OC Public Works Route Slip

Date: 4/26/18

DIRECTOR
- ☐ Executive Secretary
- ☐ Strategic Communications Officer
- ☐ Human Resources

ASSISTANT DIRECTOR - CUSTOMER SERVICES
- ☐ Secretary

ADMINISTRATIVE SERVICES
- ☐ AUDITOR-CONTROLLER/ACCOUNTING SERVICES
  - ☐ Payroll
- ☐ BUSINESS SERVICES
  - ☐ Building Operations
  - ☐ Card Access
  - ☐ Document Management
  - ☐ Parking Administration
- ☐ CENTRAL QUALITY ASSURANCE ☐ CAMS/E-Agenda
- ☐ FINANCE SERVICES
- ☐ INFORMATION TECHNOLOGY SERVICES
- ☐ PROCUREMENT SERVICES

OC DEVELOPMENT SERVICES
- ☐ BUILDING & SAFETY
  - ☐ Building & Grading Plan Check
  - ☐ Neighborhood Preservation
- ☐ INSPECTION SERVICES
- ☐ LAND DEVELOPMENT
- ☐ PERMITTING
  - ☐ Private Property Permits ☐ Encroachment Permits
- ☐ PLANNING

OC FACILITIES DESIGN & CONSTRUCTION
- ☐ REGULATORY COMPLIANCE & CUSTODIAN
- ☐ FACILITIES ADMIN
- ☐ PROJECT MANAGEMENT
  - ☐ Unit 1 ☐ Unit 2

OC FACILITIES MAINTENANCE & CUF
- ☐ MAINTENANCE & ENGINEERING
  - ☐ Maintenance Mgr ☐ Maint Proj Mgr ☐ Business Analytics
- ☐ UTILITY/ENERGY UNIT
  - ☐ CUF ☐ Env Control ☐ Energy Mgmt
- ☐ CONTRACTS

OC FLEET SERVICES
- ☐ ADMINISTRATION
- ☐ OPERATIONS
  - ☐ Civic Center Garage ☐ Shop 1 – Fruit Street
  - ☐ Shop 2 – Collins Avenue ☐ South County Garage

ASSISTANT DIRECTOR - CHIEF ENGINEER
- ☐ Secretary

OC CONSTRUCTION
- ☐ CONSTRUCTION MANAGEMENT
- ☐ GEOTECHNICAL
- ☐ MATERIALS LABORATORY
- ☐ SPECIAL PROJECTS

OC ENVIRONMENTAL RESOURCES
- ☐ AGRICULTURAL COMMISSIONER
  - ☐ Agricultural Programs
  - ☐ Pest Management
  - ☐ Weights & Measures Section
- ☐ ENVIRONMENTAL MONITORING
- ☐ WATER QUALITY COMPLIANCE
- ☐ WATERSHED MANAGEMENT

1 **OC INFRASTRUCTURE PROGRAMS** NK
- ☐ DESIGN
- ☐ FLOOD PROGRAM SUPPORT
- 2 ☐ PROGRAMMING Regina
- ☐ PROJECT MANAGEMENT
- ☐ REGULATORY & POLICY
- ☐ SANTA ANA RIVER PROJECT
- ☐ TRAFFIC ENGINEERING
- ☐ ENGINEERING POLICY

OC OPERATIONS & MAINTENANCE (O&M)
- ☐ CITY CONTRACTS
- ☐ EQUIPMENT OPERATIONS
- ☐ GENERAL MAINTENANCE
- ☐ INFRASTRUCTURE MGMT PROGRAMS

OC SURVEY
- ☐ FIELD SERVICES
- ☐ GEOSPATIAL SVCS
- ☐ MAP CHECK & ROW SERVICES
- ☐ SURVEY BUSINESS SERVICES

Remarks: Pls. review & determine if we need to initiate any projects -

✓ Action ___ Information

___ Response By _____ NK Signature/Approval

LS:ht(Routing Slip OCPW 09-2015.doc)(9/10/2015)

STATE OF CALIFORNIA - CALIFORNIA STATE TRANSPORTATION AGENCY

DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE & INVESTIGATIONS
100 South Main Street, 3rd Floor
LOS ANGELES, CA 90012
PHONE (213) 897-2004
FAX (213) 897-2033

EDMUND G. BROWN JR., Governor

Making Conservation a California Way of Life.

C: Nardy
Jeff Ernst
copy in Reading file
ICB
4/23/18

Nardy: F.Y. Action.

