



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0371
Facility Carried: SEGERSTROM-SLATER
Location : 0.3 MI. W/O HARBOR BLVD.
City :
Inspection Date : 05/05/2010

Bridge Inspection Report

Inspection Type

Routine	FC	Underwater	Special	Other
☒	☐	☐	☐	☐

STRUCTURE NAME: SANTA ANA RIVER CHANNEL

CONSTRUCTION INFORMATION

Year Built : 1974	Skew (degrees): 13
Year Widened: 1982	No. of Joints : 2
Length (m) : 100	No. of Hinges : 0

Structure Description: Continuous 5-span CIP/RC T-beam (10 each) with RC pier walls and RC open end seat abutments, all supported upon concrete piles.

Span Configuration : (W) 16.5 m, 3 @ 21.9 m, 16.5 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20	
Inventory Rating: 59 metric tonnes	Calculation Method: LOAD FACTOR
Operating Rating: 98.2 metric tonnes	Calculation Method: LOAD FACTOR
Permit Rating : PPPPP	
Posting Load : Type 3: <u>Legal</u>	Type 3S2: <u>Legal</u> Type 3-3: <u>Legal</u>

DESCRIPTION ON STRUCTURE

Deck X-Section: (S) 0.1 m br, 1.5 m sw, 19.5 m, 1.5 m sw, 0.1 m br (N)		
Total Width: 23.2 m	Net Width: 19.5 m	No. of Lanes: 4
Rail Description: Type 11 (Misc).		Rail Code : 1000
Min. Vertical Clearance: Unimpaired		

DESCRIPTION UNDER STRUCTURE

Channel Description: RC trapezoidal.

CONDITION TEXT

REVISIONS

Element # 359 soffit cracks was added at state condition 2.

CONDITION OF STRUCTURE

There are unsealed transverse cracks in the deck that are moderate in size (0.5 - 2 mm) and density (300 mm spacing).

There are few transverse hairline cracks with light white efflorescence in span 2.

There are 2 spalls (200 mm x 100 mm x 20 mm) with exposed rebars at the inside face of south rail 15 m and 21 m from west end.

There was 200 mm of water in the deep section of the concrete channel; all elements were inspected

ELEMENT INSPECTION RATINGS

F#Elem	Element Description	Env	Total Units Qty	Qty in each Condition State				
				St. 1	St. 2	St. 3	St. 4	St. 5
101 12	Concrete Deck - Bare	2	2320 sq.m.	2320	0	0	0	0

F#Elem	Element Description	Env	Total	Units	Qty in each Condition State				
			Qty		St. 1	St. 2	St. 3	St. 4	St. 5
101 110	Reinforced Conc Open Girder/Beam	2	1000	m.	1000	0	0	0	0
101 210	Reinforced Conc Pier Wall	2	96	m.	96	0	0	0	0
101 215	Reinforced Conc Abutment	2	48	m.	48	0	0	0	0
101 227	Reinforced Conc Submerged Pile	2	104	ea.	104	0	0	0	0
101 256	Slope Protection	2	2	ea.	2	0	0	0	0
101 302	Compression Joint Seal	2	40	m.	40	0	0	0	0
101 304	Open Expansion Joint	2	100	m.	100	0	0	0	0
101 312	Enclosed/Concealed Bearing	2	2	ea.	2	0	0	0	0
101 335	Other Bridge Railing	2	200	m.	200	0	0	0	0
101 358	Deck Cracking	2	1	ea.	0	0	1	0	
101 359	Soffit of Concrete Deck or Slab	2	1	ea.	0	1	0	0	0

WORK RECOMMENDATIONS

RecDate: 06/07/2007

EstCost:

Seal the deck with methacrylate.

Action : Deck-Methacrylate

StrTarget: 2 YEARS

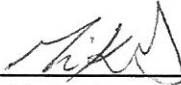
Work By: LOCAL AGENCY

DistTarget:

Status : PROPOSED

EA:

Inspected By : A.Shenouda/MT.Zaarour


 Registered Civil Engineer


STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0371
 (5) INVENTORY ROUTE(ON/UNDER)- ON 1400M0290
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- SANTA ANA RIVER CHANNEL
 (7) FACILITY CARRIED- SEGERSTROM-SLATER
 (9) LOCATION- 0.3 MI. W/O HARBOR BLVD.
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 42 MIN 32.3 SEC
 (17) LONGITUDE 117 DEG 55 MIN 32 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 5
 (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 1974
 (106) YEAR RECONSTRUCTED 1982
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
 UNDER- WATERWAY 5
 (28) LANES:ON STRUCTURE 04 UNDER STRUCTURE 00
 (29) AVERAGE DAILY TRAFFIC 23000
 (30) YEAR OF ADT 2001 (109) TRUCK ADT 1 %
 (19) BYPASS, DETOUR LENGTH 2 KM

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

(48) LENGTH OF MAXIMUM SPAN 21.9 M
 (49) STRUCTURE LENGTH 100.0 M
 (50) CURB OR SIDEWALK: LEFT 1.5 M RIGHT 1.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 19.5 M
 (52) DECK WIDTH OUT TO OUT 23.2 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 20.1 M
 (33) BRIDGE MEDIAN- NO MEDIAN 0
 (34) SKEW 13 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 19.5 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

***** SUFFICIENCY RATING *****

SUFFICIENCY RATING = 94.8
 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- 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) 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 9
 (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- 98.2
 (65) INVENTORY RATING METHOD- LOAD FACTOR 1
 (66) INVENTORY RATING- 59
 (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 7
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1000
 (113) SCOUR CRITICAL BRIDGES 8

***** 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 47242
 (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)