

A historical and geographical
survey of the Huntington Beach
Municipal Pier and the
surrounding beach

Destroyed

A Historical And Geographical
Survey of The Huntington
Beach Municipal Pier and the
Surrounding Beach

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~~Steve Ramirez~~
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EARSC X- 111
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History - Huntington Beach

Boundaries- Santa Ana River to the old slough at Anaheim Landing.

Original name was Shell Beach which was derived from the large quantities of Donax shells. The city proper was built on Huntington Mesa, from which the pier extends. The mesa is tidal eroded. Characteristics of the area behind the mesa were marsh and willow thicket. The low area was called Gospel Swamp.

The land grant was given to the Rancho Las Bolsas.

1901- name was changed to Pacific City.

c.1902-03- name was changed to Huntington Beach.

1904- First pier constructed by Huntington Beach Company (Standard Oil Company) of wood.

Thomas Talbert bought land known as Gospel Swamp. Was a realstate salesman. Also one of the promoters of the H.K.&T Syndicate- drilling on the Irvine Ranch. Was the promoter and director of the Whittier Oil Company, drilling at Huntington Beach.

He was responsible for the Talbert Drainage District, which drained Gospel Swamp opening the peat land to farming.

1912-Winter- storm destroyed pier.

1914- City held bond issue to construct a concrete pier.

(Heading the promotion was Thomas Talbert.)

Was a court battle between the Huntington Beach Company

and the Pacific Electric Company on the right of way.

- Pier Construction-

Concrete piles, pile cap girders and beams, timber strings. Deck was paved concrete. Piles were approximately sunk 25' into the ocean bottom.

1920- Standard Oil Company felt oil could be found under the dome of Huntington Beach. An indication was gas in the water wells. They struck oil at 2,381' bringing in 150 barrels of oil a day. Another company (could not find the name.) struck oil at Bolsa Chica #1- bringing in 4,000,000 cubic feet of gas and 1,742 barrels of oil a day. Later whip stocking was used to bring in oil from off shore.

1930- A 488'8" addition was begun and completed in 1931. The addition used the same materials except 4 pile bents were used instead of 3 pile bents. Existing beams and girders were repaired with wire mesh and concrete gunite. The tidal zone area was strengthened with concrete jacket splices.

1939- A 300' section was washed away during a tropical storm.

1940- Repairs were completed bringing the length to the present 1,832'.

1945-54- Soundings were taken to determine piling depth.

1950's- Pier surface was rebuilt.

— 1967 Or 68- Fish and Game Department dumped several tons
of rocks around the base of the pier for fish breeding.
The program has been unsuccessful.

1967- Structural survey was taken.

Structural Survey of the Huntington
Beach Municipal Pier- 1967

Lab Investigation-

Wood pile samples show no evidence of penetration by Teredo marine worms or other marine organisms identified as major causes of wood pile damage. At the tidal zone, a depth of $\frac{1}{2}$ - $1\frac{1}{2}$ " of the pile is spongy due to marine growths.

Seismic Forces-

These were not considered structurally prior to 1933. There is no evidence of damage from the Long Beach Quake. It would appear collapse is no greater risk than has ever been.

Estimated Life From 1967-

The pier will stand another fifteen years with repairs and longer, barring a catastrophic event.

Piling Depth-

As of 1967 the depth of the piles in the ocean floor is 15- 20'.

Movement of Sand In the Area

Huntington Beach is located in the San Pedro Cell.

Rate of Sand Transport-

Averages 525 cubic yards/ day.

192,000 cubic yards/ year .

Beach Erosion-

Extreme erosion takes place during the Summer months.

This can be attributed to the protective action of the

Palos Verdes Peninsula, to the north and the Channel

Islands to the west. This results in an unlimited

fetch which only occurs from the south and west.

There are no Winter or Spring waves from the north.

The southern swells govern the drift direction throughout

the year. The dumping of rocks around the pilings

would probably act as a submerged groin causing

accumulation of sand on the south side of the pier.

There have been no recent surveys of the condition of the pier or soundings past 1967 to determine pile depth.

Soundings from the top of the municipal pier
 To determine the depth of the pillings in
 the ocean floor

Stations Legend.

