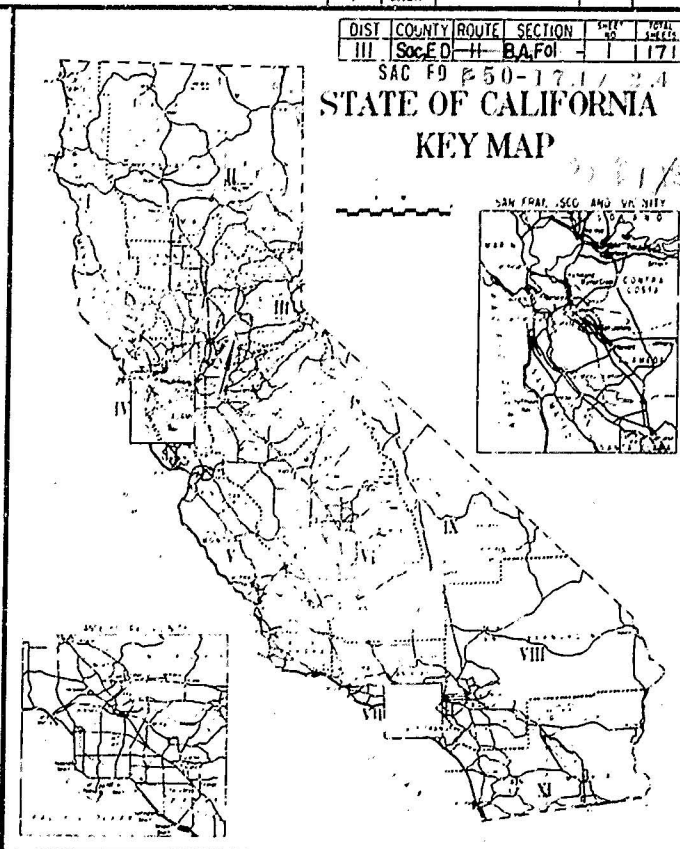


S.P. No.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DIST.	COUNTY	ROUTE	SECTION	1/4	2/4	3/4	4/4
III	Sac.	H-1	BA, FOL	1	1	1	1

STATE OF CALIFORNIA
KEY MAP



INDEX OF SHEETS

Sheet No.	Title Sheet
1	Title Sheet
2-3	Typical Cross Sections
4-43	Plan and Profile
44-48	Miscellaneous Details
49-52	Culvert List
53-54	Miscellaneous Lists
55-76	Standard Details
77-96	Signing, Striping and Delineation
97-103	Roadside Signs
104-117	Highway Lighting Plans
118-127	Prairie City O.C. Br. No. 24-184
128-137	Scott Rd. O.C. Br. No. 24-187
138-148	White Rock Overhead Br. No. 24-122 R/L
149-159	Latrobe Rd. U.C. Br. No. 25-71 R/L, OR
160-162	Bridge Details
163-171	Clarksville U.C. Br. No. 25-72 R/L
1-129	Cross Sections
1-	2 Mass Diagram

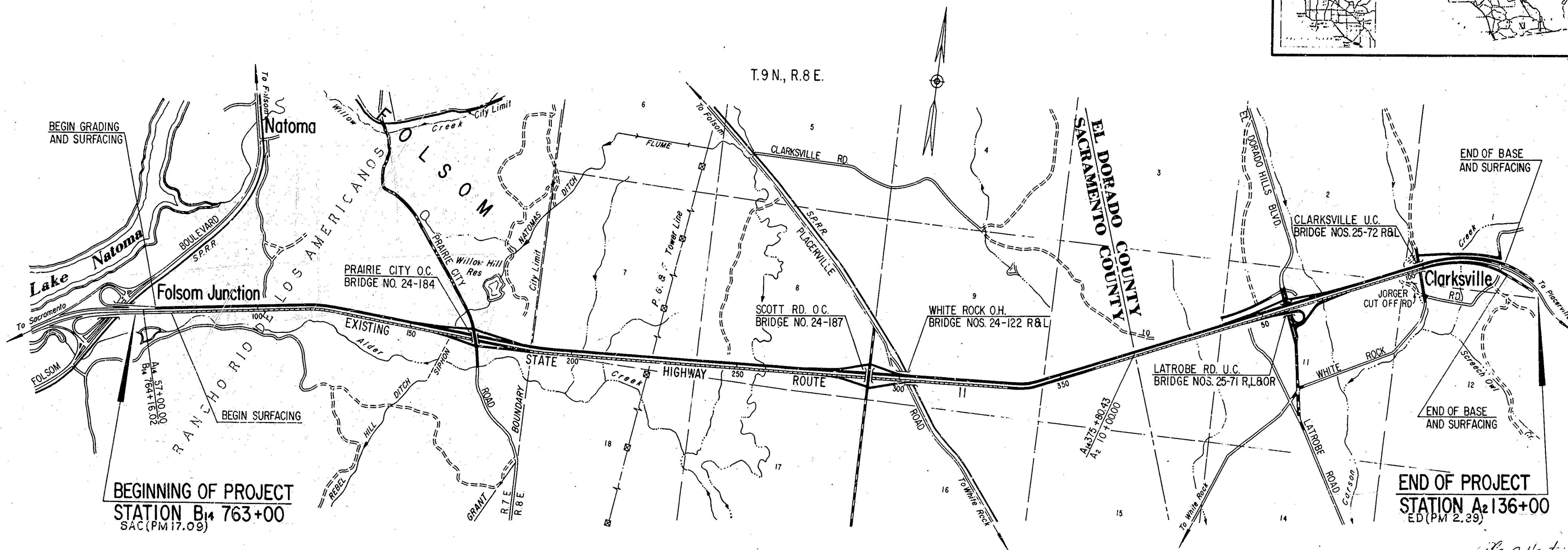
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
In Sacramento and El Dorado Counties
between Folsom Junction and 2.2 miles east of Sacramento County Line

(being the detail plans of a portion of the route for the State highway adopted by the California Highway Commission on October 30, 1947 and on January 25, 1961 and declared a

FREEWAY

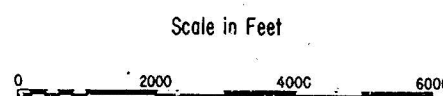
by resolution of the California Highway Commission on November 12, 1947 and on January 25, 1961



BEGINNING OF PROJECT
STATION B₁₄ 763+00
SAC (PM 17.09)

END OF PROJECT
STATION A₂ 136+00
E.D. (PM 2.39)

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376



Length of Project 44,080 Feet = 8.348 Miles 03-074024

LEGEND
Grading and Surfacing
Repair and Surfacing Existing Highway
Construction by others

AS BUILT PLANS
CONTRACT NO. 03-074024
COMPLETED 12-65
J.W. HUNTER RES. ENGR.

03-074024
W. H. Hunter
Assistant State Highway Engineer
Approved January 6, 1964
J.C. Womack
State Highway Engineer
REGISTERED CIVIL ENGINEER NO. 5945
DIRECTOR OF PUBLIC WORKS

F-014-1(4)

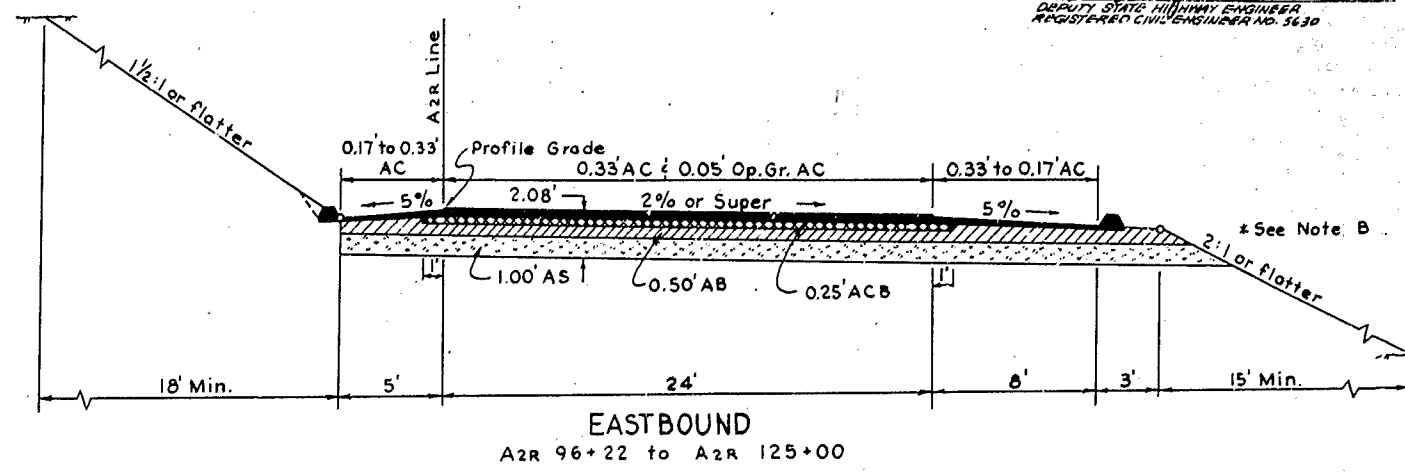
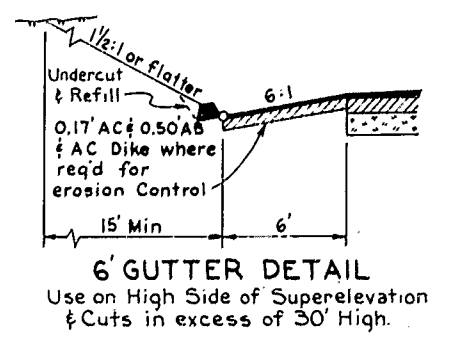
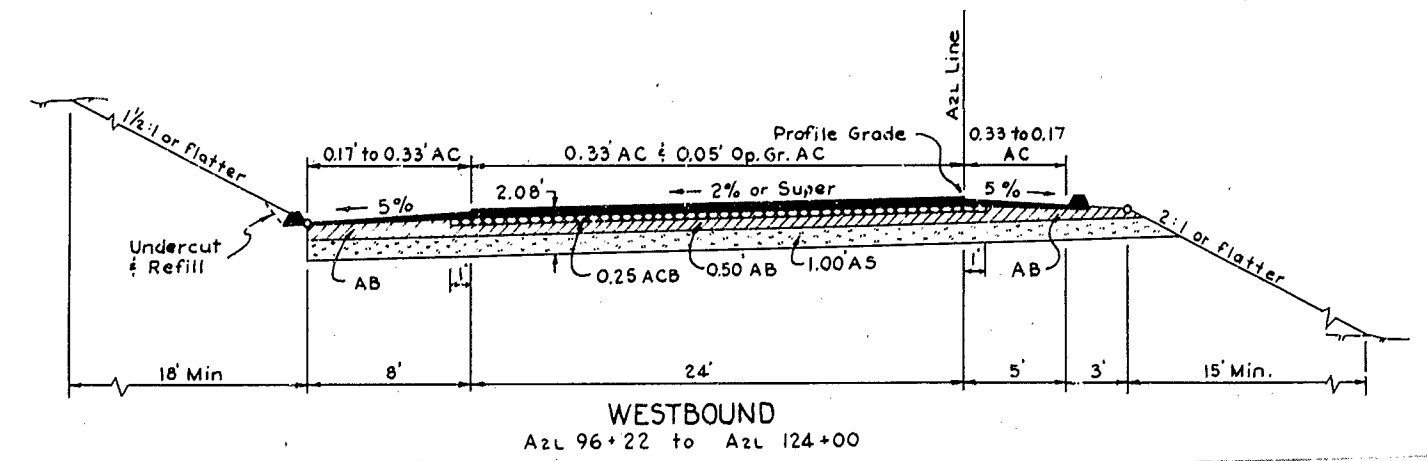
S.P. No.	STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DESIGN DESIGNATION
 ADT (65) = 18,240 D = 75%
 ADT (85) = 52,572 T = 1%
 DHV = 6,872 V = 60 MPH
 TI = 9.2

SAC ED - 50-17.1 / 2.4
 DIST COUNTY ROUTE SECTION SHEET TOTAL SHEETS
 III SAC, ED - 11 - B, A, Fol - 2 / 17

W. J. Warren
 DISTRICT ENGINEER
J. P. Sullivan
 ASSISTANT STATE HIGHWAY ENGINEER

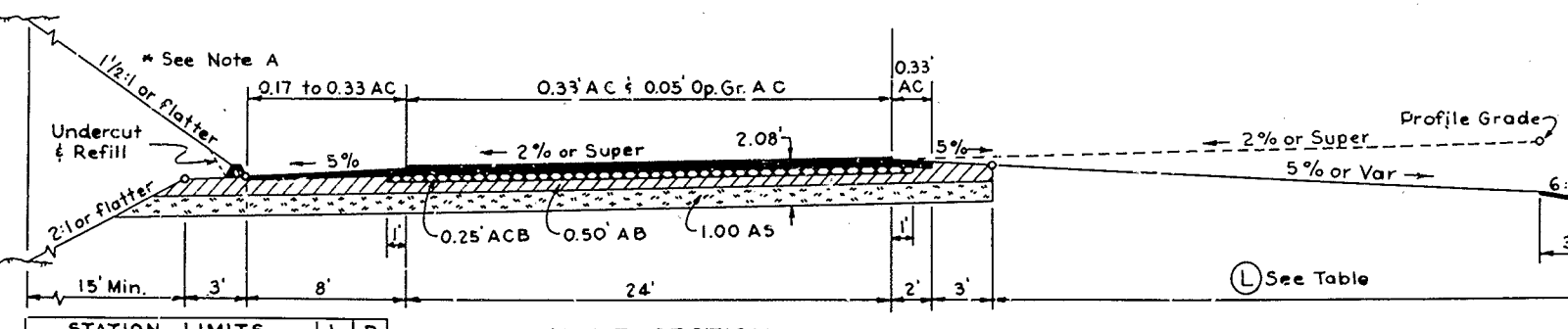
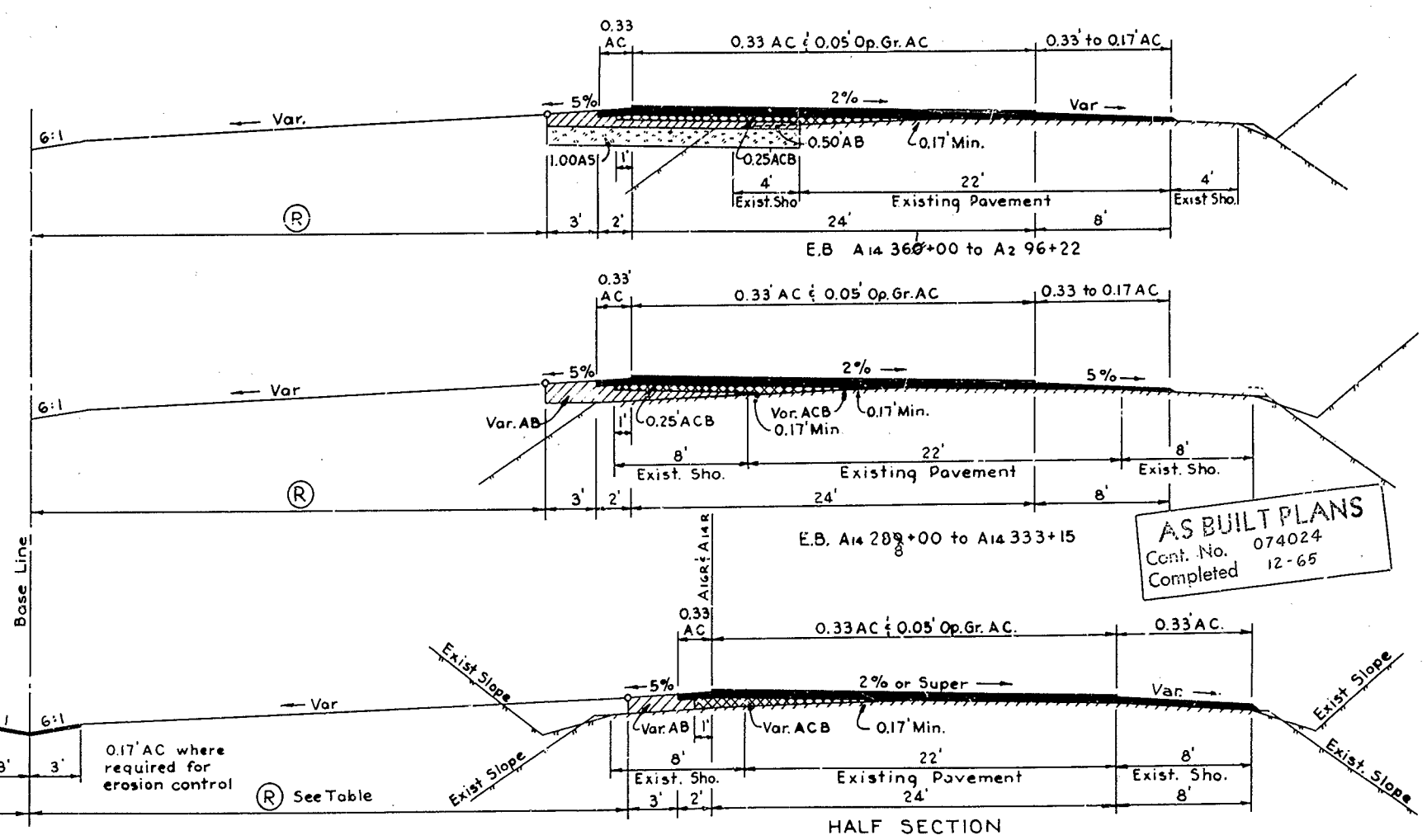
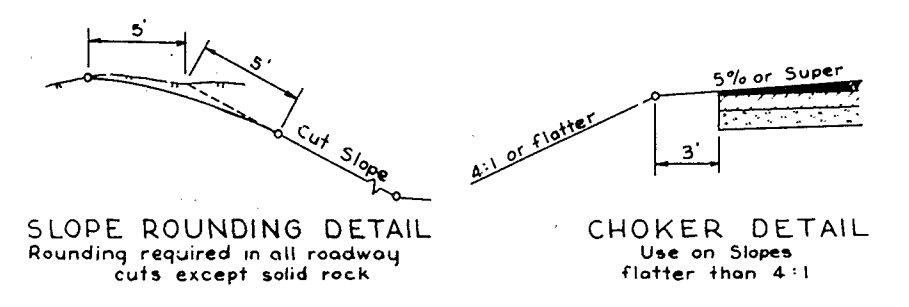
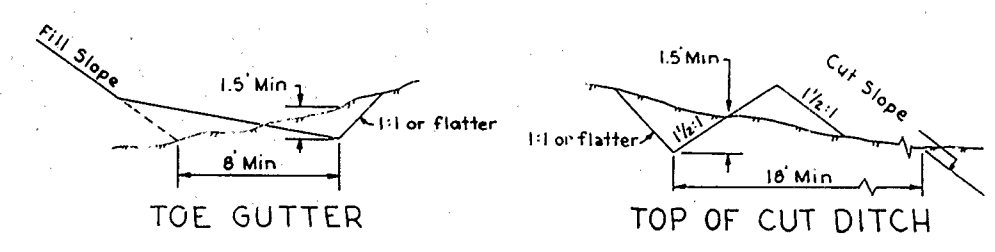
APPROVED January 6, 1964
J. C. Wornick
 STATE HIGHWAY ENGINEER
 REGISTERED CIVIL ENGINEER NO. 5245
J. P. Sullivan
 DEPUTY STATE HIGHWAY ENGINEER
 REGISTERED CIVIL ENGINEER NO. 3630



