**DEPARTMENT OF TRANSPORTATION**
Structure Maintenance & Investigations

**Bridge Number : 55C0283**
Facility Carried: BROADWAY
Location : 100' NE/O PACIFIC CST HW
City :
Inspection Date : 02/10/2015
Inspection Type

| Routine | FC | Underwater | Special | Other |
|---|---|---|---|---|
| | | X | | |

# Bridge Inspection Report

**STRUCTURE NAME: SUNSET CHANNEL**

## CONSTRUCTION INFORMATION

Year Built : 1959
Year Widened: N/A
Length (m) : 29.3
Skew (degrees): 0
No. of Joints : 5
No. of Hinges : 0

Structure Description: Simply supported 4-span CIP/RC deck slab with RC 5-column pile bents and with column pile bent abutments.

Span Configuration : (S) 4 @ 7.0 m (N) c/c

## SAFE LOAD CAPACITY AND RATINGS

Design Live Load: UNKNOWN
Inventory Rating: RF=0.75 =>24.3 metric tons Calculation Method: FIELD EVAL/ENG JUDGMENT
Operating Rating: RF=1.25 =>40.5 metric tons Calculation Method: FIELD EVAL/ENG JUDGMENT
Permit Rating : PPPPP
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

## DESCRIPTION ON STRUCTURE

Deck X-Section: (W) 0.3 m br, 0.9 m sw, 8.6 m, 0.9 m sw, 0.3 m br (E)
Total Width: 11.0 m Net Width: 8.5 m No. of Lanes: 2 Speed: 25 mph
Min. Vertical Clearance: Unimpaired Overlay Thickness: 0.0 Inches

Rail Code: 1000

| Rail Type | Location | Length (ft) | Rail Modifications |
|---|---|---|---|
| Misc. Steel | Right/Left | 180 | |

## DESCRIPTION UNDER STRUCTURE

Channel Description: Tidal basin.

## INSPECTION COMMENTARY

SCOPE AND ACCESS

On the date of this inspection Piers 2, 3 and 4, were submerged and inspected by boat. The UWI plan for this structure is dated 10-25-2011.

NUMBERING CONVENTION

This report was written using standard Caltrans numbering convention from west to east in ascending order.

REVISIONS
2 columns have been downgraded to CS 2. 1 for rust staining (defect 1120) and 1 for cracking (defect 1130).

SUBSTRUCTURE
The substructure consists of RC 5-column pile bents and with column pile bent abutments. The elements are 100% covered with marine growth. A level II inspection was performed on all underwater elements. From waterline to deck soffit was 1.9m (4.1') at 1200 hours on 2-10-2015. The measurement was taken near Pier 4. The tide was 0.64m (+2.1'). For reference purposes, A1 is 12 o'clock.

## INSPECTION COMMENTARY

ELEMENT 205-REINFORCED CONCRETE COLUMN
There are a total of 15 columns. 13 remain in CS 1 and 2 have been downgraded to CS 2.

Pier 2
The mudline depth was 1.5m (5') at the west column (column 1) of the pier and 1.5m (5') at the east column (column 5) of the pier. The diver cleaned a 0.3m (1') swath from waterline to mudline at the 6 o'clock position, revealing sound concrete.

Defect 1130
There is a 16th of an inch wide crack, at 9 o'clock in Column 3, running from 0.3m (1') below the bent cap, and extends 0.6m (2') to the 7 o'clock position. It is starting to delaminate.

Pier 3
The mudline depth was 2m (6.6') at the west column (column 1) of the pier and 1.5m (5') at the east column (column 5) of the pier. The diver cleaned a 0.3m (1') swath from waterline to mudline at the 9 o'clock position, revealing sound concrete.

Pier 4
The mudline depth was 1.5m (5') at the west column (column 1) of the pier and 1m (3.3') at the east column (column 5) of the pier. The diver cleaned a 0.3m (1') swath from waterline to mudline at the 9 o'clock position.

Defect 1080
There is a 0.3m (1') spall sbove Column 1, in the bent cap.

Defect 1120
There is cracking with rust staining on Column 2 at 5 and 6 o'clock.

CHANNEL AND CHANNEL PROTECTION

Prior to this inspection, the NBI Item 61, Channel and Channel Protection, rating was 9. The conditions present on the date of this UWI are consistent with that coding.

## UNDERWATER INVESTIGATION

| | | | |
|---|---|---|---|
| Next Inspection | : 10-FEB-2020 | Water Type | : Other |
| Inspection Freq. | : 60 months | Max. Water Velocity | : 0 mps |
| Dive Type | : B - Routine UW | Max. Water Depth | : 2 m |
| Dive Mode | : D - Surface supplied | Max. Visibility | : 1.0 m |
| Contractor | : N/A | Water Surface Elev. | : .64 m |
| Contract No. | : N/A | | |
| Supervisor | : stirling/ Kendall | Diver | : Hunt |
| Tender | : Corker/ Stauts | Backup Diver | : stirling |

## SUBSTRUCTURE INVESTIGATED

| Location | Depth(m) | Vel(mps) | Channel | Substructure Description |
|---|---|---|---|---|
| P2 | 1.5 | 0.0 | Shells/Silt | RC Pile Bents |
| P3 | 2.0 | 0.0 | Shells/Silt | RC Pile Bents |
| P4 | 1.5 | 0.0 | Shells/Silt | RC Pile Bents |

## WORK RECOMMENDATIONS - NONE

Team Leader : Shane N. Stirling

Report Author : Shane N. Stirling

Inspected By : SN.Stirling/DL.Kendall

6-19-15

Richard M. Hunt (Registered Civil Engineer) (Date)