
Bridge Inspection Records Information System

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State of California
Department of Transportation

**Division of Maintenance
Structures Maintenance & Investigations**



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0529L
Facility Carried: W/B LGNA HILLS DR
Location : 400' E/O MOULTON PKWY
City : LAGUNA HILLS
Inspection Date : 11-JUN-02

Inspection Type

Routine ☒ Group A ☐ Underwater ☐ Special ☐ Other ☐

Bridge Inspection Report

Name : ALISO CREEK

CONSTRUCTION INFORMATION

Year Built : 1985 Skew (degrees): 27
Year Widened : N/A No. of Joints : 0
Length (m) : 57.3 No. of Hinges : 0

Description of Structure : Continuous 3-span CIP/PS concrete box girder (5 cells) with RC 2-column bents and RC open end diaphragm abutments, all supported upon steel piles.

Span Configuration : (W) 14.9 m, 24.1 m, 16.8 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : MS - 18 OR HS - 20
Inventory Rating : 32.6 metric tons Calculation Method : LOAD FACTOR
Operating Rating : 83.4 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 : (S) 0.3 m br, 0.3 m cu, 9.8 m, 1.5 m sw, 0.3 m br (N)

Total Width : 12.2 m Net Width : 9.80 m No. of Lanes : 2
Rail Description : Concrete Rail Code : 0000
Min. Vertical Clearance : Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth trapezoidal with grouted rock slopes thru the site.

REVISIONS

Rail Ratings:
(New): 0000
(Old): 1000
The northerly barrier consists of a lower concrete parapet (not to current standards) and an upper timber railing.

CONDITION OF STRUCTURE

The structure is in good condition.

SCOUR

Approximately 0.3 m of the pile cap of the westerly abutment is exposed at various locations. Water from the weep holes is eroding the uncompacted soil.

MISCELLANEOUS

Vehicular parking is 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	550 sq.m.	550	0	0	0	0
01 104		P/S Conc Closed Web/Box Girder	2	57 m.	57	0	0	0	0

Bridge No.: 55C0529L Location: 400' E/O MOULTON PKWY

Inspection Date: 11-JUN-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	205	Reinforced Conc Column or Pile Extension	2	4 ea.	4	0	0	0	0
01	210	Reinforced Conc Pier Wall	2	28 m.	28	0	0	0	0
01	215	Reinforced Conc Abutment	2	28 m.	28	0	0	0	0
01	225	Unpainted Steel Submerged Pile	2	60 ea.	60	0	0	0	0
01	302	Compression Joint Seal	2	26 m.	26	0	0	0	0
01	312	Enclosed/Concealed Bearing	2	2 ea.	2	0	0	0	0
01	331	Reinforced Conc Bridge Railing	2	70 m.	70	0	0	0	0
01	335	Other Bridge Railing	2	70 m.	70	0	0	0	0

WORK RECOMMENDATIONS - NONE

Inspected By : M. Ogata

M. Ogata
 Registered Civil Engineer



CC : TMRut
 City of Laguna Hills

Bridge No.: 55C0529L

Location: 400' E/O MOULTON PKWY

Inspection Date: 11-JUN-02

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME - CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0529L
 (5) INVENTORY ROUTE(ON/UNDER) - ON 150 0M274N
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 39220
 (6) FEATURE INTERSECTED - ALISO CREEK
 (7) FACILITY CARRIED - W/B LAGNA HILLS DR
 (9) LOCATION - 400' E/O MOULTON PKWY
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 35 MIN 34 SEC
 (17) LONGITUDE 117 DEG 42 MIN 43 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 3
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE - CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE - CONCRETE CODE 1
 B) TYPE OF MEMBRANE - NONE CODE 0
 C) TYPE OF DECK PROTECTION - NONE CODE 0

***** AGE AND SERVICE *****

(27) YEAR BUILT 1985
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON - HIGHWAY-PEDESTRIAN 5
 UNDER - WATERWAY 5
 (28) LANES: ON STRUCTURE 02 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 3000
 (30) YEAR OF ADT 1998 (109) TRUCK ADT 1%
 (19) BYPASS, DETOUR LENGTH 2 KM