RECEIVED
APR 16 2018
OC PUBLIC WORKS
DIRECTOR'S OFFICE

April 5, 2018

Mr. Shane Silsby
Director of Public Works
County of Orange
P O Box 4048
Santa Ana, CA 92702-4048

Dear Mr. Silsby:

In accordance with Title 23 of the Code of Federal Regulations (Federal Highway Act) and the National Bridge Inspection Standards (NBIS), Caltrans Structure Maintenance and Investigations performed an inspection of 1 bridge under your jurisdiction. The type of inspection is indicated on the bridge report transmittal sheet. The bridges have been rated to indicate their deficiencies, structural adequacy, safe load carrying capacity and overall general condition.

Enclosed are copies of the Bridge Inspection Reports for the structures noted on the attached transmittal sheet. These reports contain descriptions of physical changes to the structures since the last inspection, recommendations for work to be done, and additional information not recorded in the previous Bridge Reports.

Your attention is directed to the requirements of Title 23, Part 650 of the Code of Federal Regulations, where newly completed structures or any modification of existing structures shall be entered in the inventory within 90 days. Please notify this office of any newly constructed bridge or culvert within your jurisdiction, more than 20 feet measured along the center of the roadway and carrying public vehicular traffic or over a public roadway, in order that it may be entered in the inventory of bridge structures in compliance with Federal requirements.

Should you have any questions regarding the enclosed Bridge Inspection Report, please contact Bing Wu @ (213) 897-0874.

Sincerely,

for CC

CHING CHAO
Office Chief
Structure Maintenance & Investigations - (Investigations-South)

Enclosures

STATE OF CALIFORNIA - CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF TRANSPORTATION

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STRUCTURE MAINTENANCE & INVESTIGATIONS
100 South Main Street, 3rd Floor
LOS ANGELES, CA 90012
PHONE (213) 897-2004
FAX (213) 897-2033

Making Conservation a California Way of Life.

Bridge Report Transmittal Sheet

Batch 42559

County of Orange

Bridge #	Bridge Name	Location	Inspection Date	Inspection Type	Outstanding Work	Cost
55C0038	SANTIAGO CREEK	0.2 MI W/O SILVERADO CYN	09/07/2017	Routine	Y	$

1 Bridge(s) in this Transmittal

DEPARTMENT OF TRANSPORTATION
DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE & INVESTIGATIONS
100 South Main Street, 3rd Floor
LOS ANGELES, CA 90012
PHONE (213) 897-2004
FAX (213) 897-2033

Making Conservation a California Way of Life.

WEB SITES:

The National Bridge Inspection Standards (NBIS) Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, Element Level Inspection, Structure Maintenance and Investigations Manuals, Local Assistance Program Guidelines and other related information are posted on Division of Maintenance, Structure Maintenance and Investigations; Division of Local Assistance, Local Highway Bridge Program (HBP) and FHWA websites.
The websites can be accessed at:

1. "Caltrans Structure Maintenance and Investigations" http://www.dot.ca.gov/hq/structur/strmaint/
2. "Caltrans Division of Local Assistance"
http/www.dot.ca.gov/hq/LocalPrograms/hbrr99/hbrr99a.htm
3. "FHWA" http/www.fhwa.dot.gov/BRIDGE/mtguide.pdf

Inspection Type Definitions

Routine Inspection:

Routine Inspections consist of both the initial Inventory Inspection (the first inspection of the bridge that places it in the bridge inventory or when there has been a change in the configuration of the structure) and subsequent regularly scheduled inspections. The initial inspection provides all the Structural Inventory & Appraisal (SI&A) data required by federal and state regulations, determines the baseline structural conditions, lists any existing problems, and establishes the load capacity of the structure. Subsequent inspections consist of observations, measurements needed to determine the physical and functional condition of the bridge, to identify any changes from the previously recorded conditions, and verification of its load capacity. These inspections are generally conducted from the deck, ground and/or water level, and from permanent work platforms and walkways, if present. Inspection of underwater portions of the substructure is limited to observations during low-flow periods and/or probing for signs of undermining. Special equipment should be utilized in circumstances where its use provides the only practical access to areas of the structure.

