

*California Department of Transportation
Division of Maintenance*

Structure Maintenance and Investigations

B_{RIDGE}

I_{NSPECTION}

R_{ECORDS}

I_{NFORMATION}

S_{YSTEM}

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DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0637
Facility Carried: CROWN VALLEY PKWY
Location : 0.5 MI E/O MARGUERITE PW
City : MISSION VIEJO
Inspection Date : 06/24/2008

Bridge Inspection Report

Inspection Type
Routine ☒ FC ☐ Underwater ☐ Special ☐ Other ☐

STRUCTURE NAME: ARROYO TRABUCO

CONSTRUCTION INFORMATION

Year Built : 2000 Skew (degrees): 0
Year Widened: 2005 No. of Joints : 2
Length (m) : 238 No. of Hinges : 0

Structure Description: Continuous 4-span CIP/PS concrete box girder (5 cells) with RC 2-column bents and RC closed end backfilled cantilever abutments, all supported upon 610 mm diameter (abutments) and 3050 mm diameter (bents) CIDH concrete piles.

Span Configuration : (W) 51.3 m, 67.0 m, 67.0 m, 51.3 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18+MOD OR HS-20+MOD
Inventory Rating: 32.6 metric tons Calculation Method: LOAD FACTOR
Operating Rating: 53.5 metric tons Calculation Method: LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3 N/A Type 3S2 N/A Type 3-3 N/A

DESCRIPTION ON STRUCTURE

Deck X-Section: (N) 0.3 m br, 1.5 m sw, 16.6 m, 1.5 m median, 1.5 m sw, 0.3 m br (S)
Total Width: 34.5 m Net Width: 34.5 m No. of Lanes: 7
Rail Description: (N) 26 conc.; (S) 26 conc. Rail Code : 0110
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth canyon.

CONDITION TEXT

CONDITION OF STRUCTURE

There are minor to moderate size minor to moderate density longitudinal & transverse deck cracks through out.

There is one moderate size crack on the whole length of the south sidewalk.

Eastbound abutment 5 joint seal, at lane #2, the middle steel bar of the joint seal assembly is sheared off and torn the neoprene locally. The whole abutment 5 joint seal assembly is filled with dirt and debris.

There is water leaking from weep hole #4 from the south in span #1 and #4.

UNDERWATER INVESTIGATION

There is 500mm deep running water. All elements were inspected. No scour is visible, and no underwater investigation is necessary.

ELEMENT INSPECTION RATINGS

CONFIDENTIAL AND NOT FOR RELEASE									
F#Elem	Element Description	Env	Total Units		Qty in each Condition State				
					Qty	St. 1	St. 2	St. 3	St. 4
101 12	Concrete Deck - Bare	2	5117	sq.m.	5117	0	0	0	0
101 104	P/S Conc Closed Web/Box Girder	2	476	m.	476	0	0	0	0
101 205	Reinforced Conc Column or Pile Extension	2	9	ea.	9	0	0	0	0
101 215	Reinforced Conc Abutment	2	76	m.	76	0	0	0	0
101 252	Cast-In-Drilled Hole Concrete Pile	2	1	ea.	1	0	0	0	0
101 256	Slope Protection	2	2	ea.	2	0	0	0	0
101 303	Assembly Joint Seal - Modular Type	2	76	m.	75	0	1	0	0
101 312	Enclosed/Concealed Bearing	2	1	ea.	1	0	0	0	0
101 321	Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	14	ea.	14	0	0	0	0
101 331	Reinforced Conc Bridge Railing	2	500	m.	500	0	0	0	0

WORK RECOMMENDATIONS

RecDate: 04/24/2006 EstCost: Weld back (repair) the sheared off middle steel bar of the joint seal assembly at the eastbound abutment 5, lane #2, and repair the torn neoprene.
 Action : Joints-Repair/Clean StrTarget: 1 YEAR
 Work By: LOCAL AGENCY DistTarget:
 Status : PROPOSED EA:

RecDate: 04/24/2006 EstCost: Remove and clean out all dirt and debris in all joint seals.
 Action : Joints-Repair/Clean StrTarget: 2 YEARS
 Work By: LOCAL AGENCY DistTarget:
 Status : PROPOSED EA:

CHANNEL X-SECTION

Side : Upstream X-Section Date: 06/24/2008
 Measured From : Bottom of the box girder

