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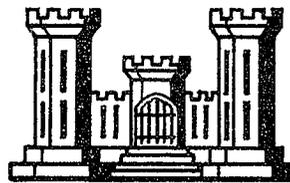
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UNIT NO. 12 OF THE
SACRAMENTO RIVER
FLOOD CONTROL PROJECT

SUPPLEMENT TO STANDARD
OPERATION AND MAINTENANCE
MANUAL

EAST LEVEE SACRAMENTO RIVER
PART "A"-MI. 92.6 TO MI. 94.5, PART "B"-MI. 99.3
TO MI. 101.2 AND PART "C"-MI. 110.8 TO MI. 111.5



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SACRAMENTO DISTRICT
CORPS OF ENGINEERS
U. S. ARMY
SACRAMENTO, CALIFORNIA

Incl. 1-1²

FILE COPY

Unit No. 12 of the
Sacramento River Flood Control Project
East Levee of the Sacramento River
Parts "A", "B", and "C" between Tisdale Weir and
Knights Landing, California

Supplement to
Standard
Operations and Maintenance Manual

Sacramento District
Corps of Engineers
U. S. Army
Sacramento, California

Unit No. 12 of the
Sacramento River Flood Control Project
East Levee of the Sacramento River
Parts "A", "B", and "C" between Tisdale Weir
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UNIT NO. 12 OF THE
SACRAMENTO RIVER FLOOD CONTROL PROJECT
SUBJECT TO FLOOD REGULATIONS

1. Levees

(a) Description. Unit No. 12 of the flood control works described below forms an integral part of the Sacramento River Flood Control Project. It consists of three parts along the East Levee of the Sacramento River identified as Part "A" which extends upstream from Mile 92.6 to Mile 94.5, Part "B" which extends upstream from Mile 99.3 to Mile 101.2 and Part "C" which extends downstream from Mile 111.5 to Mile 110.8. This project begins approximately 2.5 miles upstream of Knights Landing and ends approximately 5 miles downstream of Tisdale By-pass, as shown on the attached drawings 50-4-2295, 50-4-2296 and 50-4-2297, dated July 1946 (Exhibit "B").

Under the program provided by the Sacramento River Flood Control Project a portion of this levee in Parts "A", "B", and "C" has been enlarged and set back portions have been built as indicated below and shown in Exhibit "B". A gravel road surface 4 inches in depth and 20 feet in width was applied to crown of levee. Required turnouts and road approaches were constructed. These items are shown on the attached drawings in Exhibit "B". Structures affecting levee maintenance work are listed in Exhibit "B".

(b) Location. The levee is located along the easterly bank of the Sacramento River. Part "A" of the project begins approximately 2.5 miles northerly of Knights Landing at Station 161+00. It extends upstream to Station 276+00, a distance of 11,500 feet. Part "B" of the project begins approximately 11 miles northerly of Knights Landing at Station 522+00. It extends upstream to Station 623+00, a distance of 10,100 feet. Part "C" of the project begins approximately 21 miles northerly of Knights Landing at Station 1106+00. It extends upstream to Station 1136+36.49, a distance of 3,036.49 feet.

(c) Protection Afforded. The levee affords direct protection against high water in the Sacramento River and its tributaries in this area. The grade of the adopted flood profile along the main channel of the Sacramento River varies from Elevation 44.10 at the lower end or beginning of Part "A" to Elevation 51.3 at the upper end or end of Part "C". The levee grade provides a freeboard of 3 feet above the flood profile. It is estimated that a flood flow of 33,500 second feet in the main channel will produce the adopted flood profile. This flood flow is dependent upon the stage at Fremont Weir.

(d) Contractor. The construction work on the levee described above was done by H. Earl Parker, Contractor, under Contract No. W-04-167-eng-1210 Parts "A", "B", and "C", a copy of which is on file in the Corps of Engineers' office, Sacramento District, Sacramento, California.