STATION NUMBER	FEET TO NEXT STATION from corner of corner stone	DISTANCE FROM FOOT OF PIER
0		
1	216'5"	216'5"
2	19'2"	235'7"
3	27'3"	263'0"
4	21'9"	284'9" - berm here - ladder
5	23'3"	308'0"
* 6	22'7"	330'7" - usual approx. water line
7	23'0"	353'7"
8	21'8"	375'5"
9	69'0"	445'5" - first "T" here
10	67'7"	513'0"
11	68'8"	581'8"
12	70'4"	652'0"
13	67'6"	719'6"
14	67'7"	787'1" - second "T" here
15	68'2"	855'3"
16	68'3"	923'6"
17	68'5"	991'11"
18	68'0"	1059'11" - "V" here
19	68'0"	1177'11" - usual breaker line
20	91'0"	1218'11"
21	90'7"	1309'6" - 20' ground swell breaks here
22	95'5"	1404'11"
23	90'8"	1495'7"
24	96'8"	1592'3"

SOUNDINGS TAKEN FEB. 3, 1945 - 11:00 A.M.

STATION	SOUNDING
1	20'6"
2	21'0"
3	18'4"
4	21'3"
5	24'1"
6	25'4" - water line
7	26'7"
8	27'5"
9	30'3"
10	32'0"
11	34'1"
12	41'5"
13	42'11"
14	45'7"
15	46'3"
16	45'10"
17	49'6"
18	50'0"
19	49'3"
20	51'6"
21	49'1" - +70 - waves breaking
22	44'4"
23	46'5"
24	51'6"
25	52'10"
26	59'10"
27	58'0"

Legend continued

STATION NUMBER	FEET TO NEXT STATION	DISTANCE FROM FOOT OF PIER
25	91'5"	1683'8"
26	78'0"	1761'8"
+ 27	70'4"	1832'0"- end of pier; right front

SOUNDINGS TAKEN OCT. 1, 1954
(last taken)

STATION	SOUNDING
1	16'9"
2	17'9"
3	18'6"
4	17'10"
5	17'3"
6	19'6" - high tide mark
7	21'6" - water line at 10:10 A.M.
8	23'8" - first "t"
9	26'6"
10	30'6"
11	32'0"
12	32'10"
13	35'6"
14	37'6" - first break & second "t"
15	37'0"
16	35'6"
17	36'0"
18	37'6"
19	41'2" - "V"
20	45'6" - pump house
21	45'3" - third "t"
22	44'0"
23	46'6" - fourth "t" beach side
24	48'9" - fourth "t" ocean side
25	51'0"
26	53'0"
27	53'0" - end right front

conclusions to the soundings

The depth varies from month to month and year to year in relation to weather conditions and effects of seismic disturbances. On August 28, 1947, at station 22 a reading was taken of 48'6". The following month a reading was taken three days after the end of a large ground swell storm. The reading at the same station was 45'11".

After comparing the first and last readings the averaging of the differences shows approximately a 5' loss of sand from around the pier. Since the dumping of rocks around the pier there have been no soundings taken. The new situation could present a radical change, possibly eliminating the erosional process or at least slowing it down.

