California Department of Transportation Division of Maintenance

Structure Maintenance and Investigations



The requested documents have been generated by BIRIS.

These documents are the property of the California Department of Transportation and should be handled in accordance with Deputy Directive 55 and the State Administrative Manual.

Records for "Confidential" bridges may only be released outside the Department of Transportation upon execution of a confidentiality agreement.

STRUCTURE RATING DATA SHEET

BRIDGE NO:	53C1744
Facility Carried :	ARTESIA BLVD
Location :	0.3MI W/O SANTA FE AVE
BRIDGE NAME:	SP/UP,COMPTON CR,ALAMEDA

LA County Br. No : 2446

Structural Elements Rated :

Multi-span Steel Plate Girder Superstructure, R/C Deck

DESIGN LOADING

Metric	CRI	TICAL LOCATION	
Tons Structure	Control Element	Load Action	Location
0.0 Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
0.0 Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
Posting US Tons			
0 Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
0 Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
0 Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
	######		
·····			
······································	4		······

PERMIT RATING

Permit Rating

P5 Split 0.00	<u> </u>	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
P7 Split 0.00	X	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
P9 Split 0.00	X	Superstructure	Girder	Désign Flexure - Steel	Span 10 - 40%
P11 Split 0.00	X	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
P13 Split 0.00	X	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%

RELEVANT LOAD RATING INFORMATION

Notes:

Load rating calculations were completed by John Lu on 06/09/2021. Bridge Inspection Report dated 06/22/2019 and field inspection of the fire damage on 04/19/2021 were used to verify the physical conditions assumed in the above referenced load rating calculations. The rating assumption is that the fire (incident occured on 12/18/2020) at Span 10 had reached 750 degrees C (1,380 degrees F) from assessment of the conditions of the damaged bridge. The concrete strength loss is estimated at 60%, reinforcing steel yield strength loss is estimated at 10% and plate girder yield strength loss is estimated at 40%. The shear connector and bottom flange of steel girders are assumed to be ineffective due to the excessive damage.

Overlay Used in Rating:	None		0122233
Rating Type:	Calculated		AND PROFESSIONAL
Rating Date:	06/09/2021		Re Re
Rating Method:	I (LF Load Factor)	Inventory (65)	
	1 (LF Load Factor)	Operating (63)	2 C77676
Control Rating By:	John Lu	1 0(00)	(* <u>6/30/21</u> *)/
Rating Checked By:	Nhan Nguyen		
Analysis Tool:	BrR 6.7.0 AASHTO		ART CIVIL OF ALLER
Rating File Location:	LA County Department of P	ublic Works, Design Division	
Summary Prepared By:	John Lu	-	paper In
Summary Date:	06/09/2021		Stamped by: John Lu 06/09/2021

Rating Results Summary Report

Name: SP/UP,COMPTON CR,ALAMEDA Struct-Def: Bridge Span Ten (Fire Damage 2020)

Bridge ID: 53C1744 Member: G2

NBI: 53C1744 Member Alt: Girder 56-5 (Interior Girder)

TypeTypeTevent LaneLevel(Ton)ratify Factor (f_1) Span- (S_1) Limit StateLaneLEPInventory0.000.00018.92 (-40.0) Design Flexure - SteelAsLaneLEPDerating0.000.00018.92 (-40.0) Design Flexure - SteelAsAxle LoadLFDOperating0.000.00018.92 (-40.0) Design Flexure - SteelAsAxle LoadLFDOperating0.000.0018.92 (-40.0) Design Flexure - SteelAs<	l ive Load	Live Load	Pating Mathod Rating	Load Rating	Dotine Conter	ocation	Location		-	
Lane LFD Inventory 0.00 0.000 18.92 $I - (40.0)$ $I - (40.0)$ Lane LED Inventory 0.00 0.000 18.92 $I - (40.0)$ $I - (40.0)$ Axie Load LFD Operating 0.00 0.000 18.92 $I - (40.0)$ $I - (40.0)$ Axie Load LFD Operating 0.00 0.000 18.92 $I - (40.0)$ $I - (40.0)$ Axie Load LFD Operating 0.00 0.000 18.92 $I - (40.0)$ $I - (40.0)$ Axie Load LFD Operating 0.00 0.000 18.92 $I - (40.0)$		Type	Level Level	(Ton)	Raing racion	(H)	Span-(%)	LIMIT State	Impact	Lane
Lane LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Inventory 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 1 -	HS 20-44	Lane	LFD	00.00	0.000	18.92	_	Design Flexure - Steel	As Requested	As Requested
Axte Load LFD Inventory 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1. (40.	HS 20-44	Lane		-	0.000	18.92	1 - (40.0)	Design Flexure - Steel	As Requested	As Requested
Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.00 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.00 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.00 18.92 1	HS 20-44	Axle Load		-	0.000	18.92	1 - (40.0)	Design Flexure - Steel	As Requested	As Requested
Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1. (40.	HS 20-44	Axle Load	-		0.000	18.92	1 - (40.0)	Design Flexure - Steel	As Requested	As Requested
Axle Load LFD Operating 0.00 0.000 18.92 1 (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 (40.0) Axle Load LFD Operating 0.00 0.000 18.92 (40.0) Axle Load LFD Operating 0.00 0.000 18.92 (40.0) Axle Load LFD Operating 0.00 0.000 18.92 (-(40.0) Axle Load LFD Operating 0.00 0.000 18.92 (-(40.0) Axle Load LFD Operating 0.00 0.000 18.92 (-(40.0) Axle Load LFD Operating 0.00 0.000 18.92 (- (40.0) Axle Load LFD Operating 0.00 0.000 18.92 (- (40.0) Axle Load LFD Operating 0.00	Type 3	Axle Load	-		0.000	18.92	\sim	Design Flexure - Steel	As Requested	As Requested
Axie Load LFD Operating 0.00 0.000 18.92 1 (.40.0) Axie Load LFD Operating 0.00 0.000 18.92 (.40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 (.40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 (.40.0) 1 Axie Load LFD Operating 0.00 0.000 18.92 (.40.0) 1 1 (.40.0) 1 1 (.40.0) 1 1 (.40.0) 1	Type 3S2	Axle Load			0.000	18.92	\sim	Design Flexure - Steel	As Requested	As Requested
Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92 - (.40.0) Axle Load LFD Operating 0.00 0.000 18.92	Type 3-3	Axle Load			0.000	18.92		Design Flexure - Steel	As Requested	As Requested
Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92 - (40.0) Axte Load LFD Operating 0.00 0.000 18.92	P05	Axle Load			0.000	18.92 O	ī	Design Flexure - Steel	As Requested	As Requested
Axte Load LFD Operating 0.00 0.000 18.92 O (40.0) N Axte Load LFD Operating 0.00 0.000 18.92 (-40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 (-40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1<-(40.0)	P07	Axle Load			0.000	18.92	1.	Design Flexure - Steel	As Requested	As Requested
Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0)	P09	Axle Load			0.000	18.92 a	1 - (40.0)	Design Flexure - Steel	As Requested	As Requested
Axte Load LFD Operating 0.00 0.000 18.92 1<(40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1<(40.0)	P11	Axle Load	-		0.000	18.92	- (40.0)	Design Flexure - Steel	As Requested	As Requested
Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1 Axte Load LFD Operating 0.00 0.000 18.92 1 (40.0) 1	P13	Axle Load	_		0000	18.92	1 - (40.0)	Design Flexure - Steel	As Requested	As Requested
Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 2 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 2 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0)	NRL	Axle Load			0000	18.92	1 - (40.0)	Design Flexure - Steel	As Requested	As Requested
Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 2 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) /2 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0)	SU4	Axle Load	LFD Operating		0.000	18.92		Design Flexure - Steel	As Requested	As Reguested
Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 /2 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 /3 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1	SU5	Axle Load	LFD Operating		0.000	18.92	1 - (40.0)	Design Flexure - Steel	As Requested	As Requested
Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 /2 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 /3 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1	SU6	Axle Load	LFD Operating		0.000	18.92	- (40.0)	Design Flexure - Steel	As Requested	As Requested
ZVZ Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1 ZV3 Axle Load LFD Operating 0.00 0.000 18.92 1 - (40.0) 1	SU7	Axle Load	LFD Operating		0.000	18.92	- (40.0)	Design Flexure - Steel	As Requested	As Requested
EV3 Axle Load LFD Operating 0.00 0.000 18.92 ♥1 - (40.0) Design	Type EV2	Axle Load	LFD Operating		0.00	18.92	- (40.0)	Design Flexure - Steel	As Requested	As Requested
	Type EV3	Axle Load	LFD Operating	00.0	0.000	18.92	1 - (40.0)	Design Flexure - Steel	As Requested	As Requested

Note:

estimated at 10% and plate girder yield strength loss is estimated at 40%. The shear connector and bottom flange of steel girders are assumed to assessment of the conditions of the damaged bridge. The concrete strength loss is estimated at 60%, reinforcing steel yield strength loss is The rating assumption is that the fire (incident occurred on 12/18/2020) at Span 10 had reached 750 degrees C (1,380 degrees F) from be ineffective due to the excessive damage.