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

(48) LENGTH OF MAXIMUM SPAN 24.1 M
 (49) STRUCTURE LENGTH 57.3 M
 (50) CURB OR SIDEWALK: LEFT .3 M RIGHT 1.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 9.8 M
 (52) DECK WIDTH OUT TO OUT 12.2 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 9.8 M
 (33) BRIDGE MEDIAN - NO MEDIAN 0
 (34) SKEW 27 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 9.8 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 = 94.7 *****

STATUS =

HEALTH INDEX = 100

***** 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 - RIGHT STRUCTURE R
 (102) DIRECTION OF TRAFFIC - 1 WAY 1
 (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 8
 (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 - 83.4
 (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 4
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 0.000
 (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 3500
 (115) YEAR OF FUTURE ADT 2010

***** INSPECTIONS *****

(90) INSPECTION DATE 06/02 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL - NO -1 MO A)
 B) UNDERWATER INSP - NO -1 MO B)
 C) OTHER SPECIAL INSP - NO -1 MO C)

AUG - 5 2002



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number 55C0529L
Facility Carried W/B LGNA HILLS DR
Location 400' E/O MOULTON PKWY
City LAGUNA HILLS
Inspection Date 28-SEP-01

Bridge Inspection Report

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

Name ALISO CREEK

CONSTRUCTION INFORMATION

Year Built 1985 Skew (degrees) 27
Year Widened N/A No of Joints 0
Length (m) 57.3 No of Hinges 0

Description of Structure Continuous 3-span CIP/PS concrete box girder (5 cells) with RC 2-column bents and RC open end diaphragm abutments all supported upon steel piles

Span Configuration (W) 14.9 m 24.1 m 16.8 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load MS - 18 OR HS - 20
Inventory Rating 32.6 metric tons Calculation Method LOAD FACTOR
Operating Rating 83.4 metric tons Calculation Method LOAD FACTOR
Permit Rating P P P P P
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 (S) 0.3 m br 0.3 m cu 9.8 m 1.5 m sw 0.3 m br (N)

Total Width 12.2 m Net Width 9.80 m No of Lanes 2
Rail Description Concrete Rail Code 1000
Min Vertical Clearance Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description Natural earth trapezoidal with grouted rock slopes thru the site

REVISIONS

City (New) Laguna Hills (Old) Unincorporated
The Bridge Inspection Reports were previously sent to the County of Orange All future reports will be sent to the City of Laguna Hills

CONDITION OF STRUCTURE

The structure is in good condition

SCOUR

Approximately 0.3 m of the pile cap of the westerly abutment is exposed at various locations Water from the weep holes is eroding the uncompacted soil

MISCELLANEOUS

Vehicular parking is 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	550 sq m	550	0	0	0	0
01 104		P/S Conc Closed Web/Box Girder	2	57m	57	0	0	0	0
01 205		Reinforced Conc Column or Pile Extension	2	4 ea	4	0	0	0	0

Bridge No 55C0529L Location 400' E/O MOULTON PKWY

Inspection Date 28-SEP-01

F#	Element Description No	Env	Total Units Quantity	Qty in each Condition State				
				St 1	St 2	St 3	St 4	St 5
01 210	Reinforced Conc Pier Wall	2	28 m	28	0	0	0	0
01 215	Reinforced Conc Abutment	2	28 m	28	0	0	0	0
01 225	Unpainted Steel Submerged Pile	2	60 ea	60	0	0	0	0
01 302	Compression Joint Seal	2	26 m	26	0	0	0	0
01 312	Enclosed/Concealed Bearing	2	2 ea	2	0	0	0	0
01 331	Reinforced Conc Bridge Railing	2	140 m	140	0	0	0	0

