete pile cap abutments has settled approximately 3" the entire length of the abutments.

The channel is heavily overgrown with bushes and saplings. Oily water has ponded underneath the bridge.

Otherwise, the structure is in good condition.

RECOMMENDATIONS:

1. Patch the spall, on the west end of the south abutment, with epoxy bonded concrete.
2. Back fill under both abutment caps with cement stabilized soil, well tamped into place. Stabilize the slope adjacent to both abutments with cement.

Estimated Cost: \$250.00

Next Investigation: October, 1966

D. B. Jennings

DONE 4-26-66
W.O. 532.057
COST \$ 711.33

By: Tom Brown
Tom Brown

TB:mb
cc: Dist.07
Hdq. Maint.

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation Oct. 7, 1964Name BREA CANYON

07-Ora-57

Dist.-Co.-Rt.

Location 4.7 Miles N. of Jct. with Rte. 72Post Mile 27.10

CONDITION OF STRUCTURE:

Several small diagonal cracks appear at the inside face of the south abutment over each pile, and should be watched in future investigations.

Otherwise the structure is in good condition.

RECOMMENDATIONS: None

Next Investigation: October 1965

D. B. Jennings

By: M. C. Hopkins

M. C. Hopkins

MCH:cm

cc:Dist.07

Hdq. Maint.

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation August 8, 1960

Name BREA CANYON

VII-Ora-19A 57

Dist.-Co.-Rt.-Sec.

Location 4.8⁷ Miles Northeast of Jct. with Rte. ~~72~~ 72

PM 27.10 A

Refer to the original report dated February, 1930, and May, 1935, and to subsequent supplementary reports.

CONDITION OF STRUCTURE:

The structure is in good condition throughout.

In connection with the resurfacing of the roadway through this section, a lift of approximately 3" of P.M.S. material has been placed on the deck. A total of approximately 6" of P.M.S. is now on the deck.

RECOMMENDATIONS:

None

Next Investigation: August 1961

Wm. M. Crawford
Wm. M. Crawford

WMC:cm
cc:Dist. VII
Hdq. Maint.

Investigated 8/21/61 By ARR

Changes Noted None

30 29'

Investigated 8/17/62 By ARR

Changes Noted none

Investigated 8/8/63 By BWG

Changes Noted none

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation December 22, 1955Name BREA CANYON

VII-Ora-19-A

Dist.-Co.-Rt.-Sec.

Location 4.8 Miles Northeast of Junction with Route 2.

Refer to original report dated February 1930 and to subsequent supplementary reports.

WORK DONE:

The work recommended under Item 1 of the previous report has been properly done.

The work recommended under Item 2 of the previous report, remove weed growth in the channel, has not been done, but in view of the condition of the channel as described below, the previous recommendations should be rescinded.

CONDITION OF STRUCTURE:

Except as noted in this report, the structure appears to be in good condition throughout and about the same as when last inspected.

The channel is heavily overgrown with high tules and light saplings, both on and off of the right of way, so that the clearing of the right of way only would serve no useful purpose.

In connection with the resurfacing of the roadway through this section, the lift of from 1 1/2" to 2 1/2"± of asphaltic material has been placed on the deck.

RECOMMENDATIONS:

None.

Next Inspections: December 1956.Investigated 12-18-56 by ARRNext Inspection 12-57Changes Noted none

WEB:mh
cc: Dist VII
Maint. Dept.

W. E. Bastues
W. E. Bastues

Investigated 8-21-57 By W. H. H.Changes Noted none

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation December 7, 1954

Name BREA CANYON VII-Ora-19-A
Location 4.8 Miles North East of Junction with Route 2. Dist.-Co.-Rt.-Sec.

Refer to original report dated May 1938 and to subsequent supplementary bridge reports.

WORK DONE:

The work recommended in the supplementary bridge report dated December 3, 1953 has been properly done, except that the roadway toe of the dike, as described in the last sentence of Item #3, which was to have been constructed on line with the bottom curb of the bridge produced, has not been done.

CONDITION OF STRUCTURE

The structure appears to be in satisfactory condition, and except as noted above is in about the same condition as when last inspected.

There is a thick growth of tules and saplings in the channel both upstream and downstream from the bridge.

RECOMMENDATIONS:

1. Move the berm, which exists between the curb of the bridge and the inlet to the overside drain, away from the roadway sufficiently so that the roadway toe of the dike is on line with the bottom of the curb of the bridge produced.
2. Remove as much of the tule and sapling growth in the channel within the State Right of Way as practicable.

