
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 : 55C0154
Facility Carried: EDINGER AVE
Location : 0.3 MI E HARBOR BLVD
City :
Inspection Date : 05-JUN-01

Bridge Inspection Report

Inspection Type
Routine ☒ Group A ☐ Underwater ☐ Special ☐ Other ☐

Name : SANTA ANA RIVER CHANNEL

CONSTRUCTION INFORMATION

Year Built : 1959
Year Widened : N/A
Length (m) : 91.4
Skew (degrees): 16
No. of Joints : 0
No. of Hinges : 2
Description of Structure : Continuous seven span CIP/RC T-beam (6 each) with RC pier walls and RC open end diaphragm abutments, all supported upon concrete piles.

Span Configuration : (W) 10.4 m, 5 @ 14.0 m, 10.4 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : MS - 18 OR HS - 20
Inventory Rating : 49.9 metric tons
Operating Rating : 84.3 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) 0.1 m br, 4 @ 3.9 m, 0.1 m br (N)
Total Width : 15.8 m
Net Width : 15.50 m
Rail Description : MBGR
Min. Vertical Clearance : Unimpaired
No. of Lanes : 4
Rail Code : 0000

DESCRIPTION UNDER STRUCTURE

Channel Description : RC trapezoidal.

CONDITION OF STRUCTURE

The structure is in good condition.

MISCELLANEOUS

Vehicular access into the channel is from the southwest quadrant.

ELEMENT LEVEL INSPECTION RATINGS									
F#	Elem	Element Description	Env	Total Units Quantity	Qty in each Condition State				
	No.				St. 1	St. 2	St. 3	St. 4	St. 5
01 12		Concrete Deck - Bare	2	1420 sq.m.	1420	0	0	0	0
01 110		Reinforced Conc Open Girder/Beam	2	546 m.	546	0	0	0	0
01 210		Reinforced Conc Pier Wall	2	120 m.	120	0	0	0	0
01 215		Reinforced Conc Abutment	2	34 m.	34	0	0	0	0
01 304		Open Expansion Joint	2	34 m.	34	0	0		
01 312		Enclosed/Concealed Bearing	2	2 ea.	2	0	0	0	0
01 337		Metal Railing (W6X25 Posts)	2	188 m.	188	0	0	0	0

WORK RECOMMENDATIONS - NONE

Bridge No.: 55C0154

Location: 0.3 MI E HARBOR BLVD

Inspection Date: 05-JUN-01

Inspected By : M. Ogata

M. Ogata
Registered Civil Engineer



CC : TMRut
Orange County

Bridge No.: 55C0154

Location: 0.3 MI E HARBOR BLVD

Inspection Date: 05-JUN-01

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME - CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0154
 (5) INVENTORY ROUTE (ON/UNDER) - ON 1 40 0M032N
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED - SANTA ANA RIVER CHANNEL
 (7) FACILITY CARRIED - EDINGER AVE
 (9) LOCATION - 0.3 MI E HARBOR BLVD
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 43 MIN 40 SEC
 (17) LONGITUDE 117 DEG 54 MIN 54 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

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

(43) STRUCTURE TYPE MAIN: MATERIAL - CONCRETE CONT
 TYPE - TEE BEAM CODE 2 04
 (44) STRUCTURE TYPE APPR: MATERIAL -
 TYPE - CODE
 (45) NUMBER OF SPANS IN MAIN UNIT 7
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE - CONCRETE CODE 1
 B) TYPE OF MEMBRANE - NONE CODE 0
 C) TYPE OF DECK PROTECTION - NONE CODE 0

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

(27) YEAR BUILT 1959
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON - HIGHWAY 1
 UNDER - WATERWAY 5
 (28) LANES: ON STRUCTURE 04 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 21000
 (30) YEAR OF ADT 1999 (109) TRUCK ADT 1%
 (19) BYPASS, DETOUR LENGTH 3 KM

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

(48) LENGTH OF MAXIMUM SPAN 14 M
 (49) STRUCTURE LENGTH 91.4 M
 (50) CURB OR SIDEWALK: LEFT 0 M RIGHT 0 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 15.5 M
 (52) DECK WIDTH OUT TO OUT 15.8 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 22.3 M
 (33) BRIDGE MEDIAN - CLOSED (NO BARRIER) 2
 (34) SKEW 16 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 15.6 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 = 76.3 *****