Notes
 A - Mainline & Ramp Cut Slopes 2:1 or flatter between Station A14 61+00 and A14 155+50
 B - E.B. Fill Slope 1 1/2:1 or flatter between Station AzL 109+30 and AzL 111+30 on right
 C - Profile Grade on E.B. from A14 69+85 to A14 333+15 & from A14 360+00 to A14 96+22 controlled by Existing Pavement

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

SYMBOLS
 Op. Gr. AC - Open Graded Asphalt Concrete
 AC - Asphalt Concrete, Type B
 ACB - Asphalt Concrete Base
 AB - Aggregate Base - Cl. 2
 CTB - Cement Treated Base Cl. B
 AS - Aggregate Subbase - Cl. 1
 Hinge Point for Variable Slopes
 Original Ground Surface



STATION LIMITS	L	R
A14 61+00 to A14 82+00	18	18
A14 82+00 to A14 115+32	18	Var
A14 115+32 to A14 125+89	Var	Var
A14 125+89 to A14 178+66	30	30
A14 178+66 to A14 201+36	30	Var
A14 201+36 to A14 275+00	30	35
A14 275+00 to A14 289+00	30	Var
A14 289+00 to A2 96+22	30	30

HALF SECTION
 W.B. A14 51+00 to A2 96+22
 E.B. A14 333+15 to A14 360+00

III - SAC, ED - 11 - B, A, Fol
 BETWEEN FOLSOM JUNCTION & 2.2 MI. EAST OF SACRAMENTO CO. LINE
 TYPICAL CROSS-SECTIONS
 Scale 1" = 5'

General Notes:
 Existing slopes and dikes on right of E.B. lanes to be used as exists.
 AC Dike to be used on all W.B. embankments steeper than 6:1 and in all cuts.
 Dimensions are subject to tolerances specified in the Standard Specifications
 Super-elevation as directed by Engineer

EQUATIONS

A14 82+00.00 + A16 82+00.00	A14 201+78.59 + A14 201+78.87
A16 375+80.43 + A2 10+00.00	35 L A2 96+22.12 + A2L 96+22.12
35 R A2 96+22.12 + A2R 96+22.12	

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
FW.COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

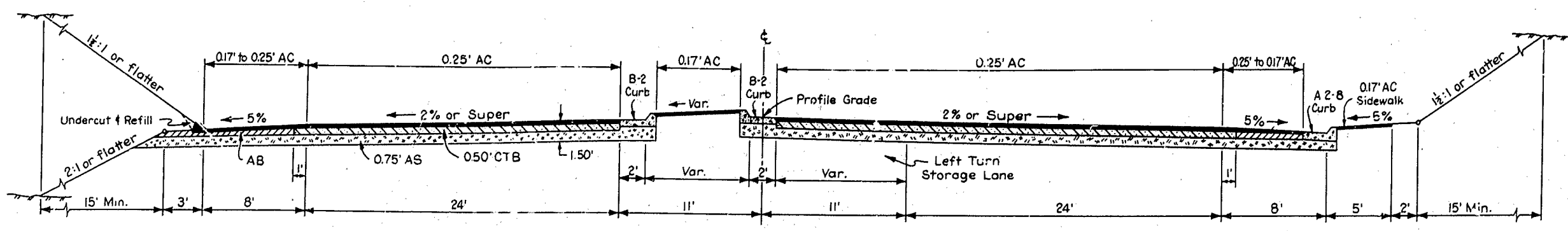
62-0370H0740.2

F-014-1(4)

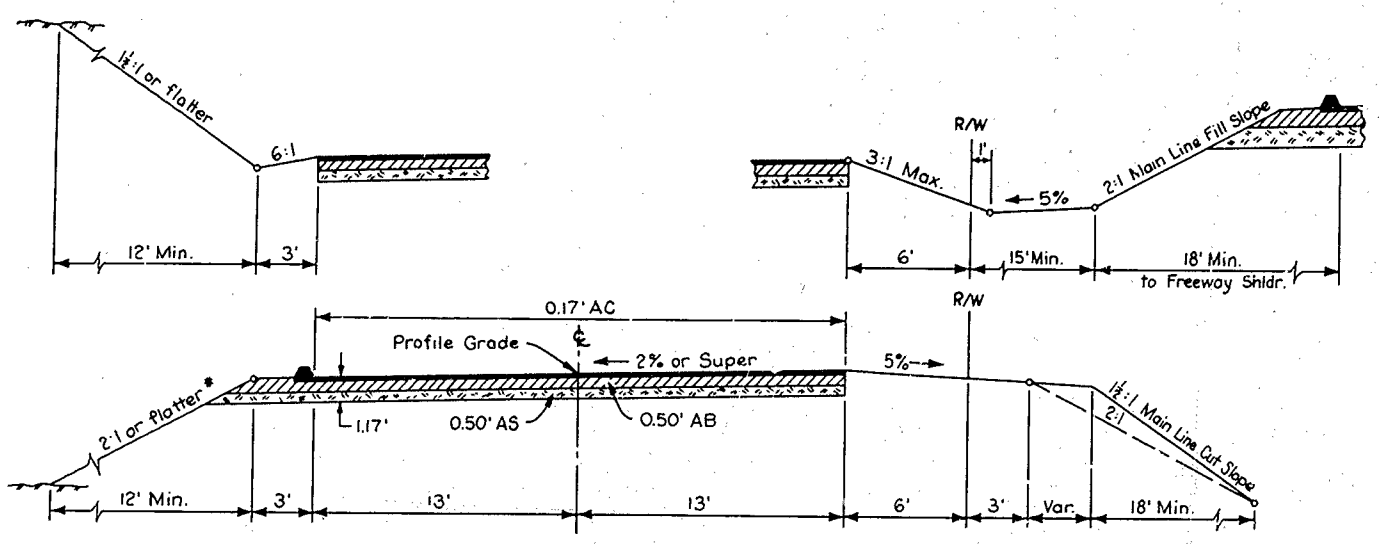
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III	SAC, ED	11	B, A, F, I	3	7

SAC ED 50-17.1 / 2.4

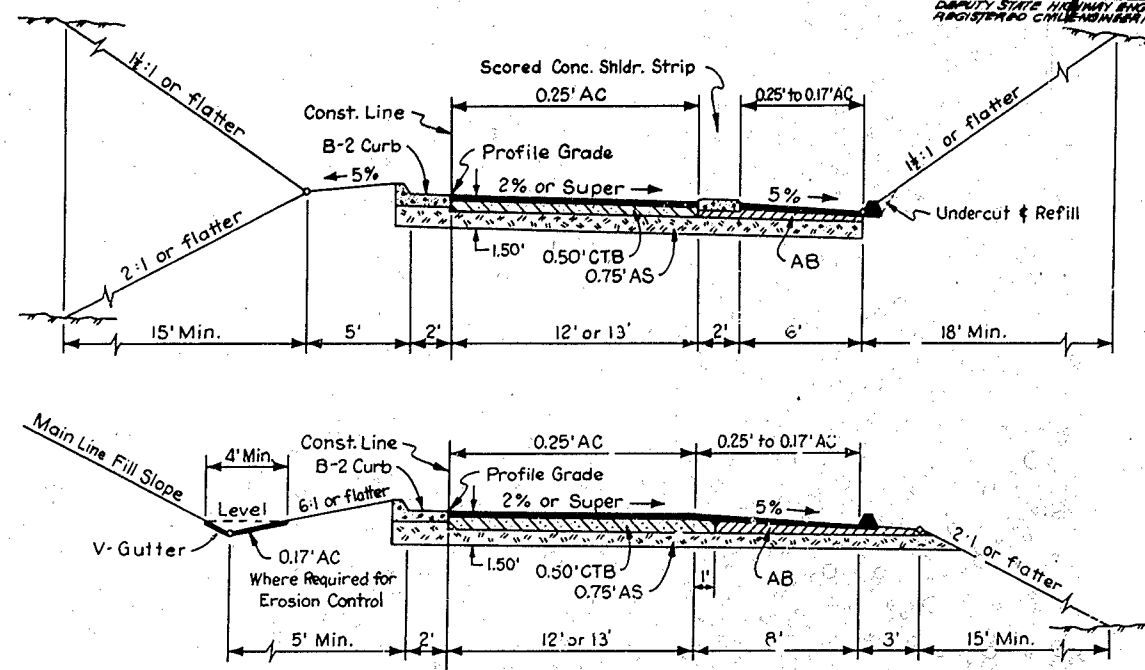
[Signatures]
 ENGINEER OF DESIGN
 ASSISTANT STATE HIGHWAY ENGINEER
 APPROVED: January 6, 1964
 J. C. Wamsler
 STATE HIGHWAY ENGINEER
 REGISTERED CIVIL ENGINEER NO. 5830



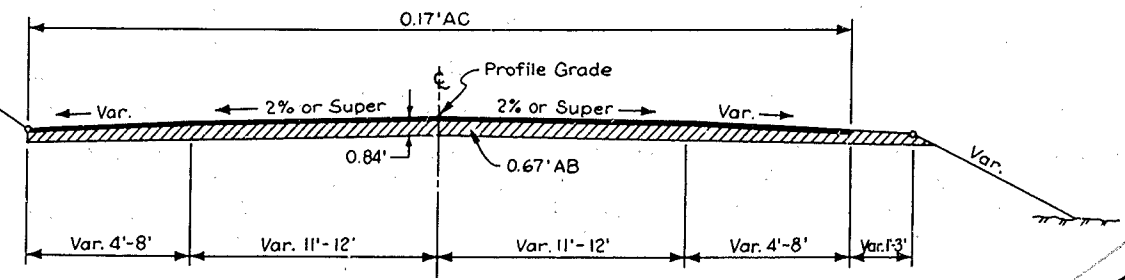
LATROBE ROAD
 L₁₀ 45+00 to L₁₀ 53+72.61



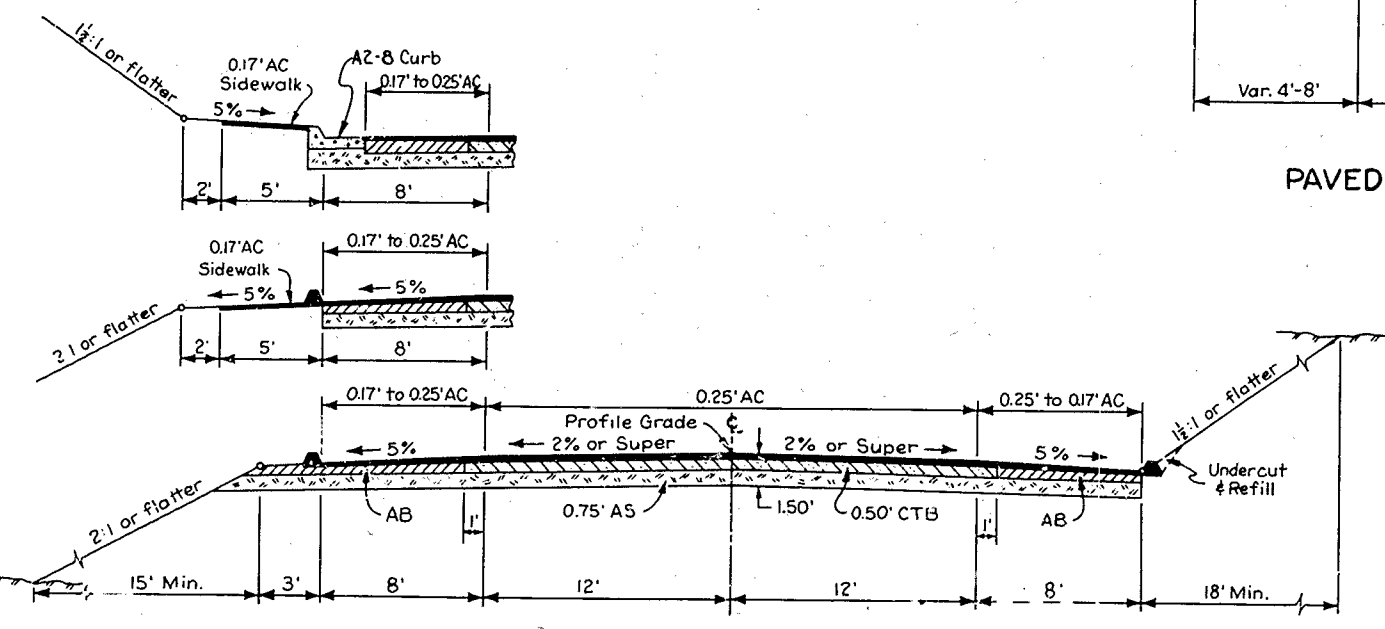
Fill FRONTAGE ROAD
 * Left Fill Slope 1 1/2:1 from F₁₁ 109+00 to F₁₁ 113+50



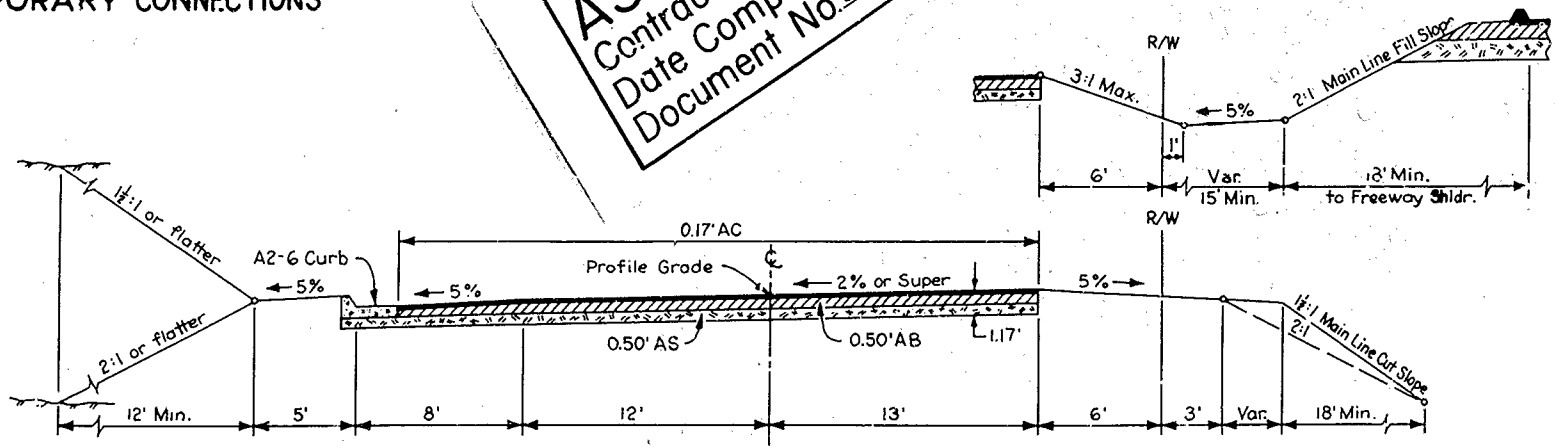
ON & OFF RAMPS



PAVED DETOURS & TEMPORARY CONNECTIONS



CROSSING ROADS
 H 11+63 to H 28+67
 J 13+40 to J 26+60
 LR 28+00 to LR 39+26
 M 9+35 to M 26+00



F5 FRONTAGE ROAD

III - SAC, ED - 11 - B, A, F, I
 BETWEEN FOLSOM JUNCTION
 & 2.2 MI. EAST OF SACRAMENTO CO. LINE
TYPICAL CROSS-SECTIONS
 Scale: 1" = 5'

General Notes:
 Dimensions are subject to tolerances specified in the Standard Specifications.
 Superelevation as directed by Engineer.

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

RANCHO RIO DE LOS AMERICANOS
 (Projected T.9N.-R.7E.-M.D.B.&M.)

SAC ED 50-17.1 / 2.4

III SAC -H- B, A 4 171

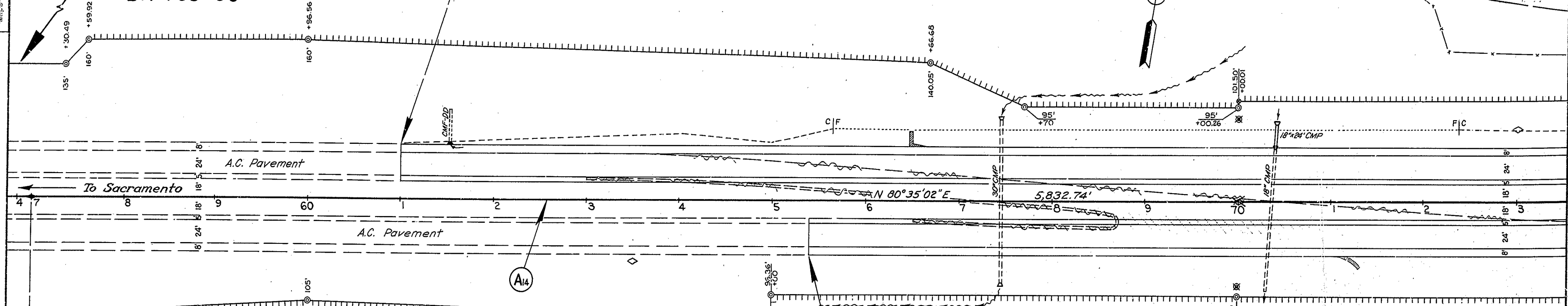
Approved
 H. L. Warren

Beginning of Project
 B14 763+00

BEGIN GRADING & PAVING
 A14 61+00 W.B.

NATOMAS COMPANY

Sec. 10
 Sec. 15



CONSTRUCTION SYMBOLS

- OMP-DI (Arrows show openings)
- Exist. Ditch or Stream
- Entrance Taper & Downdrain
- Survey Monument
- Exist. Survey Monument
- R/W Monument
- R/W Angle-Point (No Monument)
- Exist. R/W Monument
- Exist. R/W Mon. to be Removed
- Flared Metal End Section
- 0.17' AC Paved Area
- AC Flared Dike & Spillway
- Ditch
- FIC
- Toe of Fill & Top of Cut
- Underdrain Cleanout
- Obliterate Pavement

All bearings shown are CALIFORNIA COORDINATE SYSTEM ZONE II. Distances shown are ground distances. To obtain grid distances multiply by:
 A14 57+00.00 P.O.T. to A14 120+62.93 P.I.-0.999994
 A14 120+62.93 P.I. to A14 338+94.84 P.I.-0.999993
 A14 338+94.84 P.I. to A14 102+73.62 P.I.-0.999991
 A14 338+94.84 P.I. to A14 104+32.80 P.I.-0.999991
 A14 102+73.62 P.I. to A14 136+00.00 P.O.C.-0.999990
 A14 104+32.80 P.I. to A14 136+00.00 P.O.C.-0.999990

Note:
 Taper AC Blanket from 0.08' to 0.33'
 Between Sta. A14 65+40 & A14 69+85 E.B.