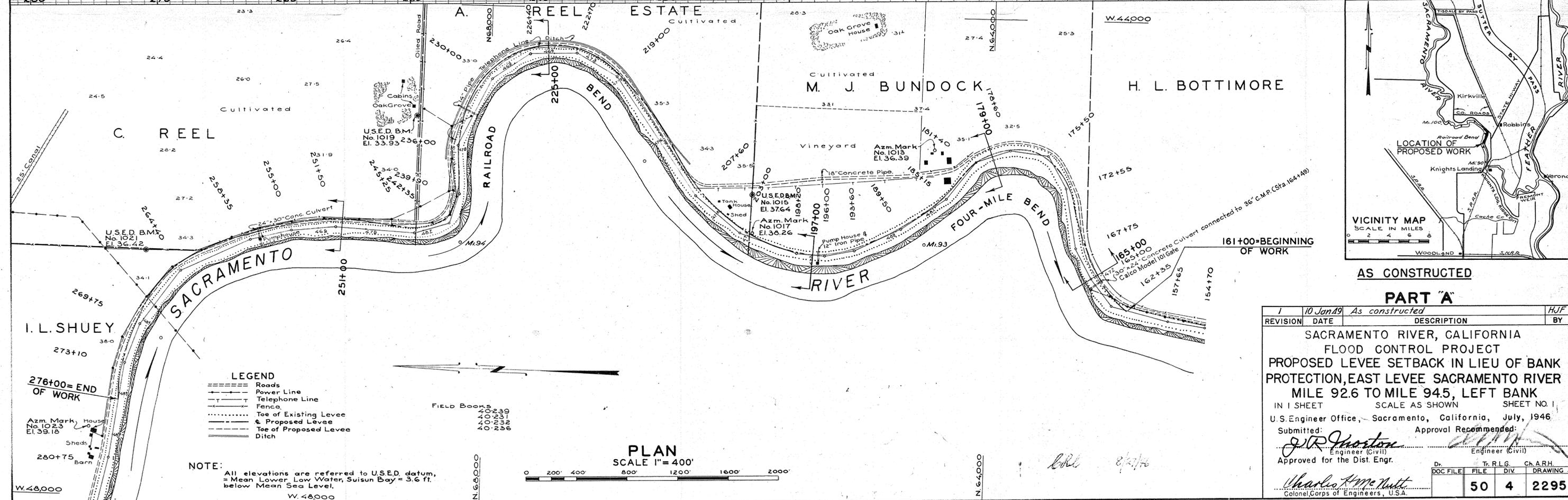
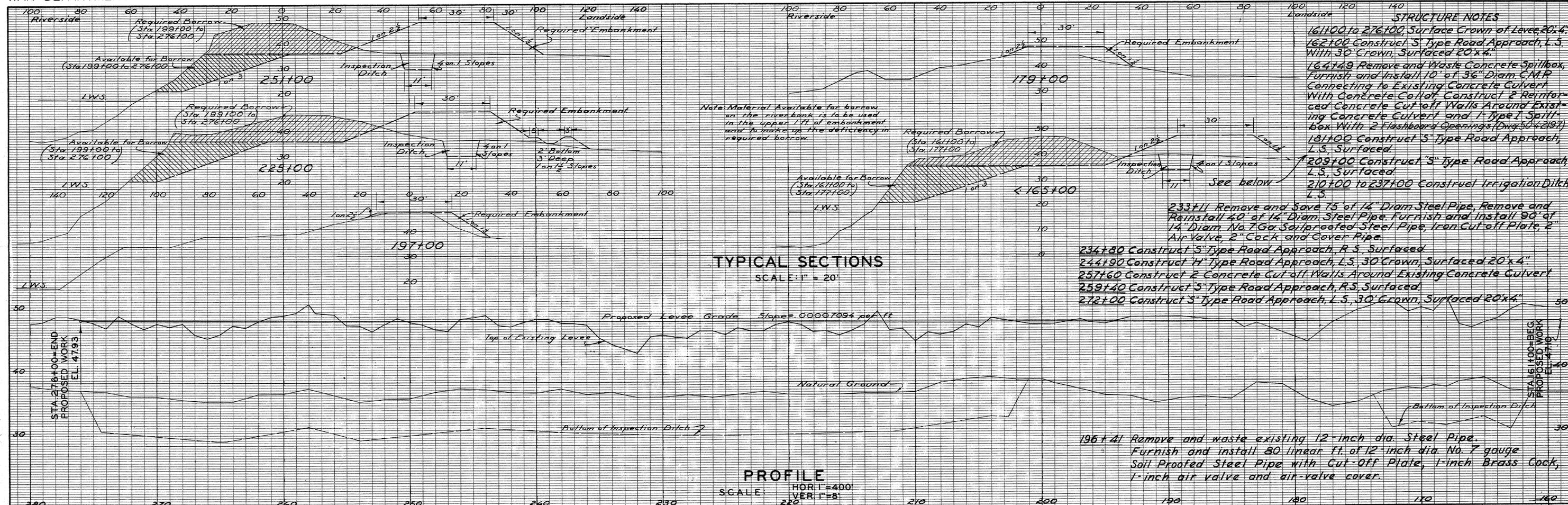
(e) Beginning and Completion of Construction. Construction was started on 18 October 1946 and completed on 3 June 1947.