Fracture Critical, Special Feature & Underwater Inspections:

Fracture Critical, Special Feature, and Underwater Inspections are up close, hands-on inspections of one or more members above or below the water level to identify any deficiencies not readily detectable using Routine Inspection procedures. These inspections generally require special equipment such as under-bridge inspection equipment, manlifts, boats, traffic control, and railroad flagging. Personnel with special skills such as divers or structural steel inspectors trained in non-destructive testing techniques may be required.

Other Inspections:

Other Inspections are conducted on damaged structures, structures that have developed specific problems, or structures suspected of developing problems. The scope of these investigations should be sufficient to determine the need for emergency load restrictions or closure of the structure, monitor a changing condition, and to assess the level of effort necessary to effect a repair.

DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0038
Facility Carried: SANTIAGO CNYN ROAD
Location : 0.2 MI W/O SILVERADO CYN
City :
Inspection Date : 09/07/2017
Inspection Type

Bridge Inspection Report

Routine	FC	Underwater	Special	Other
X				

STRUCTURE NAME: SANTIAGO CREEK

CONSTRUCTION INFORMATION

Year Built : 1963
Year Modified: N/A
Length (m) : 69.5
Skew (degrees): 0
No. of Joints : 2
No. of Hinges : 0

Structure Description: Continuous four span CIP/RC T-beam (5 each) with RC single column bents and RC open end seat abutments, all supported upon spread footings.

Span Configuration : (W) 49.00 ft, 2 @ 63.00 ft, 49.00 ft (E).

SAFE LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20
Inventory Rating: RF= 0.94 Calculation Method: (LRFR) LD & RES FACT RATING
Operating Rating: RF= 1.22 Calculation Method: (LRFR) LD & RES FACT RATING
Permit Rating : PPPPP
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: (S) 1.50 ft br, 27.50 ft, 1.50 ft br (N)
Total Width: 9.3 m Net Width: 8.5 m No. of Lanes: 2 Speed: 55 mph
Min. Vertical Clearance: Unimpaired Overlay Thickness: 0.0 inches

Rail Code: 0111

Rail Type	Location	Length (ft)	Rail Modifications
Type 8	Right/Left	492	

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural earth trapezoidal with a cobbled bottom.

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

A complete routine inspection was performed by walking on and around the structure to inspect all visible elements on the existing structures. The creek was dry at the time of the inspection. A full visual inspection is performed for the visible substructure elements. Pedestrian access is from northeast and southwest quadrants.

INSPECTION COMMENTARY

DECK AND ROADWAY

The AC roadway has a pothole 2 feet X 1 foot X 2 inches at east end.

WATERWAY

A channel cross section was taken on 03/28/2018 and is included with this report. The cross section was taken from the upstream side, and spot checked and compared the downstream side with the previous cross section taken on 10/27/2009. The results of that comparison indicate that the channel has not significantly changed.

The channel is previously degraded and the the embankment washed away at Bent 3, and the city placed grouted riprap to protect it from scour. ABME keep monitor that next routine inspections.

The west channel slope is undermined 40 feet long and 2 feet deep at the upstream side (south side). (see the attached photos no. 4 & 5)

SCOUR

Scour History:
May 16, 1995, Caltrans inspected the bridge and found embankment around Bent #3 (center pier) had completely
washed away, exposing the pedestal. Following receipt of the report, County forces placed riprap at Bent# 3 to
protect the column.
May 14, 1996, Caltrans inspected the bridge and found that the streambed had again degraded due to scour at Bent
#3 (center pier) and that the footing was exposed. In response, County forces placed additional riprap and grouted
that placed immediately adjacent to the column.
June 05, 2001, Caltrans inspected the bridge and found the top of the footing at Bent# 3 to be exposed. In response, County forces placed additional riprap and grouted that placed immediately adjacent to the column.

Hydraulic report dated 10/27/2009:

This hydraulic report dated 10/27/2009 addresses hydraulic issues only. The structure's scour potential has been assessed in accordance with the FHWA Technical Advisory T5140.23, "Evaluating Scour at Bridges". The NBI Item 113 Code, "Vulnerability to Scour", has been changed to 5: "Bridge Foundations determined to be stable for assessed or calculated scour conditions. Scour is determined to be within the limits of footings or piles (Example B) by assessment (i.e., bridge foundations are on rock formations that have been determined to resist scour within the service life of the bridge), by calculations or by installation of properly designed countermeasures."

The local agency sent this office a set of scour mitigation as-built plans in the fall of 2009. At the request of the local agency, this office performed a field review on 10-27-2009.