Estimated Cost of the work \$100.00

NEXT INSPECTION: December 1955.

WEB:mh
cc: Dist VII
Maint Dept.

W E Bastues
W. E. Bastues

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation December 3, 1953Name BREA CANYON

VII-Ora-19-A

Dist.-Co.-Rt.-Sec.

Location 4.8 Miles Northeast of Junction with Route 2.

Refer to original report dated May 1935 and to subsequent supplementary reports.

The inspection as covered in this report was requested by Dist. VII.

CONDITION OF STRUCTURE

Settlement of the roadway approach fills under and adjacent to abutment A-1 (West abutment) has taken place. This has resulted in the fill dropping away from the bottom of the abutment cap 2 to 3 inches leaving a cavity under the cap. Also as a result of this settlement the approach pavement at the end of the bridge has settled about 1" making a depression. It is understood from Foreman Farmer that the combined affect of this depression and the skew has caused accidents due to vehicles having a tendency to loose control when striking the depression on the skew. An asphaltic mixed patch was being placed at the northwest end of the bridge to smooth up the surfacing on the date of this inspection. The size of the cavity under the cap of abutment A-1 has been increased somewhat due to the action of gophers or other rodents. An inspection in the back of the cavity indicates that the approach fill against the cap of abutment A-1 consists of many fairly large boulders. The enlargement of the cavity under this abutment cap due to further settlement or due to the action of rodents will aggravate the condition of settlement in the approach fill adjacent to this abutment. At the southeast corner of the bridge the natural slope of the fill material is steeper than the distance between the RC channel lining wall and the edge of the approach fill will permit without encroachment on the normal roadway width of the bridge. It appears that the simplest way to correct this condition is to increase the height of the RC channel paving wall at this location by such an amount so that by maintaining the natural slope of the material in the fill there will be no encroachment on the normal roadway width.

There is also a small cavity under the cap of abutment A-4.

The condition of the structure is otherwise about the same as when last inspected.

RECOMMENDATIONS

It is recommended that the following work be done:

RAW:sdf
cc:Dist. VII
Maint. Dept.

Changes Noted Previously recommended
work to be done soon.

James M. Smith, Jr. 1901-1911
James M. Smith, Jr. 1911-1912

The information as covered in this report was obtained from the following sources:

EMERGENCY SC POLITICS

[illegible]

There is also a small village called "L. A."

The condition of the structure is satisfactory about the same as when last inspected.

ENCLOSURE

it is recommended that the following word be used:

HW . NIC : 00
LGP . LICH

BRIDGE No. **15-38**

DATE **12-3-53**

1. At abutment A-1 (this is the abutment nearest to Brea) backfill the cavity under the RC cap with damped earth thoroughly tamped into the cavity and trim the slope and fill any gopher holes in the slope adjacent to the cap of this abutment.
2. Drill holes ^{*in approach fill*} about 2" in diameter with a jack hammer on a line parallel to and about 1' from the back face of the abutment cap at A-1. Space the holes at about 2' centers along this line. The holes should be drilled to a depth approximately at the bottom of the cap. By gravity flow, pour a lean sand cement mortar mixed with 1 part of cement to 7 parts of sand with a sufficient amount of water so that the mix will be fluid, into the holes. In order to increase intrusion into the porous rock fill it may be desirable to pour water into the holes prior to introducing the mortar. As much of this mortar should be poured into the holes as the fill material will take, in an effort to fill the cavities in the approach as far as possible. When the holes are full of mortar excess mortar should be struck off with the surface of the pavement.
3. At the southeast corner of the bridge increase the height of the RC channel wall by 2' - 0" with sacked concrete. Place the sacks with the long axis of the sacks normal to the wall. The length of the wall to be 20' with the center of the length at a line from the end of the RC wingwall of the bridge drawn at right angles to the RC channel wall. Excavate the dirt from the top of the channel wall to a depth of 3" below the top of the wall at the back face in order to key the sacked concrete wall in back of the RC channel wall. Complete the backfill at the southeast corner of the bridge to normal section and construct shoulder dikes with the roadway toe of the dike on line with the bottom of the curb of the bridge produced.
4. Construct an overside drain with a suitable catch basin adjacent to the southeast corner of the bridge to carry side drainage water into the channel at this location.
5. Backfill the small cavity under the cap of abutment A-4 with damped earth well rammed into the cavity.

Estimated cost: About \$700

Next investigation: December 1953.

R. A. Wagner
R. A. WAGNER

DONE

E.O.

COST

4-15-54
54-7VV76
205.
Total 705.

