

4605

4605

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R.S. Patton, Director	
U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES	
NOV 30 1931	
State: California	
Acc. No.	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. 4605 #B
LOCALITY	
South San Francisco Bay	
Pt. San Mateo to Marsh Pt.	
19230-31	
CHIEF OF PARTY	
G. C. Jones	

GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT

TO ACCOMPANY SHEET NO. 2

PROJECT NO. 70, INSTRUCTIONS DATED SEPT. 8, 1930

TOPOGRAPHY ALONG SOUTH SAN FRANCISCO BAY FROM

PT. SAN MATEO TO MARSH PT.

G. C. Jones, H. & G. E.
Chief of Party

Karl M. Eggen, D.O.
Field Work

DESCRIPTIVE REPORT
TO ACCOMPANY SHEET NO. 2

PROJECT NO. 70, INSTRUCTIONS DATED SEPT. 8, 1930

DESCRIPTION OF AREA:

A cliff of 50 ft. elevation at Pt. San Mateo falls away gradually for about 450 meters to the southward where the coast land becomes marsh and lies at about mean high water.

Levees extend along or near the shore line converting former marsh to meadow lands. The sloughs have also been confined by levees and the reclaimed areas used as meadow lands or as evaporating ponds. The shore line of the latter is indicated by the inner edge of the confining levees.

Port San Francisco, plans of which are enclosed, is at present undeveloped. The channel indicated is the result of excavation for levee material and is not at project depth of 35' in channels and 40' in turning basins. The remainder of the area enclosed between the project levees as well as the area between the channel and the levee forming the north-eastern bank of Belmont slough is a tidal flat bare at about 1½ ft. below high water.

Tidal flats in the sloughs and along the bay shore for the entire length of the sheet were undetermined by topography and are therefore not indicated.

The area between Steinbergen and Redwood Sloughs, some of which was at one time reclaimed land, has again reverted to marsh due to the breaking and overflowing of the confining levees. These marshes lie about one foot below extreme high water. The area is traversed by numerous small sloughs.

Bay Shore Highway was under construction from Fifth Ave., San Mateo eastward to Redwood City. The width of the highway shown is the width of the surfacing to be applied as indicated by that section which had been rolled. The centerline of the fill was taken as the highway centerline south of the intersection of the highway and Lat. 37° 31'

CHARACTER OF CONTROL:

Control was based on triangulation executed in 1925 augmented by additional triangulation and theodolite cuts by this party.

CLOSING ERRORS OF TRAVERSE AND THEIR ADJUSTMENT:

A traverse (3.8 miles) from triangulation Pt. San Mateo to triangulation Bridge closed to 8 meters and was adjusted on the sheet.

A second traverse (6.7 miles) beginning at Δ Bridge and running down the bay to Belmont Slough then back to \odot San along Belmont, Angelo and San Mateo sloughs failed to close by 40 meters.

The poor closure was attributed to abnormal sheet distortion which had taken place during the loop. (One sheet had previously been discarded because of excessive distortion which appeared after a few hours in the field; and it was believed a new projection made on this more thoroughly seasoned sheet would not be so affected.)

Adjustment was made upon three point fixes made at about 1 mile intervals along the traverse. These points were subsequently checked with short lines from additional triangulation control and graphic triangulation and found in correct position.

A third traverse (3.0 miles) from Δ Highway to Δ Babylon Roadhouse had a closure of 17 meters--the poor closure being again attributed to distortion and adjustment again being made on three point fixes.

THREE POINT FIX CONTROL:

The adjustment of traverses executed subsequent to the loop from Δ Pt. San Mateo to Δ Bridge was based upon the positions determined by strong three point fixes rather than by proportioning the error throughout the entire traverse.

Since the closing errors were due to abnormal distortion in the sheet which varied during the day with changes in temperature and humidity as well as from day to day, adjustment must be made on positions determined with sufficient frequency to ensure there being no appreciable error introduced by the varying distortion.

The accuracy of the fixes was shown by the short check traverses from subsequently located triangulation control stations.

In consideration of the above and because of the increasing tendency toward distortion (maximum scaled effect varying from 13 meters per mile expansion to 18 meters per mile contraction) the remainder of the topography on this sheet was located from three point fixes determined from nearby stations on or near the lines of contraction. The fixes were checked by traverse and cuts to fourth points.

JUNCTION WITH SHEET T4439:

The survey fails to join with the survey of 1929 sheet T4439 by about 10 meters at the junction of the Bay Shore Highway with the highway leading to the San Francisco Bay bridge. A like discrepancy appears in the transmission lines. The lack of similarity between that part of the Bay Shore Highway curve appearing at the extreme westerly part of this sheet and the former survey may be due to a change in the finished highway curve from that indicated by the construction work then in progress.

It is not believed that the discrepancy in the rock shore line of Pt. San Mateo can be attributed to recession.

TOPOGRAPHIC CHANGES:

The main channel of Oniell Slough at its junction with Belmont Slough is now what was formerly a small interconnecting channel between Oniell and Belmont Sloughs. The former channel has silted in so as to become impassable even for a small skiff.

All of the main sloughs west and north of Steinbergen Slough have been confined by levees leaving only a narrow belt of marsh along the edges of the sloughs. The areas thus reclaimed are either meadow lands or salt ponds.