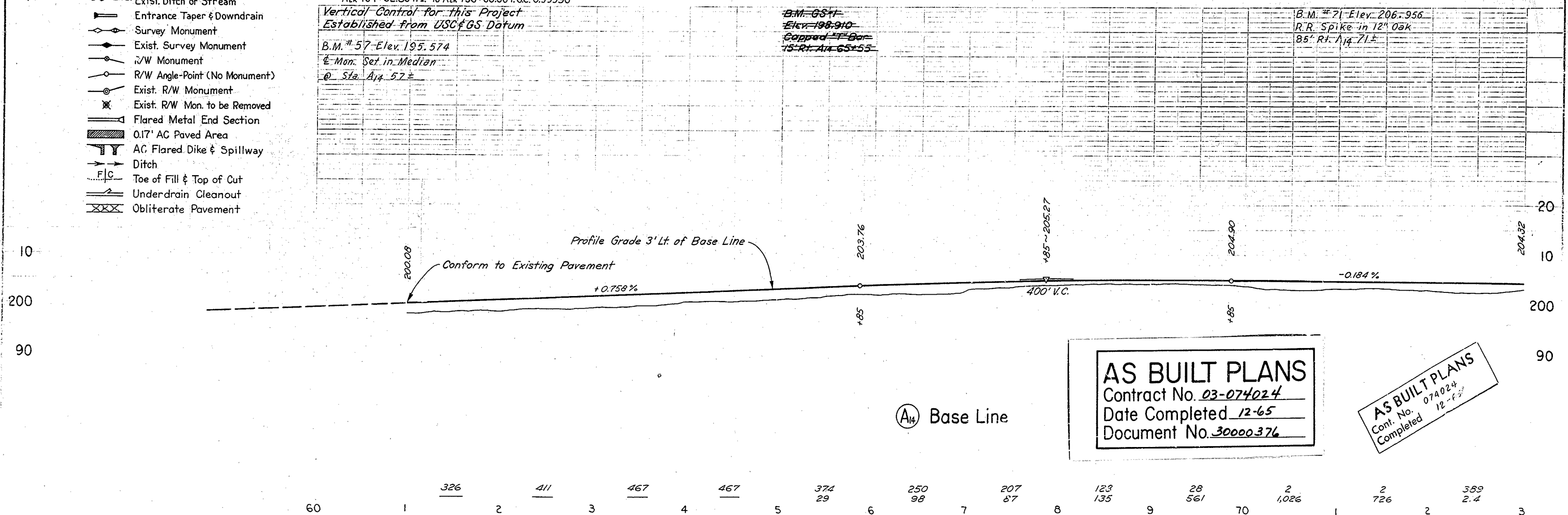
BEGIN AC PAVING
 A14 65+40 E.B.

AEROJET GENERAL CORPORATION

Vertical Control for this Project
 Established from USC & GS Datum
 B.M. # 57 - Elev. 195.574
 E-Mon. Set in Median
 @ Sta. A14 57 ±

B.M. # 51 - Elev. 198.910
 Capped in Box
 15' R. of A14 65+55

B.M. # 71 - Elev. 206.956
 R.R. Spike in 12" Oak
 85' R. of A14 71 ±



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

(A14) Base Line

D.B. 6-66

RANCHO RIO DE LOS AMERICANOS

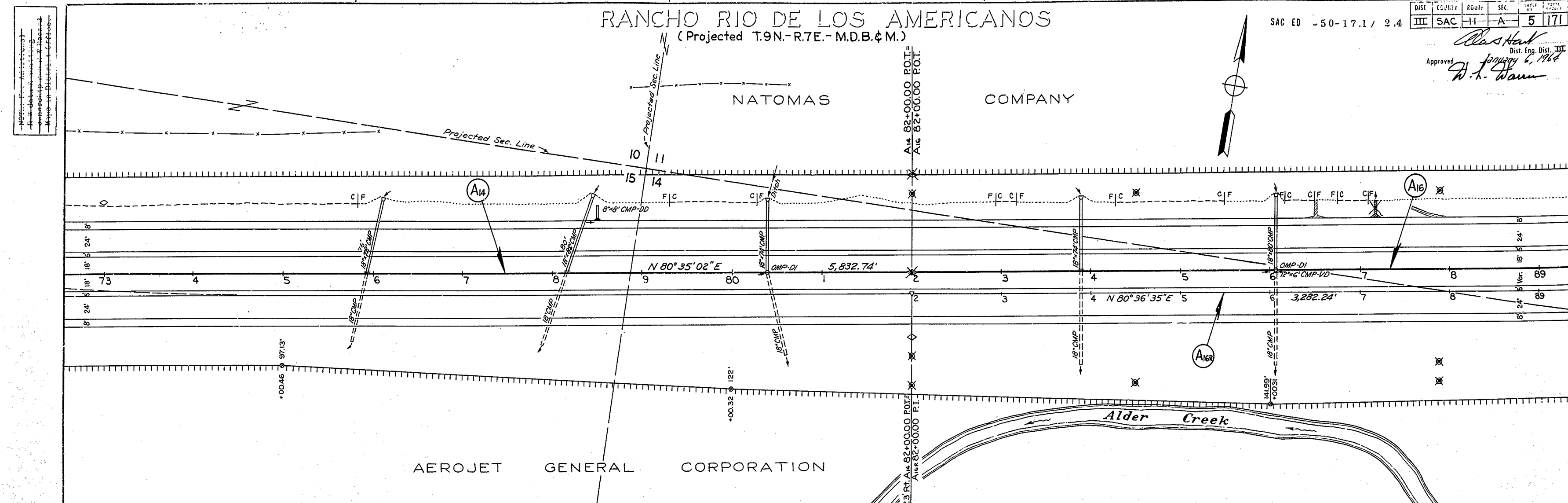
(Projected T.9N.-R.7E.-M.D.B.&M.)

SAC ED - 50-17.1 / 2.4

Approved: *W. H. Wann*
 January 6, 1964
 Dist. Eng. Dist. III

NATOMAS COMPANY

AEROJET GENERAL CORPORATION



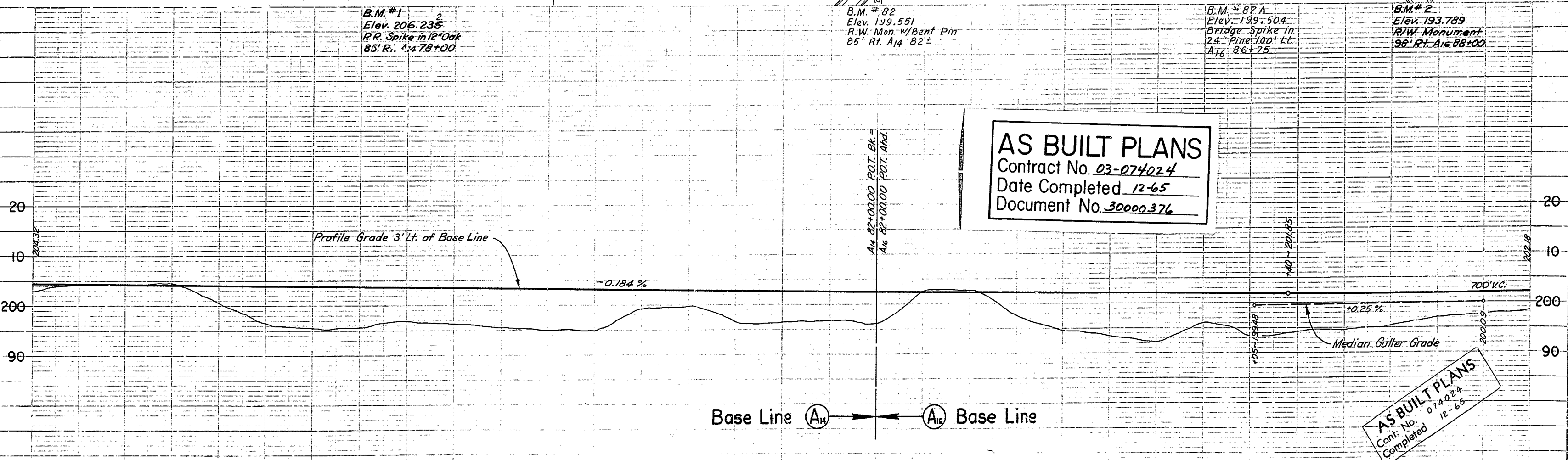
B.M. #1
Elev. 206.235
P.R. Spike in 12" Oak
85' Rt. A14 78+00

B.M. #2
Elev. 193.789
R/W Monument
96' Rt. A16 88+00

B.M. #82
Elev. 199.551
R.W. Mon. w/ Bent Pin
85' Rt. A14 82+00

B.M. #87A
Elev. 199.504
Bridge Spike in
2 1/2" Pine 100' Lt.
A16 86+75

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376



AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

Sta.	73	4	5	6	7	8	9	80	2	3	4	5	6	7	8	89
Cu. Exc.	638	594	106					318	105	18	527	183	796	131	259	50
Yds. Emb.	40	136	1,163	1,716	1,210	1,378	442	991	1,117	304	1,216	1,137	955	720	801	32

RANCHO RIO DE LOS AMERICANOS
(Projected T.9N.-R.7E.-M.D.B.&M.)

CALIF. COORDINATE SYSTEM, Zone II
Ground distances and grid bearings shown

SAC ED # 60-7.1 / 2.4

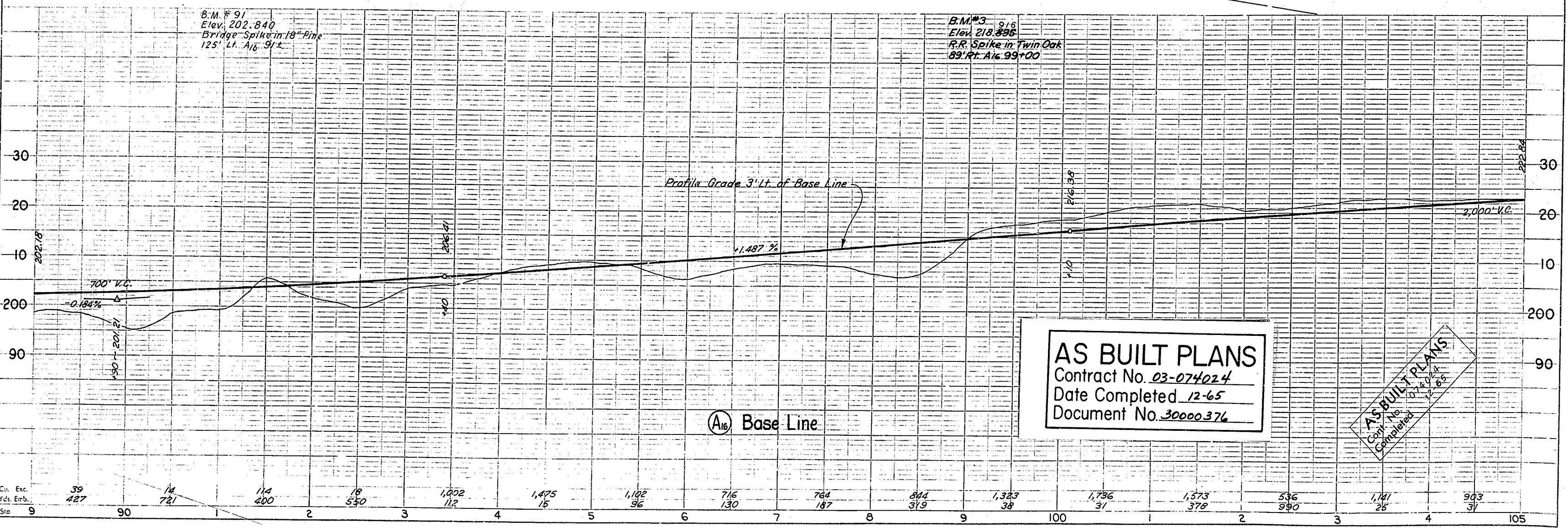
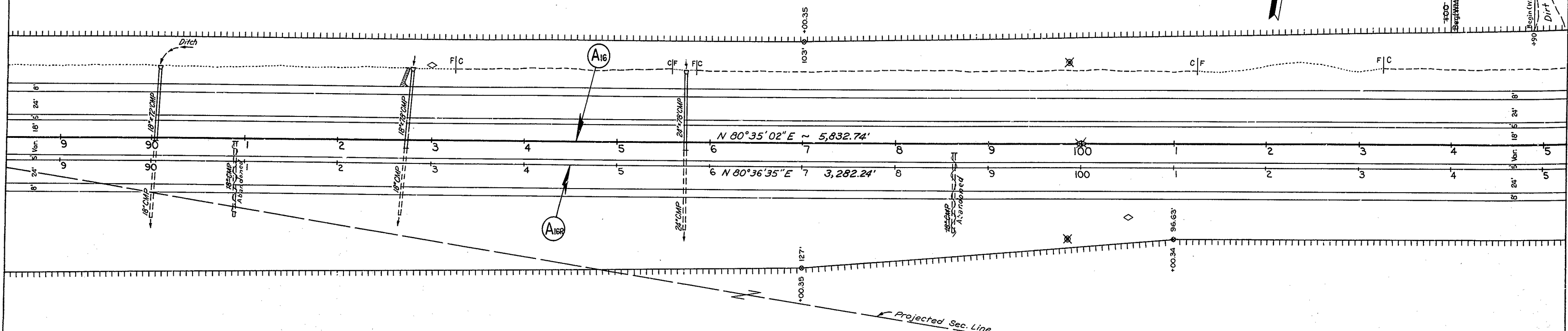
DIST.	COUNTY	ROUTE	SEC.	TRACT	SECTION
III	SAC	II	A	6	171

Approved: *[Signature]*
Dist. Eng. Dist. III
Approved: *[Signature]*
W. P. Warren

NATOMAS COMPANY

AEROJET GENERAL CORPORATION

Sec. 11
Sec. 14



B.M. # 91
Elev. 202.840
Bridge Spike in 18\"/>

B.M. # 3
Elev. 218.898
R.R. Spike in Twin Oak
89' Lt. A16 99+00

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Copy No. 101
Completed 12-65

Sta	9	90	1	2	3	4	5	6	7	8	9	100	1	2	3	4	105
Exc.	39	14	114	18	1,002	1,475	1,102	716	764	844	1,323	1,796	1,573	536	1,141	903	
Elev.	427	721	400	550	112	15	96	130	187	319	38	31	378	990	26	31	

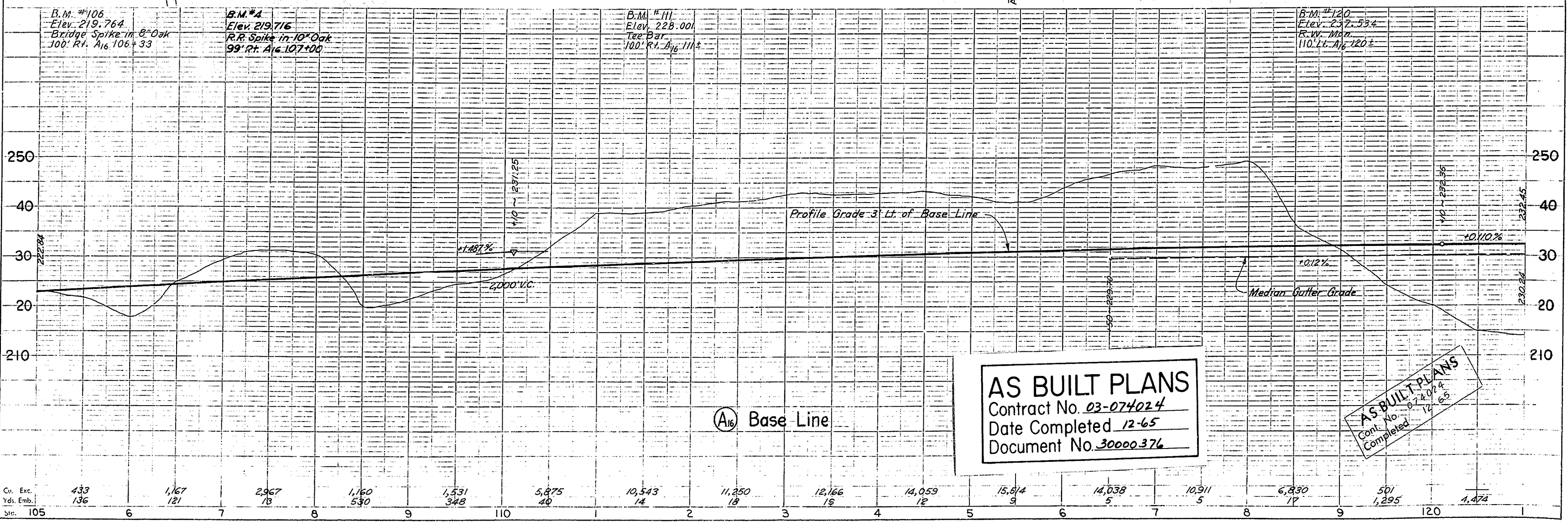
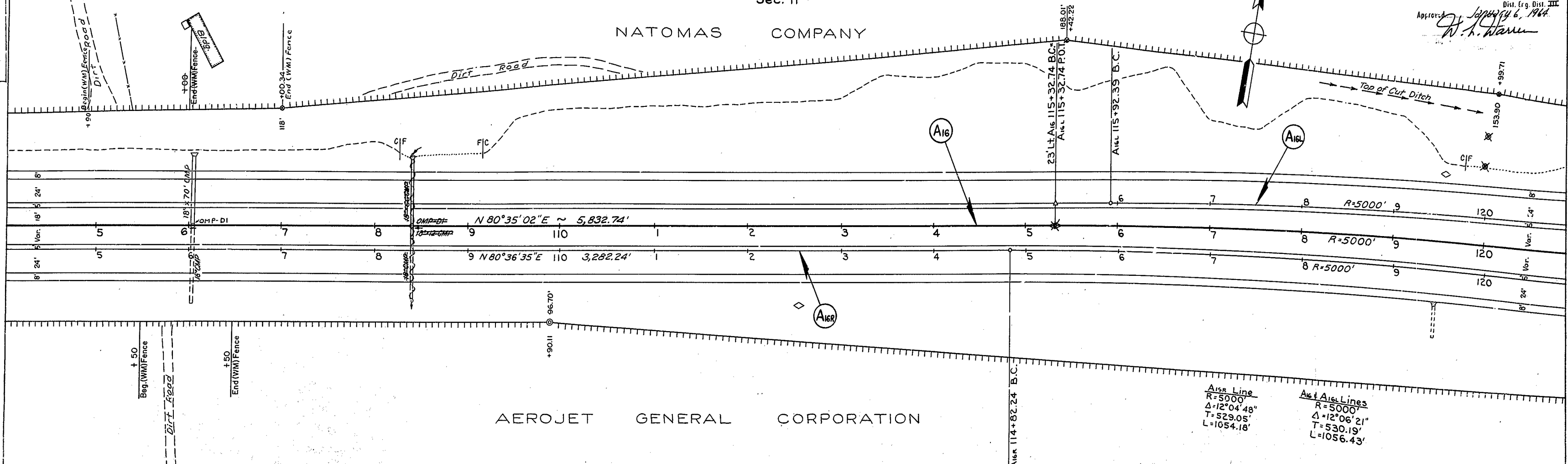
RANCHO RIO DE LOS AMERICANOS
(Projected T.9N.-R.7E.-M.D.B.&M.)
Sec. II