WORK RECOMMENDATIONS - NONE

Inspected By M Ogata

M. Ogata
 Registered Civil Engineer



CC TMRut
 City of Laguna Hills
 Orange County

Bridge No 55C0529L Location 400' E/O MOULTON PKWY

Inspection Date 28-SEP-01

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0529L
 (5) INVENTORY ROUTE (ON/UNDEF) - ON 1 50 0M274N
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 39220
 (6) FEATURE INTERSECTED ALISO CREEK
 (7) FACILITY CARRIED W/B LGNA HILLS DP
 (9) LOCATION - 400 E/O MOULTON PKWY
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 35 MIN 34 SEC
 (17) LONGITUDE 117 DEG 42 MIN 43 SEC
 (98) BORDER BRIDGE STATE CODE < SHAPE <
 (99) BOPDEF 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 3
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM
 A) TYPE OF WEARING SURFACE CONCRETE CODE 1
 B) TYPE OF MEMBRANE - NONE CODE 0
 C) TYPE OF DECK PROTECTION - NONE CODE 0

***** ** AGE AND SERVICE * *****

(27) YEAR BUILT 1985
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE ON HIGHWAY-PEDESTRIAN 5
 UNDER WATERWAY 5
 (28) LANES ON STRUCTURE 02 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 3000
 (30) YEAR OF ADT 1998 (109) TPJCK ADT 14
 (19) BYPASS DETOUR LENGTH 2 KM

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

(48) LENGTH OF MAXIMUM SPAN 24 1 M
 (49) STRUCTURE LENGTH 57 3 M
 (50) CURB OR SIDEWALK LEFT 3 M RIGHT 1 5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 9 8 M
 (52) DECK WIDTH OUT TO OUT 12 2 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDEPS) 9 8 M
 (33) BRIDGE MEDIAN NO MEDIAN 0
 (34) SKEW 27 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99 99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 9 8 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 = 95 7 *****

STATUS =

HEALTH INDEX = 100

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

(112) NBIS BRIDGE LENGTH YES Y
 (104) HIGHWAY SYSTEM NOT ON NHS 0
 (26) FUNCTIONAL CLASS MINOR ARTERIAL UPBAN 16
 (100) DEFENSE HIGHWAY - NOT STRAHNET 0
 (101) PARALLEL STRUCTURE RIGHT STRUCTURE R
 (102) DIRECTION OF TRAFFIC 1 WAY 1
 (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 8
 (62) CULVERTS N

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

(71) DESIGN LOAD MS - 18 OR HS - 20 5
 (63) OPERATING RATING METHOD LOAD FACTOR 1
 (64) OPERATING RATING 83 4
 (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 4
 (69) UNDERCLEARANCES VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1000
 (113) SCOPE 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 3500
 (115) YEAR OF FUTURE ADT 2010

***** INSPECTIONS *****

(90) INSPECTION DATE 09/01 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION (93) CFI DATE
 A) FRACTURE CRIT DETAIL NO 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 : 55C0529L
Facility Carried: W/B LGNA HILLS DR
Location : 400' E/O MOULTON PKWY
City :
Inspection Date : 16-JUL-01

Bridge Inspection Report

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

Name : ALISO CREEK

CONSTRUCTION INFORMATION

Year Built : 1985
Year Widened : N/A
Length (m) : 57.3
Skew (degrees): 27
No. of Joints : 0
No. of Hinges : 0

Description of Structure : Continuous 3-span CIP/PS concrete box girder (5 cells) with RC 2-column bents and RC open end diaphragm abutments, all supported upon steel piles.

Span Configuration : (W) 14.9 m, 24.1 m, 16.8 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : MS - 18 OR HS - 20
Inventory Rating : 32.6 metric tons
Operating Rating : 83.4 metric tons
Permit Rating : PPPPP
Posting Load : Type 3 N/A english tons
Calculation Method : LOAD FACTOR
Calculation Method : LOAD FACTOR
Type 3S2 N/A english tons
Type 3-3 N/A english tons

DESCRIPTION ON STRUCTURE

Bridge width : (S) 0.3 m br, 0.3 m cu, 9.8 m, 1.5 m sw, 0.3 m br (N)

Total Width : 12.2 m
Net Width : 9.80 m
No. of Lanes : 2
Rail Description : Concrete
Min. Vertical Clearance : Unimpaired
Rail Code : 1000

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth trapezoidal with grouted rock slopes thru the site.