On the date of the investigation, the channel was dry. A downstream cross section was taken (attached). Comparison of this cross section to historical cross sections indicate that the channel has been modified and this was verified in the field.

Although the channel bed appears lower then what is showed on the original as-built plans,the channel modifications are visible and furthermore, the channel modifications

INSPECTION COMMENTARY

appear to provide adequate scour protection against scour.

Scour mitigation plans indicate that new footing skirts were placed at Piers 2, 3 and 4 and new rock placed at Piers 2 and 3.

Large rock protection was noted along the westerly embankment and appears to provide adequate protections for Abutment 1 and Pier 2. No foundation exposure was noted.

The thalweg was noted in the middle of Span 2. It appears to be well aligned to the bridge opening. The channel consisted of silty sand and gravel with some rock outcrops visible within the channel.

Pier 3 was protected by an apron of grouted rock and a new footing skirt. The top of the new footing skirt was exposed. The scour countermeasures at Pier 3 appeared adequate and in correspondence with the local agency, the new footing skirt apparently was placed to a competent hard sandstone. Upon visual inspection of the sandstone outcrops visible in the channel both upstream and downstream of the bridge, the sandstone in the area appears to be hard and competent material that will likely provide a scour resistant foundation base for Pier 3.

No other scour or scour potential was noted. Based upon what was noted in the field and the information provided by the local agency, the bridge is no longer considered scour critical.

SAFE LOAD CAPACITY

The load rating for this structure is being reviewed by SMI Ratings Branch. An updated Load Rating Summary will be archived when this review is complete.

MISCELLANEOUS

A scour is noticed at Bents 2 and 3, and the spread footing is exposed. A request #7983 was sent the hydraulic department on 03/05/2018 to re-assess the current hydraulic condition.

ELEMENT INSPECTION RATINGS AND COMMENTARY

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	646	sq.m	636	10	0	0
	1120	**Efflorescence/Rust Staining**	2	10		0	10	0	0
	521	**Concrete Coat.(Meth/Paint/Seal)**	2	584	sq.m	584	0	0	0

(16)
There were no significant defects noted.

(16-1120)
There are few short 2 feet long transverse cracks with light white efflorescence at the soffit in all spans.

(16-521)
There were no significant defects noted.

110		**Girder/Beam-RC**	2	348	m	332	15	1	0

ELEMENT INSPECTION RATINGS AND COMMENTARY

Elem No.	Defect /Prot	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4
	1080	Delamination/Spall/Patched Area	2	1		0	0	1	0
	1130	Cracking (RC and Other)	2	15		0	15	0	0

(110-1080)
The bottom face of the north girder has a spall 2 feet X 4 inches X 1 inch at 25 feet from column 3 at Span 3. (see the attached photo no. 6)

(110-1130)
The concrete girders have few vertical and diagonal cracks, up to 2.5 feet long and up to 0.04 inches wide most noticed near the supports.

215		Abutment-RC	2	28	m	27	1	0	0
	1130	Cracking (RC and Other)	2	1		0	1	0	0

(215)
There were no significant defects noted.

(215-1130)
The west Abutmenet has a vertical crack, 0.05 inches wide under girder 3.

220		Pile Cap/Footing-RC	2	12	m	0	12	0	0
	6000	Scour	2	12		0	12	0	0

(220-6000)
The spread footing under the columns is exposed as follows:

The footing under column 2 is exposed 20 feet long and 30 inches deep, there are rocks around the footing. (see the attached photo no. 3)

The footing under column 3 is exposed 20 feet long and 18 inches deep, however there is grouted riprap around the footing and there is undermining 15 inches at the upstream side (south side). (see the attached photo no. 2)

234		Pier Cap-RC	2	27	m	27	0	0	0

(234)
There were no significant defects noted.

254		Column Shell-Full Ht	2	3	ea.	3	0	0	0
	515	Steel Coating-Paint	2	105	sq.m	105	0	0	0

(254)
The footings top are exposed 2' x 10' at bent #2 and #3. According to the hydraulic report it is within the limits

(254-515)
There were no significant defects noted.

256		Slope Protection	2	2	ea.	2	0	0	0

(256)
There were no significant defects noted.

301		Joint-Pourable Seal	2	20	m	20	0	0	0

(301)
There were no significant defects noted.

ELEMENT INSPECTION RATINGS AND COMMENTARY

Elem No.	Defect /Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4
311			Bearing-Moveable	2	10	each	10	0	0	0
(311) There were no significant defects noted.										
330			Railing-Metal	2	139	m	139	0	0	0
(330) There were no significant defects noted.										