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation January 17, 1951

Name BREA CANYON VII-Ora-19-A
Location 4.8 miles NE of Jct. with Rte. 2
Dist.-Co.-Rt.-Sec.

Refer to original report dated May 1935, and to subsequent supplementary reports.

CONDITION OF STRUCTURE:

The bridge number of structure has become quite dim.

Otherwise, the structure is in good condition.

RECOMMENDATIONS:

Repaint the bridge number on the structure.

Next investigation: January 1952.

H. K. MAULZ
H. K. MAULZ

HKM:jc

cc: Dist. VII
Maint. Dept.

DONE 4-3-51
W.O. -
COST No Charge

Investigated 1-17-52 By MWG

Next Investigation 1-53

Changes Noted Work Previously Recommended Properly Done.

Investigated 12/17/52 By JPA

Next Investigation 12-53

Changes Noted NONE

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation August 17, 1948

Name BREA CANYON

VII-Ora-19-A

Dist.-Co.-Rt.-Sec.

Location 4.8 Miles NE of Jct. with Rte. 2

Refer to original report dated May 1935, and to subsequent supplementary reports.

CONDITION OF CHANNEL:

The channel is concrete lined adjacent to the bridge.

WIDENING:

Widening is feasible on either side.

DETOUR:

A detour at this site will require some provision for waterway. Estimated cost of such detour is \$5,000. The east side is preferable for a detour line.

SALVABLE MATERIALS:

None.

CONDITION OF STRUCTURE:

The structure is in good condition.

RECOMMENDATIONS:

None.

Next Investigation: August 1949.

ORIGINAL SIGNED BY
M. W. GEWERTZ

M. W. GEWERTZ

Investigated 11-3-49 By WOL

Next Investigation 11-50

Changes Noted NONE

MWG:lh

cc: Dist. VII
Maint. Dept.

SUPPLEMENTARY BRIDGE REPORT

Date of Investigation February 5, 1949

Name BREA CANYON

VII-Gra-19-A

Dist.-Co.-Rt.-Sec.

Location 4.7 Miles north of junction with Route 2.

Refer to original report dated May 1938.

WORK DONE:-

The work recommended in the previous report and authorized under Work Order #07XXC2, \$15,262.50, issued December 16, 1938, has been done satisfactorily. "As Built" plans of the channel protection are on file in the Bridge Department files.

PRESENT CONDITION OF STRUCTURE:-

The structure is now in excellent condition throughout.

RECOMMENDATIONS:-

No work is recommended at this time.

Next investigation, May 1942.

By John R. Beaton

JLB

Investigated 4/8/42 By JTB

Next Investigation 5/43

Changes Noted None

No fences within R/W.

Investigated 6-3-43 By RAW

Next Investigation 6-45

Changes Noted None

cc: District VII (2)
Maintenance Dept.
Mr. Wagner

Investigated 4/23/45 By RES

Next Investigation 4-46

Changes Noted None

Minor cracks occur in tops of abut. piles & in stream faces
abut. caps, over piles, due to def'n by earth pressure
(old cond)

Investigated 5-16-46 By RAW

Next Investigation 4-47

Changes Noted None

SEE SUPPLEMENTARY REPORT OF 7-17-48 FOLLOWING.

Investigated 6-19-47 By AJS
 SUPPLEMENTARY BRIDGE REPORT
 Next Investigation 6-48
 Changes Noted none
 Date of Investigation VI-02-12-A

Refer to original report dated May 1948.

WORK DONE:-

The work recommended in the previous report and authorized under Work Order 407XXC2, \$15,000.00, issued December 16, 1938, has been done satisfactorily. The built plans of the channel protection are on file in the Bridge Department files.

PRESENT CONDITION OF STRUCTURE:-

The structure is now in excellent condition throughout.

RECOMMENDATIONS:-

No work is recommended at this time.

Next investigation, May 1948.

By [Signature]
 Title [Signature]

Investigated VI-02-12-A By [Signature]

Next investigation VI-02-12-A

Changes Noted [Signature]

Investigated VI-02-12-A By [Signature]

Next investigation VI-02-12-A

Changes Noted [Signature]

Investigated VI-02-12-A By [Signature]

Next investigation VI-02-12-A

Changes Noted [Signature]

cc: District VII (S)
 Maintenance Dept.
 Mr. Wagner

Investigated VI-02-12-A By [Signature]

Next investigation VI-02-12-A

Changes Noted [Signature]

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

Contract

WORK ORDER NO. 071102

December 16, 1938

MR. S. V. Cortelyou
DISTRICT ENGINEER Los Angeles, California

VII-Ora-19-A
15-36

AUTHORITY IS GRANTED TO EXPEND THE FOLLOWING SUMS FOR THE PURPOSE HEREIN SPECIFIED:

LOCATION AND DESCRIPTION OF WORK

Road VII-Ora-19-A
At Brea Canyon about five miles northeast of Fullerton

Reinforced concrete channel protection at existing bridge site.

