DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0283
Facility Carried: BROADWAY
Location : 100' NE/O PACIFIC CST HW
City :
Inspection Date : 05/16/2012

Bridge Inspection Report

Inspection Type

Routine	FC	Underwater	Special	Other
X				

STRUCTURE NAME: SUNSET CHANNEL

CONSTRUCTION INFORMATION

Year Built : 1959
Year Widened: N/A
Length (m) : 29.3
Skew (degrees): 0
No. of Joints : 5
No. of Hinges : 0

Structure Description: Simply supported 4-span CIP/RC deck slab with RC 5-column pile bents and with column pile bent abutments.

Span Configuration : (S) 4 @ 7.0 m (N) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: M-13.5 OR H-15
Inventory Rating: 24.3 metric tonnes Calculation Method: NO RATING ANALYSIS
Operating Rating: 40.5 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: (W) 0.3 m br, 0.9 m sw, 8.6 m, 0.9 m sw, 0.3 m br (E)
Total Width: 11.0 m Net Width: 8.5 m No. of Lanes: 2
Rail Description: Metal Railing Rail Code : 1000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Tidal basin.

INSPECTION COMMENTARY

CONDITION OF STRUCTURE
There is a post pocket spall 500 mm x 100 mm x 50 mm at the first post of east rail. The curb exhibits in span #1 a crack 2 m long and 4 mm wide at east side walk and at the west sidewalk curb unsound concrete 500 mm x 100 mm x 50 mm; and in span #4 west curb unsound concrete 1000 mm x 100 mm x 100 mm.

There are 3 spalls 200 mm x 100 mm x 25 mm each in the east sidewalk under the rail in span #2.

The deck exhibits delamination, about 4% of the deck area, at the following locations:
In span #1 northbound 1 m north of joint #1 an area 500 mm x 500 mm;
In span #1 southbound west of joint #2 an area 300 mm x 300 mm;
In span #2 1.5 m west of joint #3 two areas 600 mm x 300 mm each;
Along joint #3 in span #3;
In span #3 southbound mid span an area 2 m x 2 m;
Along joint #4 in span #4;
And northeast corner an area 600 mm x 300 mm.

There is joint spall (1000 mm x 200 mm x 40 mm) in the deck at northbound bent #3 with exposed rebar.

There are spalls (500 mm x 200 mm x 25 mm) at the easterly edge of the deck over bent #3, and at easterly side of bent caps #2 and #4 with exposed rebar.

INSPECTION COMMENTARY

UNDERWATER INVESTIGATION
The underwater inspection was done in March 2011. Moderate marine growth was noted on all inspected elements. No defects were noted on all inspected substructure elements, however spalling with exposed rebar was noted on the pile cap of Pier 2.

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
38	Concrete Slab - Bare	3	240	sq.m.	0	240	0	0	0
205	Reinforced Conc Column or Pile Extension	4	15	ea.	15	0	0	0	0
215	Reinforced Conc Abutment	3	22	m.	22	0	0	0	0
234	Reinforced Conc Cap	3	33	m.	33	0	0	0	0
301	Pourable Joint Seal	3	33	m.	33	0	0	0	0
330	Metal Bridge Railing - coated or uncoated	2	56	m.	56	0	0	0	0

WORK RECOMMENDATIONS

RecDate: 05/16/2012
Action : Deck-Patch spalls
Work By: LOCAL AGENCY
Status : PROPOSED

EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:

Repair the deck delamination and spall at the following locations:
In span #1 northbound 1 m north of joint #1 an area 500 mm x 500 mm;
In span #1 southbound west of joint #2 an area 300 mm x 300 mm;
In span #2 1.5 m west of joint #3 two areas 600 mm x 300 mm each;
Along joint #3 in span #3;
In span #3 southbound mid span an area 2 m x 2 m;
Along joint #4 in span #4;
And northeast corner an area 600 mm x 300 mm.

RecDate: 06/11/2007
Action : Deck-Patch spalls
Work By: LOCAL AGENCY
Status : PROPOSED

EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:

Repair the spall (500mm x 200mm x 25mm) at the easterly edge of the deck over bent #3.

RecDate: 06/11/2007
Action : Sub-Patch spalls
Work By: LOCAL AGENCY
Status : PROPOSED

EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:

Repair the spalls (500mm x 200mm x 25mm) at easterly side of bent caps #2 and #4 with exposed rebar.

RecDate: 07/20/1995
Action : Joints-Repair/Clean
Work By: LOCAL AGENCY
Status : PROPOSED

EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:

Repair the joint spall (1000mm x 200mm x 40mm) in the deck at northbound bent #3 with exposed rebar.

Inspected By : MT.Zaarour/A.Shenouda

Mikhael T. Zaarour (Registered Civil Engineer)

STRUCTURE INVENTORY AND APPRAISAL REPORT

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

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER **55C0283**
(5) INVENTORY ROUTE(ON/UNDER)- ON 140000000
(2) HIGHWAY AGENCY DISTRICT 12
(3) COUNTY CODE 059 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- SUNSET CHANNEL
(7) FACILITY CARRIED- BROADWAY
(9) LOCATION- 100' NE/O PACIFIC CST HWY
(11) MILEPOINT/KILOMETERPOINT 0
(12) BASE HIGHWAY NETWORK- NOT ON NET 0
(13) LRS INVENTORY ROUTE & SUBROUTE
(16) LATITUDE 33 DEG 43 MIN 05.6 SEC
(17) LONGITUDE 118 DEG 04 MIN 12.2 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

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

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE
TYPE- SLAB CODE 101
(44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
TYPE- OTHER/NA CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 4
(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-PEDESTRIAN 5
UNDER- WATERWAY 5
(28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 00
(29) AVERAGE DAILY TRAFFIC 2500
(30) YEAR OF ADT 2009 (109) TRUCK ADT 1 %
(19) BYPASS, DETOUR LENGTH 199 KM

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

(48) LENGTH OF MAXIMUM SPAN 7.0 M
(49) STRUCTURE LENGTH 29.3 M
(50) CURB OR SIDEWALK: LEFT 0.9 M RIGHT 0.1 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 8.5 M
(52) DECK WIDTH OUT TO OUT 11.0 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 8.5 M
(33) BRIDGE MEDIAN- NO MEDIAN 0
(34) SKEW 0 DEG (35) STRUCTURE FLARED NO
(10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 8.5 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- NO CONTROL CODE 0
(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 = 60.4
STATUS
HEALTH INDEX 95.1
PAINT CONDITION INDEX = N/A

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

(112) NBIS BRIDGE LENGTH- YES Y
(104) HIGHWAY SYSTEM- NOT ON NHS 0
(26) FUNCTIONAL CLASS- LOCAL URBAN 19
(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 7
(61) CHANNEL & CHANNEL PROTECTION 9
(62) CULVERTS N

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

(31) DESIGN LOAD- M-13.5 OR H-15 2
(63) OPERATING RATING METHOD- NO RATING ANALYSIS 5
(64) OPERATING RATING- 40.5
(65) INVENTORY RATING METHOD- NO RATING ANALYSIS 5
(66) INVENTORY RATING- 24.3
(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 6
(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 5

********** 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 4121
(115) YEAR OF FUTURE ADT 2029

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

(90) INSPECTION DATE 05/12 (91) FREQUENCY 24 MO
(92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
A) FRACTURE CRIT DETAIL- NO MO A)
B) UNDERWATER INSP- YES 60 MO B) 03/11
C) OTHER SPECIAL INSP- NO MO C)