


**DEPARTMENT OF TRANSPORTATION**  
 Structure Maintenance & Investigations

 Bridge Number : 55C0606  
 Facility Carried: OSO PARKWAY  
 Location : 0.6 MI E/O FELIPE ROAD  
 City :  
 Inspection Date : 01/29/2015

Inspection Type

Routine FC Underwater Special Other

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**Bridge Inspection Report**
**STRUCTURE NAME:** ARROYO TRABUCO

**CONSTRUCTION INFORMATION**

 Year Built : 1991                      Skew (degrees): 99  
 Year Widened: N/A                      No. of Joints : 3  
 Length (m) : 202.7                      No. of Hinges : 1

Structure Description: Continuous 5 span CIP/PS concrete box girder (11 cells) with RC 2-column bents and RC open end seat abutments, all supported upon concrete piles (Abutment 1 has steel piles).

Span Configuration : (W) 45.7 m, 3 @ 36.6 m, 45.7 m (E) c/c

**SAFE LOAD CAPACITY AND RATINGS**

 Design Live Load: MS-18+MOD OR HS-20+MOD  
 Inventory Rating: RF=1.00 =>32.4 metric tons                      Calculation Method: ASSIGNED (LFD)  
 Operating Rating: RF=1.67 =>54.1 metric tons                      Calculation Method: ASSIGNED (LFD)  
 Permit Rating : PPPPP  
 Posting Load : Type 3: Legal                      Type 3S2: Legal                      Type 3-3: Legal
**DESCRIPTION ON STRUCTURE**

Deck X-Section: (S) 0.3 m br, 1.5 m sw, 13.4 m, 1.2 m cu med, 13.4 m, 1.5 m sw, 0.3 m br (N)

 Total Width: 31.7 m      Net Width: 26.8 m      No. of Lanes: 6      Speed: 55 mph  
 Min. Vertical Clearance: Unimpaired                      AC Thickness: 0.0 Inches

Rail Code: 0110

Rail Type	Location	Length (ft)	Rail Modifications
Type 26	Right/Left	1410	

**DESCRIPTION UNDER STRUCTURE**

Channel Description: Natural earth open wash with a cobbled streambed.

**NOTICE**

The bridge inspection condition assessment used for this inspection is based on the American Association of State Highway and Transportation Officials (AASHTO) Bridge Element Inspection Manual 2013 as defined in Moving Ahead for Progress in the 21st Century (MAP-21) federal law. The new element inspection methodology may result in changes to related condition and appraisal ratings on the bridge without significant physical changes at the bridge.

The element condition information contained in this report represents the current condition of the bridge based on the most recent routine and special inspections. Some of the notes presented below may be from an inspection that occurred prior to the date noted in this report. Refer to the Scope and Access section of this inspection report for a description of which portions of the bridge were inspected on this date.

**INSPECTION COMMENTARY**
**SCOPE AND ACCESS**

There is 4" deep water in span 4, all elements have been visually inspected.

There is water dripping from the soffit vent hole in south side of span # 1.

**SAFE LOAD CAPACITY**

**INSPECTION COMMENTARY**

A Load Rating Summary Sheet dated 05/27/2014 is on file for this structure. The current rating has been assigned in accordance with SM&I procedures.

<b>ELEMENT INSPECTION RATINGS AND COMMENTARY</b>									
Elem No.	Defect /Prot	Element Description	Env	Total Qty	Units	Qty in each Condition State			
						St. 1	St. 2	St. 3	St. 4
16		Top Flange-RC	2	6425	sq.m	6425	0	0	0
	521	Concrete Coat. (Meth/Paint/Seal)	2	5420	sq.m	5420	0	0	0
(16)									
There were no significant defects noted.									
(16-521)									
There were no significant defects noted.									
104		Box Girder-PS Conc.	2	203	m	195	8	0	0
	1120	Efflorescence/Rust Staining	2	8		0	8	0	0
(104-1120)									
There are cracks with water stain in the soffit of the box girder, 2 craks in every spans.									
205		Column-RC	2	8	each	8	0	0	0
(205)									
There were no significant defects noted.									
215		Abutment-RC	2	88	m	88	0	0	0
(215)									
There were no significant defects noted.									
225		Pile-Steel	2	1	ea.	1	0	0	0
(225)									
The pile element is included to indicate the presence of piles on this structure. The piles were not exposed for visual inspection. No indication of pile distress was noted in any substructure element.									
227		Pile-RC	2	1	ea.	1	0	0	0
(227)									
The pile element is included to indicate the presence of piles on this structure. The piles were not exposed for visual inspection. No indication of pile distress was noted in any substructure element.									
300		Joint-Strip Seal Exp	2	80	m	80	0	0	0
(300)									
There were no significant defects noted.									
302		Joint-Compression Seal	2	40	m	40	0	0	0
(302)									
There were no significant defects noted.									
312		Bearing-Enclosed	2	2	each	2	0	0	0
(312)									
There were no significant defects noted.									
321		Approach Slab-RC	2	264	sq.m	264	0	0	0
(321)									

**ELEMENT INSPECTION RATINGS AND COMMENTARY**

Elem No.	Defect /Prot	Element Description	Env	Total Qty	Units	Qty in each State	Condition	State
						St. 1	St. 2	St. 3 St. 4

There were no significant defects noted.