AASHTO LFR Engine Version 6.7.0.3001 Analysis Preference Setting: None Analysis Time: 06/09/2021 07:51:13 Print Time: 06/09/2021 08:14:03

BRIDGE INSPECTION REPORT Routine Inspection

BRIDGE NO.: STRUCTURE NAME: 53C1744 (2446) SP/UP,COMPTON CR,ALAME

INSPECTION DATE: June 8, 2021

DRIDGE LOCATION IN	FURIMATION				
(9) LOCATION	0.3MI W/O SANTA FE AVE				ARTESIA BLVD
(11) POSTMILE	• 0	(6) FEATURE INT	ERSECTED	UPRR.COMPTO	ON CR,ALAMEDA
(16) LATITUDE	33°52'26.61"	(5) INVENTORY F	RTE(ON/UNDER)	ON	15000000
(17) LONGITUDE	118°13'07.19"	(104) ON NATIONAL	- HIGHWAY SYSTEM		NOT ON NHS
STRUCTURAL HEALTH	CONDITION SUMMARY IN	FORMATION			
(58) DECK		4 POOR	DECK AREA (M) ²		7,429
(59) SUPERSTRUCTURE		5 FAIR	SUFFICIENCY RATING		16.0
					10.0

(30) DECK	4 POOR	DECK AREA (M) ²				7,429
(59) SUPERSTRUCTURE	5 FAIR	SUFFICIENCY RATIN	٧G			16.0
(60) SUBSTRUCTURE	7 GOOD	PAINT CONDITION	SUPER	N/A	SUBSTR	N/A
(62) CULVERT	N N/A (NBI)					
(67) STRUCTURE EVALUATION	2 INTOLERABLE - REPLACE					50
	2 INTOLENABLE - NEFLAGE	(113) 3000R		STAL	BLE W/IN	FOOTING

PHOTOGRAPH IDENTIFICATION

Public Works



Routine-Roadway View (05/18/2021)



Routine-Elevation View (05/18/2021)



Routine-Underside View (05/18/2021)



Routine-Map View (07/01/2021)

TEAM LEADER	Wein N. Chu	
REPORT AUTHOR	Wein N. Chu	
INSPECTED BY	WN.Chu/MY.Chow	
	Wein Ngoon Chu	11/16/2021
Wein N. Chu (Re	gistered Civil Engineer)	Date



Printed on: Tuesday 11/16/2021 02:31 PM

Page 1 of 11 53C1744/AAAD/69893

STRUCTURE OVERVIEW

AGENCY INFORMATION			INSPECTION INFORMATIC	N		
(1) STATE NAME	CALIFORI	VIA 069	(90) INSPECTION DATE	06/21 (9 *	1) FREQUENCY	24 MO
(2) HIGHWAY DISTRICT		07	(92) CRITICAL FEATURE INSPEC	CTION	(93)	CFI DATE
(3) COUNTY CODE	(53)LOS A	NGELES	A) FRACTURE CRITICAL INSP	N-NO	MO A)	N/A
(4) PLACE CODE	(15044) CC	MPTON	B) UNDERWATER INSP	N-NO	MO B)	N/A
(21) MAINTAIN	04 CITY OR MUNIC	CIPAL HI	C) OTHER SPECIAL INSP	N-NO	MO C)	N/A
(22) OWNER	04 CITY OR MUNIC	CIPAL HI	% Ownership Owner/Ager	су		
(98) BORDER BRIDGE STATE CODE	N/A % SHARE	N/A	100% City of Com	oton		
(99) BORDER BRIDGE STRUCTURE I	NUMBER	N/A				

CONSTRUCTION INFORMATION

	ORIGINATION				
(27) YEAR BUILT	1956	(45) MAIN SPANS	10	(43a) STRUCTURE TYPE MAIN	3: STEEL
(106) YEAR MODIFIED	N/A	(46) APPR SPANS	0	(43b) DESIGN TYPE MAIN	02: STRINGER/MULTI-BEAM
(34) SKEW	99	(48) MAX SPAN (M)	27.4	(44a) STRUCTURE TYPE APPR	
(49) LENGTH (M)	219.8	(35) STR FLARE	0-NO	(44b) DESIGN TYPE APPR	00: OTHER/NOT APPLICABLE
(112) NBIS BR LENGTH	Y	JOINTS	11	NO. OF HINGES	0

STRUCTURE DESCRIPTION

Composite RC deck and steel girders on (3) five column RC bents, (2) six column bents, (2) two column bents, 2 RC piers and RC seat abutments on steel H-piles.

SPAN CONFIGURATION

(W) 64 ft, 3 @ 84 ft, 80 ft, 55 ft, 48 ft, 90 ft, 80 ft, 50 ft (E)

OPERATIONAL INFORMATION

LOAD CAPACITY

(31) DESIGN LOAD	5 MS 18 (HS 20)	(65) CALC METHOD	1 LF LOAD FACTOR
(66) INVENTORY RATING	RF=0.00 =>0.0 metric tons	(63) CALC METHOD	1 LF LOAD FACTOR
(64) OPERATING RATING	RF=0.00 =>0.0 metric tons	(70) BRIDGE POSTING	5 AT/ABOVE LEGAL LOADS
(41) STRUCTURE STATUS	A-OPEN, NO RESTRICTION	PERMIT RATING	XXXXX
OVERLAY THICKNESS	0 inches	4	

Additional Ord

POSTING LOADS

	Safe Loads	Existing Ordinance/Order	Posting Signs	
Туре 3	0	0	0	U.S. Tons
Type 3S2	0	0	0	U.S. Tons
Туре 3-3	0	0	0	U.S. Tons
Speed	45			MPH

Posting Order Date	
Load Rating Summary Dat	te 06/09/21
Load Rating Type	Calculated
Load Rating Tool - Date	BrR 6.7.0 AASHTO - 06/09/21

NONE	IS
Additional Signa	
Additional Signs	
NONE	

MINIMUM VERTICAL CLEARANCE MINIMUM LATERAL UNDERCLEARANCE (53) MIN VERT CLEAR OVER BRIDGE RDWY Unimpaired (55) MIN LAT UNDERCLEAR RT REF H-HIGHWAY 2.0 M (54) MIN VERT UNDERCLEAR REF H-HIGHWAY 6.68 M (56) MIN LAT UNDERCLEAR LT 0.0 M

CONDITION INFORMATION

NSPECTION COMMENTARY

SCOPE AND ACCESS

The roadway portion of the bridge was inspected on foot. There was a moderate amount of water in the waterway on the date of inspection. Transient encampments have hindered the inspection of spans 5-7, and 10.

CONDITION INFORMATION

INSPECTION COMMENTARY

REVISIONS

Item #115, Year of Future ADT, has been updated from 2039 to 2041.

SAFE LOAD CAPACITY

A Load Rating Summary Sheet dated 08/25/15 is on file for this structure. While this report does not include a check of that analysis, it does verify that the structural conditions observed during this inspection are consistent with those assumed in that analysis.

RECOMMENDATIONS Shot blast the concrete deck surface and apply methacrylate sealant. Repair spalls and delaminations. Repair the bridge rails. Clean the expansion joints and replace the sealant. Replace south half of bridge deck in span 10, between pier 10 and east abutment. Replace fire damaged steel girder. Repair slope protecting east abutment. Clear the deck drains.

Repair approach sidewalks.

SPECIAL INSPECTION INFORMATION

STEEL INVESTIGATION DETAILS - NOT APPLICABLE FOR THIS BRIDGE.

UNDERWATER INVESTIGATION DETAILS - NOT APPLICABLE FOR THIS BRIDGE.

DECK AND ROADWAY

DECK CROSS SECTION

(S) 1.3 ft br, 5.3 ft sw, 35 ft (2 lanes), 10 ft med, 35 ft (2 lanes), 5 ft sw, 1.3 ft br (N) Alameda (S) 1.3 ft br, 5.3 ft sw, 42.8 ft (2 lanes), 18.5 ft med, 42.8 ft (2 lanes), 5.ft sw, 1.3 ft br (N) Artesia

DECK GEOMETRY

(49)	LENGTH		219.8 M
(51)	NET WIDTH		24.4 M
(52)	TOTAL WIDTH		33.8 M
(50)	CURB OR SIDEWALK	LEFT 1.6 M RIC	GHT 1.6 M
(32)	APPROACH RDWY WIDTH		31.7 M
(33)	BRIDGE MEDIAN	2 CLOSED MED W/O	BARRIER
DECK	STRUCTURE INFORMAT	TION	
(107)	DECK STRUCTURE TYPE	1-CIP CC	NCRETE
(108)	WEARING SURFACE / PROTEC	TIVE SYSTEM	
A)	TYPE OF WEARING SURFACE		0-NONE
B)	TYPE OF MEMBRANE		0-NONE
C)	TYPE OF DECK PROTECTION		0-NONE
	OVERLAY THICKNESS (inches)		0 inches
(29)	AVERAGE DAILY TRAFFIC		25440
(30)	YEAR OF ADT 2012	(109) TRUCK ADT %	7 %
(19)	BYPASS, DETOUR LENGTH		8 KM
(114)	FUTURE ADT		30528
(115)	YEAR OF FUTURE ADT		2041
(37)	HISTORICAL SIGNIFICANCE	5: NOT ELIGIBLE F	OR NRHP

DECK ROADWAY/OPERATIONAL INFORMATION

(42a)	TYPE OF SERVICE	5-HIGHWAY-PEDESTRIAN
(12)	BASE HIGHWAY NETWORK	0-NOT ON NET
(13)	LRS INVENTORY RTE & SU	BRTE
(104)	NATIONAL HIGHWAY SYST	EM 0-NOT ON NHS
(26)	FUNCTIONAL CLASS 16	5-MINOR ARTERIAL URBAN
(100)	DEFÉNSE HIGHWAY	0-NOT STRAHNET
(101)	PARALLEL STRUCTURE	N-NONE EXISTS
(102)	DIRECTION OF TRAFFIC	2-2 WAY
(10)	INVENTORY ROUTE MIN VE	ERT CLEAR 30.47 M
(47)	INVENTORY ROUTE TOTAL	HORIZ CLEAR 12.2 M
(68)	DECK GEOMETRY	9 ABOVE DESIRABLE CRIT
(72)	APPR ROADWAY ALIGN	8 EQUAL DESIRABLE CRIT
(105)	FEDERAL LANDS HWY	0-NOT APPLICABLE
(110)	DESIGNATED NATIONAL N	ETWORK 0-NOT ON NET
(20)	TOLL	3-ON FREE ROAD
(28a)	LANES	4
	SPEED	45
(103)	TEMPORARY STRUCTURE	N/A

DECK ELEMENT INSPECTION RATINGS AND NOTES

Elem No.	Defect/ Prot	Defect	Element Description	E	nv	Total Qty	Units			ondition St	
						Qty		CS 1	CS 2	CS 3	CS 4
12			Deck-RC	2	2	7429	sq.m	0	441	6988	0
	1080		Delamination/Spall/Patched Area	2	2	5		0	0	5	0
	1120		Efflorescence/Rust Staining	2	2	1		0	1	0	0