(f) Outstanding Construction Features. In general, all construction features are based on standard plans and specifications, and the details are fully covered in the attached drawings listed below. (See Exhibit "B".)

<u>File No.</u>	<u>Title</u>
50-4-2295 (1-sheet)	Levee setback in lieu of bank protection, East Levee Sacramento River, Mile 92.6 to Mile 94.5
50-4-2296 (1-sheet)	Levee setback in lieu of bank protection, East Levee Sacramento River, Mile 99.3 to Mile 101.2
50-4-2297 (1-sheet)	Levee setback in lieu of bank protection, East Levee Sacramento River, Mile 111.5 to Mile 110.8

2. Maintenance and Operation. The levee and drainage structures referred to above should be maintained and operated in accordance with "Title 33- Navigation and Navigable Waters, Part-208-Flood Control Regulations," as covered by Exhibit "A", sheets 1 and 2 of the Standard Operation and Maintenance Manual for the Sacramento River Flood Control Project, copies of which may be obtained from office of the District Engineer, Corps of Engineers, Sacramento, California.

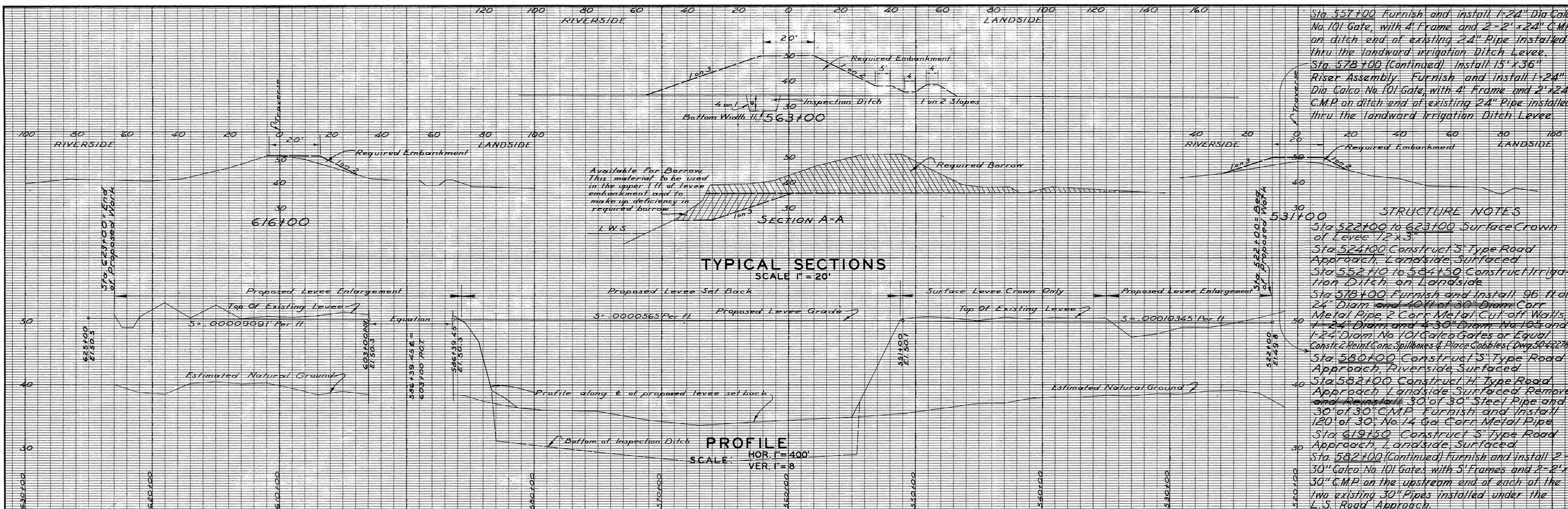
The responsibility of the maintenance and operation of this unit of levee was accepted by the Reclamation Board of the State of California on 2 July 1947, as shown on the attached resolution, Exhibit "F".