CONDITION OF STRUCTURE

The structure is in good condition.

SCOUR

Approximately 0.3 m of the pile cap of the westerly abutment is exposed at various locations. Water from the weep holes is eroding the uncompacted soil.

MISCELLANEOUS

Vehicular parking is at the northeast quadrant.

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	550 sq.m.	550	0	0	0	0
01 104		P/S Conc Closed Web/Box Girder	2	57m.	57	0	0	0	0
01 205		Reinforced Conc Column or Pile Extension	2	4 ea.	4	0	0	0	0
01 210		Reinforced Conc Pier Wall	2	28m.	28	0	0	0	0
01 215		Reinforced Conc Abutment	2	28m.	28	0	0	0	0
01 225		Unpainted Steel Submerged Pile	2	60 ea.	60	0	0	0	0
01 302		Compression Joint Seal	2	26 m.	26	0	0	0	0
01 312		Enclosed/Concealed Bearing	2	2 ea.	2	0	0	0	0
01 331		Reinforced Conc Bridge Railing	2	140 m.	140	0	0	0	0

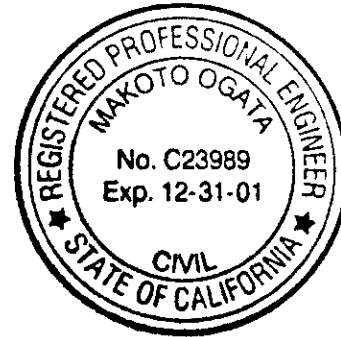
Bridge No.: 55C0529L Location: 400' E/O MOULTON PKWY

Inspection Date: 16-JUL-01

WORK RECOMMENDATIONS - NONE

Inspected By : M. Ogata

M. Ogata
Registered Civil Engineer



CC : TMRut
Orange County

Bridge No.: 55C0529L

Location: 400' E/O MOULTON PKWY

Inspection Date: 16-JUL-01

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME - CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0529L
 (5) INVENTORY ROUTE (ON/UNDER) - ON 140 0M274N
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED - ALISO CREEK
 (7) FACILITY CARRIED - W/B LGNA HILLS DR
 (9) LOCATION - 400' E/O MOULTON PKWY
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 35 MIN 34 SEC
 (17) LONGITUDE 117 DEG 42 MIN 43 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 3
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE - CONCRETE CODE 1
 B) TYPE OF MEMBRANE - NONE CODE 0
 C) TYPE OF DECK PROTECTION - NONE CODE 0

***** AGE AND SERVICE *****

(27) YEAR BUILT 1985
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON - HIGHWAY-PEDESTRIAN 5
 UNDER - WATERWAY 5
 (28) LANES: ON STRUCTURE 02 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 3000
 (30) YEAR OF ADT 1998 (109) TRUCK ADT 1%
 (19) BYPASS, DETOUR LENGTH 2 KM

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

(48) LENGTH OF MAXIMUM SPAN 24.1 M
 (49) STRUCTURE LENGTH 57.3 M
 (50) CURB OR SIDEWALK: LEFT .3 M RIGHT 1.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 9.8 M
 (52) DECK WIDTH OUT TO OUT 12.2 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 9.8 M
 (33) BRIDGE MEDIAN - NO MEDIAN 0
 (34) SKEW 27 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 9.8 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 = 95.7 *****

STATUS =

HEALTH INDEX = 100

***** 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 - RIGHT STRUCTURE R
 (102) DIRECTION OF TRAFFIC - 1 WAY 1
 (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 - COUNTY HIGHWAY AGENCY 2
 (22) OWNER - COUNTY HIGHWAY AGENCY 2
 (37) HISTORICAL SIGNIFICANCE - NOT ELIGIBLE 5

***** CONDITION ***** CODE

(58) DECK 7
 (59) SUPERSTRUCTURE 8
 (60) SUBSTRUCTURE 7
 (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 - LOAD FACTOR 1
 (64) OPERATING RATING - 83.4
 (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 4
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 9
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1000
 (113) SCOUR CRITICAL BRIDGES 6