Printed on: Tuesday 11/16/2021 02:31 PM

Page 3 of 11

53C1744/AAAD/69893

(58) DECK RATING = 4

Los Angeles	County	Public	Works
-------------	--------	--------	-------

DECK ELEMENT INSPECTION RATINGS AND NOTES

DE	CKE	LEME	NT IN	SPECTION RATINGS AND NOTES				(S. 1	(58) DECK	RATING =	4
	Elem No.	Defect/ Prot	Defect	Element Description	Env	· otai	Units	Qt	y in each C	Condition St	tate
–	110.	FIOL	Delect			Qty		CS 1	CS 2	CS 3	CS 4
		1130		Cracking (RC and Other)	2	7423		0	440	6983	0

(12) Deck-RC

Many scupper drains along the deck surface are plugged with debris. (06/10/2003). (Verified 06/08/2021)

Fire damaged the steel girders in span 10, between pier 10 and east abutment and caused the south half of bride deck bulkled up to 2.5 inches. (04/19/2020)(Verified 06/08/2021)

(12-1080) Delamination/Spall/Patched Area

Spalls up to 8 inches in diameter were found in the deck surface near abutment 1 along westbound lanes. (03/21/2001) (Verified 06/08/2021)

Several areas of delamination and spalling up to 6 inches in diameter were found along the exterior edge of the north and south sidewalks. The spalls are over traffic lanes of Alameda Street. (04/07/1999) (Verified 06/08/2021)

Spalls up to 4 inches in diameter with exposed rebar were found along the curbs. The spalls appear to be caused by insufficient cover of the rebar. (01/29/1990) (Verified 06/08/2021)

(12-1120) Efflorescence/Rust Staining

Hairline cracks with efflorescence exist in random locations along the deck soffit. (05/04/2011) (Verified 06/08/2021)

(12-1130) Cracking (RC and Other)

Transverse cracks up to 0.07 inches wide were found along the deck surface. (05/04/2011) (Verified 06/08/2021)

DECK ELEMENT INSPECTION RATINGS AND NOTES



Photo 3 Deck Cracking



Photo 5 Deck Spalls and Cracking



Photo 9 Displacement at SE Approach Sidewalk



Photo 16 Buckling of Roadway

JOINT - APPROACH - RAIL RAIL INFORMATION

(36a) Rail Code	0	(36b) Transition	0	(36c) Appr Guardrail	0	(36d) Appr Guardrail End	0	Roadway Speed 45 MPH
-----------------	---	------------------	---	----------------------	---	--------------------------	---	----------------------

Elem No.	Defect/ Prot Defe	Element Description	Env	Total	Units	Qt	y in each C	ondition St	tate
NU.	FIOL DER			Qty		CS 1	CS 2	CS 3	CS 4
301		Joint-Pourable Seal	2	271	m	0	0	0	271
	2310	Leakage (Joints)	2	271		0	0	0	271
301-23	310) Leakag	e (Joints)							
The	e pourable jo	oint seal has failed and large sections of	the seal are missing	g. (05/04	4/2011) (Verified (06/08/202	1)	
302		Joint-Compression Seal	2	157	m	57	9	56	35
	2320	Seal Adhesion (Joints)	2	91		0	0	56	35
	2340	Seal Cracking (Joints)	2	9		0	9	0	0
	7000	Damage	2	35		0	0	0	35
The	ere is adhesi	lhesion (Joints) on failure in random locations along the nesion failure along all of the compressio							

Elem Defect/ No. Prot De	Element Description	Env	Total	Units	Qt	y in each C	ondition S	tate
			Qty		CS 1	CS 2	CS 3	CS 4
Cracking alon	Cracking (Joints) g the compression joint seal was observ Verified 06/08/2021)	ved. The affected are	a is app	roximate	ly 9 linea	I meters.		
302-7000) Dama Compression	ge joint seal in east abutment were damag	ed by fire. (04/19/202	21)(Verif	ied 06/08	3/2021)			
330	Railing-Metal	2	455	m	0	415	34	6
1000	Corrosion	2	439		0	415	24	0
1900	Distortion	2	16		0	0	10	6
7000	Damage	2	16		0	0	10	6
330-1900) Distor Five balusters been made. (0	are missing from the south metal rail ne 05/04/2011) (Verified 06/08/2021) 1 inch balusters missing form the rial at							

ŧ

JOINT - APPROACH - RAIL JOINT/RAIL PHOTOGRAPHS



Photo 4 Joint Spalls



Photo 6 Missing Joint Seal



Photo 7 Damage Section of Bridge Rail



Photo 8 Missing Balusters



Photo 17 Burned Expansion Joint

SUPERSTRUCTURE

UPERSTRUCTURE ELEMENT INSPECTION RATING	AND NOTES		(!	59) SUPER	RSTRUCT	JRE RATI	NG = 5
Elem Defect/ Element Description	Env	i otal	Units	Qty in each Condition State			
No. That Delect		Qty		CS 1	CS 2	CS 3	CS 4

Printed on: Tuesday 11/16/2021 02:31 PM

SUPERSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES (59) SUPERSTRUCTURE RATING = 5 Elem Defect/ **Element Description** Env Total Units Qty in each Condition State Prot Defect No. Qty CS 1 CS 2 CS 3 CS4 107 Girder/Beam-Steel 2 2418 2332 m 0 0 86 1900 Distortion 2 86 0 0 0 86 515 Steel Coating-Paint 2 7933 sq.m 0 7812 0 121 3440 Effectiveness (Steel PC) 2 7933 0 7812 0 121 (107-1900) Distortion In late October of 2018 there was a fire in span 6. There is approximately 11 lineal meters of distortion along the fifth steel girder from the south. The distortion occurred along the east end of the girder near pier 7; there was no visual distortion at girders four and six. The distortion includes lateral curving of the lower flange and bulging, in a southward direction, of the girder web between stiffeners. The web stiffeners appear to have maintained the vertical dimension of the girder. (1/9/2019) 12-18-2020 fire damaged covered whole area under span 10, between pier 10 and east abutment. The fire distorted the all the girders except girder 11 (South end). The distortion includes lateral curving of the lower flange and bulging of the girder web between stiffeners. The web stiffeners appear to have maintained the vertical dimension of most of the girder. Up to 10¿ of girder web were bulging in girder 1, 2, 3, 4, 5, 7, 8, 9, and 10 were observed. 7¿ to more than 20¿ of distortion in lower flange of girder 3, 4, 5, 6, 7, 8, 9, and 10 were observed. (04/19/2021)(Verified 06/08/2021) (107-515-3440) Effectiveness (Steel PC) The paint system has faded with the area affected by the recent fire burned down to bare metal. (01/09/2019)(Verified 06/08/2021) EQ Restrainer Cable-Other 182 2 20 ea. 20 0 0 0 (182) EQ Restrainer Cable-Other No significant issues were observed. 311 **Bearing-Moveable** 2 110 each 110 0 0 0 (311) Bearing-Moveable No significant issues were obseved 313 **Bearing-Fixed** 2 110 each 110 0 0 0 (313) Bearing-Fixed No significant issues were obseved.

SUBSTRUCTURE

SUPERSTRUCTURE

DESCRIPTION UNDER STRUCTURE

(42b) TYPE OF SERVICE UNDER	3-HIGHWAY-WATERWAY-RAILRO	(38) NAVIGATION CONTROL	0: NO CONTROL
(69) UNDERCLEARANCES V - H	4 TOLERABLE	(111) PIER PROTECTION	N/A
(71) WATER ADEQUACY	8 EQUAL DESIRABLE	(39) NAVIGATION VERTICAL CLEARANCE	0.0 M
(61) CHANNEL PROTECTION	8 PROTECTED	(116) VERT-LIFT BRIDGE NAV MIN VERTICAL	CLEAR M
(113) SCOUR	5 STABLE W/IN FOOTING	(40) NAVIGATION HORIZONTAL CLEARANC	E 0.0 M
SCOUR POA DATE	N/A		

CHANNEL DESCRIPTION

Trapezoidal channel with RC sides and natural bottom.

ROADWAY DESCRIPTION UNDER STRUCTURE

SUBSTRUCTURE

ROADWAY DESCRIPTION UNDER STRUCTURE

(102) DIRECTION TRAFFIC	2 2-WAY TRAFFIC	(109) TRUCK % ADT	7	
(19) DETOUR LENGTH	7.99	(29) RECENT ADT	10300 (30) ADT YEAR	2012
(47) HORIZONTAL CLEAR (m)	26.50	(28b) LANES	4	
(10) VERTICAL CLEAR (m)	6.68	(20) TOLL FACILITY	3 ON FREI	EROAD
(5c) LEVEL SERVICE	0 NONE OF THE BELOW	(110) NATIONAL TRUCK NETWORK	0 NOT PART OF NATL	NETWO
(5b) KIND HIGHWAY	5 CITY STREET	(100) DEFENSE HWY	0 NOT DE	EF HWY
(11) POST MILE	0	(26) FUNCTIONAL CLASS	14 URBAN OTHER	RPRINC
(5d) ROUTE	00000	(104) NATIONAL HIGHWAY SYSTEM		1-NHS
ROADWAY NAME:	COMPTON CR	NBI UNDER RECORD		
(5a) POSITION:	2 ONE ROUTE UNDER			

SUBSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES (60) SUBSTRUCTURE RATING = 7