REVISION	DATE	DESCRIPTION	BY
1	10 Jan 49	As constructed	HJF

SACRAMENTO RIVER, CALIFORNIA
 FLOOD CONTROL PROJECT
 PROPOSED LEVEE SETBACK IN LIEU OF BANK PROTECTION, EAST LEVEE SACRAMENTO RIVER MILE 92.6 TO MILE 94.5, LEFT BANK
 IN 1 SHEET SCALE AS SHOWN SHEET NO. 1
 U.S. Engineer Office, Sacramento, California, July, 1946
 Submitted: *J.R. Horton* Approval Recommended: *[Signature]*
 Approved for the Dist. Engr. *[Signature]* Engineer (Civil) *[Signature]* Engineer (Civil)

Dr. DOC FILE	T. R. L.G. FILE	Ch. A.R.H. DIV	Ch. A.R.H. DRAWING
		50 4	2295



STRUCTURE NOTES

Sta 557+00 Furnish and install 1-24" Dia Calco No. 101 Gate, with 4' Frame and 2'-2" x 24" C.M.P. on ditch end of existing 24" Pipe installed thru the landward irrigation Ditch Levee.

Sta 578+00 (Continued) Install 15' x 36" Riser Assembly. Furnish and install 1-24" Dia Calco No. 101 Gate, with 4' Frame and 2' x 24" C.M.P. on ditch end of existing 24" Pipe installed thru the landward irrigation Ditch Levee.

Sta 522+00 to 623+00 Surface Crown of Levee 12' x 3"

Sta 524+00 Construct 5' Type Road Approach, Landside, Surfaced

Sta 552+10 to 584+50 Construct Irrigation Ditch on Landside

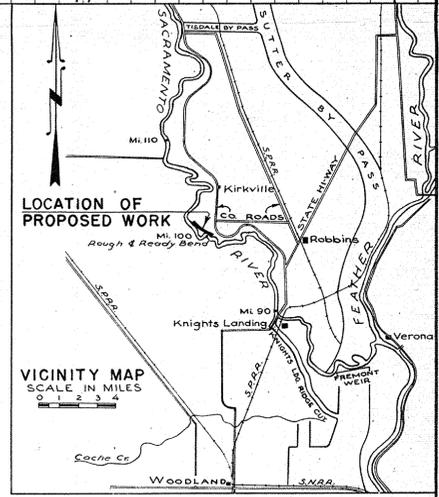
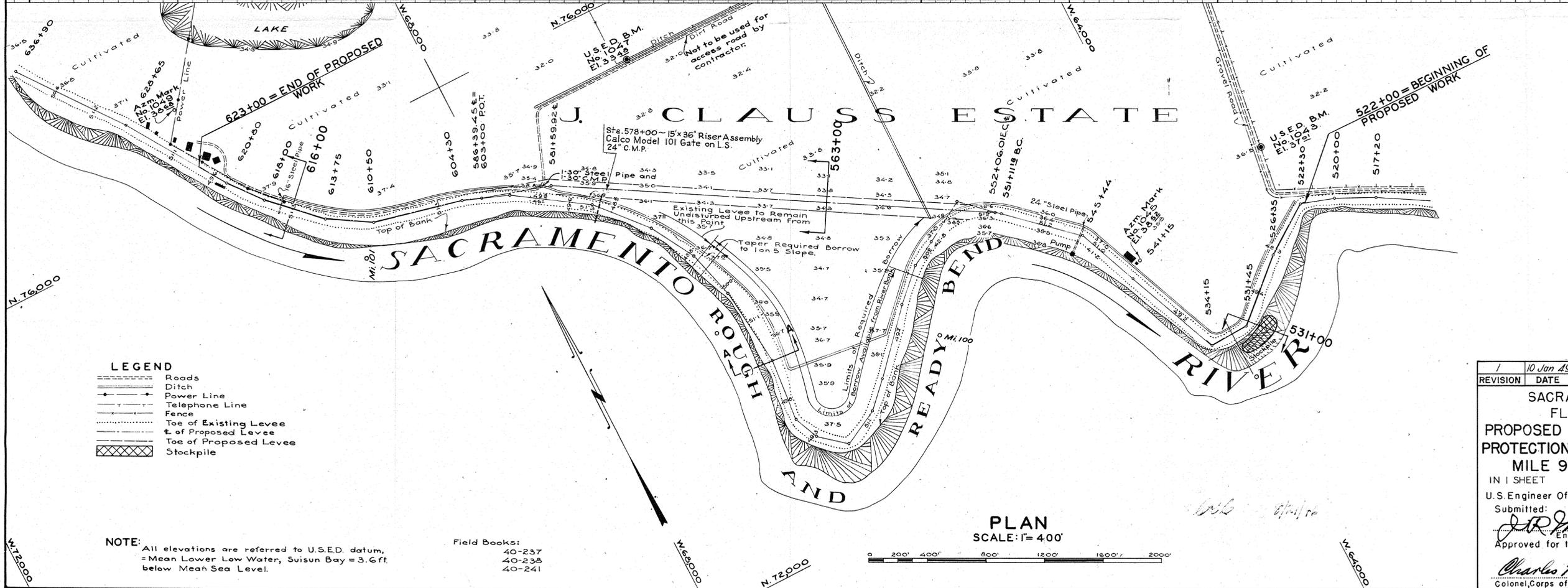
Sta 578+00 Furnish and install 96 ft of 24" Diam. and 40 ft of 30" Diam. Corr. Metal Pipe 2 Corr. Metal Cut-off Walls, 1-24" Diam. and 1-30" Diam. No. 105 and 1-24" Diam. No. 101 Calco Gates or Equal. Constr. & Reinf. Conc. Spillboxes & Place Cobbles (Dwg. 50-10278)