Port San Francisco is in a state of undevelopment the levees indicating the limits of the project being the only work accomplished. No work is being done at the present time.

The solid ground in the vicinity of Marsh Pt., shown on present charts, is now marsh.

No oyster beds are now existant along the bay shore.

The hill just east of Belmont (lat. $37^{\circ} 31.1'$ Long. $122^{\circ} 15.9'$) falls upon this sheet but is being removed to provide fill for the Bay Shore Highway now under construction. The northern half is at present removed; and because of the impermanence of the remainder, it was not contoured.

GEOGRAPHIC NAMES:

Slough names were taken from Coast Survey charts and differ somewhat from the commonly used local names. San Mateo slough is locally known as Seal Creek and Steinbergen slough as Smith slough throughout its entire length rather than just the upper reaches as shown on present charts.

Karl M. Eggen
Karl M. Eggen
DECK OFFICER

APPROVED

G. C. Jones
G. C. Jones, H. & C. E.
CHIEF OF PARTY

SUPPLEMENTAL NOTE

The area in the region of Triangulation Station MARCH mentioned in the final paragraph of the preceeding page was refilled by dredging after the completion of the field work on this sheet. Topography was revised by Herman C. Applegquist. Further revision will be necessary near the end of the field season by work now under way near Triangulation Station HIGHWAY.

G.C.J.

Second Supplemental note.

Revision of the area along the east side of the Bay-shore Highway near the Port San Francisco development where changes have occurred since the completion of the sheet was made on Nov. 10, 1931 by H. C. Applequist. The sheet has been altered to agree with present conditions. The change consists of additional levees and filling in of grass and marsh areas.

A small island off the shore north of the entrance channel to Redwood Creek was thrown up by the dredge after the topography was done. This was sketched on from hydrographic notes. This island is almost certain to erode away in the comparatively near future, at least the elevation will soon be below mean high water. Its present elevation is 1 ft. above mean high water.

G. C. J.

PLANE TABLE POSITIONS

Page 5

OBJECT AND DESCRIPTION	LAT. °	D. M. meters	LONG. °	D. P. meters	HT. Ft.	REMARKS
Transmission tower at line turn	37 35	266	122 18	1452	---	Center
Transmission tower at <u>line</u> turn	37 35	241	122 18	1462	---	Center
Extra high trans. tower on center line. <u>Log</u>	37 34	700	122 17	1299	---	Center Near mouth of San Mateo slough
Extra high trans. tower on <u>island</u> west of San Mateo slough.	37 34	601	122 17	988	---	Center
Extra high trans. tower on east side <u>San Mateo</u> slough	37 34	535	122 17	793	---	Center
Red water <u>tank</u> on abandoned ranch	37 33	824	122 15	437	---	Center
Red water <u>tank</u> on abandoned ranch	37 33	742	122 15	392	---	Center
Tall trans. tower No. side <u>Angelo</u> sl.	37 32	1512	122 15	864	---	Center
Tall trans. tower So. side <u>Angelo</u> sl.	37 32	1392	122 15	864	---	Center
Trans. to. in salt <u>pond</u> at line turn	37 32	857	122 15	864	----	Center
Extra high trans. to. west side Stein bergen sl. <u>No.</u>	37 32	695	122 13	1176	---	Center
Finial of small building on island <u>Ho</u>	37 32	1231	122 13	389	10	Top

PLANE TABLE POSITIONS

Page 6

OBJECT AND DESCRIPTION	LAT.			LONG.			HT. Ft.	REMARKS
	°	'	meters	°	'	meters		
<u>Range</u> tower	37	32	411	122	11	977		Center
Red <u>beacon</u>	37	32	157	122	11	859		Pile
White <u>beacon</u> <u>Len</u>	37	31	1536	122	11	858		Pile
<u>Mast</u> of cargo hoist	37	31	712	122	11	191		
Red <u>beacon</u> <u>Cem</u>	37	31	372	122	12	477		Pile
Trans. tower at line turn	37	29	1678	122	14	1678		Near Δ Redwood
Windmill on tank	37	31	356	122	15	844		Tower
Arcade Tower	37	30	1380 410	122	15	1355 119		Center
Transmission to. at line turn <u>Cor</u>	37	31	1141	122	16	201		Center
Windmill on white dairy	37	31	1172	122	16	361		Tower
<u>North</u> gable John Good's barn	37	31	1397 453	122	15	724	34	Top
<u>Cupola</u> on abandoned barn	37	32	1738	122	16	1001	26	Top
<u>Airplane</u> beacon	37	32	1343	122	18	150		Center
<u>Black</u> water tank	37	33	426	122	17	316	25	Top

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

NOV. 28 1931

Acc. No. _____

REG. NO.

4605

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter B

REGISTER NO. **4605**

State California

General locality South San Francisco Bay

Locality W. Shore, Pt. San Mateo to ~~Point~~ Cross Marsh Pt.

Scale 1:10,000 Date of survey Nov. 1930 to Jan. 31 1931

Vessel Project #70

Chief of Party G. C. Jones

Surveyed by Carl M. Eggen

Inked by Carl M. Eggen

Heights in feet above LLW to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated Sept. 8, 1930, 19

Remarks: Revision to Nov. 10, 1931 by H. C. Applequist.