Elem Defect/ No. Prot Defect	Element Description	Env	Total	Units	Qty	in each C	ondition S	ate
NO. PIOL Delec			Qty		CS 1	CS 2	CS 3	CS 4
210	Pier Wall-RC	2	245	m	245	0	0	0
210) Pier Wall-RC No significant issue There were fire bu	es were obseved. rned marks on east face of Pier 10 wall	l. No other defect w	ere obse	erved (0	4/19/ <mark>2</mark> 021)		
215	Abutment-RC	2	70	m	70	0	0	0
215) Abutment-RC No significant issue There were fire but		defect were observ	/ed. (04/	/19/2021)			
225	Pile-Steel	2	1	ea.	1	0	0	0
225) Pile-Steel The pile element is indication of pile di	included to indicate the presence of pi stress was noted in any substructure el	les on this structure	. The p	iles <mark>w</mark> ere	e not expo	sed for v	isual insp	ection. N
234	Pier Cap-RC	2	245	m	212	24	9	0
1080	Delamination/Spall/Patched Area	2	33		0	24	9	0
234) Pier Cap-RC								
No signigicant issu 234-1080) Delamin	es were observed. ation/Spall/Patched Area							
	ent of east face pier cap was covered w	ith facial spalls. Als	o there	were tw	o large en	alls on lo	wer edge	ofpioro

SUBSTRUCTURE PHOTOGRAPHS



Distorted Lower Flanges and Girder Bracings

Printed on: Tuesday 11/16/2021 02:31 PM

OTHER PHOTOGRAPHS



Photo 2 Roadway Photo



Photo 10 Elevation View from North



Photo 11 Elevation From South



Photo 12 Underside Photo



Photo 13 East Abutment Fire Site



Photo 14 Remains of Burned Trashes

WORK RECOMMENDATIONS DECK WORK RECOMMENDATIONS Rec Date 06/08/2021 Work By LOCAL AGENCY Est Cost Dist Target Status Action PROPOSED **Deck-Patch spalls** Str Target EA 2 YEARS Repair spalls and delaminations. Rec Date 06/08/2021 Work By LOCAL AGENCY Est Cost Dist Target Status Action PROPOSED Deck-Misc. EA Str Target 6 MONTHS Repair approach sidewalks. Rec Date 06/08/2021 Work By LOCAL AGENCY Est Cost **Dist Target** PROPOSED Status Action Deck-Methacrylate Str Target 2 YEARS EA Shot blast the concrete deck surface and apply methacrylate sealant. Rec Date 04/19/2021 Work By LOCAL AGENCY Est Cost Dist Target Status PROPOSED Action Deck-Replace EA Str Target 2 YEARS Replace south half of bridge deck in span 10, between pier 10 and east abutment. JOINT/APPR/RAIL WORK RECOMMENDATIONS Rec Date 06/08/2021 Work By LOCAL AGENCY Est Cost Dist Target Status PROPOSED Action Railing-Repair Str Target 2 YEARS ΕA Repair the bridge rails. Rec Date 06/08/2021 Work By LOCAL AGENCY Est Cost Dist Target Status PROPOSED Action Joints-Replace Str Target 2 YEARS ΕA Clean the expansion joints and replace the sealant. SUPERSTRUCTURE WORK RECOMMENDATIONS Rec Date 04/19/2021 Work By LOCAL AGENCY Est Cost Dist Target Status PROPOSED Action Super-Replace Str Target 2 YEARS ΕA Replace damaged girders (girder #1, 2, 3, 4, 5, 6, 7, 8, 9, 10) in span 10, between pier 10 and east abutment, SUBSTRUCTURE WORK RECOMMENDATIONS Rec Date 04/19/2021 Work By LOCAL AGENCY Est Cost Dist Target Status PROPOSED Action Sub-Misc. Str Target 2 YEARS ΕA Repair slope protecting east abutment. **OTHER WORK RECOMMENDATIONS**

Re	ec Date	06/08/2021	Work By	LOCAL AGENCY	Est Cost		Dist Target
St	atus	PROPOSED	Action	Drainage Issue	Str Target	2 YEARS	EA
C	lean the	deck drains.					



Roadway Photo



Deck Cracking

53C1744 SP. ., COMPTON CR, ALAMEDA 0.3MI W/O SANTA FE AVE 124 - Joint-Damage/Deterioration

May ..., 2021 [AAAD]



Joint Spalls

102 - Deck-Damage/Deterioration



Deck Spalls and Cracking



Missing Joint Seal



Damage Section of Bridge Rail



Missing Balusters

May 10, 2021 [AAAD]

53C1744 SP, ., COMPTON CR, ALAMEDA 0.3MI W/O SANTA FE AVE 105 - Deck-Misc



Photo #9

Displacement at SE Approach Sidewalk



Elevation View from North



Elevation From South





East Abutment Fire Site



Remains of Burned Trashes



Distorted Lower Flanges and Girder Bracings





Burned Expansion Joint



BRIDGE INSPECTION REPORT Fire Damage Inspection

BRIDGE NO .:	STRUCTURE NAME:
53C1744 (2446)	SP/UP,COMPTON CR,ALAMEDA

INSPECTION DATE: April 19, 2021

BRIDGE LOCATION INFORMATION

(9) LOCATION	0.3MI W/O SANTA FE AVE	(7) FACILITY CARRIED		ARTESIA BLVD	
(11) POSTMILE	0	(6) FEATURE INTERSECTED	UPRR,COM	PTON CR, ALAMEDA	
(16) LATITUDE	<mark>33°52'26.61</mark> "	(5) INVENTORY RTE(ON/UNDER)	ON	15000000	
(17) LONGITUDE	118°13'07.19"	(104) ON NATIONAL HIGHWAY SYSTEM		NOT ON NHS	
STRUCTURAL HEALTH CONDITION SUMMARY INFORMATION					

(58) DECK	4 POOR	DECK AREA (SF)	7,429
(59) SUPERSTRUCTURE	5 FAIR	SUFFICIENCY RATING	A
(60) SUBSTRUCTURE			37.8
	7 GOOD	PAINT CONDITION SUPER N/A	SUBSTR N/A
(62) CULVERT	N N/A (NBI)	STRUCTURALLY DEFICIENT (SD) STA	TUS SD
(67) STRUCTURE EVALUATION	2 INTOLERABLE - REPLACE (113	3) SCOUR 5 STAE	BLE W/IN FOOTING

PHOTOGRAPH IDENTIFICATION



Routine-Roadway View (12/15/2016)



Routine-Elevation View (06/26/2019)



Routine-Underside View (04/19/2021)



Routine-Map View (07/01/2021)





Printed on. Thursday 07/01/2021 12:53 PM

Page 1 of 12

53C1744/AAAC/67925

AGENCY INFORMATION				NSPECTION INFORMATIO	N		
(1) STATE NAME		CALIFORNIA	069	(90) INSPECTION DATE	06/19 (91) FRE	QUENCY 2	4 MO
(2) HIGHWAY DISTRICT			07	(92) CRITICAL FEATURE INSPEC	TION	(93) CF	I DATE
(3) COUNTY CODE		(53)LOS ANG	ELES	A) FRACTURE CRITICAL INSP	N-NO	MO A)	N/A
(4) PLACE CODE		(15044) COMF	PTON	B) UNDERWATER INSP	N-NO	MO B)	N/A
(21) MAINTAIN	C	4 CITY OR MUNICIP	AL HI	C) OTHER SPECIAL INSP	N-NO	MO C)	N/A
(22) OWNER	C	4 CITY OR MUNICIP	AL HI	% Ownership Owner/Agen	су		
(98) BORDER BRIDGE STAT	ECODE	N/A % SHARE	N/A	100% City of Comp	ton		
(99) BORDER BRIDGE STRU	CTURE NU	IMBER	N/A				
CONSTRUCTION INFORM	NATION					9.4 Co.4 L.	A. 20-
(27) YEAR BUILT	1956	(45) MAIN SPANS	10	(43a) STRUCTURE TYPE MAIN		3: 3	STEEL
(106) YEAR MODIFIED	N/A	(46) APPR SPANS	0	(43b) DESIGN TYPE MAIN	02: STRING	ER/MULTI-	BEAM
(34) SKEW	99	(48) MAX SPAN (M)	27.4	(44a) STRUCTURE TYPE APPR			
(49) LENGTH (M)	219.8	(35) STR FLARE	0-NO	(44b) DESIGN TYPE APPR	00: OTHER/N		

11

NO. OF HINGES

STRUCTURE DESCRIPTION

SPAN CONFIGURATION

(112) NBIS BR LENGTH

OPERATIONAL	INFORMATION
LOAD CAPACITY	77 15° 11' 14' 18' 18' 1

TRUCTURE OVERVIEW

ACENCY INCODMATION

LOAD CAFACITY			
(31) DESIGN LOAD	5 MS 18 (HS 20)	(65) CALC METHOD	1 LF LOAD FACTOR
(66) INVENTORY RATING	RF=0.00 =>0.0 metric tons	(63) CALC METHOD	1 LF LOAD FACTOR
(64) OPERATING RATING	RF=0.00 =>0.0 metric tons	(70) BRIDGE POSTING	5 AT/ABOVE LEGAL LOADS
(41) STRUCTURE STATUS	A-OPEN, NO RESTRICTION	PERMIT RATING	XXXXX
OVERLAY THICKNESS	0 inches	1	

NONE

Additional Signs NONE

POSTING LOADS

Safe Loads	Existing Ordinance/Order	Posting Signs	
0	N/A	N/A	U.S. Tons
0	N/A	N/A	U.S. Tons
0	N/A	N/A	U.S. Tons
45	N/A	N/A	MPH
	Loads 0 0 0	Loads Ordinance/Order 0 N/A 0 N/A 0 N/A	Loads Ordinance/Order Signs 0 N/A N/A 0 N/A N/A 0 N/A N/A 0 N/A N/A

Y

JOINTS

Posting Date N/A Load Rating Summary Date 06/09/21 Load Rating Type Calculated Load Rating Tool - Date BrR 6.7.0 AASHTO - 06/09/21

MINIMUM VERTICAL CLEARANCE

(53) MIN VERT CLEAR OVER BRIDGE RDWY	Ur	nimpaired
(54) MIN VERT UNDERCLEAR REF	H-HIGHWAY	6.68 M

	MINIMUM LATERAL UNDERCLE	ARANCE
d	(55) MIN LAT UNDERCLEAR RT REF	H-HIGHWAY

(56) MIN LAT UNDERCLEAR LT

Additional Ordinance/Order Requirements

CONDITION INFORMATION

INSPECTION COMMENTARY

FIRE DAMAGE REPORT (4/19/2021)

A fire occurred on 12-18-2020 at a Transient camp under east abutment of Artesia Boulevard bridge. Shaoli Xu of Design Division showed up at the site and requested to the City of Compton that the area be cleared of all debris and made safe for inspection.