STATE	COUNTY	BLK	SEC	SHEET	TOTAL SHEETS
CALIF.	III	-II	A	7	171

Approved: *W. H. Mann*
Dist. Eng. Dist. III
Sept 6, 1964

NATOMAS COMPANY

AEROJET GENERAL CORPORATION



AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Contract No. 03-074024
Completed 12-65

Cu. Exc.	433	1,167	2,967	1,160	1,531	5,875	10,543	11,250	12,166	14,059	15,514	14,038	10,911	6,830	501	4,474
Yds. Emb.	136	121	18	530	348	40	14	18	19	12	9	5	5	19	1,295	
Sta.	105	6	7	8	9	110	1	2	3	4	5	6	7	8	9	120

7

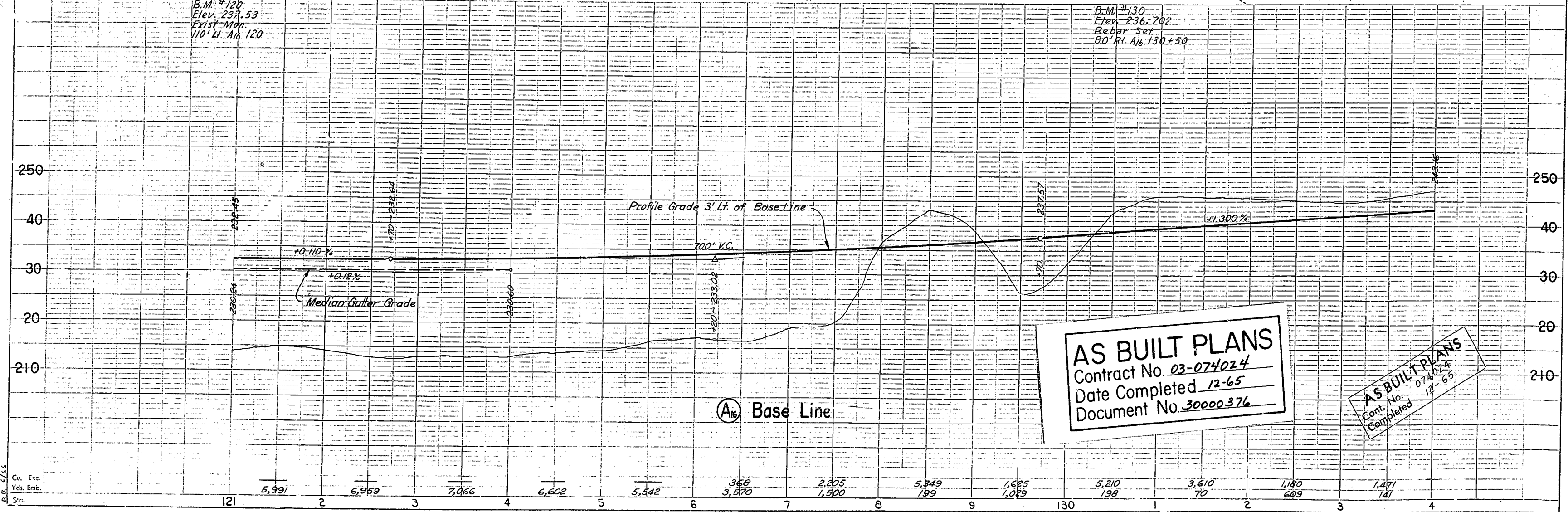
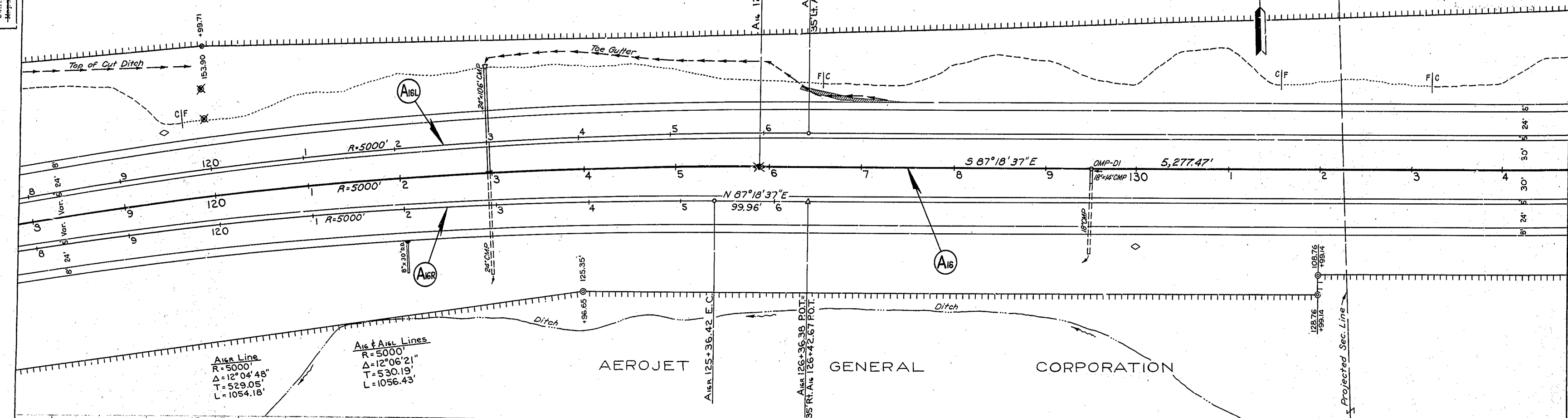
DIST.	COUNTY	ROUTE	SEC.
III	SAC	11-A	8-171

Approved: *R. Stark*
 Dist. Eng. Dist. III
January 6, 1965
W. H. Warner

RANCHO RIO DE LOS AMERICANOS
 (Projected T.9N. R.7E. M.D.B.&M.)

NATOMAS COMPANY

AEROJET GENERAL CORPORATION



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed 12-65

8

RANCHO RIO DE LOS AMERICANOS

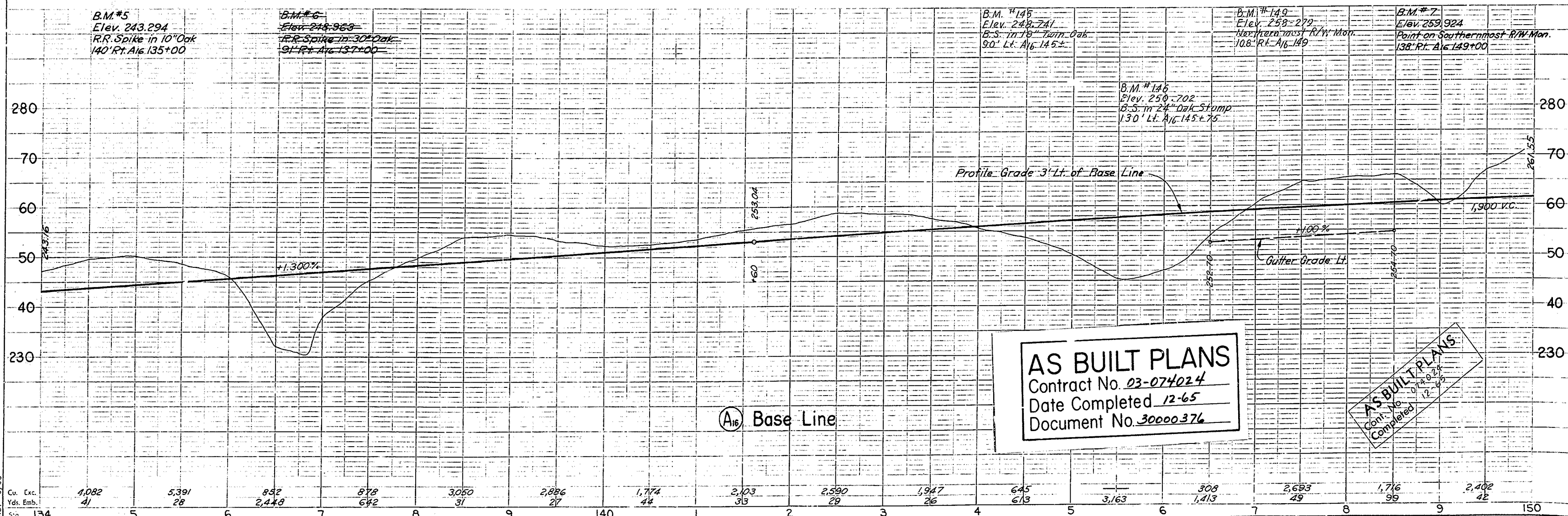
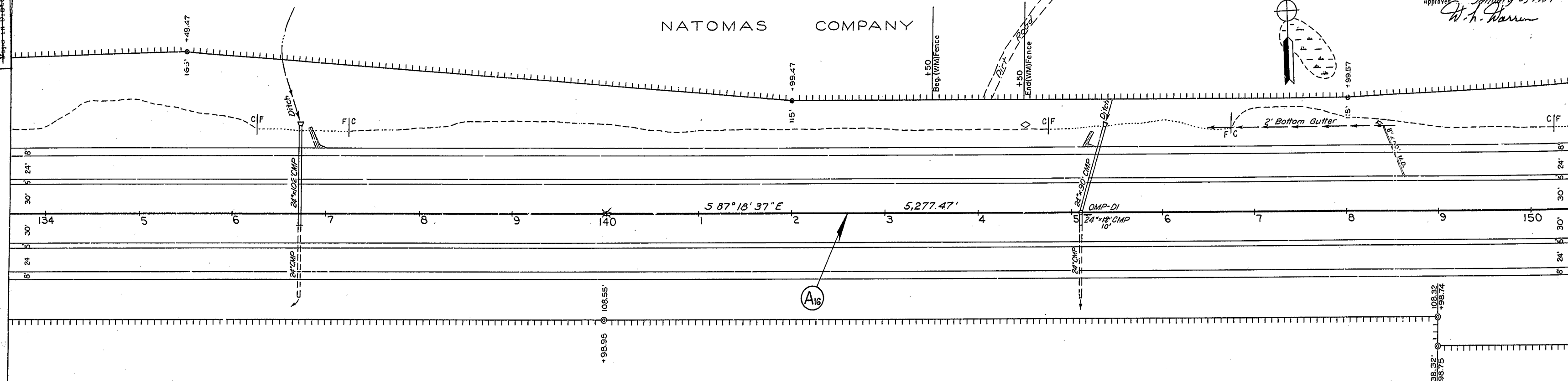
(Projected Sec. 12, T.9N.-R.7E.-M.D.B.&M.)

CALIF. (COORDINATE SYSTEM, Zone II)
 DIST. COUNTY ROUTE SEC. 12
 III SAC -11 A 9 177

W. H. Warren
 Approved January 6, 1964
 W. H. Warren

NATOMAS COMPANY

AEROJET GENERAL CORPORATION



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Contract No. 03-074024
 Completed 12-65

Cu. Exc.	1,082	5,391	852	878	3,080	2,886	1,774	2,103	2,590	1,947	645	308	2,653	1,716	2,402
Yds. Emb.	41	28	2,448	642	31	27	44	33	29	26	613	1,413	49	96	42
Sta.	134	5	6	7	8	9	140	1	2	3	4	5	6	7	150

9

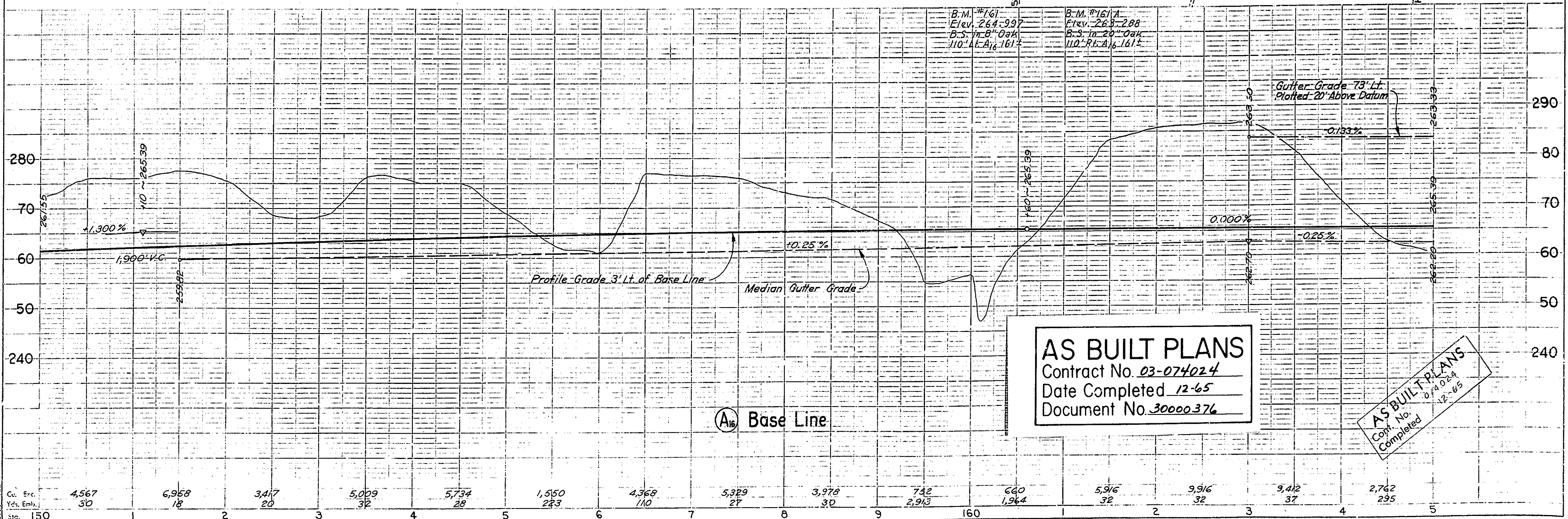
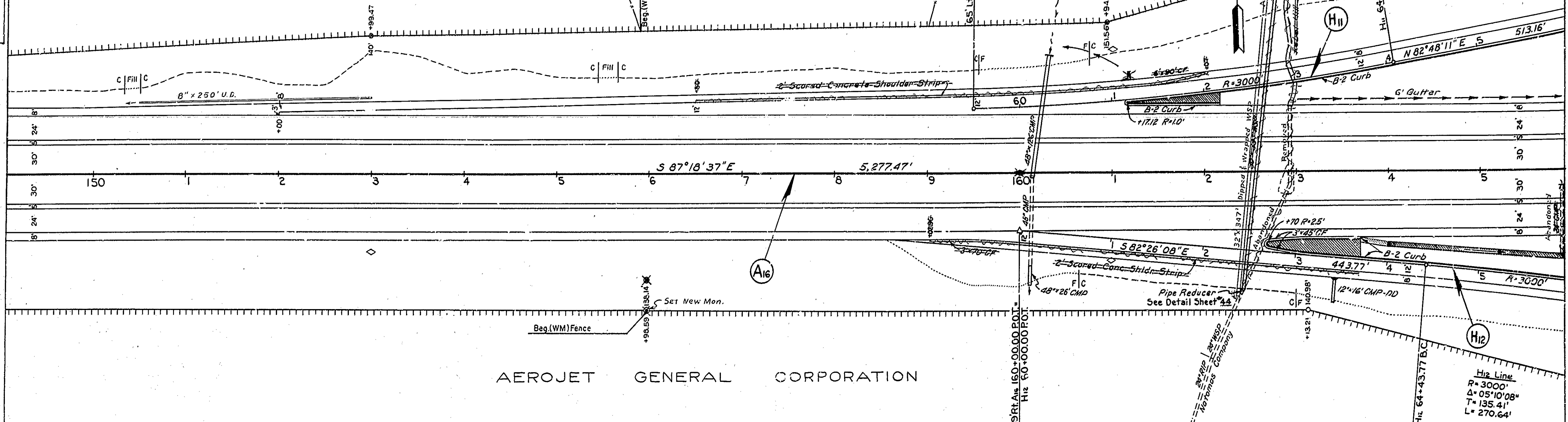
RANCHO RIO DE LOS AMERICANOS
(Projected Sec. 12, T.9N.-R.7E.-M.D.B.&M.)

NATOMAS COMPANY

MABEL BROWN

AEROJET GENERAL CORPORATION

CONSTRUCTION PERMIT
 DIST. COUNTY ROUTE SEC. ...
 III SAC II A 70 171
 Approved January 6, 1965
 W. A. Harman



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed 12-65

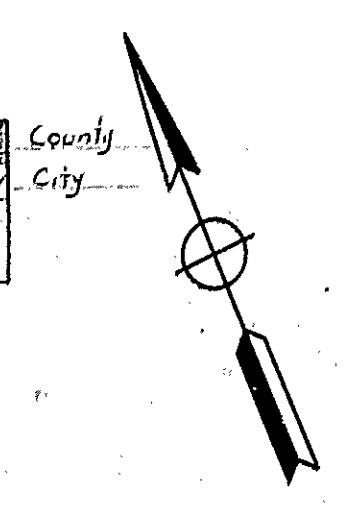
10

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
CALIF.		11	11
SECTION	DATE	BY	APP'D
III SAC	11	A	11/11

RANCHO RIO DE LOS AMERICANOS

(Projected T.9N.-R.7E.-M.D.B.&M.)

