DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0550
Facility Carried: ALISO CREEK ROAD
Location : 100' W/O ALICIA PARKWAY
City :
Inspection Date : 03/02/2011
Inspection Type

Routine	FC	Underwater	Special	Other
X				

Bridge Inspection Report

STRUCTURE NAME: ALISO CREEK

CONSTRUCTION INFORMATION

Year Built : 1988
Year Widened: N/A
Length (m) : 51.8
Skew (degrees): 20
No. of Joints : 0
No. of Hinges : 0

Structure Description: Single span CIP/PS concrete box girder (16 cells) with RC open end diaphragm abutments, all supported upon concrete piles.

Span Configuration : (W) 50.0 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18+MOD OR HS-20+MOD
Inventory Rating: 32.6 metric tonnes Calculation Method: LOAD FACTOR
Operating Rating: 53.5 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: (N) 0.3 m br, 1.5 m sw, 34.5 m, 1.5 m sw, 0.3 m br (N)
Total Width: 38.0 m Net Width: 34.5 m No. of Lanes: 9
Rail Description: Type 26 conc. Rail Code : 0000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth, trapezoidal with RC slope protection through the site.

CONDITION TEXT

CONDITION OF STRUCTURE

The 5 mm thick at the north corner of Abutment 2 (leveling concrete) is broken into pieces and piled off.

The northeast wing wall has two 4 m long minor vertical cracks.

There are random minor hairline transverse soffit cracks with white efflorescence in the closure pour area.

There are 2 longitudinal cracks in the bottom of box girder with whit efflorescence at flare section.

There is a vertical crack at the junction of the northwest wing wall and the abutment. The concrete railing has fractured (0.1 m x 0.3 m) at the junction of the northeast wing wall.

There is 200mm deep water, all element were inspected.

REVISIONS
The width and net width are adjusted to reflect the existing width.

CONDITION TEXT

It seen the bridge was widened. Caltrans do not have the widened as-built plans.

ELEMENT INSPECTION RATINGS

Elem No.	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4	St. 5
12	Concrete Deck - Bare	2	1970	sq.m.	1970	0	0	0	0
104	P/S Conc Closed Web/Box Girder	2	104	m.	104	0	0	0	0
215	Reinforced Conc Abutment	2	85	m.	85	0	0	0	0
256	Slope Protection	2	2	ea.	2	0	0	0	0
331	Reinforced Conc Bridge Railing	2	128	m.	127	1	0	0	0

WORK RECOMMENDATIONS - NONE

Inspected By : MT.Zaarour/M.Zolfaghari

Mikhael T. Zaarour (Registered Civil Engineer)

STRUCTURE INVENTORY AND APPRAISAL REPORT

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

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER **55C0550**
(5) INVENTORY ROUTE(ON/UNDER)- ON 1400M2740
(2) HIGHWAY AGENCY DISTRICT 12
(3) COUNTY CODE 059 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- ALISO CREEK
(7) FACILITY CARRIED- ALISO CREEK ROAD
(9) LOCATION- 100' W/O ALICIA PARKWAY
(11) MILEPOINT/KILOMETERPOINT 0
(12) BASE HIGHWAY NETWORK- PART OF NET 1
(13) LRS INVENTORY ROUTE & SUBROUTE 000000M27400
(16) LATITUDE 33 DEG 33 MIN 20.07 SEC
(17) LONGITUDE 117 DEG 43 MIN 06.36 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

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

(43) STRUCTURE TYPE MAIN:MATERIAL- PRESTRESS CONC
TYPE- BOX BEAM OR GIRDER - MULTI CODE 505
(44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
TYPE- OTHER/NA CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 1
(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 1988
(106) YEAR RECONSTRUCTED 0000
(42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
UNDER- WATERWAY 5
(28) LANES:ON STRUCTURE 09 UNDER STRUCTURE 00
(29) AVERAGE DAILY TRAFFIC 25915
(30) YEAR OF ADT 2011 (109) TRUCK ADT 1 %
(19) BYPASS, DETOUR LENGTH 3 KM

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

(48) LENGTH OF MAXIMUM SPAN 50.0 M
(49) STRUCTURE LENGTH 51.8 M
(50) CURB OR SIDEWALK: LEFT 1.5 M RIGHT 1.5 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 34.5 M
(52) DECK WIDTH OUT TO OUT 38.0 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 34.5 M
(33) BRIDGE MEDIAN- CLOSED (NO BARRIER) 2
(34) SKEW 20 DEG (35) STRUCTURE FLARED NO
(10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 34.5 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 = 92.3
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 7
(59) SUPERSTRUCTURE 8
(60) SUBSTRUCTURE 7
(61) CHANNEL & CHANNEL PROTECTION 9
(62) CULVERTS N

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

(31) DESIGN LOAD- MS-18+MOD OR HS-20+MOD 6
(63) OPERATING RATING METHOD- LOAD FACTOR 1
(64) OPERATING RATING- 53.5
(65) INVENTORY RATING METHOD- LOAD FACTOR 1
(66) INVENTORY RATING- 32.6
(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 5
(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- SUP/SUB REHAB CODE 35
(76) LENGTH OF STRUCTURE IMPROVEMENT 51.8 M
(94) BRIDGE IMPROVEMENT COST $979,000
(95) ROADWAY IMPROVEMENT COST $195,800
(96) TOTAL PROJECT COST $1,644,720
(97) YEAR OF IMPROVEMENT COST ESTIMATE 2010
(114) FUTURE ADT 45187
(115) YEAR OF FUTURE ADT 2028

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

(90) INSPECTION DATE 03/11 (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)