Sta 580+00 Construct 5' Type Road Approach, Riverside, Surfaced

Sta 582+00 Construct 11' Type Road Approach, Landside, Surfaced. Remove and Reinstall 30' of 30" Steel Pipe and 30' of 30" C.M.P. Furnish and install 120' of 30" No. 14 Ga. Corr. Metal Pipe

Sta 619+50 Construct 5' Type Road Approach, Landside, Surfaced

Sta 582+00 (Continued) Furnish and install 2-30" Calco No. 101 Gates with 5' Frames and 2'-2" x 30" C.M.P. on the upstream end of each of the two existing 30" Pipes installed under the L.S. Road Approach.



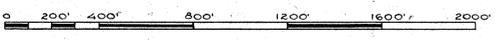
AS CONSTRUCTED
PART "B"

REVISION	DATE	DESCRIPTION	BY
1	10 Jan 49	As constructed	HJF

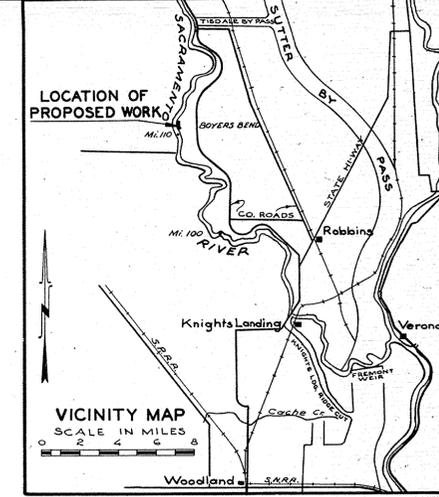
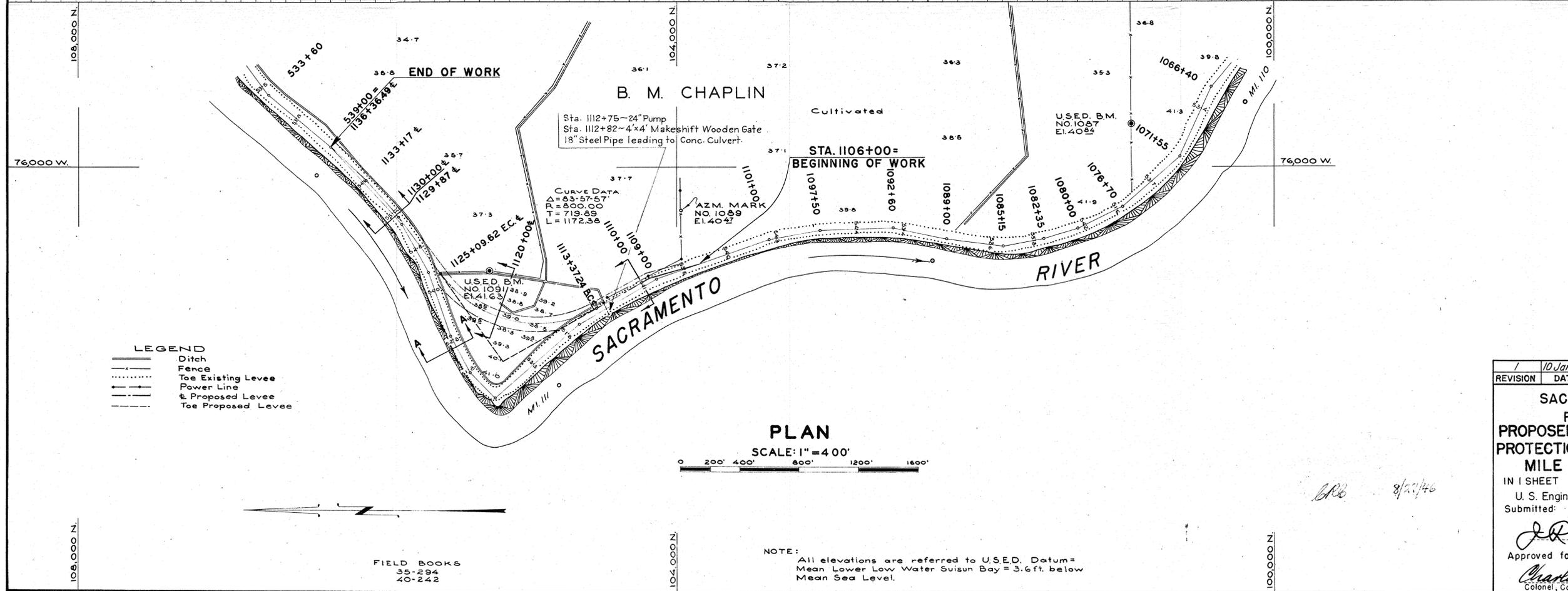
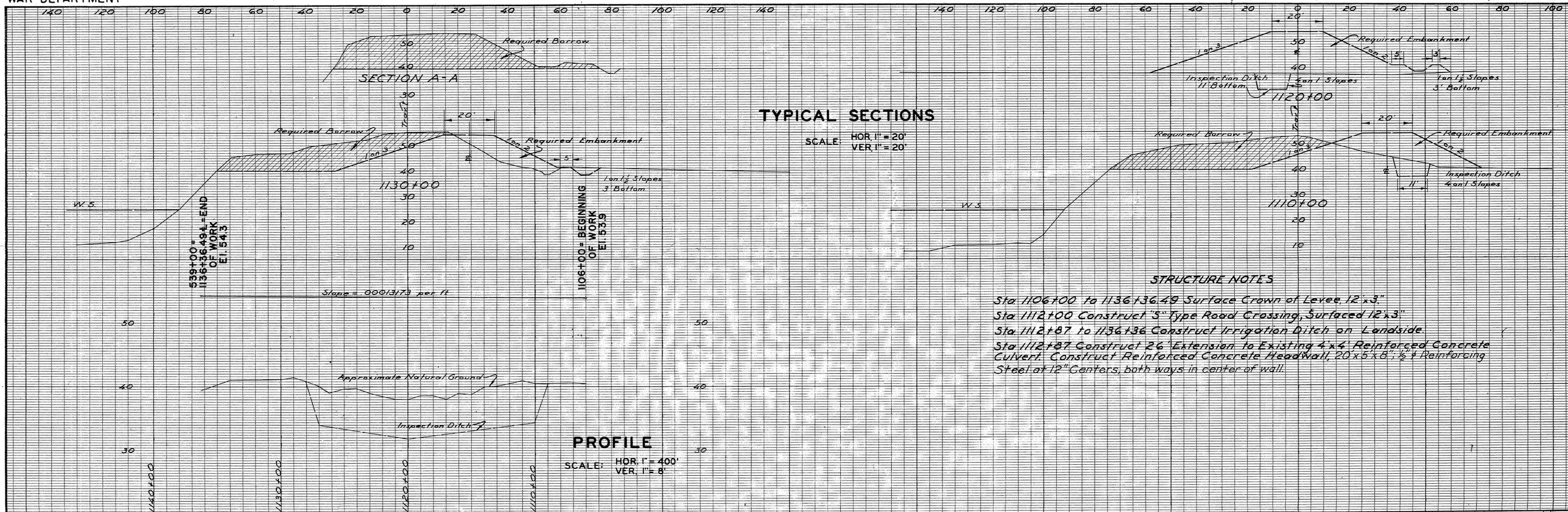
SACRAMENTO RIVER, CALIFORNIA
FLOOD CONTROL PROJECT
PROPOSED LEVEE SETBACK IN LIEU OF BANK PROTECTION, EAST LEVEE SACRAMENTO RIVER MILE 99.3 TO MILE 101.2, LEFT BANK
IN 1 SHEET SCALE AS SHOWN SHEET NO. 1
U.S. Engineer Office, Sacramento, California, July 1946
Submitted: *J. R. Houston* (Engineer (Civil)) Approved for the Dist. Engr.
Approval Recommended: *[Signature]* (Engineer (Civil))
Dr. DOC FILE FILE DIV. CH. DRAWING
50 4 2296
Colonel, Corps of Engineers, U.S.A.