Location	Horiz (m)	Vert (m)	Comments
Abut. #1	41.00	18.42	toe of concrete slop protection
Bent #2	0.00	18.90	center line
	21.60	22.50	
	29.00	23.00	edge of water
	32.00	23.50	thawleg
	34.10	23.00	edge of water
Bent #3	0.00	21.90	center line
	59.50	21.10	
Bent #4	0.00	19.80	west side of the column
	0.00	18.60	east side of the column
	13.50	18.60	toe of concrete slop protection

Inspected By : MT. Zaarour/A. Shenouda

[Signature]
 Registered Civil Engineer



Printed on: Wednesday 07/16/2008 11:03 AM

0637/AAAD/14084

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0637
 (5) INVENTORY ROUTE(ON/UNDER)- ON 150000000
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 48256
 (6) FEATURE INTERSECTED- ARROYO TRABUCO
 (7) FACILITY CARRIED- CROWN VALLEY PKWY
 (9) LOCATION- 0.5 MI E/O MARGUERITE PWY
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 33 MIN 42 SEC
 (17) LONGITUDE 117 DEG 39 MIN 00 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-
 TYPE- CODE
 (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 2000
 (106) YEAR RECONSTRUCTED 2005
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
 UNDER- WATERWAY 5
 (28) LANES:ON STRUCTURE 07 UNDER STRUCTURE 00
 (29) AVERAGE DAILY TRAFFIC 29000
 (30) YEAR OF ADT 2002 (109) TRUCK ADT 1 %
 (19) BYPASS, DETOUR LENGTH 20 KM

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

(48) LENGTH OF MAXIMUM SPAN 67.0 M
 (49) STRUCTURE LENGTH 238.0 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 34.5 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 34.5 M
 (33) BRIDGE MEDIAN- CLOSED (NO BARRIER) 2
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 18.2 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 0.0 M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

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

SUFFICIENCY RATING = 84.0

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- CITY OR MUNICIPAL HIGHWAY AGENCY 04
 (22) OWNER- CITY OR MUNICIPAL HIGHWAY AGENCY 04
 (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 9
 (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 59170
 (115) YEAR OF FUTURE ADT 2028

***** INSPECTIONS *****

(90) INSPECTION DATE 06/08 (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)



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0637
Facility Carried: CROWN VALLEY PKWY
Location : 0.5 MI E/O MARGUERITE PW
City : MISSION VIEJO
Inspection Date : 04/24/2006

Bridge Inspection Report

Inspection Type

Routine	FC	Underwater	Special	Other
☒	☐	☐	☐	☐

STRUCTURE NAME: ARROYO TRABUCO

CONSTRUCTION INFORMATION

Year Built : 2000	Skew (degrees): 0
Year Widened: 2005	No. of Joints : 2
Length (m) : 238	No. of Hinges : 0

Structure Description: Continuous 4-span CIP/PS concrete box girder (5 cells) with RC 2-column bents and RC closed end backfilled cantilever abutments, all supported upon 610 mm diameter (abutments) and 3050 mm diameter (bents) CIDH concrete piles.

Span Configuration : (W) 51.3 m, 67.0 m, 67.0 m, 51.3 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18+MOD OR HS-20+MOD	
Inventory Rating: 32.6 metric tons	Calculation Method: LOAD FACTOR
Operating Rating: 53.5 metric tons	Calculation Method: LOAD FACTOR
Permit Rating : PPPPP	
Posting Load : Type 3 N/A	Type 3S2 N/A Type 3-3 N/A

DESCRIPTION ON STRUCTURE

Deck X-Section: (N) 0.3 m br, 1.5 m sw, 16.6 m, 1.5 m median, 1.5 m sw, 0.3 m br (S)
 Total Width: 34.5 m Net Width: 34.5 m No. of Lanes: 7
 Rail Description: (N) 26 conc.; (S) 26 conc. Rail Code : 0110
 Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth canyon.

CONDITION TEXT

CONDITION OF STRUCTURE

There are minor to moderate size minor to moderate density longitudinal & transverse deck cracks through out.

There is one moderate size crack on the whole length of the south sidewalk.

Eastbound abutment 5 joint seal, at lane #2, the middle steel bar of the joint seal assembly is sheared off and torn the neoprene locally. The whole abutment 5 joint seal assembly is filled with dirt and debris.