STATUS =
 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 - MS - 18 OR HS - 20 5
 (63) OPERATING RATING METHOD - LOAD FACTOR 1
 (64) OPERATING RATING - 84.3
 (65) INVENTORY RATING METHOD - LOAD FACTOR 1
 (66) INVENTORY RATING - 49.9
 (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 4
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 0000
 (113) SCOUR CRITICAL BRIDGES 7

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

(75) TYPE OF WORK - CODE
 (76) LENGTH OF STRUCTURE IMPROVEMENT M
 (94) BRIDGE IMPROVEMENT COST
 (95) ROADWAY IMPROVEMENT COST
 (96) TOTAL PROJECT COST
 (97) YEAR OF IMPROVEMENT COST ESTIMATE
 (114) FUTURE ADT 42000
 (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-154

Location 12 - Ora - FAU M032-CR
Dist.-Co.-Rte.-City

Date of Investigation July 14, 1995

TYPE OF INVESTIGATION/REPORT

BIENNIAL X DAMAGE

CATEGORY A OTHER

UNDERWATER OFFICE

Name SANTA ANA RIVER CHANNEL (Edinger Avenue, 0.3 mile east of Harbor Boulevard)

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-1 is appropriate.

CONDITION OF STRUCTURE:

Pourable joint seal has started to fail and debris has accumulated in the joint.

REVISION:

DESCRIPTION - HYDRAULICS.

Channel: RC bottom trapezoidal with RC side slopes.

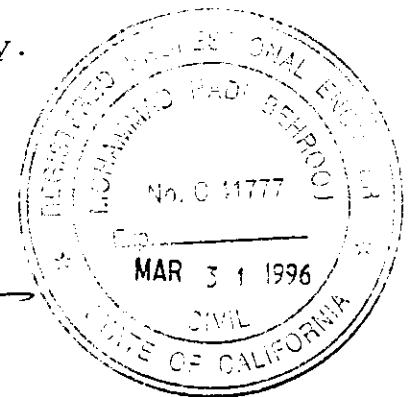
WORK RECOMMENDED:

Remove and replace failed pourable seal.

ENCROACHMENT:

One 0.15 m welded steel pipe in north exterior bay.

By M. Hadi Behrooj
G. P. Balinghasay



GPB:cd
cc: CDHarris
Orange County
WLindsey

INFORMATION ONLY - NOT FOR UPDATE

BRIDGE NUMBER	FRAME	INSPECTION DATE
55C0154	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]

BY: _____

Bridge No. 55C-154

Name SANTA ANA RIVER CHANNEL (Edinger Avenue, 0.3 mile east of Harbor Boulevard)

Location 12-Ora-FAS M032-CR
Dist.-Co.-Rte.-City

SUMMARY OF ENCROACHMENTS

Permit No. and Permittee	Date	Description & Location on Bridge
	Prior to 7-14-95	1 - 0.15 m welded steel pipe in north exterior bay.

HBD M 30

Bridge Number 55C-154

TYPE OF INVESTIGATION/REPORT

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

Location 12 - Ora - FAU M032-CR
Dist.-Co.-Rte.-City

Date of Investigation April 14, 1993

Name SANTA ANA RIVER CHANNEL (Edinger Avenue, 0.3 mile east of Harbor Boulevard)

CONDITION RATINGS:

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

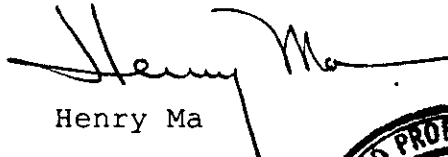
Channel & Channel Protection

7

CONDITION OF STRUCTURE:

A minor dent, caused by traffic impact, in north steel bridge rail is noted near Pier 4 from east.

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
55C0154	01	041493
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]

H. MA

BY:

BRIDGE REPORT

14W11

Bridge No. 55C - 154

DS-M50 (REV. 1/91)

Location 12 - Ora - FAU M032-CR
Dist Co Rte City

REVISED ORIGINAL REPORT

Date of Investigation April 11, 1991

Name SANTA ANA RIVER CHANNEL (Edinger Avenue, 0.3 mile east of Harbor Boulevard)

Lat. 33° - 43.6'N Long. 117° - 54.8'W

Custodian County of Orange Owner County of Orange

STRUCTURAL DATA AND HISTORY

Year Built 1959 By County of Orange Contract No. Unknown

Designed by: County Plans Avail. @ County

Description: 7 span continuous CIP RC "T" beam (6 each) supported by RC pier walls and open end RC diaphragm abutments, all on concrete piles.