NOTE: All elevations are referred to U.S.E.D. datum, = Mean Lower Low Water, Suisun Bay = 3.6 ft. below Mean Sea Level.

Field Books:
40-237
40-238
40-241



PLAN
SCALE: 1" = 400'



AS CONSTRUCTED
PART "C"

1	10 Jan 49	As constructed	HJF
REVISION	DATE	DESCRIPTION	BY
<p>SACRAMENTO RIVER, CALIFORNIA FLOOD CONTROL PROJECT PROPOSED LEVEE SETBACK IN LIEU OF BANK PROTECTION, EAST LEVEE SACRAMENTO RIVER MILE 111.5 TO MILE 110.8, LEFT BANK</p> <p>IN 1 SHEET SCALE AS SHOWN SHEET NO. 1 U. S. Engineer Office, Sacramento, California, July 1946 Submitted: Approval Recommended:</p> <p><i>J. R. Houston</i> Engineer (Civil) Approved for the Dist. Engr.</p> <p><i>Charles H. Munn</i> Colonel, Corps of Engineers, U.S.A.</p>			
DOC. FILE	FILE	DIV.	Ch. DRAWING
	50	4	2297

NOTE: All elevations are referred to U.S.E.D. Datum = Mean Lower Low Water Suisun Bay = 3.6 ft. below Mean Sea Level.

FIELD BOOKS
35-294
40-242

CHECK LIST NO. 2

Structures located along the easterly bank of the Sacramento River from the beginning of Part "A", approximately 2.5 miles upstream of Knights Landing to the end of Part "C" approximately 21 miles upstream of Knights Landing. This project is located approximately 40 miles northwest of Sacramento, California as shown on Drawings No. 50-4-2295, 50-4-2296 and 50-4-2297.

HIGHWATER PERIOD. This term is used under Paragraph 4-02-(c) 3b of the Standard Operations and Maintenance Manual; it applies to floods rising above the reading of 38.0 on the Division of Water Resources winter station and U. S. Geological Survey summer station at Knights Landing on left bank of Sacramento River immediately upstream from Southern Pacific Railroad Bridge. Continuous water stage recorder and staff gage set on U.S.C.E. datum.

Structures Affecting Levee Maintenance Work

Location (station)	Corr. Metal Pipe	Gates Model No.	Frame Height	Steel Pipe	Other Structure Description	Elevation of Invert at Pipe
Part A 164+49	36"	101	44.5'	-	Irrigation Structure with Pumping Plant. There are two reinforced concrete cut-off walls around a 30" x 24" concrete culvert connected to a 36" Corr. Metal Pipe and one (1) Type I Spillbox with two (2) Flashboard Openings.	34.9
Part A 196+41	-	None	-	12"	Irrigation Structure with Pumping Plant. Pipe goes over the top of Levee at Flood Plane. There is a cut-off Plate, a 1-inch Brass Cock, a 1-inch Air Valve and Air Valve Cover.	Flood Plane Elev. = 44.4
Part A 233+11	-	None	-	14"	Irrigation Structure with Pumping Plant. Pipe goes over the top of Levee at Flood Plane. There is a cut-off Plate, a 2" Air Valve, 2" Cock, and Air Valve Cover.	Flood Plane Elev. = 44.5

Exhibit "E" (Sheet 1 of 2)

CHECK LIST NO. 2 (Cont'd)