Otherwise, the structure is in excellent condition.

MISCELLANEOUS

The inspection team consisted of David Nguyen & Huy Vu.

Vehicular parking located at the northeast and southwest quadrants.

REVISIONS

CONDITION TEXT

Rail Ratings: (New) 0111 (Old) 0111. The posted maximum vehicular speed is 50 mph. The bridge railings do not meet the current acceptable standards.

Element 104 - revised quantity from 67 m to 476 m.

Element 215 - revised quantity from 44 m to 76 m.

Element 321 - revised quantity from 8 ea. to 14 ea.

Element 331 - revised quantity from 154 m to 532 m.

Element 346 - revised quantity from 42 m to 76 m, 1 m at St. 3.

ELEMENT INSPECTION RATINGS

F#Elem	Element Description	Env	Total Units	Qty in each Condition State				
			Qty	St. 1	St. 2	St. 3	St. 4	St. 5
101 12	Concrete Deck - Bare	2	5117 sq.m.	5117	0	0	0	0
101 104	P/S Conc Closed Web/Box Girder	2	476 m.	476	0	0	0	0
101 205	Reinforced Conc Column or Pile Extension	2	6 ea.	6	0	0	0	0
101 215	Reinforced Conc Abutment	2	76 m.	76	0	0	0	0
101 252	Cast-In-Drilled Hole Concrete Pile	2	1 ea.	1	0	0	0	0
101 256	Slope Protection	2	2 ea.	2	0	0	0	0
101 303	Assembly Joint/Seal (modular)	2	76 m.	75	0	1	0	0
101 312	Enclosed/Concealed Bearing	2	1 ea.	1	0	0	0	0
101 321	Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	14 ea.	14	0	0	0	0
101 331	Reinforced Conc Bridge Railing	2	32 m.	32	0	0	0	0

WORK RECOMMENDATIONS

RecDate: 04/24/2006 EstCost: Weld back (repair) the sheared off middle
 Action : Joints-Repair/Cl StrTarget: 1 YEAR steel bar of the joint seal assembly at
 Work By: LOCAL AGENCY DistTarget: the eastbound abutment 5, lane #2, and
 Status : PROPOSED EA: repair the torn neoprene.

RecDate: 04/24/2006 EstCost: Remove and clean out all dirt and debris
 Action : Joints-Repair/Cl StrTarget: 2 YEARS in all joint seals.
 Work By: LOCAL AGENCY DistTarget:
 Status : PROPOSED EA:

Inspected By : David Nguyen & Huy Vu

David Nguyen
 Registered Civil Engineer



STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0637
 (5) INVENTORY ROUTE(ON/UNDER)- ON 150000000
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 48256
 (6) FEATURE INTERSECTED- ARROYO TRABUCO
 (7) FACILITY CARRIED- CROWN VALLEY PKWY
 (9) LOCATION- 0.5 MI E/O MARGUERITE PWY
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 33 MIN 42 SEC
 (17) LONGITUDE 117 DEG 39 MIN 00 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-
 TYPE- CODE
 (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 2000
 (106) YEAR RECONSTRUCTED 2005
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
 UNDER- WATERWAY 5
 (28) LANES:ON STRUCTURE 07 UNDER STRUCTURE 00
 (29) AVERAGE DAILY TRAFFIC 29000
 (30) YEAR OF ADT 2002 (109) TRUCK ADT 1 %
 (19) BYPASS, DETOUR LENGTH 20 KM

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

(48) LENGTH OF MAXIMUM SPAN 67.0 M
 (49) STRUCTURE LENGTH 238.0 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 34.5 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 34.5 M
 (33) BRIDGE MEDIAN- CLOSED (NO BARRIER) 2
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 18.2 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 0.0 M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

SUFFICIENCY RATING = 84.0
 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- CITY OR MUNICIPAL HIGHWAY AGENCY 04
 (22) OWNER- CITY OR MUNICIPAL HIGHWAY AGENCY 04
 (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 9
 (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 58000
 (115) YEAR OF FUTURE ADT 2022

***** INSPECTIONS *****

(90) INSPECTION DATE 04/06 (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)



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0637
Facility Carried: CROWN VALLEY PKWY
Location : 0.5 MI E/O MARGUERITE PWY
City : MISSION VIEJO
Inspection Date : 09/08/2004