Spans (W) 35', 5 @ 46', 35' (E)

Length 300' NBIS Bridge Length Yes Skew 16° Right

Number Of Intermediate Joints: @Hinges 2 @Bents None

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

Design Live Load H20-S16-44 Design Method Unknown

DESCRIPTION - ON STRUCTURE

Bridge Width (S) 0.3'br. 51', 0.3'br (N)

Total Width 52' Net Width 51' Lanes 4 Tracks None

Median None Rail Type Metal beam 0000

Vert. Clearance over deck Unimpaired Appr. Rdwy. Width 73'

Deck Type 1 Wearing Surface/Prot. Sys. 100 Concrete/none

Alignment Tangent

DESCRIPTION - UNDER STRUCTURE

Roadway Section None

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

Lanes Tracks

Facilities Crossed Santa Ana River Channel (E 01)

April 11, 1991

DESCRIPTION - HYDRAULICS

Channel Sandy bottom trapezoidal with concrete side slopes

Navigable: Yes ☐ No ☒ Clearances: Vert. Horiz.Pier/Abutment Protection (For Navigation) ☐

TRAFFIC INFORMATION

	DECK	YEAR	UNDER	YEAR
Average Daily Traffic & Year :	21,000	1989	N	
Average Daily Traffic (Future) :	22,000 Est	2010	N	
Average Daily Trucks (% OF ADT) :	1% Est		N	
Bypass Detour Length	2 miles		N	
Shell Route:	No		No	
Functional Classification :	14		N	
LOAD RATINGS:	Inventory HS 31	Operating HS 52		
	Permit PPPPP	Computation Method Load Factor		

CONDITION RATINGS:

Deck	8	Superstructure	8	Substructure	7
Channel & Channel Protection	7	Culvert	N	Widenable	Yes

APPRAISAL RATINGS:

Waterway Adequacy	9	Approach Roadway Alignment	8
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Date of Revisions

CONDITION OF STRUCTURE:

There is light cracking in the concrete bridge deck.

Channel erosion has not changed significantly since the previous reports and 4'± of exposed concrete piles under all pier footings remain the same.

Condition of the structure is good.

WORK DONE:

West end span under the structure has been filled with embankment and sealed with grouted rock.

ENCROACHMENT:

6" welded steel pile in north exterior bay.

Henry Ma



HM:ms

cc: INagai (2)

County of Orange

Bridge No. 55C-154
Location 12-Ora - FAU M032 - CR
Dist. Co. Rte. City
Date of Investigation 4-10-89

Name SANTA ANA RIVER (Edinger Avenue, 0.25 mile East of Harbor Boulevard)

CONDITION RATING:

Deck 7 Superstructure 8 Substr.&Pipes 8
Channel & Channel Protection 8 Culvert N Widenable? Yes

TYPE OF INVESTIGATION/REPORT

BIENNIAL X DAMAGE
CATEGORY A OTHER
UNDERWATER OFFICE

CONDITION OF STRUCTURE:

Condition of the structure is good.

REVISION:

Location: 12-Ora-FAU M032-CR

WORK RECOMMENDED:

None.

RECOMMENDED POSTING:

None.

SUBSTRUCTURE CODING UPDATE:

2 RC open end diaphragm abutments on concrete piles.

6 RC pier walls 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-154
Location 7-Oran-FAU M032-CR
Dist - Co - Rte - PM - City
Date of Investigation April 15, 1987

Name SANTA ANA RIVER (Edinger Ave., 0.25 mile E. of Harbor Blvd)

CONDITION RATING: APPRAISAL RATING:
7 8 8 7
Deck Superstructure Substr. & Pipes Overall
8 N
Channel & Channel Protection Retaining Walls

Widenable? Yes ☒ No ☐ Conditional ☐

Action Required By County Yes ☐ No ☒

PRIORITY

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

REVISION:

Average Daily Traffic - 19,000 (1985)

WORK DONE:

The previously recommended work to repair erosion behind the southwest wingwall has been done.

CONDITION OF STRUCTURE:

Exposed piling condition under pier footings previously reported remains the same.

Otherwise, overall condition of the structure is good.