WORK RECOMMENDATIONS

RecDate: 09/07/2017
Action : Sub-Fix Scour Crit.
Work By: LOCAL AGENCY
Status : PROPOSED

EstCost:
StrTarget: 2 YEARS
DistTarget:
EA:

Protect the channel bed and sides, around the columns from further degradation and scour.

CHANNEL X-SECTION

Side : Upstream
Measured From : soffit of south overhang

X-Section Date: 09/07/2017

Location	Horiz(m)	Vert(m)	Comments
Abutment 1	0.40	2.11	Face of the west Abutment
	9.50	2.16	Top wall
	9.80	5.92	Botton of wall/Top of rocks
Bent 2	14.50	7.35	CL Bent 2
	17.10	9.25	Toe of rocks/top of earth slope
	19.70	11.08	channel edge
	21.70	10.75	
	28.20	11.05	edge of grouted riprap @ Bent 3 footing
	31.20	9.95	top of riprap
Bent 3	34.00	9.95	CL Bent 3
	41.08	7.35	top of earth slope
Bent 4	53.20	7.85	Toe of rocks slope
	63.50	4.15	Top of rocks/Bottom of wall
	63.60	2.30	Top of wall
Abutment 5	67.60	1.80	Face of the east Abutment

Team Leader : Ashraf Shenouda

Report Author : Ashraf Shenouda

Inspected By : A.Shenouda/KD.Henderson

4/2/2018

Ashraf Shenouda (Registered Civil Engineer) (Date)

STRUCTURE INVENTORY AND APPRAISAL REPORT

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

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER 55C0038
(5) INVENTORY ROUTE(ON/UNDER)- ON 140000000
(2) HIGHWAY AGENCY DISTRICT 12
(3) COUNTY CODE 059 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- SANTIAGO CREEK
(7) FACILITY CARRIED- SANTIAGO CNYN ROAD
(9) LOCATION- 0.2 MI W/O SILVERADO CYN
(11) MILEPOINT/KILOMETERPOINT 0
(12) BASE HIGHWAY NETWORK- PART OF NET 1
(13) LRS INVENTORY ROUTE & SUBROUTE 000000000000
(16) LATITUDE 33 DEG 44 MIN 51.58 SEC
(17) LONGITUDE 117 DEG 40 MIN 33.96 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 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 1963
(106) YEAR RECONSTRUCTED 0000
(42) TYPE OF SERVICE: ON- HIGHWAY 1
UNDER- WATERWAY 5
(28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 00
(29) AVERAGE DAILY TRAFFIC 7000
(30) YEAR OF ADT 2012 (109) TRUCK ADT 5 %
(19) BYPASS, DETOUR LENGTH 22 KM

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

(48) LENGTH OF MAXIMUM SPAN 19.2 M
(49) STRUCTURE LENGTH 69.5 M
(50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 8.5 M
(52) DECK WIDTH OUT TO OUT 9.3 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 12.2 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- 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 = 73.0
STATUS
HEALTH INDEX 98.9
PAINT CONDITION INDEX = 100.0

********** 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 7
(59) SUPERSTRUCTURE 7
(60) SUBSTRUCTURE 7
(61) CHANNEL & CHANNEL PROTECTION 4
(62) CULVERTS N

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

(31) DESIGN LOAD- MS-18 OR HS-20 5
(63) OPERATING RATING METHOD- (LRFR) LD & RES FA 8
(64) OPERATING RATING- RF= 1.22
(65) INVENTORY RATING METHOD- (LRFR) LD & RES FA 8
(66) INVENTORY RATING- RF= 0.94
(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 8
(72) APPROACH ROADWAY ALIGNMENT 6
(36) TRAFFIC SAFETY FEATURES 0111
(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 9619
(115) YEAR OF FUTURE ADT 2035

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

(90) INSPECTION DATE 09/17 (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)