Bridge Inspection Report

Inspection Type
Routine ☒ Group A ☐ Underwater ☐ Special ☐ Other ☐

STRUCTURE NAME: ARROYO TRABUCO

CONSTRUCTION INFORMATION

Year Built : 2000 Skew (degrees): 0
Year Widened: N/A No. of Joints : 2
Length (m) : 238 No. of Hinges : 0

Structure Description: Continuous 4-span CIP/PS concrete box girder (5 cells) with RC 2-column bents and RC closed end backfilled cantilever abutments, all supported upon 610 mm diameter (abutments) and 3050 mm diameter (bents) CIDH concrete piles.

Span Configuration : (W) 51.3 m, 67.0 m, 67.0 m, 51.3 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18+MOD OR HS-20+MOD
Inventory Rating: 32.6 metric tons Calculation Method: LOAD FACTOR
Operating Rating: 53.5 metric tons Calculation Method: LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3 N/A Type 3S2 N/A Type 3-3 N/A

DESCRIPTION ON STRUCTURE

Deck X-Section: (N) 0.3 m br, 1.2 m sw, 18.2 m, 1.5 m sw, 0.3 m br (S)
Total Width: 21.5m Net Width: 18.2 m No. of Lanes: 4
Rail Description: (N) 26 conc.; (S) 26 conc. Rail Code : 0110
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth canyon.

CONDITION TEXT

CONDITION OF STRUCTURE
The structure is in excellent condition.

MISCELLANEOUS
Vehicular parking located at the northeast and southwest quadrants.

The structure is currently being widened on its north side.

REVISIONS
Rail Ratings: (New) 0110 (Old) 1110. The posted maximum vehicular speed is 50 mph. The bridge railings do not meet the current acceptable standards.

ELEMENT INSPECTION RATINGS

F #	Elem No.	Element Description	Env	Total Units Qty	Qty in each Condition State				
					St. 1	St. 2	St. 3	St. 4	St. 5
01 12		Concrete Deck - Bare	2	5117 sq.m.	5117	0	0	0	0
01 104		P/S Conc Closed Web/Box Girder	2	67 m.	67	0	0	0	0
01 205		Reinforced Conc Column or Pile Extension	2	6 ea.	6	0	0	0	0
01 215		Reinforced Conc Abutment	2	44 m.	44	0	0	0	0
01 252		Cast-In-Drilled Hole Concrete Pile	2	78 ea.	78	0	0	0	0
01 256		Slope Protection	2	2 ea.	2	0	0	0	0

F #	Elem No.	Element Description	Env	Total Qty	Units	Qty in each Condition State				
						St. 1	St. 2	St. 3	St. 4	St. 5
01	312	Enclosed/Concealed Bearing	2	2	ea.	2	0	0	0	0
01	321	Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	8	ea.	8	0	0	0	0
01	331	Reinforced Conc Bridge Railing	2	154	m.	154	0	0	0	0
01	346	Joint - Aluminum	2	42	m.	42	0	0	0	0

WORK RECOMMENDATIONS - NONE

Inspected By : M. Ogata

m. Ogata

 Registered Civil Engineer



CC: City of Mission Viejo

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
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 (3) COUNTY CODE 059 (4) PLACE CODE 48256
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 (7) FACILITY CARRIED- CROWN VALLEY PKWY
 (9) LOCATION- 0.5 MI E/O MARGUERITE PWY
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 33 MIN 42 SEC
 (17) LONGITUDE 117 DEG 39 MIN 00 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-
 TYPE- CODE
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 (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 2000
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
 UNDER- WATERWAY 5
 (28) LANES:ON STRUCTURE 04 UNDER STRUCTURE 00
 (29) AVERAGE DAILY TRAFFIC 29000
 (30) YEAR OF ADT 2002 (109) TRUCK ADT 1 %
 (19) BYPASS, DETOUR LENGTH 20 KM

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

(48) LENGTH OF MAXIMUM SPAN 67.0 M
 (49) STRUCTURE LENGTH 238.0 M
 (50) CURB OR SIDEWALK: LEFT 1.2 M RIGHT 1.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 18.2 M
 (52) DECK WIDTH OUT TO OUT 21.5 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 18.2 M
 (33) BRIDGE MEDIAN- CLOSED (NO BARRIER) 2
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 18.2 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- NOT REQUIRED CODE 1
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR 0.0 M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