***** 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 3500
 (115) YEAR OF FUTURE ADT 2010

***** INSPECTIONS *****

(90) INSPECTION DATE 07/01 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL - NO -1 MO A)
 B) UNDERWATER INSP - NO -1 MO B)
 C) OTHER SPECIAL INSP - NO -1 MO C)

Bridge Number 55C-529 L

Location 12 - Ora - FAU M274-CR
Dist.-Co.-Rte.-City

Date of Investigation August 1, 1996

TYPE OF INVESTIGATION/REPORT

BIENNIAL	<u>X</u>	DAMAGE	___
CATEGORY A	___	OTHER	___
UNDERWATER	___	OFFICE	___

Name ALISO CREEK (Laguna Hills Drive westbound, 400' east of
Moulton Parkway)

CONDITION RATINGS:

Element Level Inspection (ELI) form attached.

Channel & Channel Protection

8

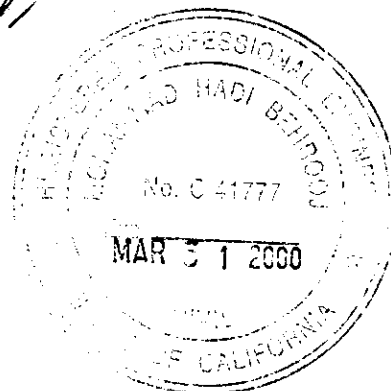
CONDITION OF STRUCTURE:

There is light longitudinal cracking throughout the deck.

WORK RECOMMENDED:

None.

By M. Hadi Behrooj
G. H. Balinghasay



GPB:cd
cc: TMRut
Orange County

Bridge Number 55C-529 L

Location 12 - Ora - FAU M274-CR
Dist.-Co.-Rte.-City

Date of Investigation July 8, 1994

TYPE OF INVESTIGATION/REPORT

BIENNIAL	<u>X</u>	DAMAGE	___
CATEGORY A	___	OTHER	___
UNDERWATER	___	OFFICE	___

Name ALISO CREEK (Laguna Hills Drive westbound, 400' east of
Moulton Parkway)

CONDITION RATINGS:

Condition ratings of all bridge elements are
shown on the PONTIS DATA FORM (Attachment A).

Channel & Channel Protection

(8)

SCOUR CRITICAL:

The scour rating of A-2 is appropriate.

CONDITION OF STRUCTURE:

The structure is in good condition.

WORK RECOMMENDED:

None.

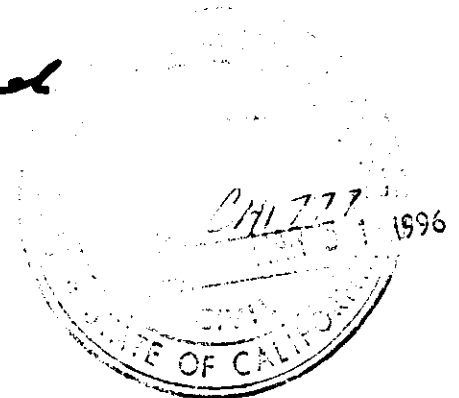
M. H. Behrooj *MHB*

By

S. A. Zanganeh
S. A. Zanganeh

SAZ:cd

cc: CDHarris
Orange County
WLindsey



INFORMATION ONLY - NOT FOR UPDATE

BRIDGE NUMBER

5 5 C 0 5 2 9 L

1 8

FRAME

0 1

9

INSPECTION DATE

0 7 0 8 9 4

11 16

SCOUR CRITICAL	NO
CATEGORY A	NO
FRACTURE CRITICAL	NO
ELIGIBLE FOR RAIL UPGRADE	NO
UNDERWATER INSPECTION	NO

DISTRICT _____ 12
COUNTY _____ ORA
ROUTE _____
POSTMILE _____
NAME _____

[illegible]

BY: 022

SUPPLEMENTARY BRIDGE REPORT
DS-M19 (REV. 12/91)

Bridge Number 55C-529 L

Location 12 - Ora- FAU M274-CR
Dist.-Co.-Rte.-City

Date of Investigation June 10, 1992

TYPE OF INVESTIGATION/REPORT

BIENNIAL	<u>X</u>	DAMAGE	___
CATEGORY A	___	OTHER	___
UNDERWATER	___	OFFICE	___

Name ALISO CREEK (Laguna Hills Drive westbound, 400' east of Moulton Parkway)

CONDITION RATINGS:

Deck	Superstructure	Substructure	Channel & Channel Protection	Culvert
<u>8</u>	<u>8</u>	<u>8</u>	<u>(8)</u>	<u>N</u>

CONDITION OF STRUCTURE:

Very light random deck cracks are noted.