331		Railing-RC	2	404	m	404	0	0 0
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(331)

There were no significant defects noted.

**WORK RECOMMENDATIONS**

RecDate: 02/22/2011

EstCost:

The city should investigate the dripping

Action : Drainage Issue

StrTarget: 2 YEARS

water through the bridge cell.

Work By: LOCAL AGENCY

DistTarget:

Status : PROPOSED

EA:

Team Leader : Mikhael T. Zaarour

Report Author : Mikhael T. Zaarour

Inspected By : MT.Zaarour/KD.Henderson

Mikhael T. Zaarour (Registered Civil Engineer) (Date)



STRUCTURE INVENTORY AND APPRAISAL REPORT

## \*\*\*\*\* IDENTIFICATION \*\*\*\*\*

(1) STATE NAME- CALIFORNIA 069  
 (8) STRUCTURE NUMBER 55C0606  
 (5) INVENTORY ROUTE(ON/UNDER)- ON 140000000  
 (2) HIGHWAY AGENCY DISTRICT 12  
 (3) COUNTY CODE 059 (4) PLACE CODE 00000  
 (6) FEATURE INTERSECTED- ARROYO TRABUCO  
 (7) FACILITY CARRIED- OSO PARKWAY  
 (9) LOCATION- 0.6 MI E/O FELIPE ROAD  
 (11) MILEPOINT/KILOMETERPOINT 0  
 (12) BASE HIGHWAY NETWORK- PART OF NET 1  
 (13) LRS INVENTORY ROUTE & SUBROUTE 000000000000  
 (16) LATITUDE 33 DEG 35 MIN 04.43 SEC  
 (17) LONGITUDE 117 DEG 38 MIN 04.21 SEC  
 (98) BORDER BRIDGE STATE CODE % SHARE %  
 (99) BORDER BRIDGE STRUCTURE NUMBER

## \*\*\*\*\* STRUCTURE TYPE AND MATERIAL \*\*\*\*\*

(43) STRUCTURE TYPE MAIN:MATERIAL- PRSTR CONC CONT  
 TYPE- BOX BEAM OR GIRDER - MULTI CODE 605  
 (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 1991  
 (106) YEAR RECONSTRUCTED 0000  
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5  
 UNDER- WATERWAY 5  
 (28) LANES:ON STRUCTURE 06 UNDER STRUCTURE 00  
 (29) AVERAGE DAILY TRAFFIC 27000  
 (30) YEAR OF ADT 2013 (109) TRUCK ADT 1 %  
 (19) BYPASS, DETOUR LENGTH 11 KM

## \*\*\*\*\* GEOMETRIC DATA \*\*\*\*\*

(48) LENGTH OF MAXIMUM SPAN 45.7 M  
 (49) STRUCTURE LENGTH 202.7 M  
 (50) CURB OR SIDEWALK: LEFT 1.5 M RIGHT 1.5 M  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 26.8 M  
 (52) DECK WIDTH OUT TO OUT 31.7 M  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 26.8 M  
 (33) BRIDGE MEDIAN- CLOSED NON-MOUNTABLE 3  
 (34) SKEW 99 DEG (35) STRUCTURE FLARED NO  
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 13.4 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 = 85.1  
 STATUS  
 HEALTH INDEX 99.9  
 PAINT CONDITION INDEX = N/A

## \*\*\*\*\* CLASSIFICATION \*\*\*\*\* CODE

(112) NBIS BRIDGE LENGTH- YES Y  
 (104) HIGHWAY SYSTEM- ROUTE ON NHS 1  
 (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 8  
 (59) SUPERSTRUCTURE 7  
 (60) SUBSTRUCTURE 8  
 (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- ASSIGNED (LFD) A  
 (64) OPERATING RATING- 54.1  
 (65) INVENTORY RATING METHOD- ASSIGNED (LFD) A  
 (66) INVENTORY RATING- 32.4  
 (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 0110  
 (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 56200  
 (115) YEAR OF FUTURE ADT 2035

## \*\*\*\*\* INSPECTIONS \*\*\*\*\*

(90) INSPECTION DATE 01/15 (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)