*Godwin
G.G.*

Contract items (Vido Kovacevich) South Gate	\$ 13,565.00
State furnished material and expense	none
Supplemental work (detail within)	<u>310.00</u>
Subtotal	\$ 13,875.00
Contingencies 10%	<u>1,387.50</u>
Total	\$ 15,262.50



THIS AUTHORIZATION	\$	
PREVIOUS AUTHORIZATIONS	\$	15,262.50
TOTAL AUTHORIZATIONS TO DATE	\$	<u>15,262.50</u>

PAYABLE FROM STATE HIGHWAY FUND

ORIGINAL SIGNED BY G. T. MCCOY

By _____ STATE HIGHWAY ENGINEER

BALANCE AVAILABLE	\$	
AMOUNT OF THIS WORK ORDER	\$	<u>15,262.50</u>
BALANCE	\$	

ALLOTMENT APPROVED:

ORIGINAL SIGNED EARL LEE KELLY

DIRECTOR OF PUBLIC WORKS

DEC 21 1938

DATE _____

FORM 202. EST. 4608. 60896 7-38 6M
STATE PRINTING OFFICE

AK

Supplemental work

Ditch excavation beyond Sta. 12+50
Repair to rail at N.E. corner
Removing bulkheads and extending flume

\$100.00
10.00
200.00

Total

\$310.00

**DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS**

19

A

**PRELIMINARY ESTIMATE OF COST
STATE HIGHWAY**

Area Canyon

(STA. _____)

5 Miles Northeast of Fullerton

(STA. _____)

November 30,

38

QUANTITY	UNIT	ITEM	UNIT PRICE	AMOUNT
300	Cu Yds	Structure Excavation	2 00	600 00
2,000	"	Ditch & Channel Excavation	0 50	1,000 00
1,500	"	Backfill	0 50	750 00
45,000	Lbs	Bar Reinforcing Steel	0 05	2,400 00
300	Cu Yds	Class "A" PCC Structures	20 00	6,000 00
190	"	Class "A" PCC (Slope pavement & Invert Slab)	16 00	3,040 00
1	Lot	Miscellaneous Items of Work	Lump	250 00
Subtotal				14,040 00
SUPPLEMENTAL ALLOTMENTS				
		Ditch Excavation beyond Sta. 12+50	100 00	
		Repairs to Rail on NE Corner	10 00	
		Remove Existing Timber Bulkheads and extend wood flumes	200 00	
				310 00
Channel Protection				

LENGTH _____ MILES

COST _____ PER MILE

MADE BY **CAVOD**

CHECKED BY **WBS**

SUB-TOTAL	10%	14,350 00
CONTINGENCIES	10%	1,435 00
TOTAL		15,785 00

APPROVED _____

DISTRICT ENGINEER

* INCLUDES CONTRACTOR'S PROFIT
ALL ITEMS ESTIMATED IN PLACE UNLESS OTHERWISE NOTED

STATE HIGHWAY ENGINEER

BRIDGE REPORT

Date of Investigation May 13, 1938

General Description

Name BREA CANYON

57
VII-Ora-19-A

Dist.-Co.-Rt.-Sec.

Location 4.8⁷ Miles north of junction with Rte. 272

PM 27-10A

Description RC(5) Simple girder spans on RC(5) pile bents and open end bents. Creosoted Douglas fir pile and redwood plank bulkheads in front of open bents, holding fill. Concrete railings. Asphaltic surfacing.

Approximate skew 60° Lt.

Spans 3 @ 29.0' c/c

Total length 90'

Roadway width 30.2' between Concrete curbs. Sidewalks None
(10" high-6" top width)

Alignment Final and on tangent.

Width Wider than balance of road. OK for some time.

Standard of design Strong County standard.

Waterway Excessive. Velocity medium. Sand and peat soil.

HWM=Flowed half full, 1938. Clear height at center of channel is about 16' at this time. Has scoured about 5' since built.

Vertical clearance under (See diagram)

History

Date built By Orange County. Contract No.

Designed by

Plans To be obtained.

REMARKS

cc: District VII (2)
Maintenance Dept.
Mr. Wagner.