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

SUFFICIENCY RATING = 83.0
 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- CITY OR MUNICIPAL HIGHWAY AGENCY 04
 (22) OWNER- CITY OR MUNICIPAL HIGHWAY AGENCY 04
 (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 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 58000
 (115) YEAR OF FUTURE ADT 2022

***** INSPECTIONS *****

(90) INSPECTION DATE 09/04(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)



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0637
Facility Carried: CROWN VALLEY PKWY
Location : 0.5 MI E/O MARGUERITE PWY
City : MISSION VIEJO
Inspection Date : 12-AUG-02

Bridge Inspection Report

Inspection Type

Routine ☒ Group A ☐ Underwater ☐ Special ☐ Other ☐

Name : ARROYO TRABUCO

CONSTRUCTION INFORMATION

Year Built : 2000 Skew (degrees): 0
Year Widened : N/A No. of Joints : 0
Length (m) : 238 No. of Hinges : 0

Description of Structure : Continuous 4-span CIP/PS concrete box girder (5 cells) with RC 2-column bents and RC closed end backfilled cantilever abutments, all supported upon 610 mm diameter (abutments) and 3050 mm diameter (bents) CIDH concrete piles.

Span Configuration : (W) 51.3 m, 67.0 m, 67.0 m, 51.3 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : MS - 18 + MOD OR HS - 20 + MOD
Inventory Rating : 32.4 metric tons Calculation Method : LOAD FACTOR
Operating Rating : 53.1 metric tons Calculation Method : LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3 N/A english tons Type 3S2 N/A english tons Type 3-3 N/A english tons

DESCRIPTION ON STRUCTURE

Bridge width : (N) 0.3 m br, 1.2 m sw, 18.2 m, 1.5 m sw, 0.3 m br (S)
Total Width : 21.5 m Net Width : 18.20 m No. of Lanes : 4
Rail Description : (N) 26 conc.; (S) 26 conc. Rail Code : 1110
Min. Vertical Clearance : Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth canyon.

CONDITION OF STRUCTURE

The structure is in excellent condition.

SCOUR

The scour rating of A3 is appropriate.

MISCELLANEOUS

Vehicular parking located at the northeast and southwest quadrants.

ELEMENT LEVEL INSPECTION RATINGS									
F#	Elem	Element Description	Env	Total Units	Qty in each Condition State				
No.				Quantity	St. 1	St. 2	St. 3	St. 4	St. 5
01 12		Concrete Deck - Bare	2	4332 sq.m.	4332	0	0	0	0
01 104		P/S Conc Closed Web/Box Girder	2	67m.	67	0	0	0	
01 205		Reinforced Conc Column or Pile Extension	2	6 ea.	6	0	0	0	
01 215		Reinforced Conc Abutment	2	44 m.	44	0	0	0	
01 252		Cast-In-Drilled Hole Concrete Pile	2	78 ea.	78	0	0	0	
01 256		Slope Protection	2	2 ea.	2	0	0		
01 312		Enclosed/Concealed Bearing	2	2 ea.	2	0	0		
01 321		Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	8 ea.	8	0	0	0	
01 331		Reinforced Conc Bridge Railing	2	154 m.	154	0	0	0	

SEP 25 2002

Bridge No.: 55C0637

Location: 0.5 MI E/O MARGUERITE PWY Inspection Date: 12-AUG-02

F#	Elem No.	Element Description	Env	Total Units Quantity	Qty in each Condition State				
					St. 1	St. 2	St. 3	St. 4	St. 5
01	346	Joint - Aluminum	2	42 m.	42	0	0		

WORK RECOMMENDATIONS - NONE

Inspected By : M. Ogata

M. Ogata

Registered Civil Engineer

CC : TMRut
City of Mission Viejo

SEP 25 2002

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME - CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0637
 (5) INVENTORY ROUTE (ON/UNDER) - ON 150 00000N
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 48256
 (6) FEATURE INTERSECTED - ARROYO TRABUCO
 (7) FACILITY CARRIED - CROWN VALLEY PKWY
 (9) LOCATION - 0.5 MI E/O MARGUERITE PWY
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 33 MIN 42 SEC
 (17) LONGITUDE 117 DEG 39 MIN 00 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 GDR - MULTIPLE CODE 6 05
 (44) STRUCTURE TYPE APPR: MATERIAL -
 TYPE - CODE
 (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 2000
 (106) YEAR RECONSTRUCTED
 (42) TYPE OF SERVICE: ON - HIGHWAY-PEDESTRIAN 5
 UNDER - WATERWAY 5
 (28) LANES: ON STRUCTURE 04 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 10000
 (30) YEAR OF ADT 1998 (109) TRUCK ADT 1%
 (19) BYPASS, DETOUR LENGTH KM