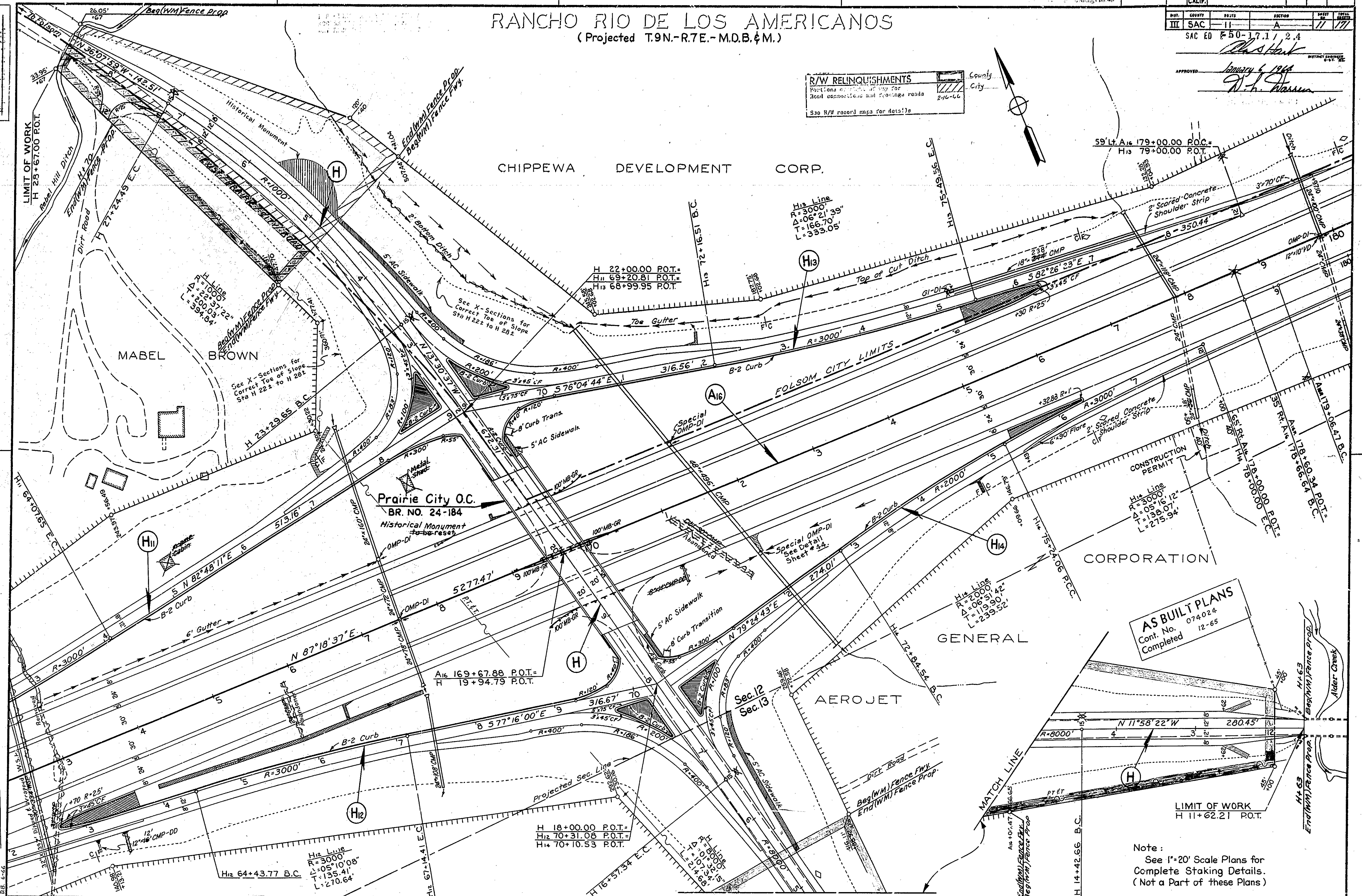
R/W RELINQUISHMENTS
 Portions of right-of-way for
 local roads and drainage roads
 2-16-66
 See R/W record map for details



SAC ED 8-50-17.11, 2.4
 APPROVED: *[Signature]*
 January 5, 1966
[Signature]

CHIPPEWA DEVELOPMENT CORP.

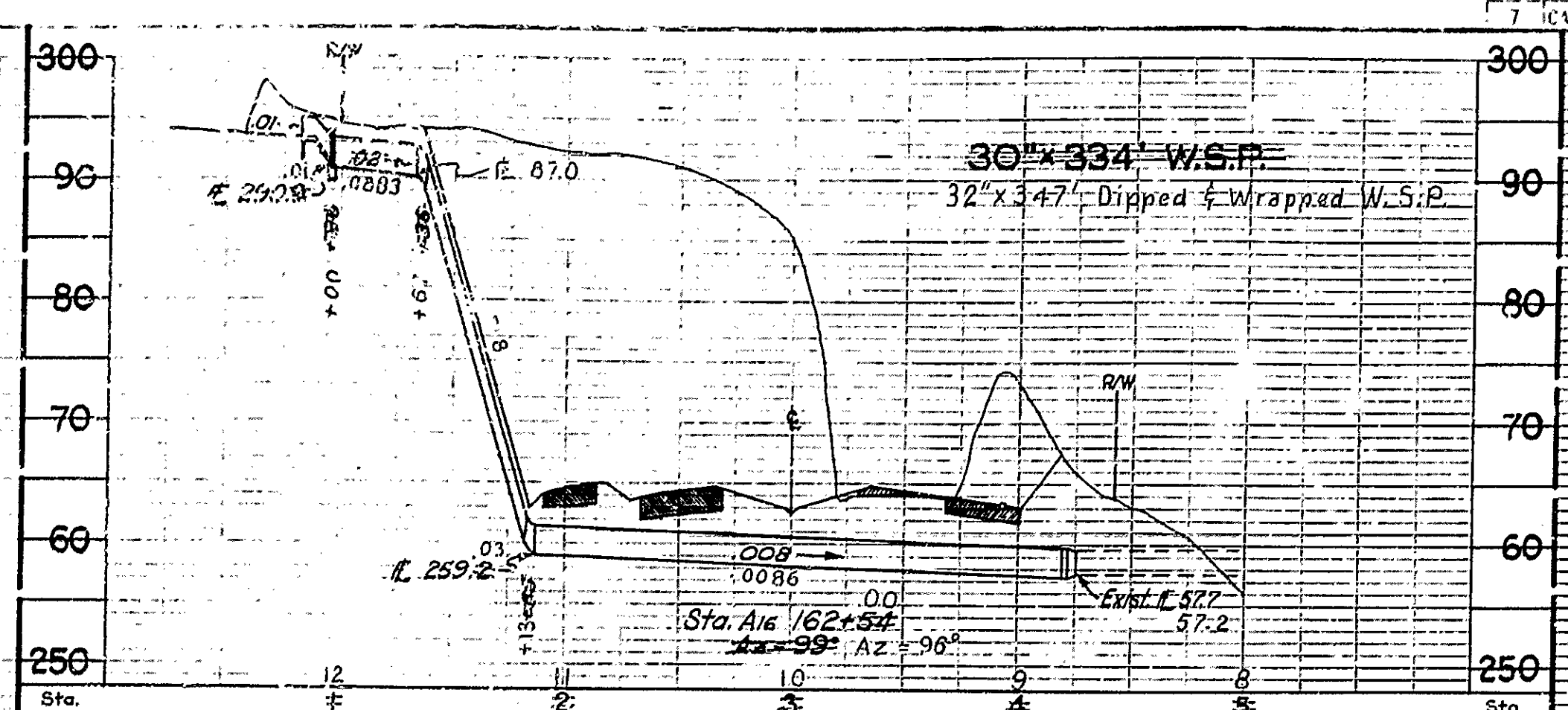
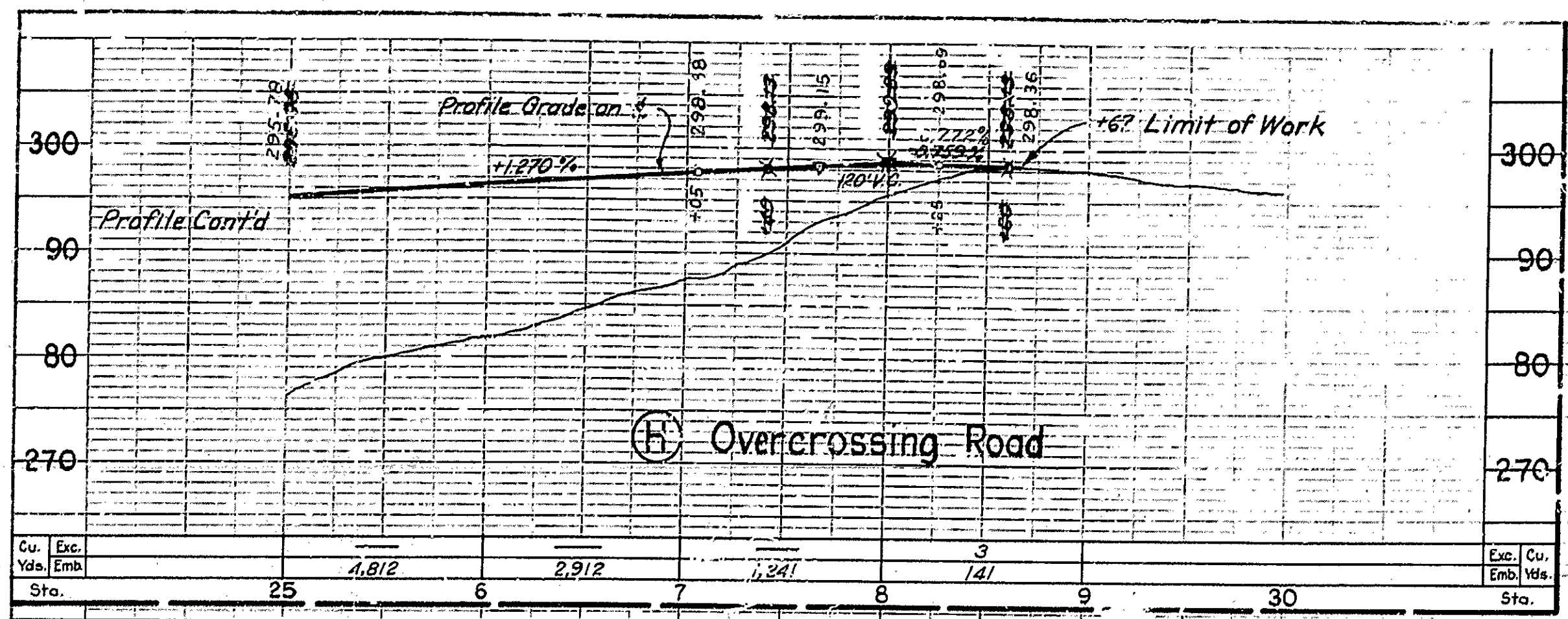
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000374



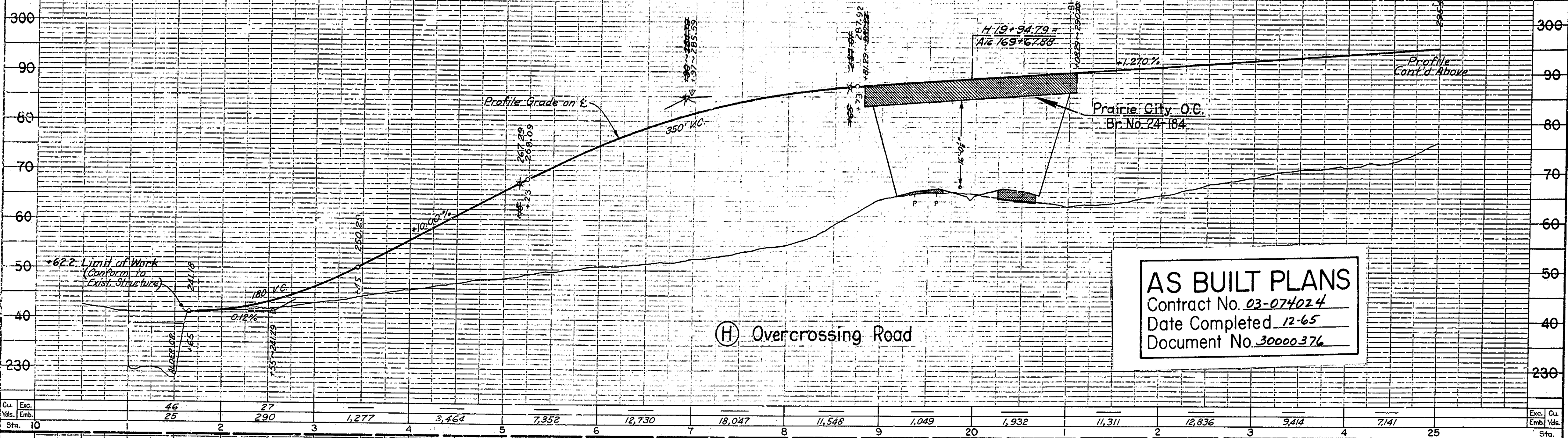
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

Note:
 See 1"=20' Scale Plans for
 Complete Staking Details.
 (Not a Part of these Plans)

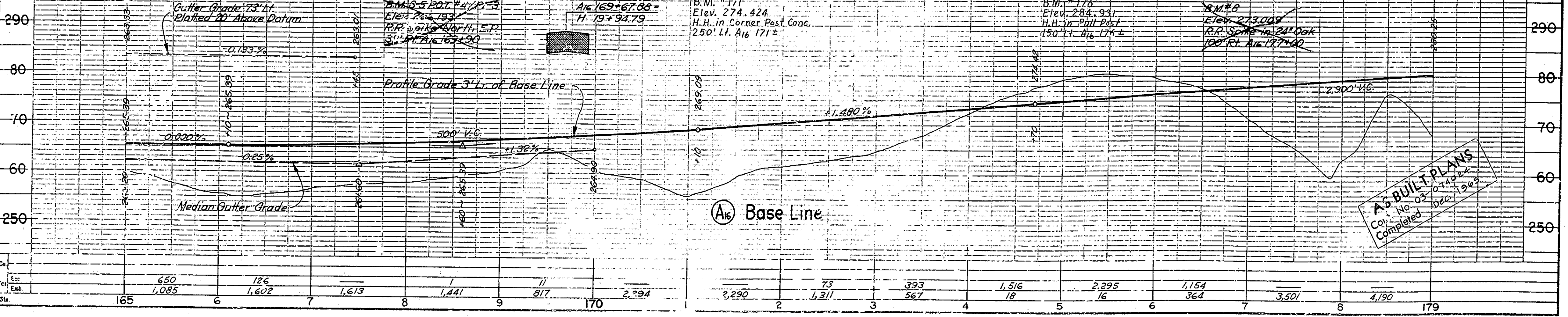
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63



SAC ED 50-171 / 2 A
 DIST. COUNTY ROUTE SECTION DIST. DIST. DIST.
 III SAC II A FOL 12 / 77
 Date Approved January 6, 1964
 W. H. HARRIS



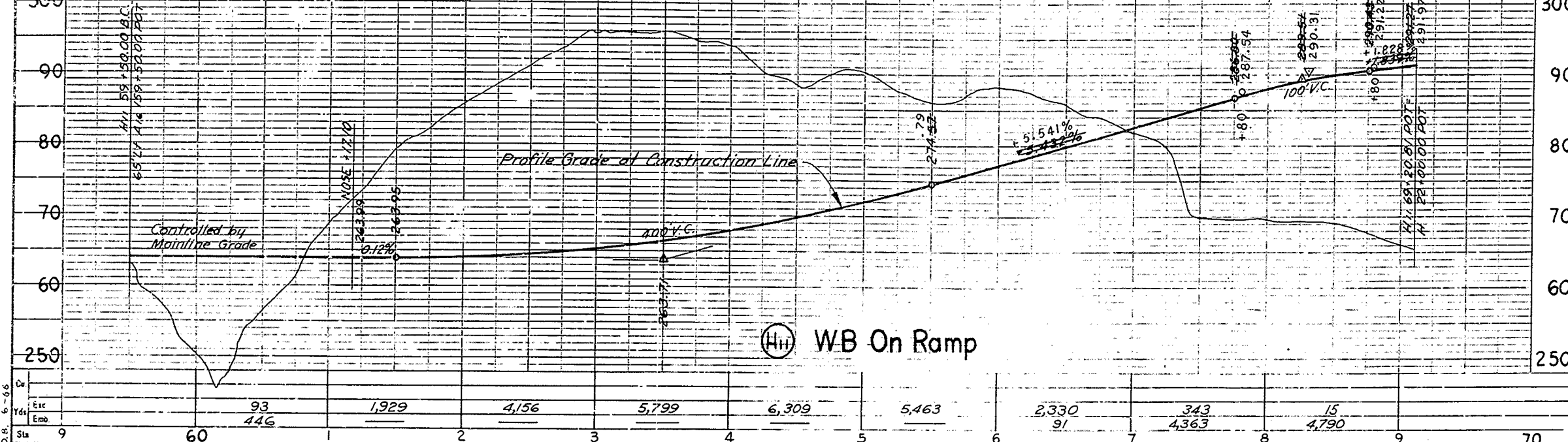
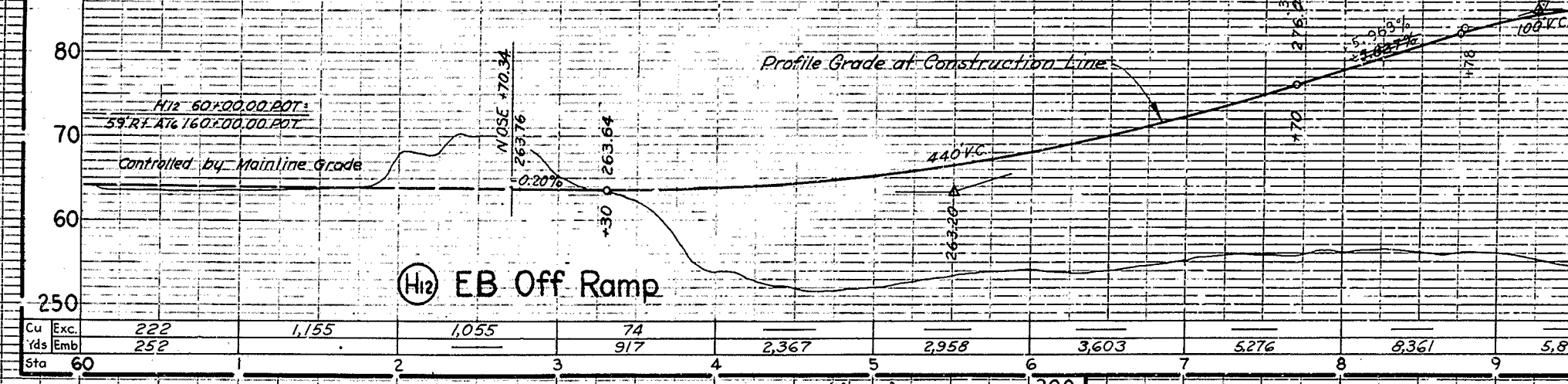
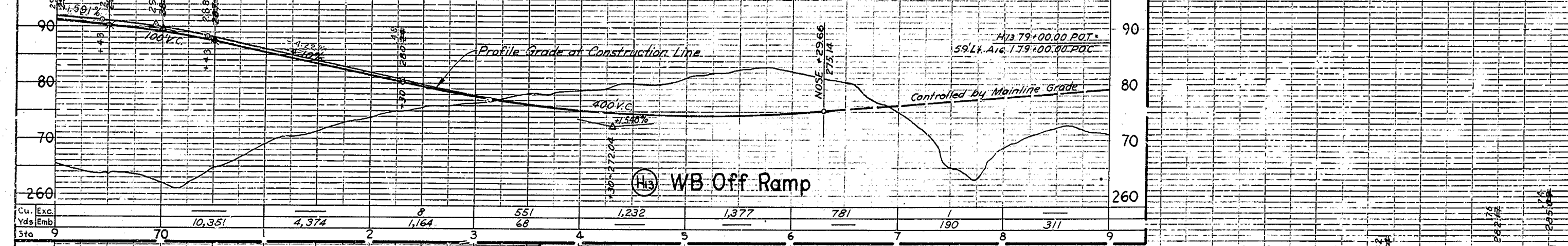
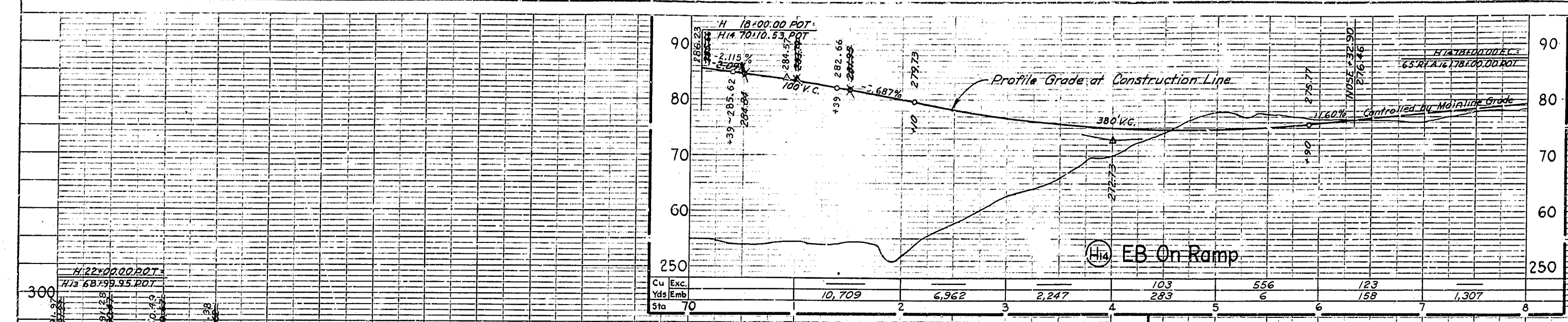
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed Dec. 1965

