

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

RECEIVED

AUG 16 2018

**OC PUBLIC WORKS
DIRECTOR'S OFFICE**

*Making Conservation
a California Way of Life.*

August 6, 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,

A handwritten signature in blue ink, appearing to read "Ching Chao".

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

Enclosures

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.*

Bridge Report Transmittal Sheet**Batch 45933****County of Orange**

Bridge #	Bridge Name	Location	Inspection		Outstanding	
			Date	Type	Work	Cost
55C0400	BOLSA CHICA CHANNEL	1.7 MI W/O BOLSA CHICA RD	01/12/2018	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/mtgguide.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 : 55C0400
Facility Carried: EDINGER AVE
Location : 1.7 MI W/O BOLSA CHICA R
City :
Inspection Date : 01/12/2018

Bridge Inspection Report

Inspection Type
Routine FC Underwater Special Other

STRUCTURE NAME: BOLSA CHICA CHANNEL

CONSTRUCTION INFORMATION

Year Built : 1968 Skew (degrees): 50
Year Modified: 1988 No. of Joints : 0
Length (m) : 92.4 No. of Hinges : 0

Structure Description: Simply supported 15-span timber stringers (17 each) and a corrugated steel plate deck (Armco 12 gage) with 10-timber pile bents and 10-timber pile at west abutment and 11-timber pile at east abutment with timber sheathing walls.

Span Configuration : (W) 15 @ 20.00 feet (E) c/c

SAFE LOAD CAPACITY AND RATINGS

Design Live Load: UNKNOWN
Inventory Rating: RF=0.23 =>7.5 metric tons Calculation Method: ALLOWABLE STRESS
Operating Rating: RF=0.38 =>12.3 metric tons Calculation Method: ALLOWABLE STRESS
Permit Rating : XXXXX
Posting Load : Type 3: 7 U.S. Tons Type 3S2: 11 U.S. Tons Type 3-3: 14 U.S. Tons

DESCRIPTION ON STRUCTURE

Deck X-Section: (N) 1.30 feet br, 24.7 feet, 4.25 feet sw, 1.30 foot br (S).

Total Width: 9.0 m Net Width: 7.5 m No. of Lanes: 2 Speed: 45 mph
Min. Vertical Clearance: Unimpaired Overlay Thickness: 7.0 inches

Rail Code: 0000

DESCRIPTION UNDER STRUCTURE

Channel Description: Earth trapezoidal tidal channel with a rock slope at the westerly bank.

INSPECTION COMMENTARY

SCOPE AND ACCESS

This bridge has been removed and construction of the new bridge is in progress.

Team Leader : Matthew M. Monajemi
Report Author : Matthew M. Monajemi
Inspected By : MM.Monajemi/Y.Chen

Matthew M. Monajemi 7-30-18
Matthew M. Monajemi (Registered Civil Engineer) (Date)