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

(48) LENGTH OF MAXIMUM SPAN 67 M
 (49) STRUCTURE LENGTH 238 M
 (50) CURB OR SIDEWALK: LEFT 1.2 M RIGHT 1.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 18.2 M
 (52) DECK WIDTH OUT TO OUT 21.5 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 18.2 M
 (33) BRIDGE MEDIAN - CLOSED (NO BARRIER) 2
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 18.2 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF - NOT H/RR 0 M
 (55) MIN LAT UNDERCLEAR RT REF - NOT H/RR 0 M
 (56) MIN LAT UNDERCLEAR LT 0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL - NOT APPLICABLE CODE N
 (111) PIER PROTECTION - NOT REQUIRED CODE 1
 (39) NAVIGATION VERTICAL CLEARANCE 0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR 0 M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0

***** SUFFICIENCY RATING = 99.0 *****

STATUS =

HEALTH INDEX = 100

***** 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) FEDERAL LANDS HIGHWAY - NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
 (20) TOLL - ON FREE ROAD 3
 (21) MAINTAIN - CITY OR MUNICIPAL HIGHWAY AGENCY 4
 (22) OWNER - CITY OR MUNICIPAL HIGHWAY AGENCY 4
 (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 - 53.1
 (65) INVENTORY RATING METHOD - LOAD FACTOR 1
 (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 5
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1110
 (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 20000
 (115) YEAR OF FUTURE ADT 2008

***** INSPECTIONS *****

(90) INSPECTION DATE 08/02 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL - -1 MO A)
 B) UNDERWATER INSP - NO -1 MO B)
 C) OTHER SPECIAL INSP - NO -1 MO C)



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0637
Facility Carried: CROWN VALLEY PKWY
Location : 0.5 MI E/O MARGUERITE PWY
City : MISSION VIEJO
Inspection Date : 07-AUG-01

Bridge Inspection Report

Inspection Type

Routine ☒ Group A ☐ Underwater ☐ Special ☐ Other ☐

Name : ARROYO TRABUCO

CONSTRUCTION INFORMATION

Year Built : 2000 Skew (degrees): 0
Year Widened : N/A No. of Joints : 0
Length (m) : 238 No. of Hinges : 0

Description of Structure : Continuous 4-span CIP/PS concrete box girder (5 cells) with RC 2-column bents and RC closed end backfilled cantilever abutments, all supported upon 610 mm diameter (abutments) and 3050 mm diameter (bents) CIDH concrete piles.

Span Configuration : (W) 51.3 m, 67.0 m, 67.0 m, 51.3 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : MS - 18 + MOD OR HS - 20 + MOD
Inventory Rating : 32.4 metric tons Calculation Method : LOAD FACTOR
Operating Rating : 53.1 metric tons Calculation Method : LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3 N/A english tons Type 3S2 N/A english tons Type 3-3 N/A english tons

DESCRIPTION ON STRUCTURE

Bridge width : (N) 0.3 m br, 1.2 m sw, 18.2 m, 1.5 m sw, 0.3 m br (S)
Total Width : 21.5 m Net Width : 18.20 m No. of Lanes : 4
Rail Description : (N) 26 conc.; (S) 26 conc. Rail Code : 1110
Min. Vertical Clearance : Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth canyon.

CONDITION OF STRUCTURE

The structure is in excellent condition.

SCOUR

The scour rating of A3 is appropriate.

MISCELLANEOUS

Vehicular parking located at the northeast quadrant.