2.0 M

0.0 M

0

CONDITION INFORMATION

INSPECTION COMMENTARY

On morning of 4-19-2021 Design Division (DES) was notified that the area had been cleaned. Around 11 am same day, the inspection of the burn area was conducted by Wein Chu (DES) with the assistance of Mi Chow. Also present were John Lu (DES) for Structural Analysis, Stuart Lillich and Damian Padilla of Road Maintenance Division (RMD) to assess the damages and to prepare the plans for repair. Shaoli Xu (DES) and Richard Dergazarian (DES) were assisting all three groups in collecting data, taking measurements and pictures of the fire damages.

The fire damaged covered whole area under span 10, between pier 10 and abutment 11. Discoloration of all of steel members and concrete deck soffit, distortions of the diaphragm and girder were clearly visible with heavy spalling of the east face of pier cap and minimal spalling in deck soffit. Spalling of the haunch along the top flange of the girders were also observed.

The fire distorted the all the girders except girder 11 (South end). The distortion includes lateral curving of the lower flange and bulging of the girder web between stiffeners. The web stiffeners appear to have failed to maintained the vertical dimension of the girders in south side of the span. Spalling of the haunch along the top flange of the girder was observed.

Northside/Westbound roadway portion of the deck above the burn area appeared in tact with no distress observed.

However, southside of the roadway of deck above the burn area appeared in distressed and distorted. There was ½-inches gap at the east abutment joint with ½-inches displacement upward of the deck. There was also ½-inches gap at the pier 10 joint with ½-inches displacement upward of the deck. After careful observation and measurement, the roadway portion of southside was found to be concaved down 2.5 inches. (4/19/2021)

Girder were label from North end (G1) to South end (G11)

Summary of defects from fire (12/18/2020) (Inspected date 4/19/2021)

Up to 10 feet of girder web were bulging in girder 1, 2, 3, 4, 5, 7, 8, 9, and 10

7 feet to more than 20 foot of distortion in lower flange of girder 3, 4, 5, 6, 7, 8, 9, and 10

More than 50 percent of east face pier cap was covered with facial spalls. Also, there were two large spalls on lower edge of pier cap. One spall had 1 foot in diameter with 10-feet L and another had 1 foot in diameter with 19 feet.

Soil loss were found in bay 1, 6, 7, 8, 9 and 10. Bay 1 (between girder 1 and girder 2) had 5 feet D x 2.25 feet H x 10 feet L of soil losses and bay 6 to bay 10 (between girder 6 and girder 11) had 6 inched to up 5 feet D x 4 inches to up to 2.25 feet H x 50 feet L of soil removed under abutment wall.

Whole area (48 feet x 108 feet) under span 10 slope needs repair.

See Sketch for the location of the defects.

SPECIAL INSPECTION INFORMATION

STEEL INVESTIGATION DETAILS - NOT APPLICABLE FOR THIS BRIDGE.

UNDERWATER INVESTIGATION DETAILS - NOT APPLICABLE FOR THIS BRIDGE.

DECK AND ROADWAY

DECK CROSS SECTION

DECK GEOMETRY			DEC	K ROADWAY/OPER	RATIONAL	INFORMATIO	N
(49) LENGTH		219.8 M		TYPE OF SERVICE			
(51) NET WIDTH		24.4 M		BASE HIGHWAY NETWO			
(52) TOTAL WIDTH		33.8 M		LRS INVENTORY RTE &			
(50) CURB OR SIDEWALK	LEFT 1.6 M			NATIONAL HIGHWAY SY		0-NOT ON I	NHS
(32) APPROACH RDWY WIDTH		31.7 M		FUNCTIONAL CLASS			
(33) BRIDGE MEDIAN	2 CLOSED MED W	V/O BARRIER		DEFENSE HIGHWAY		0-NOT STRAHI	
DECK STRUCTURE INFORMAT	rion ·			PARALLEL STRUCTURE		N-NONE EXIS	
(107) DECK STRUCTURE TYPE	1-CIP	CONCRETE		DIRECTION OF TRAFFIC			
(108) WEARING SURFACE / PROTEC	TIVE SYSTEM			INVENTORY ROUTE MIN			47 M
A) TYPE OF WEARING SURFACE		0-NONE		INVENTORY ROUTE TO			2.2 M
B) TYPE OF MEMBRANE		0-NONE		DECK GEOMETRY			
C) TYPE OF DECK PROTECTION		0-NONE		APPR ROADWAY ALIGN			
OVERLAY THICKNESS (inches)		0 inches		FEDERAL LANDS HWY		NOT APPLICA	
(29) AVERAGE DAILY TRAFFIC		25440		DESIGNATED NATIONAL			
(30) YEAR OF ADT 2012	(109) TRUCK ADT %	6 7%		TOLL		3-ON FREE RC	
(19) BYPASS, DETOUR LENGTH		8 KM		LANES		5-ONTINEE RC	4
(114) FUTURE ADT		30528		SPEED			45
(115) YEAR OF FUTURE ADT		2041		TEMPORARY STRUCTUR	RE		45 N/A
(37) HISTORICAL SIGNIFICANCE	5: NOT ELIGIBLE	FOR NRHP					IN/A

DECK ELEMENT INSPECTION RATINGS AND NOTES

(58) DECK RATING = 4

Elem No.	Defect/ Prot [Defect	Element Description	En		Units	Qt	y in each (Condition S	tate
					Qty		CS 1	CS 2	CS 3	CS 4
12		1	Deck-RC	2	7429	sq.m	0	441	6988	0
	1080	1	Delamination/Spall/Patched Area	2	5		0	0	5	0
	1120	I	Efflorescence/Rust Staining	2	1		0	1	0	0
	1130	(Cracking (RC and Other)	2	7423		0	440	6983	0
										-

(12) Deck-RC

Many scupper drains along the deck surface are plugged with debris. (06/10/2003) (Verified 05/23/2017)

Fire damaged the steel girders in span 10, between pier 10 and east abutment and caused the south half of bride deck bulkled up to 2.5 inches. (04/19/2020)

(12-1080) Delamination/Spall/Patched Area

Spalls up to 8 inches in diameter were found in the deck surface near abutment 1 along westbound lanes. (03/21/2001) (Verified 05/23/2017)

Several areas of delamination and spalling up to 6 inches in diameter were found along the exterior edge of the north and south sidewalks. The spalls are over traffic lanes of Alameda Street. (04/07/1999) (Verified 05/23/2017)

Spalls up to 4 inches in diameter with exposed rebar were found along the curbs. The spalls appear to be caused by insufficient cover of the rebar. (01/29/1990) (Verified 05/23/2017)

(12-1120) Efflorescence/Rust Staining

Hairline cracks with efflorescence exist in random locations along the deck soffit. (05/04/2011) (Verified 05/23/2017) (12-1130) Cracking (RC and Other)

Transverse cracks up to 0.07 inches wide were found along the deck surface. (05/04/2011) (Verified 05/23/2017)

DECK ELEMENT INSPECTION RATINGS AND NOTES

DECK PHOTOGRAPHS



Photo 1



Photo 1



Photo 1



Photo 1



Photo 1

JOINT - AP			IL		Tre					
RAIL INFORMA	TIOI	N								
(36a) Rail Code	0	(36b) Transition	0	(36c) Appr Guardrail	0	(36	d) Appr G	uardrail End	0	Roadway Speed 45 MPH
JOINT/APPRO/	ACH/	RAIL ELEMENT	INS	PECTION RATINGS		NO	TES			
Elem Defect/		Element Description	n			Env	Total	Units	Qty	in each Condition State
Printed on. Thu	irsday	07/01/2021 12:53 P	M			F 12				