RECOMMENDED POSTING:

None

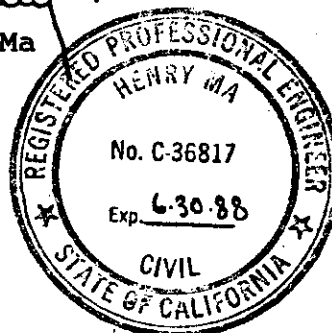
WORK RECOMMENDED:

None

HM:pht

cc: INagai (2)
Orange County (2)

Henry Ma



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DH-05 M19 (REV. 1/74)

Bridge No. 55C-154
Location 7-Ora-FAU M032-CR
Stat - Co - Pkg - Pg - City (On Deck)
Date of Investigation January 7, 1986

Name SANTA ANA RIVER (Edinger Avenue, 0.25 mile east of Harbor Blvd.)

CONDITION RATING:

APPRAISAL RATING:

Deck (7) Superstructure 8 Substr. & Pipes 8 Overall (7)
Channel & Channel Protection 8 Retaining Walls N

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

PRIORITY

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

REVISION:

Condition Rating - Deck 7
Appraisal Rating - Overall 7

ENCROACHMENT:

6" steel pipe in north exterior bay.

WORK NOT DONE:

The previously recommended work to repair erosion behind the southwest wingwall has not been done.

CONDITION OF STRUCTURE:

The channel has degraded and exposed piling. (4'-5') of all four pier footings within channel.

The overall condition of the structure is good.

RECOMMENDED POSTING:

None

WORK RECOMMENDED:

1. Repair erosion behind the southwest wingwall.
2. Regrade channel to cover all piles under pier footings.

HM:pdh
cc: INagai (2)
Orange County (2)

Henry Ma
Henry Ma
C-36817

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

Bridge No. 55C-154
Location 7-Oran-FAU M032-CR
Dist - Co - Rte - PM - City (On deck)
Date of Investigation June 8, 1983

Name SANTA ANA RIVER (Edinger Avenue, 0.25 mile east of Harbor Blvd.)

CONDITION RATING:

APPRAISAL RATING:

Deck 8 Superstructure 8 Substr. & Pipes 8 Overall 8
Channel & Channel Protection 8 Retaining Walls N

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

PRIORITY

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

WORK DONE:

The previously recommended work to repair the erosion behind the southwest wingwall has not been done. Previously recommended item #2 has been done.

CONDITION OF STRUCTURE:

The overall condition of the structure is good.

RECOMMENDED POSTING:

None.

RECOMMENDATION:

Repair the erosion behind the southwest wingwall.

E. L. Neff

E. L. Neff
C 28703

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DH-05 M-9 (REV. 1/74)

Bridge No. 55C-154
Location 07-Ora-FAU M032-CR
Dist - Co - Rte - PM - City (On deck)
Date of Investigation August 25, 1981

Name SANTA ANA RIVER (Edinger Ave., 0.25 mile east of Harbor Blvd.)

CONDITION RATING:

APPRAISAL RATING:

Deck 8 Superstructure 8 Substr. & Pipes 8 Overall 8
Channel & Channel Protection 8 Retaining Walls N

Widened? Yes ☒ No ☐ Conditional ☐
County:
Action Required by District: Yes ☒ No ☐

WORK DONE:

The previously recommended work has not been done, i.e., repair the erosion behind the southwest wingwall.

CONDITION OF STRUCTURE:

The piles are exposed under the piers to a maximum of 4 feet.

The overall condition of the structure is good.

RECOMMENDED POSTING:

None.

RECOMMENDATIONS:

1. Repair the erosion behind the southwest wingwall.
2. Regrade the river bottom to backfill the piles.

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

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

Bridge No. 55
Location 07-Ors-FAU-M032
Dist - Co - Rte - PM - City
Date of Investigation July 17, 1980

Name SANTA ANA RIVER (Edinger Ave. - .25 mi. E. of Harbor Blvd.)

CONDITION RATING:

Deck	8	Superstructure	8	Substr. & Pipes	8	Overall	8
Channel & Channel Protection	8	Retaining Walls	N				

APPRAISAL RATING:

Widenable? Yes ☒ No ☐ Conditional ☐

Action Required by District XXXX Yes ☒ No ☐

AVERAGE DAILY TRAFFIC: 10,000 (Estimated 1980)

EXPRESS DETOUR LENGTH: 4 miles

ENCROACHMENTS: 6" ϕ pipe in the northerly exterior bay.

