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 : 04/07/2011

Bridge Inspection Report

Inspection Type

Routine	FC	Underwater	Special	Other
☐	☐	☒	☐	☐

STRUCTURE NAME: BOLSA CHICA CHANNEL

CONSTRUCTION INFORMATION

Year Built : 1968
Year Widened: 1988
Length (m) : 92.4

Skew (degrees): 50
No. of Joints : 0
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-tibmer pile at east abutment with timber sheathing walls.

Span Configuration : (W) 15 @ 6.1 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: UNKNOWN
Inventory Rating: 23 metric tonnes Calculation Method: LD & RES FAC (LRFR)
Operating Rating: 36 metric tonnes Calculation Method: LD & RES FAC (LRFR)
Permit Rating : XXXXX
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: (N) 0.4 m br, 7.5 m, 1.3 m sw, 0.3 m br (S).

Total Width: 9.0 m Net Width: 4.5 m No. of Lanes: 1
Rail Description: MBBR Rail Code : 0000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

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

CONDITION TEXT

UNDERWATER INVESTIGATION

A routine underwater inspection was conducted following the guidelines of the Federal Highway Publication, FHWA-NHI-10-027, Underwater Inspection of Bridges. Methods of inspection for piles, piers, abutments, footings, cells, cofferdams and scour follow the recommendations detailed in the aforementioned publication. All elements inspected, are listed in the "Substructure Investigation" table, at the end of this report. Elements not listed on the table or not discussed in the text of this report, were not inspected during this investigation. Elements that were not inspected or required further inspection, will be discussed in the text of this report and scheduled for a near future investigation. Above water features were inspected only if noted.

A Level I visual inspection was performed on 100% of the submerged elements covered under this report and supplemented by a tactile examination using large sweeping motions of the diver's hands where visibility was impaired. The inspection shall be detailed enough to detect "obvious" damage and deterioration. It shall also confirm the continuity of members and detect undermining or exposure of piles and footings.

A Level II inspection was conducted on 10% of the submerged elements. Any marine growth present was removed using hand tools which allowed for a detailed inspection of the substructure.

CONDITION TEXT

A Level III inspection is conducted only when a Level II inspection has revealed the need for in-depth evaluation. This type of inspection may include extensive cleaning, detailed measurements, and in some cases, selected nondestructive and partially destructive testing techniques. Level III inspections will be fully detailed in the text of the report.

Due to the depth of water, this bridge is to remain on the underwater inspection list. The maximum depth of the channel was found to be 5.5m (18.15') at Bent 5.

Due to recent severe storm activity, this waterway was considered polluted and the inspection was conducted using contaminated water procedures.

All substructure elements from Bent 3 to Bent 12 were inspected. The bottom was comprised primarily of rock and silt.

All piles consisted of timber wrapped in a protective coating to a depth of approximately 3.0 m (9.9')

No defects were noted during this inspection.

UNDERWATER INVESTIGATION

Next Inspection	: 07-APR-2016	Water Type	: 3 - Brackish
Inspection Freq.	: 60 months	Max. Water Velocity	: 0 mps
Dive Type	: B - Routine UW	Max. Water Depth	: 6 m
Dive Mode	: Other	Max. Visibility	: 1.0 m
Contractor	: N/A	Water Surface Elev.	: m
Contract No.	: N/A		
Supervisor	: Richard Hunt/Dave Kendall	Diver	: Robert Hugel
Tender	: Armin Groess	Backup Diver	: Shane Stirling

SUBSTRUCTURE INVESTIGATED

Location	Depth(m)	Vel(mps)	Channel	Substructure Description
Bent 3	4.3	0.0	Silt/Rock	Timber Piles
Bent 4	5.0	0.0	Silt/Rock	Timber Piles
Bent 5	5.5	0.0	Silt/Rock	Timber Piles
Bent 6	3.5	0.0	Silt/Rock	Timber Piles
Bent 7	3.0	0.0	Silt/Rock	Timber Piles
Bent 8	3.5	0.0	Silt/Rock	Timber Piles
Bent 9	3.3	0.0	Silt/Rock	Timber Piles
Bent 10	2.0	0.0	Silt/Rock	Timber Piles
Bent 11	0.5	0.0	Silt/Rock	Timber Piles
bent 12	0.3		Silt/Rock	Timber Piles

Inspected By : D.Glasgow/RM.Hunt

Richard M. Hunt (Registered Civil Engineer)