Condition of the structure is good.

REVISIONS:

Condition Rating: Channel & Channel Protection - 8

(There is no deterioration in condition of channel banks from the previous report, the above rating change indicates the nature of the earth channel slopes to reflect more closely to the current Federal Coding Guide.)


Henry Ma

HM:cd
cc: INagai (2)
County of Orange



BRIDGE REPORT

DS-M58 (REV. 4/90)

14W23

Bridge No. 55C - 529 L

Location 12 - Ora - FAU M274-CR
Dist Co Rte City

REVISED ORIGINAL REPORT

Date of Investigation May 22, 1990

Name ALISO CREEK (Laguna Hills Drive westbound, 400' east of Moulton Parkway)

Lat. 33° - 35.4'N Long. 117° - 42.7'W

Custodian County of Orange Owner County of Orange

STRUCTURAL DATA AND HISTORY

Year Built 1985 By Orange County Contract No. Unknown

Designed by: Jack G. Raub Company Plans Avail. @ DOS

Description: 3 span continuous CIP PS concrete box girder (5 cells) supported by RC column (2 each) bents (RC channel wall between columns) and open end RC diaphragm abutments, all on steel piles.

Spans (W) 49'; 79'; 55' (E)

Length 188' NBIS Bridge Length Yes Skew 27°± Right

Number Of Intermediate Joints: @Hinges N @Bents N

Maximum Column/Pier Height: (Less than 20') X (20'-29') (30' & Over)

Design Live Load HS20-44 & P-13 Design Method Unknown

DESCRIPTION - ON STRUCTURE

Bridge Width (S) 1'br; 1'cu; 32'; 5'sw; 1'br (N)

Total Width 40' Net Width 32 Lanes 2 Tracks None

Median None Rail Type Concrete parapet with timber beam 1000

Vert. Clearance over deck Unimpaired Appr. Rdwy. Width 32'

Deck Type 1 Wearing Surface/Prot. Sys. 100 Concrete/None

Alignment R = 1800'

DESCRIPTION - UNDER STRUCTURE

Roadway Section None

Clearances: Road: Vert. Horiz. Lt. ; Rt.

Lanes Tracks

Facilities Crossed Aliso Creek (J01)

May 22, 1990

DESCRIPTION - HYDRAULICS

Channel Trapezoidal earth

Navigable: Yes ☐ No ☒ Clearances: Vert.

Horiz.

Pier/Abutment Protection (For Navigation) ☐

TRAFFIC INFORMATION

	DECK	YEAR	UNDER	YEAR
Average Daily Traffic & Year :	3,000	1989	N	
Average Daily Traffic (Future) :	3,500 Est	2010	N	
Average Daily Trucks (% OF ADT) :	1% Est		N	
Bypass Detour Length	1 mile		N	
Shell Route:	No		N	
Functional Classification :	14		N	
LOAD RATINGS:	Inventory HS 20	Operating HS 51		
	Permit PPPPP	Computation Method Load Factor		

CONDITION RATINGS:

Deck	8	Superstructure	8	Substructure	8
Channel & Channel Protection	9	Culvert	N	Widenable	Yes

APPRAISAL RATINGS:

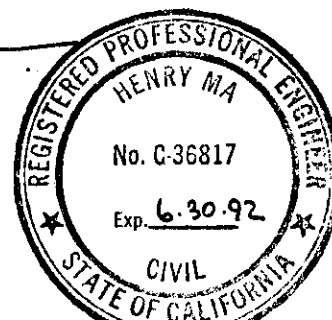
Waterway Adequacy	9	Approach Roadway Alignment	8
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Date of Revisions

CONDITION OF STRUCTURE:

Condition of the structure is good.