REVISIONS: *

RAIL - Metal Beam Guard Rail (0000)
LANES - 4 Tracks - None
MEDIAN - None
VERTICAL CLEARANCE - Unimpaired
APPROACH ROADWAY WIDTH - 83'

CONDITION - Approach Roadway Alignment -9
Estimated Remaining Life - 50

APPRAISAL - Deck Geometry -6
Safe Load Capacity - (9)*
Approach Roadway Alignment -9

SEISMIC RETROFIT: It is recommended that this structure be considered for retrofitting with earthquake restrainers.

HISTORY: Due to the unusually heavy storm activity during the winter of 1979-80, the Santa Ana River has degraded for several miles of its length in Orange County. This is the first time that this has occurred during the period for which records have been kept. At 9th Street bridge over the Santa Ana River (Br. No. 550-372), the river was considered the most stable, and this point on the river gradient was used as the hinge point for the river's hydraulic design. The river degraded 30'± (Max.) at this bridge.

HISTORY - Continued

At this time, the U.S. Army Corps. of Engineers is designing a series of drop structures for this degraded stretch of the river in order to bring the gradient of the river back close to its original gradient. Any additional work necessary to stabilize and/or protect the structures along this portion of the river will be done by the owner of each structure.

CONDITION OF STRUCTURE: There is minor erosion behind the SW wingwall. The river bed has degraded 8'+ (Max.) at the structure and the middle 4 piers have piles exposed. Otherwise, the structure is in good condition.

RECOMMENDATIONS:

1. Repair the erosion behind the SW wingwall.
2. After the U.S. Army Corps. of Engineers has completed its design for the repair work in the Santa Ana River, a study should be made to determine if any additional work will be necessary to complete the stabilization and/or protection of the structure.
3. Initiate a project for any additional work necessary to stabilize and/or protect the structure.

Original signed by

FRANK J. WALLISER **
CO19767

FJW:ym
cc: DFHiggins
Orange County (2)

Bridge No. 55C-154

Other No. OCRD SA - 27

Location: 1/4 mi. E. of Harbor Blvd.
~~FOUR CORNER~~

Location 07-Ora-Co. Rd.
Dist - Co - Rte - PM - City

Office Report December 15, 1975
~~XXXXXXXXXXXX~~

Name SANTA ANA RIVER (Edinger Avenue)

Lat. 33°-43.6' Long. 117°-54.8'

STRUCTURAL DATA AND HISTORY

Year Built 1959 By County Contract No. --

Date of Revisions _____

Designed by: B.D. ☐ County Plans Avail. @ County

Description: Continuous R.C. (6 girder) T-Beam, R.C. wall piers and R.C. diaphragm abutments keyed into R.C. pile caps; supported on R.C. pile foundation.

Spans 1035', 5046', 1035'

Length 300' Skew Rt. 16 1/2° Design LL H20-S16-44

Ratings: Inventory HS 31.2/L.F. Operating HS 52/L.F. Permit P-13 L.F.

DESCRIPTION - ON STRUCTURE

Bridge Width 1052'

Total Width 52' Lanes _____ Tracks 0

Median _____ Rail Type _____

Vert. Clearance over deck _____ Appr. Rdwy. Width _____

Wearing Surface None 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 River Channel

Bridge No. 55C-154
Date December 15, 1975

DESCRIPTION — HYDRAULICS

Channel Wide Sandy Channel

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

MAINTENANCE

Custodian County Owner County

**ORIGINAL
CONDITION RATING**

Deck _____
Superstructure _____
Substructure & Pipes _____
Channel & Channel Protection _____
Retaining Walls N/A
Approach Rdwy. Alignment _____
Estimated Remaining Life _____

**ORIGINAL
APPRAISAL**

Overall _____
Deck Geometry _____
Underclearances Vert. N/A
Horiz. N/A
Safe Load Capacity 8
Waterway Adequacy _____
Approach Rdwy. Alignment _____

Widenable? Yes ☐ No ☐ Conditional ☐

Action Required by District: Yes ☐ No ☐

The structure was rated for a special load by Load Factor Method for the County of Orange. This report is for filing purposes only, no inspection was made.

Original signed by
W. R. Baker

WRB:ah