ESL-123
 BRIDGE No. 77-76
 Sheet 1a

Name BREA CANYON BRIDGE Location VII-Ora-19-A Dist.-Co.-Rt.-Sec.

Summary of Construction, Maintenance and Alteration Work

CONT. OR W. O. No.	DATE	DESCRIPTION	W. O. AMOUNT	FINAL COST
54-7K20	2-10-54	Replace fill material under Br. approach as recommended in Br. Report dated 1-14-54.	\$500.	\$500.
54-7VY76	4-19-54	Work recommended in Br. Report dated 12-3-53.	<i>Total</i>	\$205.
532-057	7-14-66	Per Rpt. dated 8-27-65		\$705.
				\$711.33

CONDITION OF STRUCTURE:-

Channel has apparently scoured down about 5' since bridge was built. During the extreme highwater of 1938, parts of the bulkheads upstream from the bridge failed, and part of the roadway fill washed out. This damage has been temporarily repaired. The creosoted Douglas fir piles of the bulkheads are tied back with cables to deadmen, and are in fairly good condition except that the deadmen have failed on the north upstream wing and allowed piles to tip outward. Considerable of the redwood bulkhead planking has decayed and failed throughout entire lengths of bulkheads.

All concrete appears to be of good quality, and the balance of the structure is in good condition throughout.

SUMMARY:-

Structure is safe for legal loads by inspection.

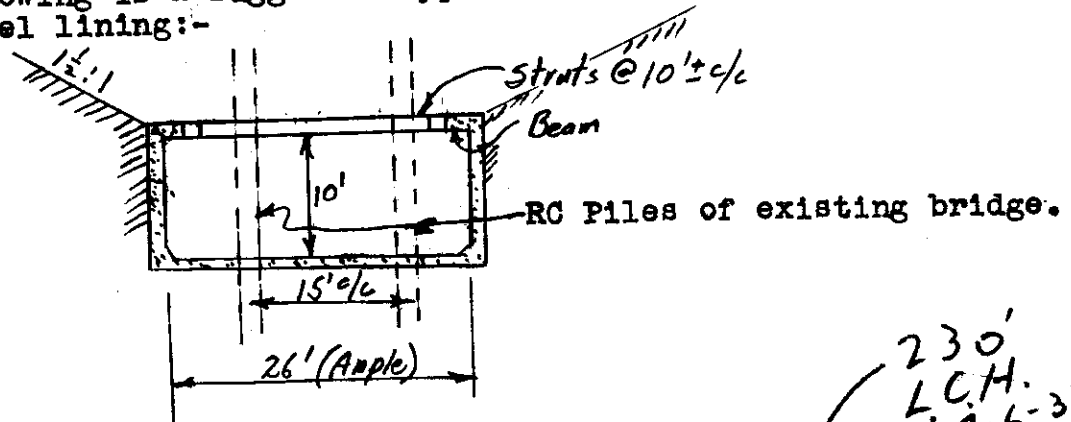
Probable remaining economic service life, structurally, is 50 years.

RECOMMENDATIONS:-

It is recommended that during the summer of 1938 the following work be done by contract, as agreed with District VII. All work outlined should be completed before rains of next winter.

A site plan should be obtained by the Bridge Department field party, as requested in memorandum to Mr. Mitchell, dated May 27, 1938, after which contract drawings and specifications for the work should be drawn up by the Bridge Department.

The following is a suggested typical cross section of the proposed channel lining:-



Channel to be lined for total distance of about 180' with a channel lining constructed along the above lines, but not larger in internal dimensions. Cut off walls will be necessary at each end, extending at least 8' below flow line. Wing walls may be necessary. Lining must be curved on upstream end, and backfilled where there is no existing backfill. Existing timber bulkheads may be buried in fill.

(See next sheet)

586-75
BRIDGE No. ~~55-76~~
SHEET 2
DATE May 13, 1938

RECOMMENDATIONS (Concluded):-

It is estimated that the above work will cost about \$8,500.

It has been agreed by Mr. Waterman that this work can be financed from ~~XXXXXXXX~~ balance remaining in Bridge Minor Improvement Item #3 for redecking the Santa Ana River Bridge, #55-106, Ora-181-A.

Next inspection, July 1939


Fred Barnes.

SEE SUPPLEMENTARY REPORT OF FEB 5 1940, FOLLOWING.

Name BREA CANYON Location VII-Ora-19-A
 Dist. - Co. - Rte. - Sec. -

SUMMARY OF ENCROACHMENTS

Permit No.	Date	Description
		<p>3" steel pipe line crosses transverse to structure in fill under span #1</p> <p>Permittee: Metro Water Dept</p>