Henry Ma



HM:ms

cc: INagai (2)
County of Orange

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DS-M19 (REV. 2/75)

Bridge No. 55C-529 L

Location 7-Oran-FAU M274-CR
Dist - Co - Rte - PM - City

Date of Investigation May 18, 1988

Name ALISO CREEK (Laguna Hills Drive westbound, 400' east of Moulton Parkway)

CONDITION RATING:

APPRAISAL RATING:

Deck 8 Superstructure 8 Substr. & Pipes 8 Overall 8

Channel & Channel Protection 7 Retaining Walls N

Widenable? Yes ☒ No ☐ Conditional ☐

Action Required by COUNTY Yes ☒ No ☐

REVISION:

Name: ALISO CREEK (Laguna Hills Drive westbound, 400' east of Moulton Parkway)

Approach Roadway Width: 32'

CONDITION OF STRUCTURE:

There are two elements of timber railing missing atop of north concrete bridge rail about 30' from west end.

Condition of the structure is good.

RECOMMENDED POSTING:

None

WORK RECOMMENDED:

Replace two missing members of timber bridge rail on north side.

MSCL

HM/pht

cc: INagai (2)
Orange County (2)

Henry Ma



DIST 07 ROUTE CD RD COUNTY 55 C STRU. NO 0529L POSTMILE C04.00 RATING W. TH-FT . CGB STRU TYPE Q YR ORIG CONST 85

JUL. 14, 1986

	RATING FACTOR	PT	SPAN	ULT MOM TOP IN COM	ULT MOM CAP BOT IN COM	POS HS20 MOMENT	NEG HS20 MOMENT	POS PURP MOMENT	NEG PURP MOMENT	DEAD LOAD MOMENT	SECONDARY MOMENT
INV	1.00	5	2	12806.0	0.0	2290.1	-388.7	3887.4	-525.8	2850.3	838.8
OPER	2.56	5	2	12806.0	0.0	2290.1	-388.7	3887.4	-525.8	2850.3	838.8
PURP	1.27	10	2	0.0	13006.1	270.6	-1841.0	400.5	-4590.0	-4269.0	868.4

THE NUMBER OF AXLES ON THE TRUCK THAT CAUSES THE PURPLE RATING FACTOR IS 13.

FC = 0.0 FY = 0.

FS = 270. FPC = 4.00

PS PHI = 0.97

THE INVENTORY RATING POINT WAS SET BY PS CRITERIA

IF THE REPORTED ULTIMATE MOMENT CAPACITY IS 0, IT WAS DETERMINED NOT TO BE CRITICAL

2 ~~AT FSO CREEK- NORTH BRIDGE (SHEEP HILLS RD)~~

3 CONT 3 SPAN CIP P/S BOX GIRDER W/NO ACWS

PPPPP

DIST 07 ROUTE CO RD COUNTY 55 C STRU. NO 0529L POSTMILE 004.00 RATING WITH-FT . CG8 STRU TYPE Q YR ORIG CONST 85

JUL. 14, 1986

INFLUENCE LINE FOR CRITICAL INVENTORY RATING POINT SPAN 2 10TH POINT 5

MEM NO	LEFT	.1	.2	.3	.4	.5	.6	.7	.8	.9	RIGHT
1	0.0	-0.319	-0.618	-0.878	-1.080	-1.205	-1.233	-1.145	-0.921	-0.542	0.0
2	0.0	1.271	3.131	5.591	8.650	12.305	8.673	5.630	3.175	1.304	0.0
3	0.0	-0.632	-1.072	-1.332	-1.434	-1.402	-1.256	-1.021	-0.718	-0.370	0.0

THE CRITICAL OPERATING RATING POINT IS THE SAME AS THE CRITICAL INVENTORY RATING POINT

INFLUENCE LINE FOR CRITICAL PURPLE RATING POINT SPAN 2 10TH POINT 10

1	0.0	0.311	0.603	0.858	1.055	1.177	1.204	1.118	0.899	0.529	0.0
2	0.0	-1.206	-2.758	-4.434	-6.000	-7.221	-7.863	-7.692	-6.474	-3.973	0.0
3	0.0	-1.910	-3.241	-4.027	-4.337	-4.238	-3.799	-3.088	-2.172	-1.120	0.0

2 ALISO CREEK- NORTH BRIDGE (SHEEP HILLS RD)
3 CONT 3 SPAN CIP P/S BOX GIRDER W/NO ACWS

Bridge No. 55C-529 L (W/B Rdwy)

Other No.