	Defect/		Element Description	RATINGS AND NO		Linte	01			
No.		Defect		Env	Total Qty	Units	Qt CS 1	y in each C CS 2	CS 3	tate CS
301			Joint-Pourable Seal	2	271	m	0	0	0	27
	2310		Leakage (Joints)	2	271		0	0	0	27
			(Joints) seal has failed and large sections of	of the seal are missing	g. (05/04	4/2011) (Verified	05/23/201	7)	
302			Joint-Compression Seal	2	157	m	57	9	56	35
	2320		Seal Adhesion (Joints)	2	91		0	0	56	35
	2340		Seal Cracking (Joints)	2	9		0	9	0	0
	7000		Damage	2	35		0	0	0	35
05/2	23/2017	7)	e compression joint seal was observ		a io appi	eximatel	, o intea	incleis. (vernieu	
	under and a state	amage on joint	seal in east abutment were damage	ed by fire. (04/19/202	1)					
Con	under and a state	on joint	seal in east abutment were damage Railing-Metal	ed by fire. (04/19/202 2	1) 455	m	0	415	34	6
Con 330	under and a state	on joint				m	0	415 415	34 24	6
Con 330	npressi	on joint	Railing-Metal	2	455	m				
Com 330	npressi 1000 1900 7000	on joint	Railing-Metal Corrosion Distortion Damage	2	455 439	m	0	415	24	0
Com 330 330-1 Frec 330-1 Five	1000 1900 7000 000) C ckled ru 900) D e balust	orrosio orrosio ist was istortior ers are	Railing-Metal Corrosion Distortion Damage n observed along the metal bridge rail	2 2 2 1. (Verified 05/23/2017	455 439 16 16 7)		0 0 0	415 0 0	24 10 10	0 6
Com 330 330-1 Frec 330-1 Five beer Ther	1000 1900 7000 000) C ckled ru 900) D balust n made	orrosio orrosio ist was istortion ers are . (05/04 wo 1 in	Railing-Metal Corrosion Distortion Damage observed along the metal bridge rail missing from the south metal rail ne	2 2 2 1. (Verified 05/23/2017 ear abutment 1; appro	455 439 16 16 7) ximately	/ 15 are	0 0 0 bent. Ter	415 0 0 nporary re	24 10 10 epairs hav	0 6 6
Com 330 330-1 Frec 330-1 Five beer Ther 05/2 Four	1000 1900 7000 000) C ckled ru 900) D balust n made re are t 3/2017	orrosio orrosio ist was istortior ers are (05/04 wo 1 in) onsecut	Railing-Metal Corrosion Distortion Damage observed along the metal bridge rail missing from the south metal rail ne W2011) (Verified 05/23/2017)	2 2 2 2 1. (Verified 05/23/2017 ear abutment 1; appro the northwest corner	455 439 16 16 7) ximately of the A	/ 15 are l lameda	0 0 0 bent. Ter ramp. (06	415 0 0 nporary re 6/10/2003;	24 10 10 epairs hav	0 6 6
Com 330 330-1 Frec 330-1 Five beer Ther 05/2 Four repa Ther	1000 1900 7000 000) C ckled ru 900) D balust n made re are t 23/2017 rteen co ir was	orrosio orrosio ist was istortion ers are (05/04 wo 1 in) onsecut made b oaluster	Railing-Metal Corrosion Distortion Damage observed along the metal bridge rail missing from the south metal rail ne V2011) (Verified 05/23/2017) ch balusters missing form the rial at	2 2 2 2 1. (Verified 05/23/2017 ear abutment 1; appro the northwest corner om the north handrail. 10/2003) (Verified 05)	455 439 16 16 7) ximately of the A Two ba /23/201	/ 15 are l lameda lusters a 7)	0 0 bent. Ter ramp. (06 re badly	415 0 0 mporary re 5/10/2003; bent. A ter	24 10 10 epairs hav) (Verified	0 6 6

SUPERSTRUCTURE

SUPERSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES	(59) SUPERSTRUCTURE RATING = 5

	Elem No.	Defect/ Prot	Defect	Element Description	Env	Total	Units	Qty	in each Co	ondition St	ate
ì	140.	TIOL	Delect			Qty		CS 1	CS 2	CS 3	CS 4
	107			Girder/Beam-Steel	2	2418	m	2332	0	0	86
		1900		Distortion	2	86		0	0	0	86
		515		Steel Coating-Paint	2	7933	sq.m	0	7812	0	121
			3440	Effectiveness (Steel PC)	2	7933		0	7812	0	121

Printed on: Thursday 07/01/2021 12:53 PM
Elem Defec		Env	Total	Units		STRUCTU		
No. Prot	Defect		Qty	e nite	CS 1	CS 2	CS 3	CS 4
107-1900)	Distortion							
girder we	om the south. The distortion occurred along the east end of t our and six. The distortion includes lateral curving of the low eb between stiffeners. The web stiffeners appear to have ma	er flar intair	nge and led the v	bulging, vertical di	in a south mension	of the gird	ection, of t der. (1/9/2	he 019)
girder we ¿ Up to 1 ¿ 7¿ to n (04/19/20		atera intain and 1	ed the v	g of the lo vertical di	wer flang mension	e and bul of most of	aina of the	-
girder we ¿ Up to 1 ¿ 7¿ to n (04/19/20 107-515-34	toers except girder 11 (South end). The distortion includes l ab between stiffeners. The web stiffeners appear to have ma 10¿ of girder web were bulging in girder 1, 2, 3, 4, 5, 7, 8, 9, nore than 20¿ of distortion in lower flange of girder 3, 4, 5, 6, 021) 440) Effectiveness (Steel PC)	ateral intain and 1 7, 8,	l curving ed the 0 were 9, and	g of the lo vertical di observed 10 were d	wer flang mension I. observed	e and bul of most of	aina of the	-
girder we ¿ Up to 1 ¿ 7¿ to n (04/19/20 107-515-34	between stiffeners. The web stiffeners appear to have ma 10¿ of girder web were bulging in girder 1, 2, 3, 4, 5, 7, 8, 9, nore than 20¿ of distortion in lower flange of girder 3, 4, 5, 6, 021)	ateral intain and 1 7, 8,	l curving ed the 0 were 9, and	g of the lo vertical di observed 10 were d	wer flang mension I. observed	e and bul of most of	aina of the	e er.
girder we ¿ Up to 1 ¿ 7¿ to n (04/19/20 107-515-34 The pain 182 182) EQ Re	ters except girder 11 (South end). The distortion includes l ab between stiffeners. The web stiffeners appear to have ma 10¿ of girder web were bulging in girder 1, 2, 3, 4, 5, 7, 8, 9, nore than 20¿ of distortion in lower flange of girder 3, 4, 5, 6, 021) 440) Effectiveness (Steel PC) It system has faded with the area affected by the recent fire b	ateral intain and 1 7, 8, ourne	l curving ed the v 0 were 9, and d down	g of the lo vertical di observed 10 were d to bare m	wer flang mension I. observed netal. (01)	e and bul of most of (09/2019)	ging of the f the girde	-
girder we ¿ Up to 1 ¿ 7¿ to n (04/19/20 107-515-34 The pain 182 182) EQ Re	 Inders except girder 11 (South end). The distortion includes I ab between stiffeners. The web stiffeners appear to have ma 10; of girder web were bulging in girder 1, 2, 3, 4, 5, 7, 8, 9, nore than 20; of distortion in lower flange of girder 3, 4, 5, 6, 021) Iffectiveness (Steel PC) It system has faded with the area affected by the recent fire to EQ Restrainer Cable-Other 	ateral intain and 1 7, 8, ourne	l curving ed the v 0 were 9, and d down	g of the lo vertical di observed 10 were d to bare m	wer flang mension I. observed netal. (01)	e and bul of most of (09/2019)	ging of the f the girde	e er. 0
girder we ¿ Up to 1 ¿ 7¿ to n (04/19/20 107-515-34 The pain 182 182) EQ Re No signifi 311 11) Bearin	 Inders except girder 11 (South end). The distortion includes I ab between stiffeners. The web stiffeners appear to have ma 10¿ of girder web were bulging in girder 1, 2, 3, 4, 5, 7, 8, 9, more than 20¿ of distortion in lower flange of girder 3, 4, 5, 6, 021) Iffectiveness (Steel PC) It system has faded with the area affected by the recent fire to EQ Restrainer Cable-Other Estrainer Cable-Other Ficant issues were observed. 	ateral intain and 1 7, 8, ourne 2	l curving ed the v 0 were 9, and d down 20	g of the lo vertical di observed 10 were d to bare m ea.	wer flang mension I. observed netal. (01) 20	e and bul of most of /09/2019) 0	ging of the f the girde 0	e er.

SUPERSTRUCTURE PHOTOGRAPHS



Photo 1



Photo 1







Photo 1



Photo 1



Photo 1

SUPERSTRUCTURE PHOTOGRAPHS



Photo 1

SUBSTRUCTURE

DESCRIPTION UNDER STRUCTURE

(42b) TYPE OF SERVICE UNDER	3-HIGHWAY-WATERWAY-RAILRO	(38) NAVIGATION CONTROL	0: NO CONTROL
(69) UNDERCLEARANCES V - H	4 TOLERABLE	(111) PIER PROTECTION	N/A
(71) WATER ADEQUACY	8 EQUAL DESIRABLE	(39) NAVIGATION VERTICAL CLEARANCE	0.0 M
(61) CHANNEL PROTECTION	8 PROTECTED		1041 Con 104
(113) SCOUR	5 STABLE W/IN FOOTING		
SCOUR POA DATE	N/A		0.0 111

CHANNEL DESCRIPTION

Trapezoidal channel with RC sides and natural bottom.

ROADWAY DESCRIPTION UNDER STRUCTURE

(5a) POSITION:	2 ONE ROUTE UNDER	4		
ROADWAY NAME:	COMPTON CR	NBI UNDER RECORD		
(5d) ROUTE	00000	(104) NATIONAL HIGHWAY SYSTEM		1-NHS
(11) POST MILE	0	(26) FUNCTIONAL CLASS	14 URBAN OTHE	ER PRINC
(5b) KIND HIGHWAY	5 CITY STREET	(100) DEFENSE HWY	0 NOT	DEF HWY
(5c) LEVEL SERVICE	0 NONE OF THE BELOW	(110) NATIONAL TRUCK NETWORK	0 NOT PART OF NAT	L NETWO
(10) VERTICAL CLEAR (m)	6.68	(20) TOLL FACILITY		EE ROAD
(47) HORIZONTAL CLEAR (m)	26.50	(28b) LANES	4	
(19) DETOUR LENGTH	7.99	(29) RECENT ADT	10300 (30) ADT YEAR	2012
(102) DIRECTION TRAFFIC	2 2-WAY TRAFFIC	(109) TRUCK % ADT	7	2012

SUBSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES

(60) SUBSTRUCTURE RATING = 7

					(00)000	001110011		10-1
Elem Defect/ No. Prot D	Element Description efect	Env	Total	Units	Qty	/ in each C	Condition S	tate
			Qty		CS 1	CS 2	CS 3	CS 4
210	Pier Wall-RC	2	245	m	245	0	0	0
(210) Pier Wall	-RC							
No significa	nt issues were obseved.							
There were	fire burned marks on east face of	Pier 10 wall. No other defect	t were o	bserved	. (04/19/2	.021)		
215	Abutment-RC	2	70	m	70	0	0	0
(215) Abutment	-RC					0	0	0