ELEMENT LEVEL INSPECTION RATINGS

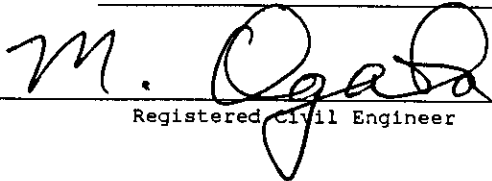
F#	Elem No.	Element Description	Env	Total Units Quantity	Qty in each Condition State				
					St. 1	St. 2	St. 3	St. 4	St. 5
01 12		Concrete Deck - Bare	2	4332 sq.m.	4332	0	0	0	0
01 104		P/S Conc Closed Web/Box Girder	2	67 m.	67	0	0	0	0
01 205		Reinforced Conc Column or Pile Extension	2	6 ea.	6	0	0	0	0
01 215		Reinforced Conc Abutment	2	44 m.	44	0	0	0	0
01 252		Cast-In-Drilled Hole Concrete Pile	2	78 ea.	78	0	0	0	0
01 256		Slope Protection	2	2 ea.	2	0	0	0	0
01 312		Enclosed/Concealed Bearing	2	2 ea.	2	0	0	0	0
01 321		Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	8 ea.	8	0	0	0	0
01 331		Reinforced Conc Bridge Railing	2	154 m.	154	0	0	0	0

Bridge No.: 55C0637 Location: 0.5 MI E/O MARGUERITE PWY Inspection Date: 07-AUG-01

F#	Elem No.	Element Description	Env	Total Units Quantity	Qty in each Condition State				
					St. 1	St. 2	St. 3	St. 4	St. 5
01	346	Joint - Aluminum	2	42 m.	42	0	0		

WORK RECOMMENDATIONS - NONE

Inspected By : M. Ogata


Registered Civil Engineer



CC : TMRut
City of Mission Viejo
PRAskelson

Bridge No.: 55C0637

Location: 0.5 MI E/O MARGUERITE PWY Inspection Date: 07-AUG-01

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME - CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0637
 (5) INVENTORY ROUTE(ON/UNDER) - ON 1 50 00000N
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 48256
 (6) FEATURE INTERSECTED - ARROYO TRABUCO
 (7) FACILITY CARRIED - CROWN VALLEY PKWY
 (9) LOCATION - 0.5 MI E/O MARGUERITE PWY
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 33 MIN 42 SEC
 (17) LONGITUDE 117 DEG 39 MIN 00 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 GDR - MULTIPLE CODE 6 05
 (44) STRUCTURE TYPE APPR: MATERIAL -
 TYPE - CODE
 (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 2000
 (106) YEAR RECONSTRUCTED
 (42) TYPE OF SERVICE: ON - HIGHWAY-PEDESTRIAN 5
 UNDER - WATERWAY 5
 (28) LANES: ON STRUCTURE 04 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 10000
 (30) YEAR OF ADT 1998 (109) TRUCK ADT 1 %
 (19) BYPASS, DETOUR LENGTH KM

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

(48) LENGTH OF MAXIMUM SPAN 67 M
 (49) STRUCTURE LENGTH 238 M
 (50) CURB OR SIDEWALK: LEFT 1.2 M RIGHT 1.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 18.2 M
 (52) DECK WIDTH OUT TO OUT 21.5 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 18.2 M
 (33) BRIDGE MEDIAN - CLOSED (NO BARRIER) 2
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 18.2 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF - NOT H/RR 0 M
 (55) MIN LAT UNDERCLEAR RT REF - NOT H/RR 0 M
 (56) MIN LAT UNDERCLEAR LT 0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL - NOT APPLICABLE CODE N
 (111) PIER PROTECTION - NOT REQUIRED CODE 1
 (39) NAVIGATION VERTICAL CLEARANCE 0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR 0 M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0

***** SUFFICIENCY RATING = 99.0
 STATUS =

HEALTH INDEX = 100

***** 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) FEDERAL LANDS HIGHWAY - NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
 (20) TOLL - ON FREE ROAD 3
 (21) MAINTAIN - CITY OR MUNICIPAL HIGHWAY AGENCY 4
 (22) OWNER - CITY OR MUNICIPAL HIGHWAY AGENCY 4
 (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 - 53.1
 (65) INVENTORY RATING METHOD - LOAD FACTOR 1
 (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 5
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1110
 (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 20000
 (115) YEAR OF FUTURE ADT 2008

***** INSPECTIONS *****

(90) INSPECTION DATE 08/01 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL - -1 MO A)
 B) UNDERWATER INSP - NO -1 MO B)
 C) OTHER SPECIAL INSP - NO -1 MO C)