P.U.C. No.

Location 7-Ora-FAU M274-CR
Dist - Co - Rte - Mile - City

Date of Investigation June 18, 1986

Name ALISO CREEK (Sheep Hills Road, 400' east of Moulton Parkway)

Lat. 33°-35.4'N Long. 117°-42.7'W

STRUCTURAL DATA AND HISTORY

Year Built 1985 By Orange County Contract No. Unknown

Date of Revisions

Designed by: B.D. ☐ Jack G. Raub Company Plans Avail. @ B.D.

Description: 3 span continuous (CIP/PS concrete box girder (5 cells) on column (2) bents and diaphragm abutments all supported by steel piles. RC channel debris pier walls between columns.

Spans 1 @ 49', 1 @ 79', 1 @ 55'

Length 188' Skew 27°± Rt. Design LL HS20-44 & P-13

Ratings: Inventory HS20/LF Operating HS 51.2/LF Permit PPPPP/LF

DESCRIPTION - ON STRUCTURE (Shell Rte.: Yes ☐ No ☒)

Bridge Width (S) 1'br, 1'cu, 32', 5'sw, 1'br (N)

Total Width 40' Lanes 2 Tracks 0

Median None Rail Type Concrete parapet and timber (1000)

Vert. Clearance over deck Unimpaired Appr. Rdwy. Width 82'

Wearing Surface None Deck Prot. Sys. None

Alignment R= 1800'

DESCRIPTION - UNDER STRUCTURE (Shell Rte.: Yes ☐ No ☒)

Roadway Section None

Clearances: Vert. Horiz.: Lt. Rt.

Lanes Tracks Pumpplant: None ☒ See Br. No.

Facilities Crossed Aliso Creek

DESCRIPTION - HYDRAULICSChannel Unimproved natural sand and gravel trapezoidalNavigable: Yes ☐ No ☒ Clearances: Vert. _____ Horiz. _____**MAINTENANCE**Custodian Orange County Owner Orange County**ORIGINAL
CONDITION RATING**

Deck	<u>8</u>
Superstructure	<u>8</u>
Substructure & Pipes	<u>8</u>
Channel & Channel Protection	<u>7</u>
Retaining Walls	<u>N</u>
Approach Rdwy. Alignment	<u>7</u>
Estimated Remaining Life	<u>50</u>

**ORIGINAL
APPRAISAL**

Overall	<u>8</u>
Deck Geometry	<u>8</u>
Underclearances	Vert. <u>N</u>
	Horiz. <u>N</u>
Safe Load Capacity	<u>9</u>
Waterway Adequacy	<u>7</u>
Approach Rdwy. Alignment	<u>7</u>

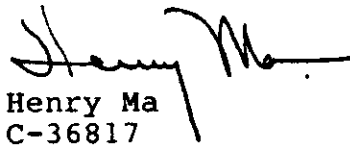
Widenable? Yes ☒ No ☐ Conditional ☐Average Daily Traffic & Year 500 (Est. 1986)Bypass Detour Length 1 mileSeismic Retrofit Not required.Action Required: Yes ☐ No ☒Posting Required: None ☒ Load ☐Speed ☐

LOAD CAPACITY: The inventory, operating and permit ratings shown were obtained through the "Frame Rate" program using the load factor (LF) method of analysis.

CONDITION OF STRUCTURE: The structure is new and in good condition.

WORK RECOMMENDED: None

HM:pht

cc: INagai (2)
Orange County (2)
Henry Ma
C-36817