Elem No. Defect/ Defect Element Description Env Total Qty Units Qty in each Condition State CS 1 State CS 2 CS 3 CC (215) Abutment-RC No significant issues were obseved. There were fire burned marks on east abutment. No other defect were observed. (04/19/2021) Pile-Steel 2 1 ea. 1 0 0 (225) Pile-Steel 2 1 ea. 1 0 0 (234 Pier Cap-RC 2 245 m 212 24 9 1080 Delamination/Spall/Patched Area 2 33 0 24 9	BSTRUCTURE	E ELEMENT INSPECTION RATINGS AND	NOTES			(60) SUE	STRUCT	JRE RATI	NG = 7
Ctiv			Env		Units	Qty	in each C	ondition St	tate
No significant issues were observed. (04/19/2021) 225 Pile-Steel 2 1 ea. 1 0 0 (225) Pile-Steel The piles are not visible for inspection and are therefore listed for record only. 234 Pier Cap-RC 2 245 m 212 24 9 1080				Qty		CS 1	CS 2	CS 3	CS 4
225 Pile-Steel 2 1 0 0 (225) Pile-Steel The piles are not visible for inspection and are therefore listed for record only. 234 Pier Cap-RC 2 245 m 212 24 9	No significan There were fi	t issues were obseved. ire burned marks on east abutment. No other de	fect were ob	served (04/10/2	021)			
The piles are not visible for inspection and are therefore listed for record only. 234 Pier Cap-RC 2 245 m 212 24 9 1080 Delamination/SpecifyExt had these 0 0 0 0 0 0			ICCL WEIE OD	Scived. (04/13/2				
234 Pier Cap-RC 2 245 m 212 24 9 1080 Delamination/Snell/Detahed Area 2 245 m 212 24 9				1		1	0	0	(
1080 Delemination/Snell/Detabled Area of a contract of the second area of the second ar	225			1		1	0	0	(
1080 Delamination/Spall/Patched Area 2 33 0 24 9	225 (225) Pile-Steel	Pile-Steel	2	1		1	0	0	(
5 <u>2</u> 1 <u>5</u>	225 (225) Pile-Steel The piles are	Pile-Steel not visible for inspection and are therefore listed	2	1 only.	ea.	1			(

(234-1080) Delamination/Spall/Patched Area

More than 50 percent of east face pier cap was covered with facial spalls. Also, there were two large spalls on lower edge of pier cap. One spall had 1¿ in diameter with 10¿ L and another had 1¿ in diameter with 19¿.

SUBSTRUCTURE PHOTOGRAPHS





Photo 1



Photo 1

Photo 1



Photo 1

HANNEL	X-SECT	TION		
Side	Upstre	am	X-Section Date	04/19/2021
Measured	From	Top of metal rail - Upstream		04/10/2021

Printed on. Thursday 07/01/2021 12:53 PM

ANNEL X-SECTION					Angeles County Publ
Side Upstream	etal rail - Upstream			X-Section Date	04/19/2021
Location	Horiz(m)	Vert(m)	Comments		
Abut 1	12.19	7.78	top of slope		
	32.00	12.36	toe of slope		
	40.84	12.71			
	50.29	13.92	Thalweg		
	62.17	13.92			
	80.16	12.87	toe of slope		
	92.35	10.00	top of slope		

OTHER PHOTOGRAPHS



Photo 1



Photo 1

Photo 1



Photo 1

WORK RECOMMENDATIONS

Rec Date Status	04/19/2021 PROPOSED	Work By Action	LOCAL AGENCY Deck-Replace	Est Cost Str Target	2 YEARS	Dist Target EA	
Replace	south half of bridge	deck in span 1	10, between pier 10 and ea	st abutment.			

SUPERSTRUCTURE WORK RECOMMENDATIONS

SUBSTRUCTURE WORK RECOMMENDATIONS

Printed on: Thursday 07/01/2021 12:53 PM

Page 11 of 12

53C1744/AAAC/67925

WORK RECOMMENDATIONS

Rec Date	04/19/2021	Work By	LOCAL AGENCY	Est Cost		Dist Target	
Status	PROPOSED	Action	Super-Replace	Str Target	2 YEARS	EA	
Replace	damaged girders (g	girder #1, 2, 3,	4, 5, 6, 7, 8, 9, 10) in span	10, between pier	10 and east ab	utment	
	CTURE WORK R			N. Kanadara	STATISTICS.		
Rec Date	04/19/2021	Work By	LOCAL AGENCY	Est Cost		Dist Target	
				01- T ·		0	
Status	PROPOSED	Action	Sub-Misc.	Str Target	2 YEARS	EA	

















53C1744 SF ____, COMPTON CR,ALAMEDA 0.3MI W/O SANTA FE AVE 107 - Super-Damage/Deterioration















53C1744 SP, COMPTON CR, ALAMEDA 0.3MI W/O SANTA FE AVE













STRUCTURE MAINTENANCE & INVESTIGATIONS RECORD OF CRITICAL FINDINGS

Bridge Name: ARTESIA BLVD OVER OVER COMPTON CR, ALAME[Owner (State/County/City/Other): CITY OF COMPTON Bridge Number: 53C1744 Location [Dist-County/City/Other): LOS ANGELES COUNTY Contact Made With (Name) : Damion Timmons / Wein Chu DISTRICT Business Phone: 0 DISTRICT Business Phone: 0 CITY Email Address: I CITY dtimmons@comptoncity.org / WCHU@DPW.LACOUNTY.GOV COUNTY Date of Contact: 12-19-2020 12-19-2020 OTHER PROBLEM (<i>Be Brief</i>) : In 12-18-2020 fire damage covered whole area under span 10. Fire damaged and distorted all the girders except girder 11 (South end) in span 10, between pier 10 and east abutment. And it caused the south half of bridge deck bulkled up to 2.5 inches. Action Recommended (<i>By SM&I</i>) : CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN. Action Taken (<i>By Bridge Owner</i>) : EAST HALF OF THE BRIDGE IS CLOSED TO VEHICULAR TRAFFIC.
Bridge Number: Location (Dist-County-Rte-PM): LOS ANGELES COUNTY Contact Made With (Name): DISTRICT Damion Timmons / Wein Chu DISTRICT Business Phone: (310) 605-5691 /626-458-7880 (310) 605-5691 /626-458-7880 Image: County-Rte-PM): Email Address: Image: County of County of County dtimmons@comptoncity.org / WCHU@DPW.LACOUNTY.GOV Image: County Date of Contact: 0THER 12-19-2020 OTHER PROBLEM (Be Brief): OTHER In 12-18-2020 fire damage covered whole area under span 10. Fire damaged and distorted all the girders except girder 11 (South end) in span 10, between pier 10 and east abutment. And it caused the south half of bridge deck bulkled up to 2.5 inches. ACTION RECOMMENDED (By SM&I): CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN.
Contact Made With (Name): District Damion Timmons / Wein Chu DISTRICT Business Phone: CITY (310) 605-5691 /626-458-7880 CITY Email Address: COUNTY Date of Contact: OTHER 12-19-2020 OTHER PROBLEM (Be Brief): In 12-18-2020 fire damage covered whole area under span 10. Fire damaged and distorted all the girders except girder 11 (South end) in span 10, between pier 10 and east abutment. And it caused the south half of bridge deck bulkled up to 2.5 inches. ACTION RECOMMENDED (By SM&I): CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN.
Damion Timmons / Wein Chu DISTRICT Business Phone: CITY Business Phone: CITY Email Address: COUNTY Editimmons@comptoncity.org / WCHU@DPW.LACOUNTY.GOV COUNTY Date of Contact: OTHER 12-19-2020 OTHER PROBLEM (Be Brief) : In 12-18-2020 fire damage covered whole area under span 10. Fire damaged and distorted all the girders except girder 11 (South end) in span 10, between pier 10 and east abutment. And it caused the south half of bridge deck bulkled up to 2.5 inches. ACTION RECOMMENDED (By SM&I) : CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN.
(310) 605-5691 /626-458-7880 ✓ CITY Email Address: ✓ COUNTY Date of Contact: ✓ COUNTY 12-19-2020 ✓ OTHER PROBLEM (Be Brief) : In 12-18-2020 fire damage covered whole area under span 10. Fire damaged and distorted all the girders except girder 11 (South end) in span 10, between pier 10 and east abutment. And it caused the south half of bridge deck bulkled up to 2.5 inches. ACTION RECOMMENDED (By SM&I): CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN.
dtimmons@comptoncity.org / WCHU@DPW.LACOUNTY.GOV Image: County Date of Contact: 0 OTHER 12-19-2020 Image: OTHER PROBLEM (Be Brief) : In 12-18-2020 fire damage covered whole area under span 10. Fire damaged and distorted all the girders except girder 11 (South end) in span 10, between pier 10 and east abutment. And it caused the south half of bridge deck bulkled up to 2.5 inches. Action Recommended (By SM&I) : CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN. Action Taken (By Bridge Owner) : CHON TAKEN (By Bridge Owner) :
12-19-2020 OTHER
In 12-18-2020 fire damage covered whole area under span 10. Fire damaged and distorted all the girders except girder 11 (South end) in span 10, between pier 10 and east abutment. And it caused the south half of bridge deck bulkled up to 2.5 inches. ACTION RECOMMENDED (By SM&I) : CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN. ACTION TAKEN (By Bridge Owner) :
(South end) in span 10, between pier 10 and east abutment. And it caused the south half of bridge deck bulkled up to 2.5 inches. ACTION RECOMMENDED (By SM&I): CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN. ACTION TAKEN (By Bridge Owner):
ACTION RECOMMENDED (By SM&I) : CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN. ACTION TAKEN (By Bridge Owner) :
ACTION RECOMMENDED (BY SM&I) : CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN. ACTION TAKEN (By Bridge Owner) :
CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN.
CLOSE EAST HALF OF THE BRIDGE, FROM SPAN 6 TO SPAN 10. CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN.
CITY TO REPAIR FIRE DAMAGED GIRDERS OR REPLACE THE FIRE DAMAGED SPAN.
EAST HALF OF THE BRIDGE IS CLOSED TO VEHICULAR TRAFFIC.
Permanent Resolution, No Follow-Up Required Temporary Resolution, Follow-Up Required: every month(s)
OPERATIONAL RESTRICTIONS: ON VES (<i>Describe</i>) NO VEHICULAR TRAFFIC ALLOW ON EAST HALF OF THE BRIDGE.
NAME: WEIN CHU SIGNATURE: Wein Agon Ohu DATE: 06/27/2022 SENIOR ASSIGNED TO FOLLOW UP, if different than above SIGNATURE: Shach Ohu 07/13/2022
NAME: Shaoli Xu Signature: Shach An Dr. 07/13/2022
FOLLOW-UP ACTION / INSPECTION:
✓ Permanent Resolution, Close Action Document
NAME: WEIN CHU SIGNATURE: Wein 13000 Chu DATE: 06/27/2022
ROUTING: SIGNATURE: FOLLOW-UP SIGNATURE (if required) :
1. SUPERVISING SENIOR Geden Werrede
2. OFFICE CHIEF Degrado 9/21/2522
3. DEPUTY DIVISION CHIEF
4. ADMINISTRATIVE SUPPORT