12

DIST COUNTY ROUTE SECTION SHEET NO. TOTAL SHEETS
III SAC 11 A Fol. 13 17
SAC ED 50-17.1 2.4
Dist. Eng. Dist. III
W. H. Warren



AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

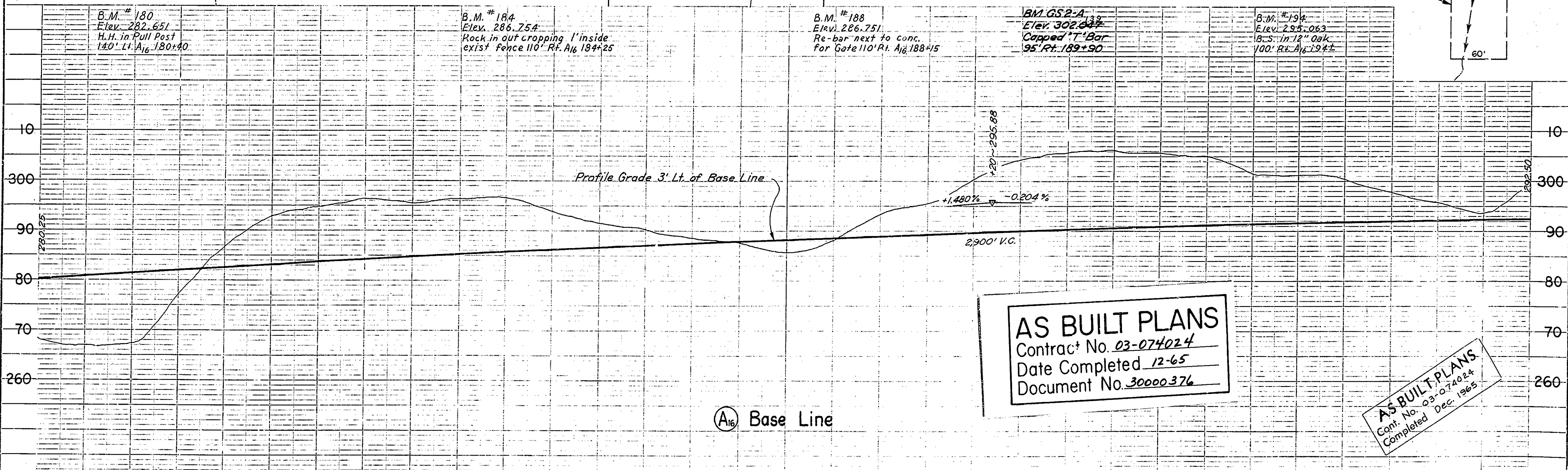
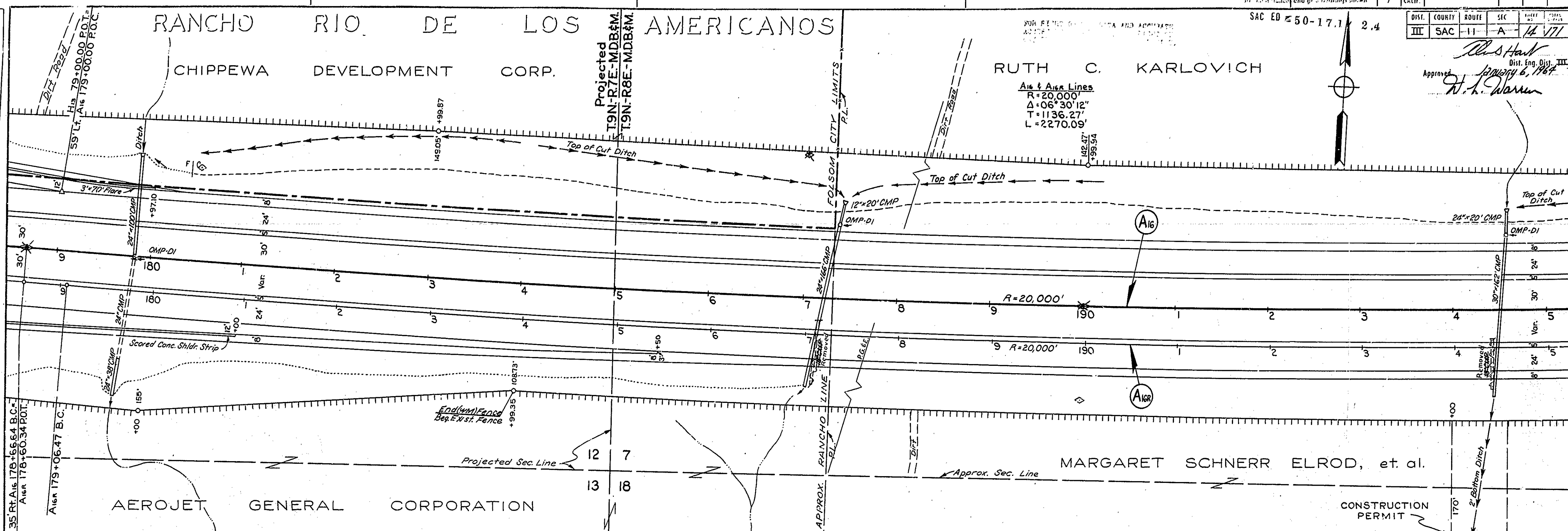
AS BUILT PLANS
Contract No. 03-074024
Completed 12-1965

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.F. GALLIGAN	9-63	P.C. SHERIDAN	9-63

13

DIST.	COUNTY	ROUTE	SIC	POST MILE	STATION
III	SAC	11	A	14	177

Approved: *[Signature]*
 Civil Eng. No. 1111
 H. L. Warner



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

Co. Etc.	7	1,029	5,017	6,609	6,730	5,617	3,239	1,962	1,762	4,732	6,940	7,331	6,157	4,894	3,394	2,347	
Yds. Emb.	5,359	1,978	239	342	172	71	214	246	59	3	91	13	17	24	15	31	
Sta.	9	180	1	2	3	4	5	6	7	8	9	190	1	2	3	4	5

Project Engineer: F.W. COMARSH 9-63, Design Engineer: E.W. KNAEBEL 9-63, Approval Recommended By: P.C. SHERIDAN 9-63

RUTH C. KARLOVITCH

A16 & A14 Lines
 R=20000
 $\Delta=06^{\circ}30'12''$
 T=1136.27'
 L=2270.09'

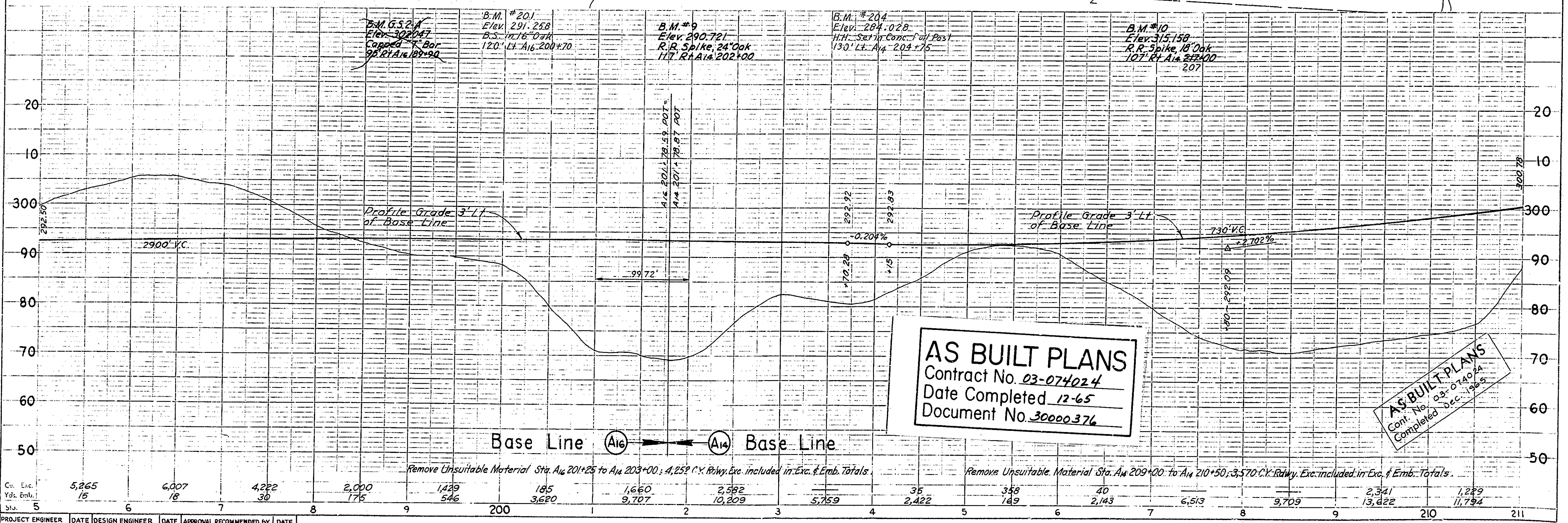
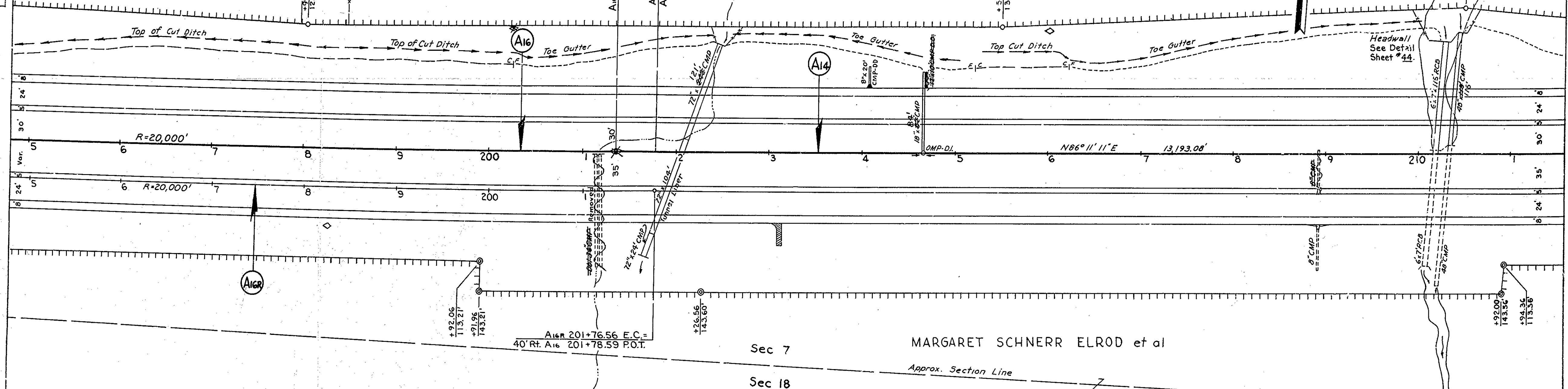
GOLDHILL
 DREDGING CO.

T.9 N. R.8 E. M.D.B. & M.

MARGARET SCHNERR ELROD et al

SAC ED = 50.17.1 / 2.4

Approved: *W. J. Warr*
 Civil Eng. D. 11 III



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

Sta.	Exc.	Emb.	Total	Sta.	Exc.	Emb.	Total
5	5265	16	5281	10	1499	546	2045
6	6007	18	6025	15	185	3620	3805
7	4222	30	4252	20	1660	9707	11367
8	2000	175	2175	25	2582	10209	12791
9				30	5759		5759
10				35	35	2422	2457
11				40	348	189	537
12				45	40	2143	2183
13				50	6513		6513
14				55	9709		9709
15				60	2341	13622	15963
16				65	1229	11794	13023

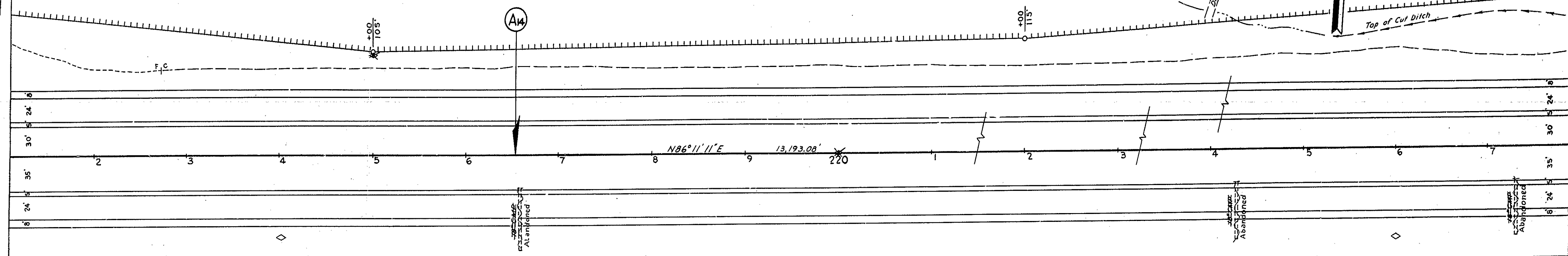
15

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL	RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN		9-63

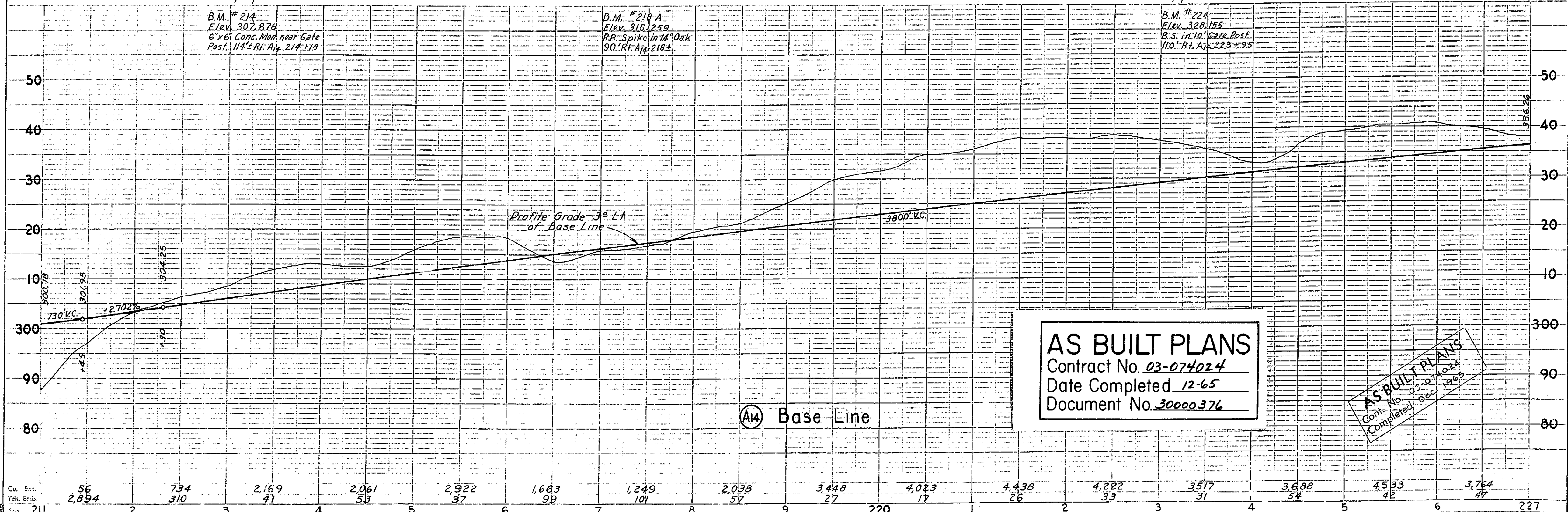
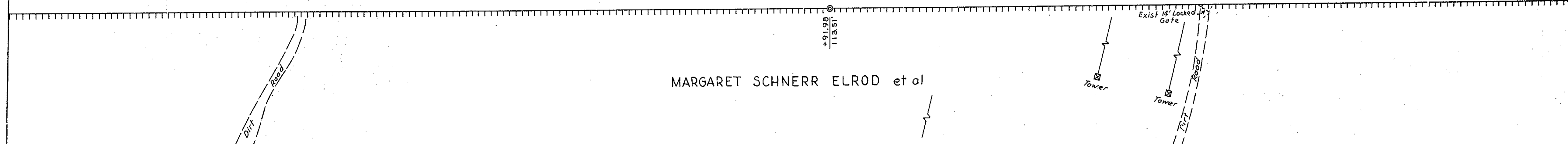
T.9 N. R.8 E. M.D.B & M.
 Sec 7

MARGARET SCHNERR ELROD et al

Approved: *W. H. Warren*
 Dist. Eng. City, III
 January 6, 1965



MARGARET SCHNERR ELROD et al



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Contract No. 03-074024
 Completed Dec 1965

