DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0154
Facility Carried: EDINGER AVENUE
Location : 0.3 MI. E/O HARBOR BLVD
City :
Inspection Date : 05/05/2010

Bridge Inspection Report

Inspection Type

Routine	FC	Underwater	Special	Other
X				

STRUCTURE NAME: SANTA ANA RIVER CHANNEL

CONSTRUCTION INFORMATION

Year Built : 1959
Year Widened: N/A
Length (m) : 91.4
Skew (degrees): 16
No. of Joints : 2
No. of Hinges : 2

Structure Description: 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: 50.5 metric tonnes Calculation Method: LOAD FACTOR
Operating Rating: 84.2 metric tonnes Calculation Method: LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: (S) 0.1 m br, 15.6 m, 0.1 m br (N)
Total Width: 15.8 m Net Width: 15.5 m No. of Lanes: 4
Rail Description: MBGR Rail Code : 1000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: RC trapezoidal.

CONDITION TEXT

CONDITION OF STRUCTURE
The AC roadway approach settled about 25 mm at the east and the is a hole (600 mm x 300 mm x 300mm) in the middle of the road also there are 2 holes (500 mm x 150 mm x 100 mm) at the eastbound west approach roadway joint.

There are transverse cracks in the deck moderate in size (1 mm) and density (300 mm spacing), mostly over the support.

There are transverse cracks (0.5 mm wide, 500 mm long) in the soffit with light efflorescence.

There was 100 mm of water in the deepest section of the concrete channel; all elements were inspected.

ELEMENT INSPECTION RATINGS

F#Elem	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4	St. 5
101 12	Concrete Deck - Bare	2	1420	sq.m.	1420	0	0	0	0
101 110	Reinforced Conc Open Girder/Beam	2	546	m.	546	0	0	0	0
101 210	Reinforced Conc Pier Wall	2	120	m.	120	0	0	0	0
101 215	Reinforced Conc Abutment	2	34	m.	34	0	0	0	0

F#Elem	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4	St. 5
101 304	Open Expansion Joint	2	34	m.	34	0	0	0	0
101 312	Enclosed/Concealed Bearing	2	2	ea.	2	0	0	0	0
101 337	Metal Railing (W6X25 Posts)	2	188	m.	188	0	0	0	0
101 358	Deck Cracking	2	1	ea.	0	0	1	0	

WORK RECOMMENDATIONS

RecDate: 05/05/2010
Action : Appr. Roadway-Repair
Work By: LOCAL AGENCY
Status : PROPOSED

EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:

Level the AC roadway approach that is settled about 25 mm at the east and fix the is a hole (600 mm x 300 mm x 300mm) in the middle of the road also there are 2 holes (500 mm x 150 mm x 100 mm) at the eastbound west approach roadway joint.

RecDate: 06/07/2007
Action : Deck-Methacrylate
Work By: LOCAL AGENCY
Status : PROPOSED

EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:

Seal the deck with methacrylate.

Inspected By : A.Shenouda/MT.Zaarour

Registered Civil Engineer

STRUCTURE INVENTORY AND APPRAISAL REPORT

********** IDENTIFICATION **********

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER **55C0154**
(5) INVENTORY ROUTE(ON/UNDER) - ON 1400M0320
(2) HIGHWAY AGENCY DISTRICT 12
(3) COUNTY CODE 059 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- SANTA ANA RIVER CHANNEL
(7) FACILITY CARRIED- EDINGER AVENUE
(9) LOCATION- 0.3 MI. E/O HARBOR BLVD
(11) MILEPOINT/KILOMETERPOINT 0
(12) BASE HIGHWAY NETWORK- PART OF NET 1
(13) LRS INVENTORY ROUTE & SUBROUTE 000000M03200
(16) LATITUDE 33 DEG 43 MIN 38.7 SEC
(17) LONGITUDE 117 DEG 54 MIN 55 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 204
(44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
TYPE- OTHER/NA CODE 000
(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- NONE CODE 0
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 00
(29) AVERAGE DAILY TRAFFIC 25000
(30) YEAR OF ADT 2000 (109) TRUCK ADT 1 %
(19) BYPASS, DETOUR LENGTH 3 KM

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

(48) LENGTH OF MAXIMUM SPAN 14.0 M
(49) STRUCTURE LENGTH 91.4 M
(50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 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- NO MEDIAN 0
(34) SKEW 16 DEG (35) STRUCTURE FLARED NO
(10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 15.5 M
(53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
(54) MIN VERT UNDERCLEAR REF- NOT H/RR 0.00 M
(55) MIN LAT UNDERCLEAR RT REF- NOT H/RR 0.0 M
(56) MIN LAT UNDERCLEAR LT 0.0 M

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

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
(111) PIER PROTECTION- CODE
(39) NAVIGATION VERTICAL CLEARANCE 0.0 M
(116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
(40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

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SUFFICIENCY RATING = 75.5
STATUS
HEALTH INDEX 100.0
PAINT CONDITION INDEX = N/A

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

(112) NBIS BRIDGE LENGTH- YES Y
(104) HIGHWAY SYSTEM- NOT ON NHS 0
(26) FUNCTIONAL CLASS- OTHER PRIN ART URBAN 14
(100) DEFENSE HIGHWAY- NOT STRAHNET 0
(101) PARALLEL STRUCTURE- NONE EXISTS N
(102) DIRECTION OF TRAFFIC- 2 WAY 2
(103) TEMPORARY STRUCTURE-
(105) FED.LANDS HWY- NOT APPLICABLE 0
(110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
(20) TOLL- ON FREE ROAD 3
(21) MAINTAIN- COUNTY HIGHWAY AGENCY 02
(22) OWNER- COUNTY HIGHWAY AGENCY 02
(37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

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

(58) DECK 5
(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- 84.2
(65) INVENTORY RATING METHOD- LOAD FACTOR 1
(66) INVENTORY RATING- 50.5
(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 1000
(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 51520
(115) YEAR OF FUTURE ADT 2029

********** INSPECTIONS **********

(90) INSPECTION DATE 05/10 (91) FREQUENCY 24 MO
(92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
A) FRACTURE CRIT DETAIL- NO MO A)
B) UNDERWATER INSP- NO MO B)
C) OTHER SPECIAL INSP- NO MO C)