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Storm pictures

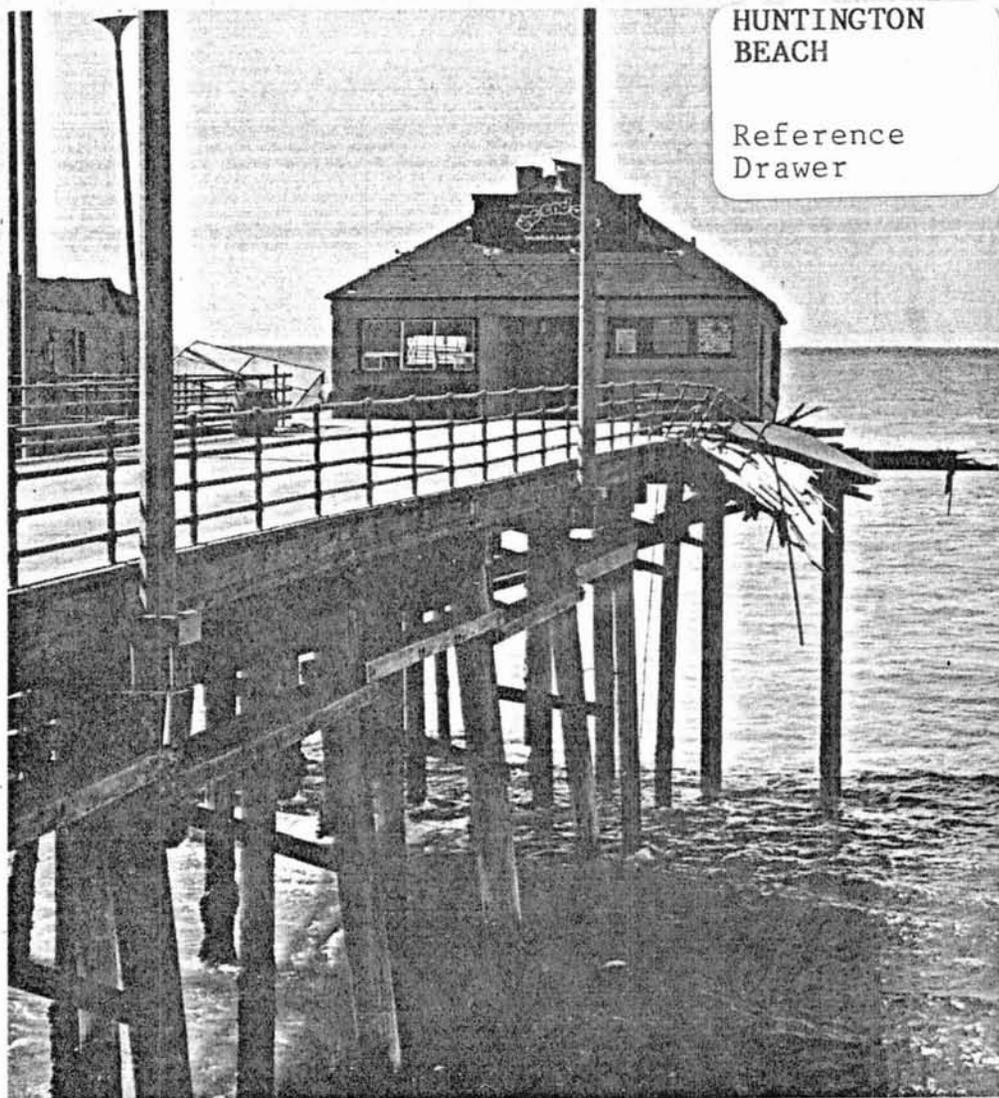
We were all too busy to get many pictures of the great storms of 1983 to send to friends and relatives to show them that they should not consider moving to Southern California, but the Public Information Office has just the thing on sale now.

There is a picture of the pier being swept by the super high surf, one of the End of the Pier Cafe hanging precariously into the sea and a calendar with the pier and surf picture.

The pictures come unframed at \$5 each, or in an acrylic frame at \$10 each. All proceeds above costs will be used to offset pier rebuilding costs.

The same pictures are also on sale at KB Photo Finish, Springdale Street and Warner Avenue, Breakfast in the Park in Central Park, The Tackle Box, Neptune's Locker, Captain's Galley, all on the Huntington Pier.

They make a great souvenir of the storm which brought the city international attention and will help some with rebuilding our famous (and still standing) pier.



FACTS OF THE HUNTINGTON BEACH PIER

- 1902 Originally constructed of (uncreosoted) rough pine, a total of 1000 long.
- 1910 Pilings were practically destroyed by barnacles.
- 1911 Voters passed a 70,000 bond issue to rebuild the pier in reinforced concrete.
- 1914 Job completed.
- 1931 A 500 foot extension was added mainly for the fishermen and boat operators.
- 1939 The wooded structure was destroyed by a Chubasco (Mexican Hurricane).
- 1982 Today the Huntington Beach Pier is a local landmark visited by millions each year.
- **** *End destroyed Feb. 1983, Rebuilt, Reopened 9/85*
For the convenience of the public, there is a bait and tackle shop, live bait store, three food concessions, tram service and sport fishing boats on the Pier. All concessions are leased to private individuals.
- **** There is one restroom facility in the center of the Pier and the main lifeguard tower situated on the Pier is the central vantage point and control center for all main beach activity.
- **** Home of the United States Surfboard Championships each September.

Pier is approx. 1/4 mile long, or approx. 1360'