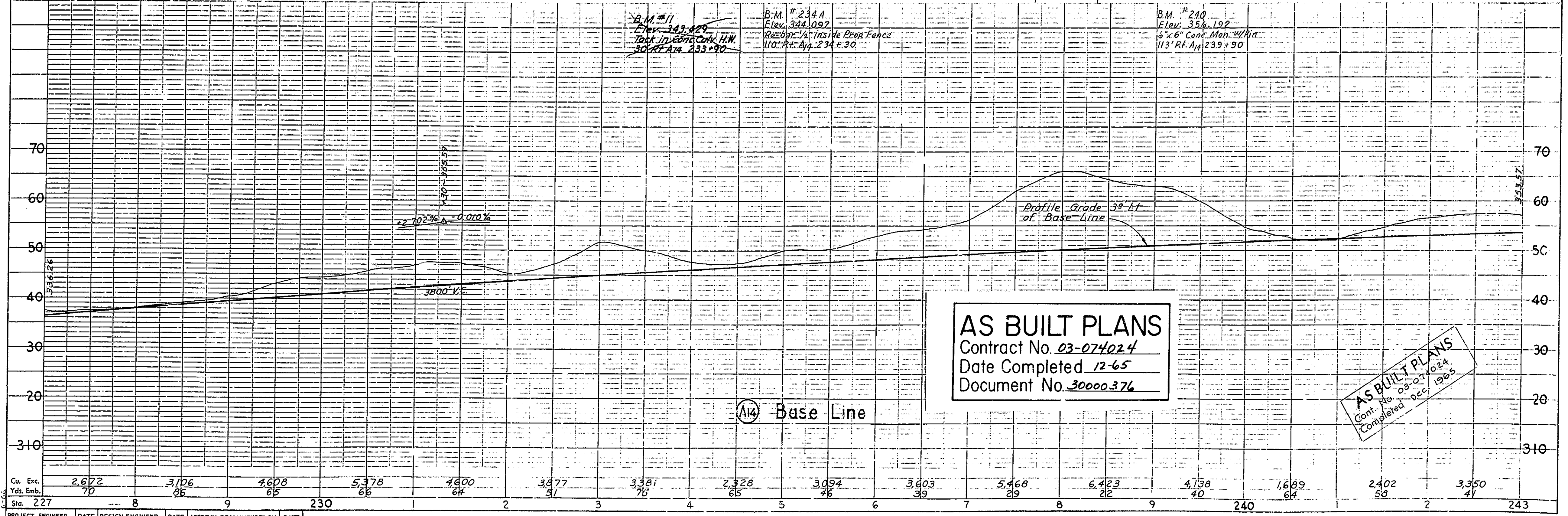
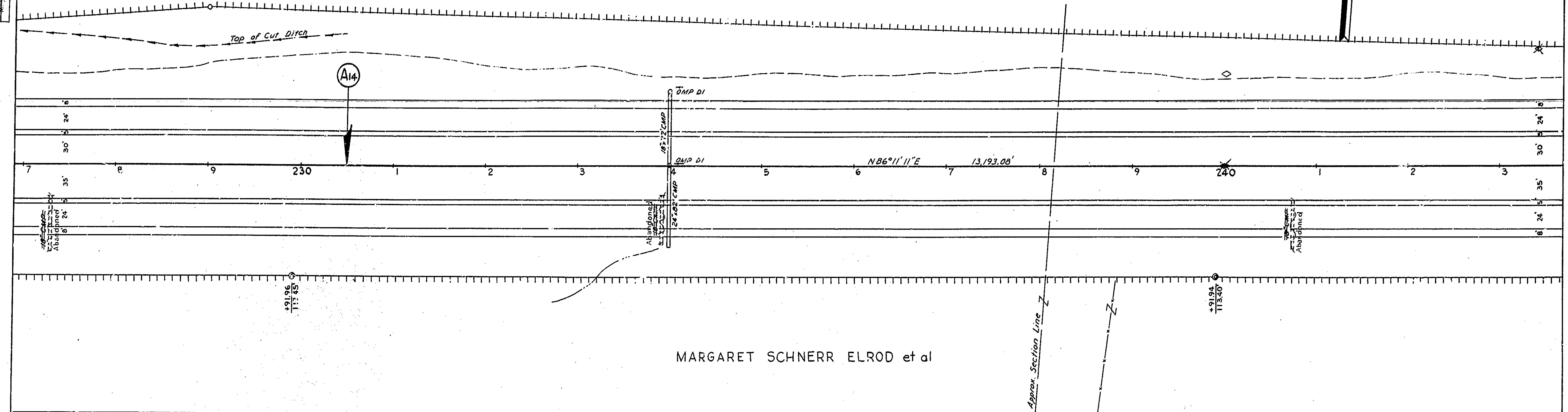
Cu. Exc.	56	794	2,189	2,061	2,922	1,663	1,249	2,038	3,448	4,023	4,438	4,222	3,577	3,688	4,593	3,764
Yds. Emb.	2,894	310	41	57	37	99	101	57	27	17	26	33	31	54	42	47
Sta.	211	2	3	4	5	6	7	8	9	220	1	2	3	4	5	6
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY		DATE										
F. W. COMARSH	9-63	E. W. KNAEBEL	9-63	P. C. SHERIDAN		9-63										

16

T.9 N. R.8 E. M.D.B. & M.
 MARGARET SCHNERR ELROD et al

Sec 7 Sec 8

Approved: *[Signature]*
 District Engineer, III
[Signature]
 District Engineer, III



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

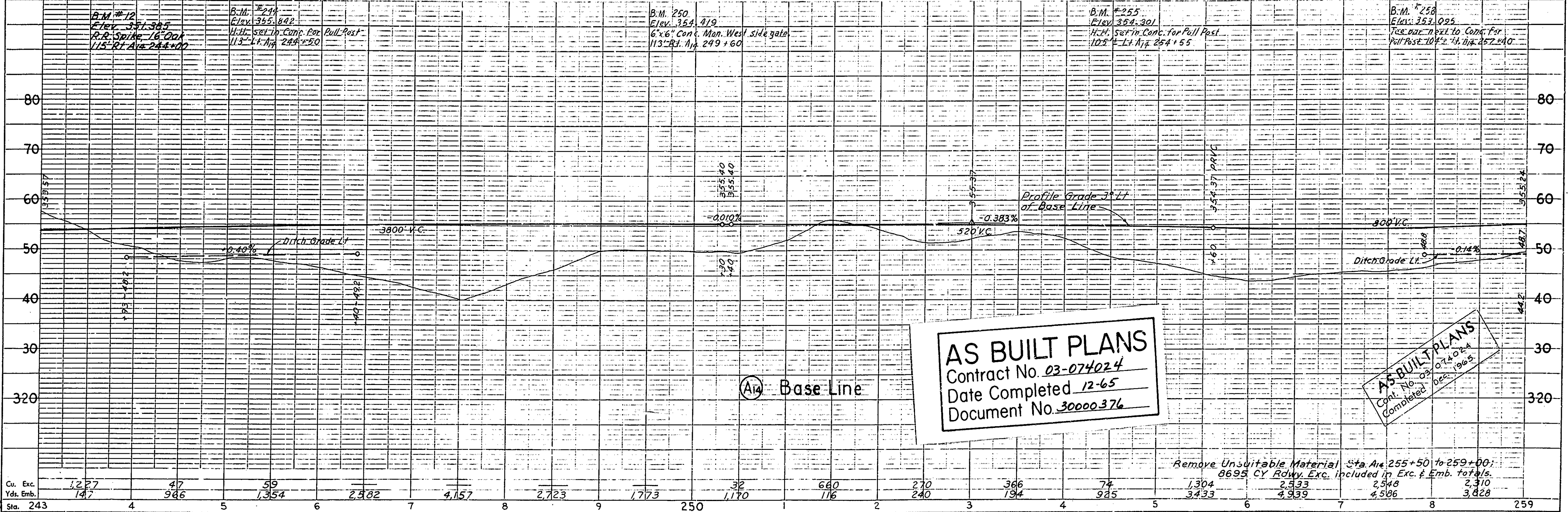
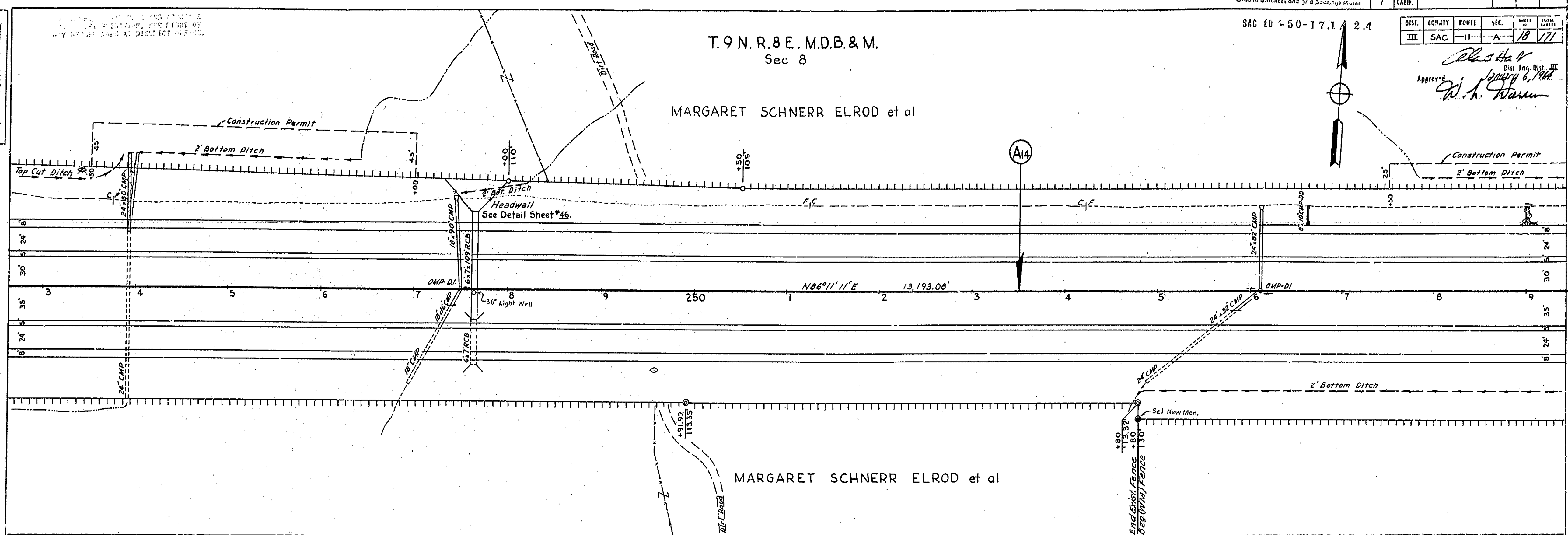
AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

Cu. Exc. Yds. Emb.	2,672 70	3,106 86	4,608 65	5,378 66	4,800 64	3,877 51	3,381 76	2,328 65	3,094 46	3,403 39	5,468 29	6,423 22	4,138 40	1,689 64	2,402 58	3,350 41
Sta.	227	8	9	230	2	3	4	5	6	7	8	9	240	2	243	
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL	RECOMMENDED BY	DATE										
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN		9-63										

17

T. 9 N. R. 8 E. M. D. B. & M.
 Sec 8
 MARGARET SCHNERR ELROD et al

Approved: *W. A. Warren*
 Dist. Eng. Dist. III
 January 6, 1966



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed 12-65

Cu. Exc.	1,227	47	59	2,982	4,157	2,723	1,773	32	680	270	366	74	1,304	4,939	3,828
Yds. Emb.	147	986	1,354	2,982	4,157	2,723	1,773	1,170	116	240	194	925	3,433	4,939	3,828
Sta.	243	4	5	6	7	8	9	250	1	2	3	4	5	6	259

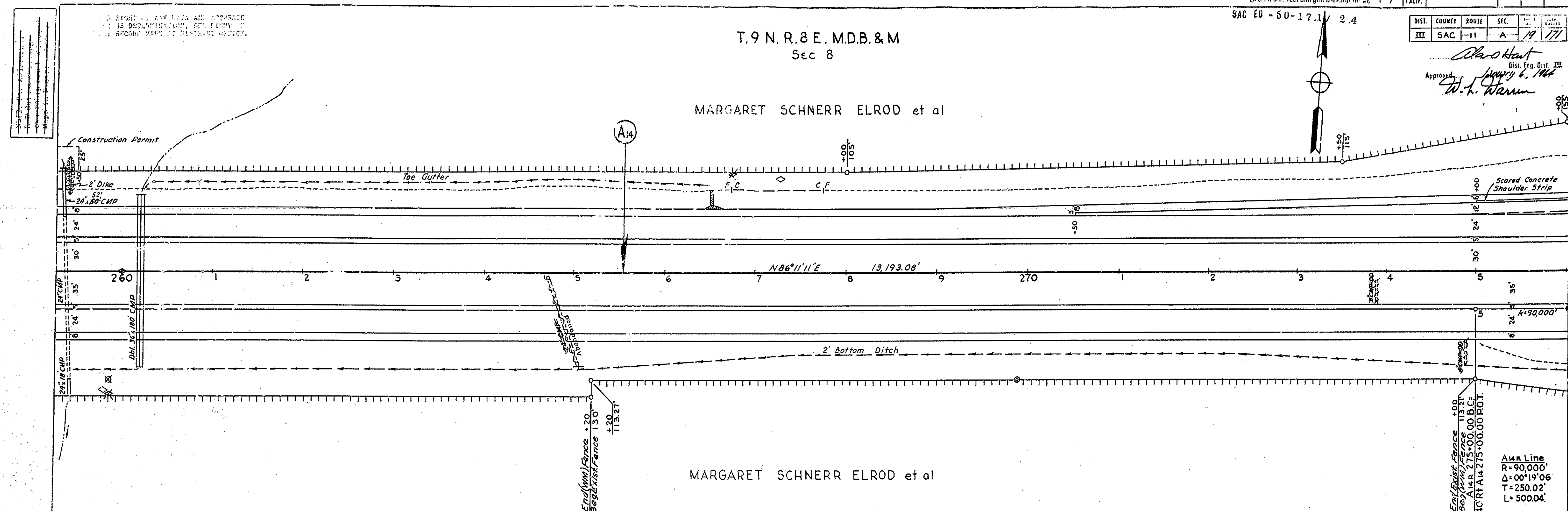
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL	RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN		9-63

Remove Unsuitable Material Sta. A14 255+50 to 259+00:
 8695 CY Rowy. Exc. Included in Exc. & Emb. Totals.
 2,548 2,310
 4,506 3,828

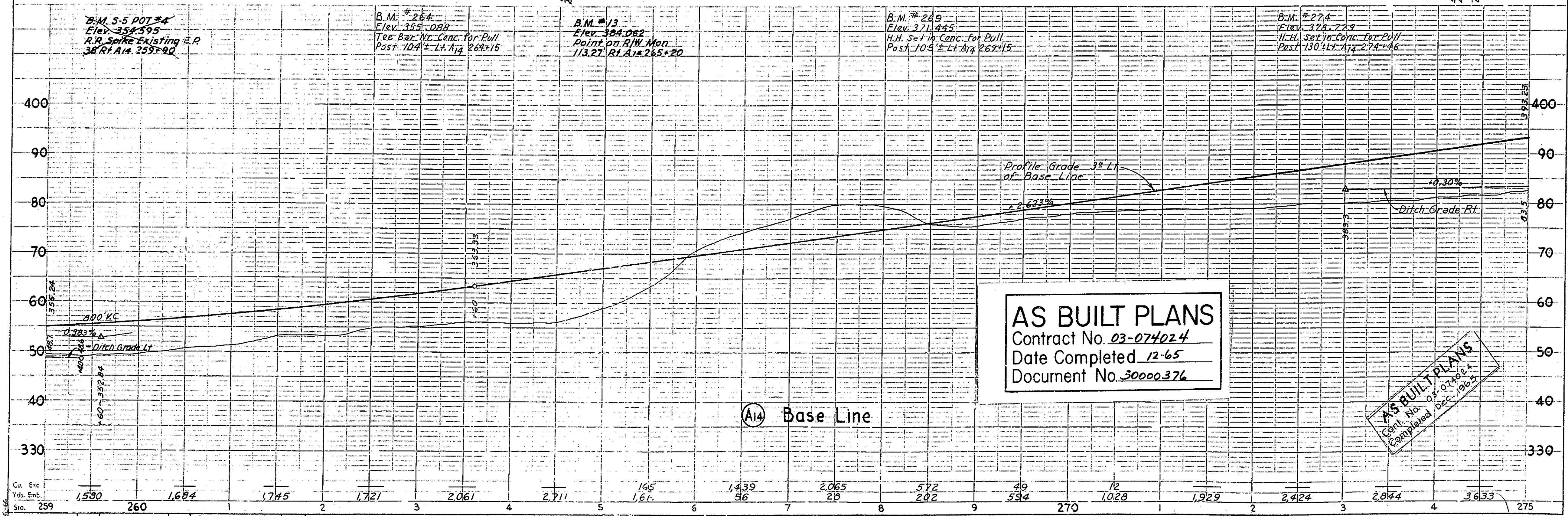
18

T.9 N. R.8 E. M.D.B. & M
 Sec 8

MARGARET SCHNERR ELROD et al



MARGARET SCHNERR ELROD et al



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

Cu. Exc.	1530	1684	1745	1721	2061	2711	165	1439	2065	572	40	12	1929	2424	2044	3633
Yds. Emb.							1.61	56	20	202	594	1020				
Sta.	259	260														275
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL	RECOMMENDED BY	DATE										
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63											

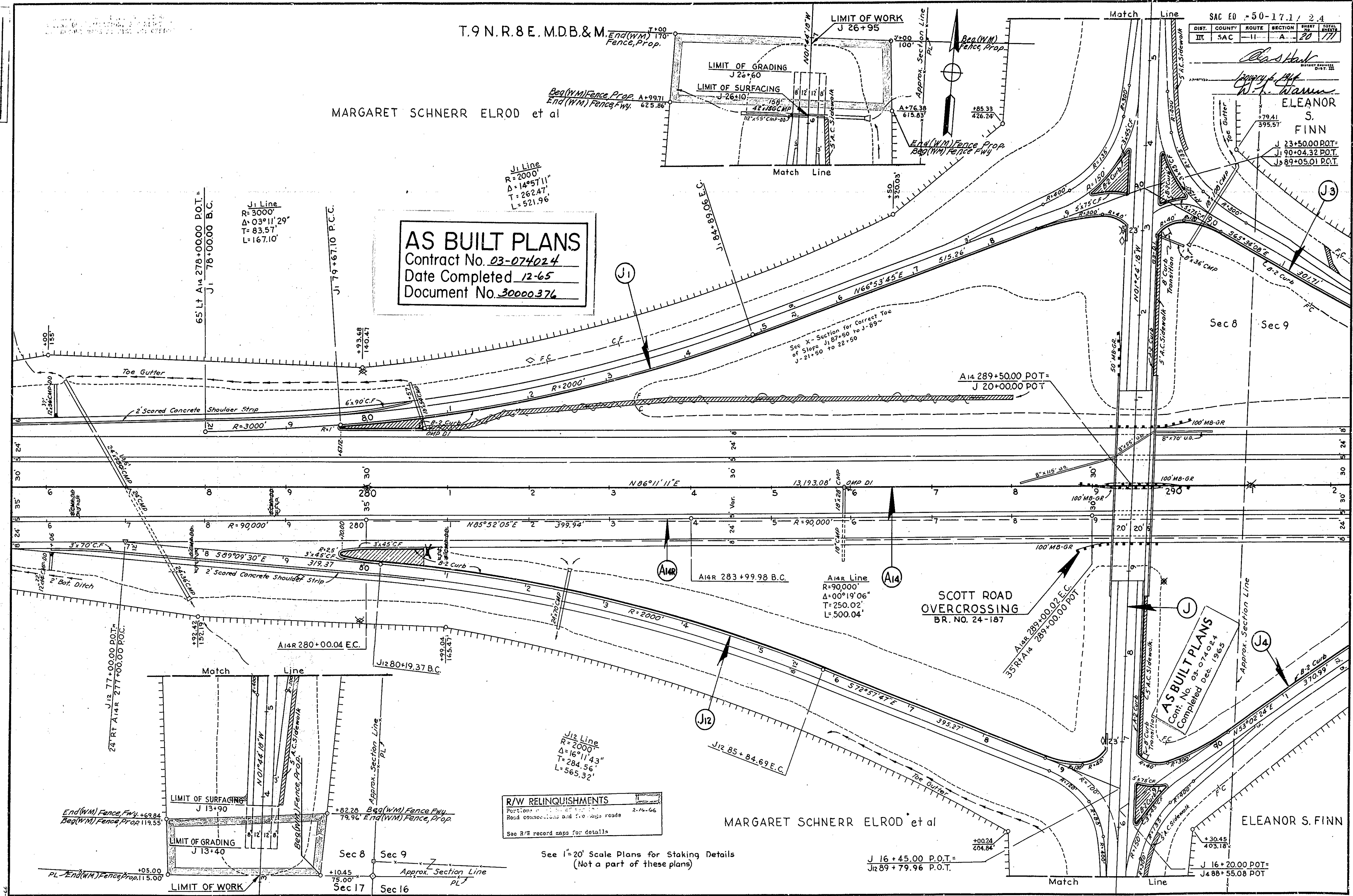
19

T.9 N. R. 8 E. M.D.B. & M.