Location (station)	Corr. Metal Pipe	Gates Model No.	Frame Height	Steel Pipe	Other Structure Description	Elevation of Invert at Pipe
Part A 257+60	-	101	45.0	-	Irrigation Structure with Pumping Plant. There is a 24" x 30" Concrete Culvert with 2 Concrete Cut-off Walls around it.	35.0
Part B 545+44	-	Valve	-	24"	Deep-Well Turbine Pumping Plant on Platform over River; can be reached by Catwalk. Pipe enters conc. Valve Box on R.S. Valve is controlled by a long stem. Pipe empties into conc. box on L. S.	34.6
Part B 578+00	24"	101	50.2 (Riser Assembly)	-	15' x 36" Riser Assembly and Calco No. 101 Gate on L.S.	35.7
Part B 616+85	-	No Gate	-	16"	Pumphouse on R.S. of Levee. Pipe empties into conc. box on L.S.	46.2
Part C 1112+75	-	-	-	-	24" Pump.	31.5
Part C 1112+82	-	Makeshift Wooden Gate	52.7	18"	25' of 18" Steel Pipe lead up to a 4' x 4' Concrete Culvert (length: 110') which goes thru the Levee and empties into a concrete box on L.S.	39.5

Exhibit "E" (Sheet 2 of 2)

R E S O L U T I O N

PASSED AND ADOPTED BY THE RECLAMATION BOARD

JULY 2, 1947

- - -

WHEREAS The Reclamation Board has heretofore approved certain items of "new construction"; consisting of (1) the enlargement, set back and construction of the East Levee of the Sacramento River from Isleton Bridge to Walnut Grove, in Reclamation Districts Nos. 407 and 556; (2) enlargement, set back and construction of the East Levee of the Sacramento River from Meridian Bridge to Tisdale Weir, in Reclamation Districts Nos. 70 and 1660; and (3) the enlargement, set back and construction of the East Levee of the Sacramento River between River Miles 92.6 to 94.5, 99.3 to 101.2, and 110.8 to 111.5, in Reclamation District No. 1500; and

WHEREAS the War Department, Corps of Engineers, District Engineer, Sacramento District, under date of June 23, 1947, has notified The Reclamation Board of the completion of the three items of levee enlargement, set back and construction, and has transferred said portions of levee to the State of California for maintenance and operation between proper local interests; and

WHEREAS the Chief Engineer of The Reclamation Board has caused to be made an inspection on the ground of the three items of new construction as specified above, and has found and determined that such work, as completed, has been prosecuted and carried out in conformance with plans and specifications therefor; now therefore be it

RESOLVED AND ORDERED that The Reclamation Board does hereby accept for the State of California the said three items of "new construction" as aforesaid, which have on the date above set forth been transferred to said Board by the War Department, U. S. District Engineer; and be it further

RESOLVED AND ORDERED that the East Levee of the Sacramento River from Isleton Bridge to Walnut Grove, together with the berms and appurtenant structures thereof, so much thereof as lies within Reclamation District No. 407, be, and the same is hereby turned over to Reclamation District No. 407 for maintenance and operation, as the legally authorized function of said district; and so much thereof as lies within Reclamation District No. 556 be, and the same is hereby turned over to Reclamation District No. 556 for maintenance and operation, as the legally authorized function of said district; and be it further

RESOLVED AND ORDERED that the East Levee of the Sacramento River, Meridian Bridge to Tisdale Weir, together with the berms and appurtenant structures thereof, so much thereof as lies within Reclamation District No. 70 be, and the same is hereby turned over to Reclamation District No. 70 for maintenance and operation, as the legally authorized function of said district; and that so much thereof as lies within Reclamation District No. 1660 be, and the same is hereby turned over to Reclamation District No. 1660 for maintenance and operation, as the legally authorized function of said district; and be it further

RESOLVED AND ORDERED that the East Levee of the Sacramento River between Miles 92.6 to 94.5, 99.3 to 101.2, and 110.8 to 111.5,

together with the berms and appurtenant structures thereof, be and the same is hereby turned over to Reclamation District No. 1500 for maintenance and operation, as the legally authorized function of said district.

STATE OF CALIFORNIA)
COUNTY OF SACRAMENTO) SS
Office of The Reclamation Board)

I, S. A. HONAKER, Assistant Secretary of The Reclamation Board, do hereby certify that the above and foregoing is a true and correct copy of a Resolution adopted by said Board at its meeting held July 2, 1947.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of The Reclamation Board this 15th day of July, 1947.

 /s/ S. A. Honaker
 S. A. HONAKER

Assistant Secretary
The Reclamation Board