DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0008
Facility Carried: TRABUCO CANYON RD.
Location : 1.4 mi n/o Snta Margarit
City :
Inspection Date : 07/13/2011

Bridge Inspection Report

Inspection Type

Routine	FC	Underwater	Special	Other
X				

STRUCTURE NAME: TRABUCO CREEK

CONSTRUCTION INFORMATION

Year Built : 1980
Year Widened: N/A
Length (m) : 22.3

Skew (degrees): 33
No. of Joints : 2
No. of Hinges : 0

Structure Description: Simply supported 6-span PC/PS concrete deck slab units (7 each) with RC pier walls and RC open end seat abutments, all supported upon spread footings.

Span Configuration : (W) 6 @ 3.3 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20
Inventory Rating: 32.6 metric tonnes Calculation Method: NO RATING ANALYSIS
Operating Rating: 53.5 metric tonnes Calculation Method: NO RATING ANALYSIS
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, 7.1 m, 0.1 m br (N)
Total Width: 7.3 m Net Width: 7.1 m No. of Lanes: 2
Rail Description: MBGR with wooden posts. Rail Code : 0000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural cobbled earth trapezoidal with an RC invert through the site.

INSPECTION COMMENTARY

CONDITION OF STRUCTURE
The channel was dry; all elements were visually inspected.

There is K rails at the north side of the bridge because the MBBR is damaged.

There are 2 potholes 300 mm x 200 mm x 25 mm in the middle of the road and there are transverse and longitudinal cracks in the AC overlay.

The AC covered the joints, which could not be inspected.

There are 3 spalls (1000 mm x 300 mm x 75 mm each) with exposed rebars at the south edge of the deck in spans #4, #5 and #6

There are eroded concrete at the invert in spans 5 and 6, there are 30 and 3 rebars exposed of an area 5 m x 2.5 m.

There downstream grouted riprap is degraded, and there are holes about 3 meters in diameter by 1 m deep in the rip rap and the bottom of rip rap is exposed about 300 mm in spans #4, #5, and #6.

INSPECTION COMMENTARY

REVISIONS
Element 39 was replace by element 61.
7 meters of element 210 was moved to condition state 3 base of the exposed rebars in the invert which acted as spread footing of Pier wall.

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
61	PS Conc Slab - Unprotected w/ AC Overlay	2	140	sq.m.	0	140	0	0	0
210	Reinforced Conc Pier Wall	2	45	m.	38	0	7	0	
215	Reinforced Conc Abutment	2	18	m.	18	0	0	0	0
301	Pourable Joint Seal	2	18	m.	18	0	0	0	0
312	Enclosed/Concealed Bearing	2	7	ea.	7	0	0	0	0
321	Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	4	ea.	0	4	0	0	0
333	Other Bridge Railing	2	42	m.	10	21	11		

WORK RECOMMENDATIONS

RecDate: 07/13/2011
Action : Railing-Repair
Work By: LOCAL AGENCY
Status : PROPOSED
EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:
Repair the damaged rail at the north side.

RecDate: 05/21/2009
Action : Sub-Patch spalls
Work By: LOCAL AGENCY
Status : PROPOSED
EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:
Repair the eroded concrete at the invert in spans 5 & 6 with exposed rebars of an area 5 m x 2.5 m in the middle of the span.

RecDate: 05/01/2007
Action : Deck-Patch spalls
Work By: LOCAL AGENCY
Status : PROPOSED
EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:
Repair the 3 spalls (1000mm x 300mm x 75mm each) with exposed rebars at the south edge of the deck in spans #4, #5, and #6.

Inspected By : MT.Zaarour/A.Shenouda

Mikhael T. Zaarour (Registered Civil Engineer)

CC:

STRUCTURE INVENTORY AND APPRAISAL REPORT

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

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER 55C0008
(5) INVENTORY ROUTE(ON/UNDER)- ON 1400W4590
(2) HIGHWAY AGENCY DISTRICT 12
(3) COUNTY CODE 059 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- TRABUCO CREEK
(7) FACILITY CARRIED- TRABUCO CANYON RD.
(9) LOCATION- 1.4 mi n/o Snta Margarita
(11) MILEPOINT/KILOMETERPOINT 0
(12) BASE HIGHWAY NETWORK- NOT ON NET 0
(13) LRS INVENTORY ROUTE & SUBROUTE
(16) LATITUDE 33 DEG 39 MIN 33.53 SEC
(17) LONGITUDE 117 DEG 35 MIN 10.59 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

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

(43) STRUCTURE TYPE MAIN:MATERIAL- PRESTRESS CONC
TYPE- SLAB CODE 501
(44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
TYPE- OTHER/NA CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 6
(46) NUMBER OF APPROACH SPANS 0
(107) DECK STRUCTURE TYPE- PRECAST CONC. PA CODE 2
(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 1980
(106) YEAR RECONSTRUCTED 0000
(42) TYPE OF SERVICE: ON- HIGHWAY 1
UNDER- WATERWAY 5
(28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 00
(29) AVERAGE DAILY TRAFFIC 3000
(30) YEAR OF ADT 2009 (109) TRUCK ADT 1 %
(19) BYPASS, DETOUR LENGTH 10 KM

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

(48) LENGTH OF MAXIMUM SPAN 3.4 M
(49) STRUCTURE LENGTH 22.3 M
(50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 7.1 M
(52) DECK WIDTH OUT TO OUT 7.3 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 7.3 M
(33) BRIDGE MEDIAN- NO MEDIAN 0
(34) SKEW 33 DEG (35) STRUCTURE FLARED NO
(10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 7.1 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 = 60.7
STATUS FUNCTIONALLY OBSOLETE
HEALTH INDEX 88.6
PAINT CONDITION INDEX = N/A

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

(112) NBIS BRIDGE LENGTH- YES Y
(104) HIGHWAY SYSTEM- NOT ON NHS 0
(26) FUNCTIONAL CLASS- COLLECTOR URBAN 17
(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 6
(59) SUPERSTRUCTURE 6
(60) SUBSTRUCTURE 5
(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- NO RATING ANALYSIS 5
(64) OPERATING RATING- 53.5
(65) INVENTORY RATING METHOD- NO RATING ANALYSIS 5
(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 5
(68) DECK GEOMETRY 2
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
(71) WATER ADEQUACY 4
(72) APPROACH ROADWAY ALIGNMENT 4
(36) TRAFFIC SAFETY FEATURES 0000
(113) SCOUR CRITICAL BRIDGES 7

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

(75) TYPE OF WORK- DECK REHABILITATION CODE 36
(76) LENGTH OF STRUCTURE IMPROVEMENT 22.3 M
(94) BRIDGE IMPROVEMENT COST $163,000
(95) ROADWAY IMPROVEMENT COST $32,600
(96) TOTAL PROJECT COST $273,840
(97) YEAR OF IMPROVEMENT COST ESTIMATE 2010
(114) FUTURE ADT 8270
(115) YEAR OF FUTURE ADT 2029

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

(90) INSPECTION DATE 07/11 (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)