CC: FHWA (CA Division Structures Engineer) DLAE (for local agency bridges only) Local Agency (for local agency bridges only) SM&I Information Officer

Br. No. 53C1744 Artesia Blvd in City of Compton Fire Damage



Girder 4- Lower flange and Bay 2 top bracings were distorted



Abutment north half



Bay 3



Bay 5 – deck soffit



2.5" buckled downward in eastbound roadway portion of span 10



Abutment south half



Bay 4



Girder 9

STRUCTURE RATING DATA SHEET

BRIDGE NO:	53C1744
Facility Carried :	ARTESIA BLVD
Location :	0.3MI W/O SANTA FE AVE
BRIDGE NAME:	SP/UP,COMPTON CR,ALAMEDA

LA County Br. No : 2446

Structural Elements Rated :

Multi-span Steel Plate Girder Superstructure, R/C Deck

DESIGN LOADING

	Rating	Metric		CRI	FICAL LOCATION	
	Factor	Tons	Structure	Control Element	Load Action	Location
HS20 Inventory		0.0	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
HS20 Operating	0.00	0.0	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
LEGAL RATIN	G	<u>Posting</u> <u>US Tons</u>				
Type 3 (25T)	0.00		Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
Type 3S2 (36T)	0.00	0	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
Type 3-3 (40T)	0.00	0	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
NRL (40T)						
SHV - SU4 (27T)						······
SHV - SU5 (31T)						
SHV - SU6 (34.75T)						
SHV - SU7 (38.75T)						
FAST - EV2 (28.75T)						
FAST - EV3 (43T)			4			water water water

PERMIT RATING

Permit Rating

P5 Split	0.00	X	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
P7 Split	0.00	X	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
P9 Split	0.00	X	Superstructure	Girder	Désign Flexure - Steel	Span 10 - 40%
P11 Split	0.00	<u> </u>	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%
P13 Split	0.00	X	Superstructure	Girder	Design Flexure - Steel	Span 10 - 40%

RELEVANT LOAD RATING INFORMATION

Notes:

Load rating calculations were completed by John Lu on 06/09/2021. Bridge Inspection Report dated 06/22/2019 and field inspection of the fire damage on 04/19/2021 were used to verify the physical conditions assumed in the above referenced load rating calculations. The rating assumption is that the fire (incident occured on 12/18/2020) at Span 10 had reached 750 degrees C (1,380 degrees F) from assessment of the conditions of the damaged bridge. The concrete strength loss is estimated at 60%, reinforcing steel yield strength loss is estimated at 10% and plate girder yield strength loss is estimated at 40%. The shear connector and bottom flange of steel girders are assumed to be ineffective due to the excessive damage.

Overlay Used in Rating:	None		acESSIC		
Rating Type:	Calculated		SO PROFESSIONAL		
Rating Date:	06/09/2021				
Rating Method:	1 (LF Load Factor)	Inventory (65)			
	1 (LF Load Factor)	Operating (63)	C77676		
Control Rating By:	John Lu		(* <u>6/30/21</u> *))		
Rating Checked By:	Nhan Nguyen				
Analysis Tool:	BrR 6.7.0 AASHTO		ART CIVIL CIVIL		
Rating File Location:	LA County Department of P	ublic Works, Design Division			
Summary Prepared By:	John Lu		prop In		
Summary Date:	06/09/2021		Stamped by: John Lu 06/09/2021		

Rating Results Summary Report

Name: SP/UP,COMPTON CR,ALAMEDA Struct-Def: Bridge Span Ten (Fire Damage 2020)

Bridge ID: 53C1744 Member: G2

NBI: 53C1744 Member Alt: Girder 56-5 (Interior Girder)

As Requested	As Requested /	Design Flexure - Steel As Requested As Requested	- (40.0)	18.92 🖣	0.000	0.00	LFD Operating	le Load		Type EV:
As Requested	As Requested /	Design Flexure - Steel	1 - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		Type EV2
As Requested	As Requested /	Design Flexure - Steel	1 - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		SU/
As Requested	As Requested /	Design Flexure - Steel	1 - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		SU0
As Requested	As Requested /	Design Flexure - Steel	1 - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		v U v
As Requested	As Requested /	Design Flexure - Steel	1 - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		0U4
As Requested	As Requested /	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		NRL
As Requested	As Requested /	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		P13
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	7 - (40.0)	18.92 5	0.000	0.00	LFD Operating	le Load		7
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	- (40.0)	18.92 m	0.000	0.00	LFD Operating	le Load		PUg
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92 c	0.000	0.00	LFD Operating	Axle Load		F0/
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		PUS
As Requested	As Requested	Design Flexure - Steel As Requested As Requested] - (40.0)	18.92	0.000	0.00	LFD Operating	le Load		Type 3-3
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Operating	te Load		Type 3S
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Operating	te Load		Type 3
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Operating	te Load		HS 20-4-
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Inventory	te Load		HS 20-4
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Operating	Lane		HS 20-4-
As Requested	As Requested	Design Flexure - Steel As Requested As Requested	1 - (40.0)	18.92	0.000	0.00	LFD Inventory	Lane		HS 20-4
Lane	Impact	Limit State	Location Span-(%)	Location (ft)	Rating Factor	Load Rating (Ton)	Rating Method Rating		Live Load Live Load Type	

Note:

be ineffective due to the excessive damage estimated at 10% and plate girder yield strength loss is estimated at 40%. The shear connector and bottom flange of steel girders are assumed to assessment of the conditions of the damaged bridge. The concrete strength loss is estimated at 60%, reinforcing steel yield strength loss is The rating assumption is that the fire (incident occurred on 12/18/2020) at Span 10 had reached 750 degrees C (1,380 degrees F) from



AASHTO LFR Engine Version 6.7.0.3001 Analysis Preference Setting: None Analysis Time: 06/09/2021 07:51:13 Print Time: 06/09/2021 08:14:03

Analyzed By: JI.U Page

STRUCTURE MAINTENANCE & INVESTIGATIONS RECORD OF CRITICAL FINDINGS

			163			
(REV 11/2014) Bridge Name: Owner (State/County/City/Other)						
ARTESIA BLVD OVER OVER COMPTON CR, ALAMEL CITY OF COMPTON						
53C1744	Location (Dist	- <i>County-Rte-PM):</i> GELES COUNTY				
Contact Made With <i>(Name)</i> : Damion Timmons				an an an an an Anthon para an an ann an Anna an Anna Anna Anna		
Business Phone: (310) 605-5691						
Email Address: dtimmons@comptoncity.org		- 1999				
Date of Contact: 08-04-2022	<u> </u>					
PROBLEM (Be Brief) :						
Utility box cover in sidewalk located above span 7, near traffic light pole was missing. Sidewalk settlement at the N/E & S/E bridge approaches. Those are tripping hazards. Utility box cover on the traffic light pole was missing. Missing vertical rails at the bridge sidewalk railing panel located at N/W approach. There is a large gap after utility post was removed between north handrail panels. See attached photos for reference.						
ACTION RECOMMENDED (By SM&I) : Add addition k-rails to channelize existing east bound traffic to Alameda St Ramp together with additional warning signs. Fix the gap between north handrail panels. Repair approach sidewalk settlements. Replace the missing utility box cover on sidewalk and traffic light post. Install/replace missing balusters in north sidewalk pedestrian handrail.						
ACTION TAKEN (By Bridge Owner) : K-Rail was moved back to original position						
Permanent Resolution, No Follow-Up Re	equired 🗸	Temporary Resolution, F		every 1 month(s)		
OPERATIONAL RESTRICTIONS: NO VES (Describe) NO VEHICULAR TRAFFIC ALLOW ON EAST HALF OF THE BRIDGE.						
		1		r		
NAME: WEIN CHU SENIOR ASSIGNED TO FOLLOW UP, if different than a	SIGNATURE:	wein Ngoon Chu -Shashi Am		DATE: 10/01/2022		
NAME: Shaoli Xu	SIGNATURE:	-Shach An		10/01/2022		
FOLLOW-UP ACTION / INSPECTION:	TOIONATONE.	<u></u>		DATE:		
Permanent Resolution, Close Action Document						
NAME:	SIGNATURE:			DATE:		
			FOLLOW-UP SIGNATURE	E (if required) :		
1. SUPERVISING SENIOR	Geden Wen	rede	······································			
2. OFFICE CHIEF	****		- VIII VIII - VIIII - VIIII - VIIII - VIIII			
3. DEPUTY DIVISION CHIEF						
4. ADMINISTRATIVE SUPPORT						

CC: FHWA (CA Division Structures Engineer) DLAE (for local agency bridges only) Local Agency (for local agency bridges only) SM&I Information Officer



P1_New panel was installed on damaged utility (Right- on smaller utility box) _ Done



P3_Missing baluster in handrail _ Need repair



P4b_Missing utility boxes covers in light post and sidewalk (pic from August)



Gap between handrail after utility post was removed _ Need repair (Newfound)



P2_K-Rail was moved back to original position _ Done



P4a_Missing utility box cover in sidewalk _ Need repair



P5_Approach sidewalk settlement at N/E of bridge