SANTIAGO CREEK

0.2 MI W/O SILVERADO CYN | 09/07/2017 [AAAK] | 55C0038

116 - PHOTO-Sub-Scour/Evaluation

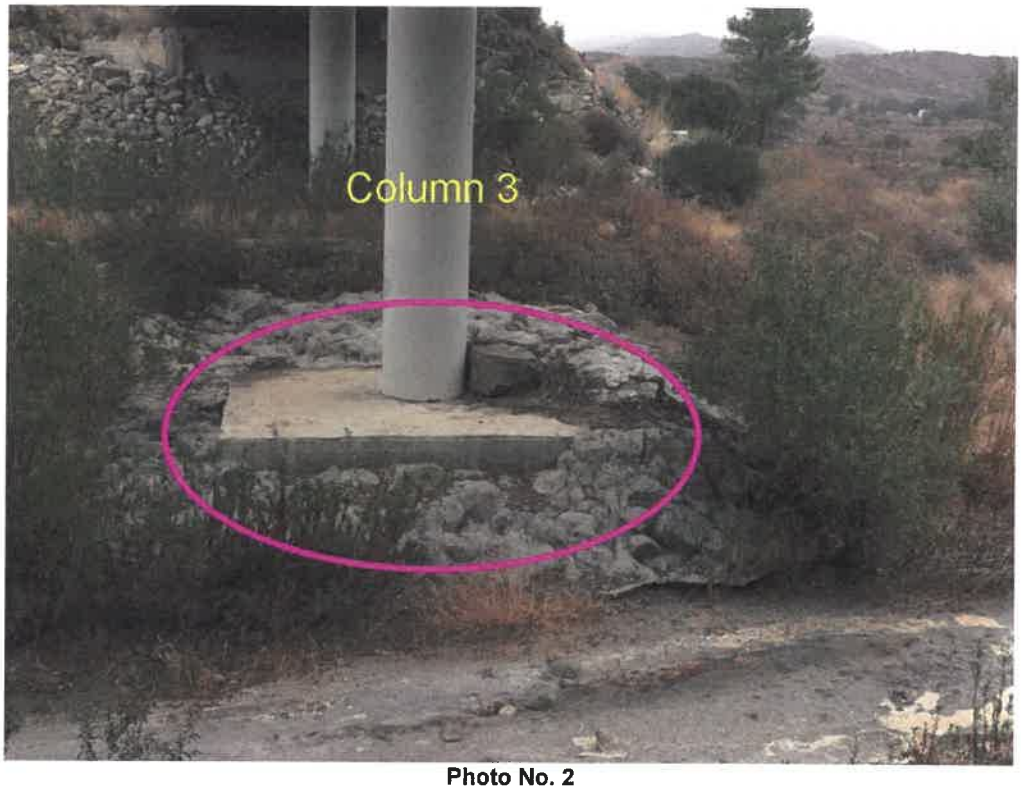

Photo No. 2

Footing is exposed under column 3.

116 - PHOTO-Sub-Scour/Evaluation

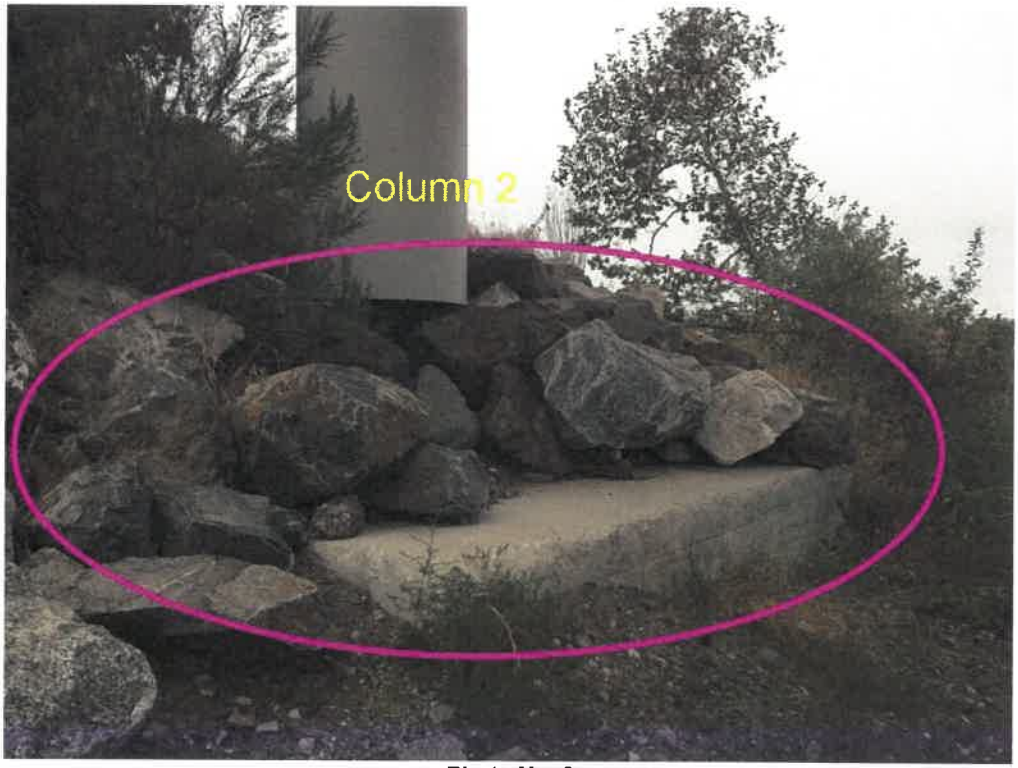

Photo No. 3

Footing is exposed under column 2.

SANTIAGO CREEK

0.2 MI W/O SILVERADO CYN | 09/07/2017 [AAAK] | 55C0038

130 - PHOTO-Hydraulic-Unusual Conditions

Photo No. 4

Channel degraded with undermining at the south side.

130 - PHOTO-Hydraulic-Unusual Conditions

Photo No. 5

Channel degraded with undermining at the south side.

SANTIAGO CREEK

0.2 MI W/O SILVERADO CYN 09/07/2017 [AAAK] 55C0038

107 - PHOTO-Super-Damage/Deteroration

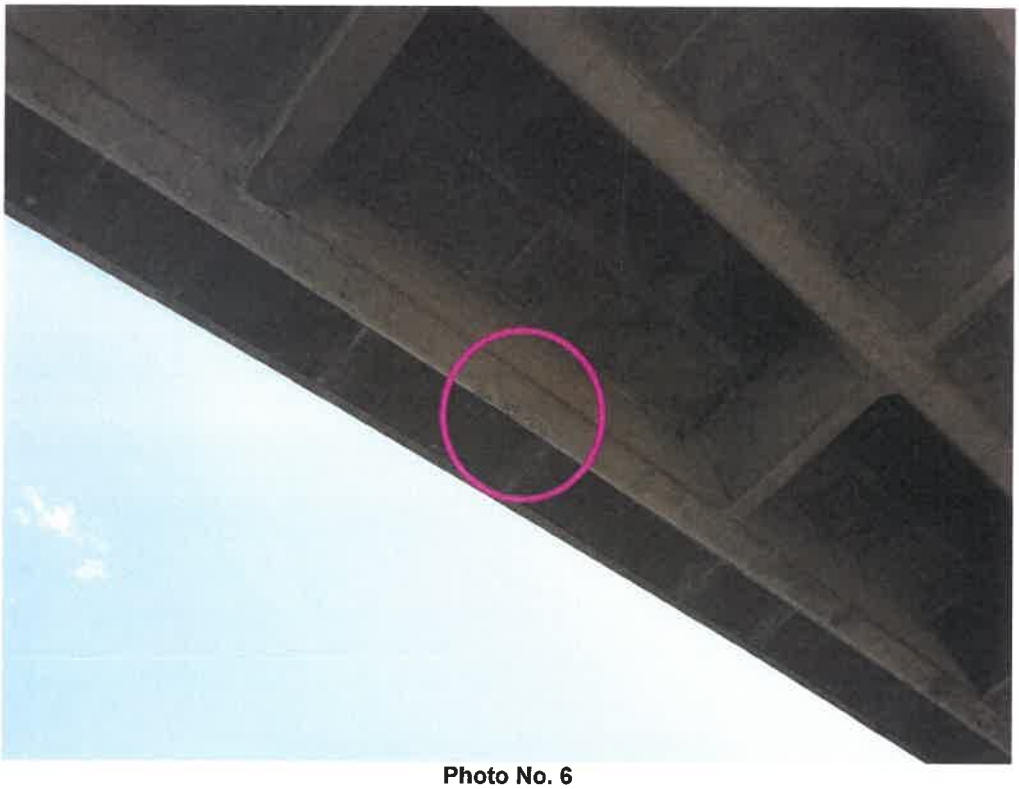

Photo No. 6

Spall at the girder 1 (north) at Span 2.

133 - PHOTO-Unclassified

Photo No. 7

Pipe attached under girder 5.

SANTIAGO CREEK

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133 - PHOTO-Unclassified

Photo No. 8

Pipe attached to the nor face of the north girder.