MARGARET SCHNERR ELROD et al

SAC ED -50-17.1 2.4
 ELEANOR S. FINN
 J 23+50.00 P.O.T.
 J 90+04.32 P.O.T.
 J 89+05.01 P.O.T.

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376



J1 Line
 R=3000'
 $\Delta=03^{\circ}11'29''$
 T=83.57'
 L=167.10'

J1 Line
 R=2000'
 $\Delta=14^{\circ}57'11''$
 T=262.47'
 L=521.96'

See X-Section for Correct Toe of Slope J 89+50 to J 89+21+50 to 22+50

SCOTT ROAD OVERCROSSING
 BR. NO. 24-187

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

J12 Line
 R=2000'
 $\Delta=16^{\circ}11'43''$
 T=284.56'
 L=565.32'

R/W RELINQUISHMENTS
 Portions of ...
 Road connections and fire hydrant roads
 2-16-66
 See R/W record maps for details

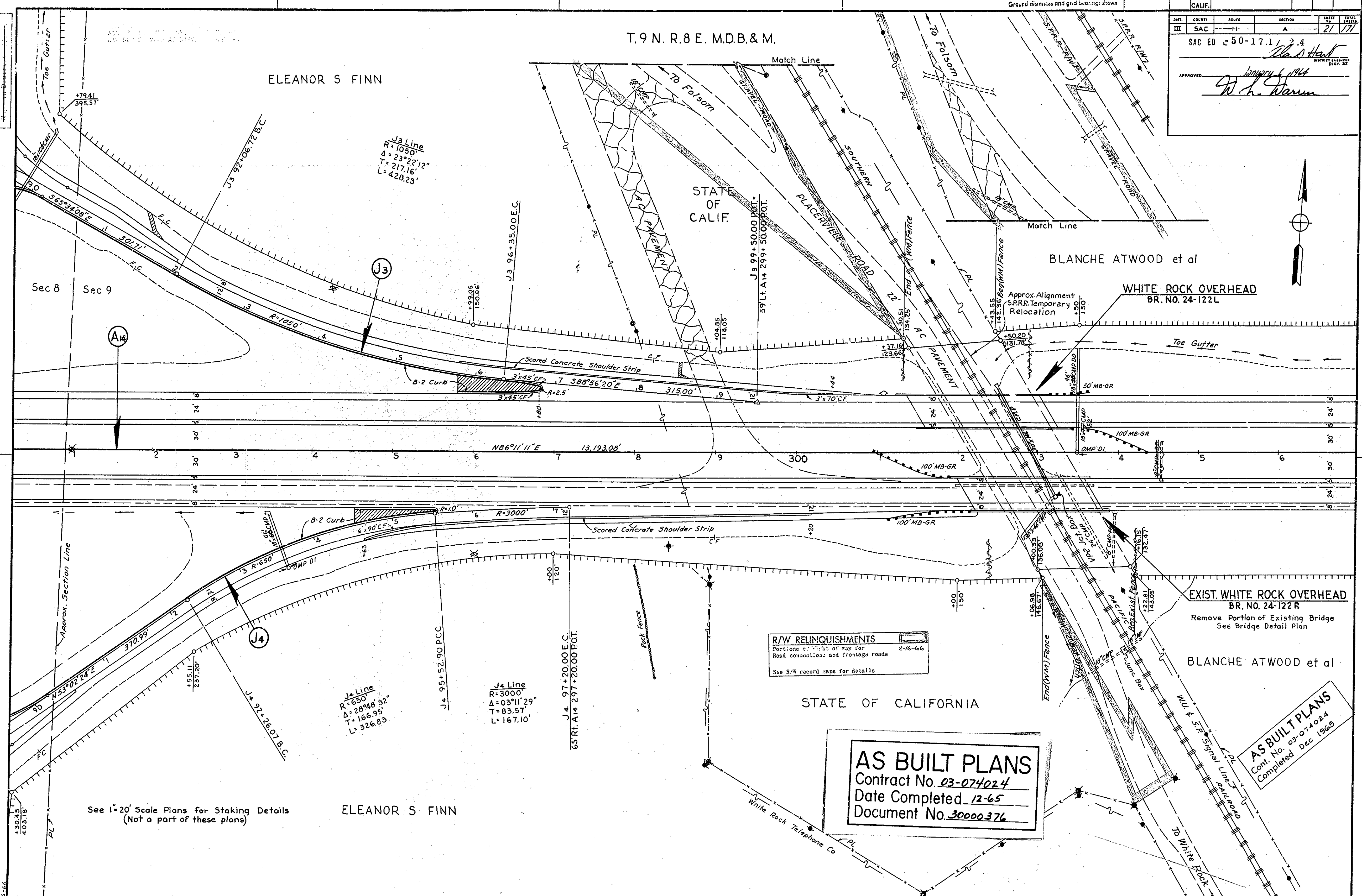
See 1"=20' Scale Plans for Staking Details (Not a part of these plans)

20

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W.COMARSH	9-63	E.W.KNAEBEL	9-63	P.C.SHERIDAN	9-63

CALIF. COORDINATE SYSTEM, Zone II
Ground dimensions and grid bearings shown

STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
CALIF.			27	177
DIST.	COUNTY	ROUTE	SECTION	POST MILE
III	SAC	11	A	2.4
SAC ED 50-17.1				
APPROVED: <i>W. A. Warren</i>				



R/W RELINQUISHMENTS
Portions of R/W of 193 for
Road connections and storage roads 2-16-66
See R/W record maps for details

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

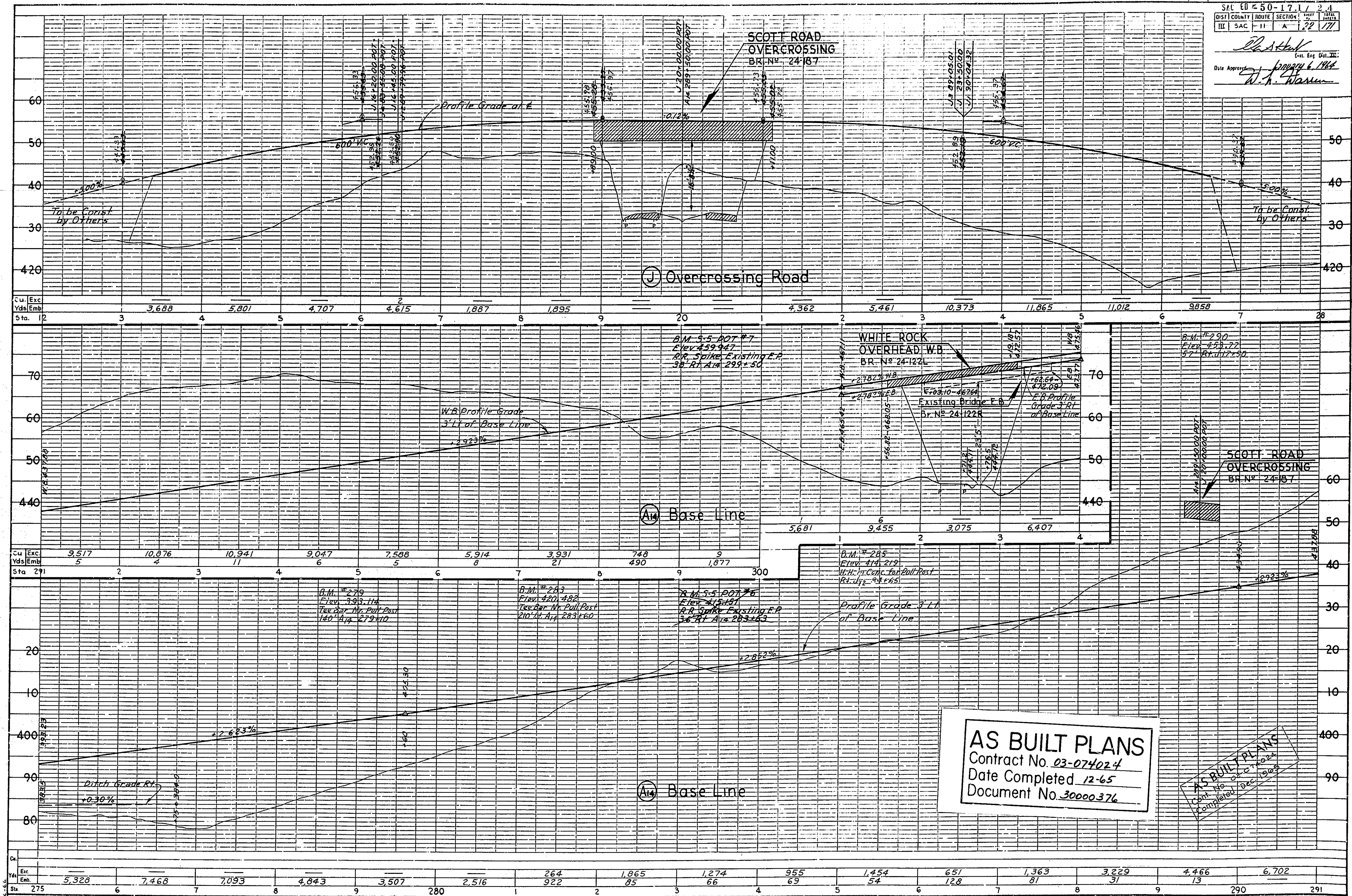
AS BUILT PLANS
Cont. No. 03-074024
Completed Dec 1965

See 1"=20' Scale Plans for Staking Details
(Not a part of these plans)

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

21

SHEET NO. 3 OF 3
 DATE APPROVED: JANUARY 6, 1965
 W. H. HARRIS



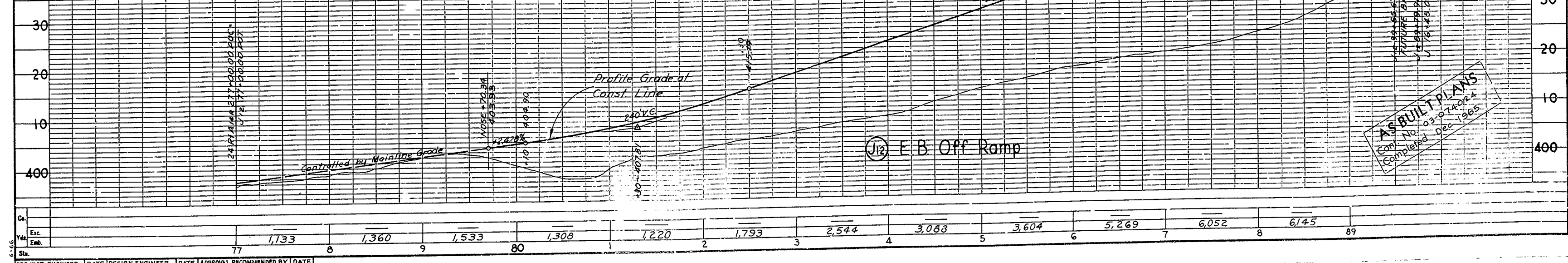
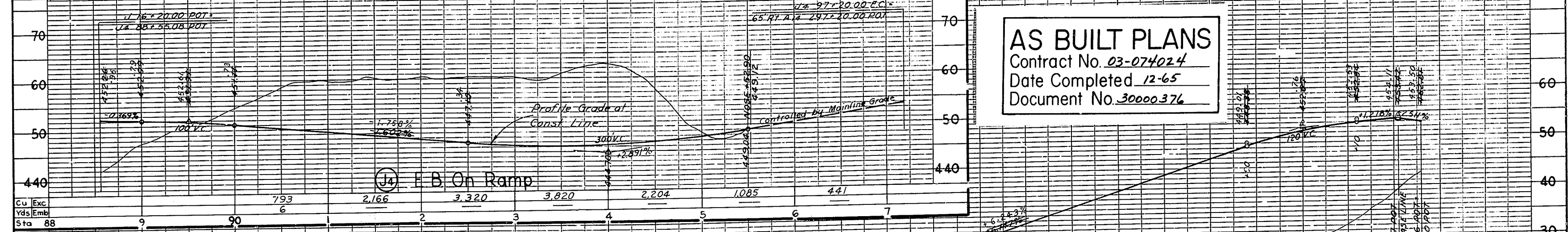
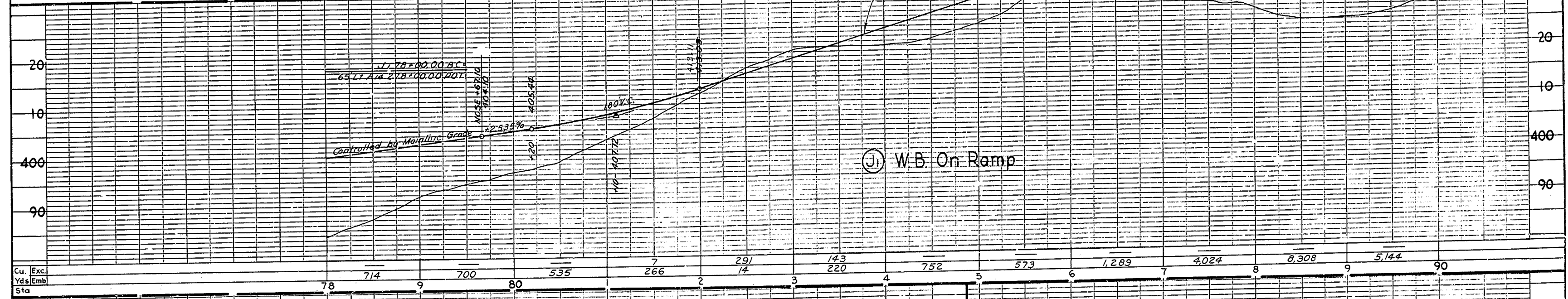
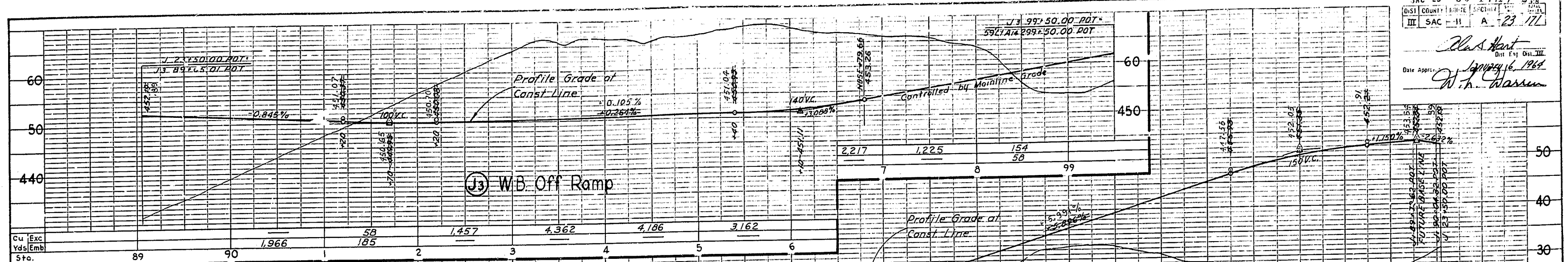
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Contract No. 03-074024
 Completed Dec. 1965

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL	RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN		9-63

22

W. A. Hart
 Dist. Eng. Dist. III
 Date app'd: *January 16, 1965*
W. H. Wasson



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

23

DIST.	COUNTY	ROUTE	SEC.	SECTION
III	SAC	11	A	25/171

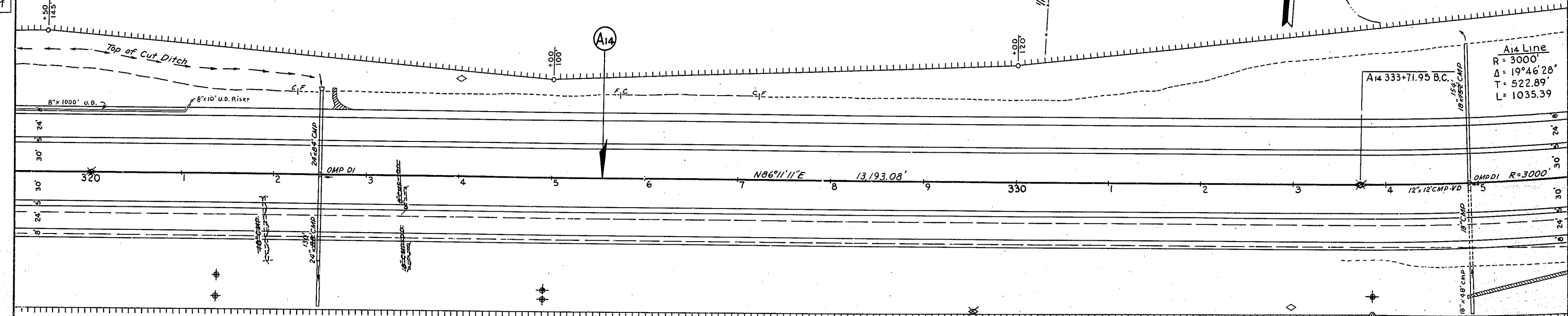
T.9N.R.8E.MDB & M.
Sec 9

SAC ED = 50 17.1 / 2.4

Approved: *W. H. Warren*
Dist. Eng. Div. III

BLANCHE ATWOOD et al

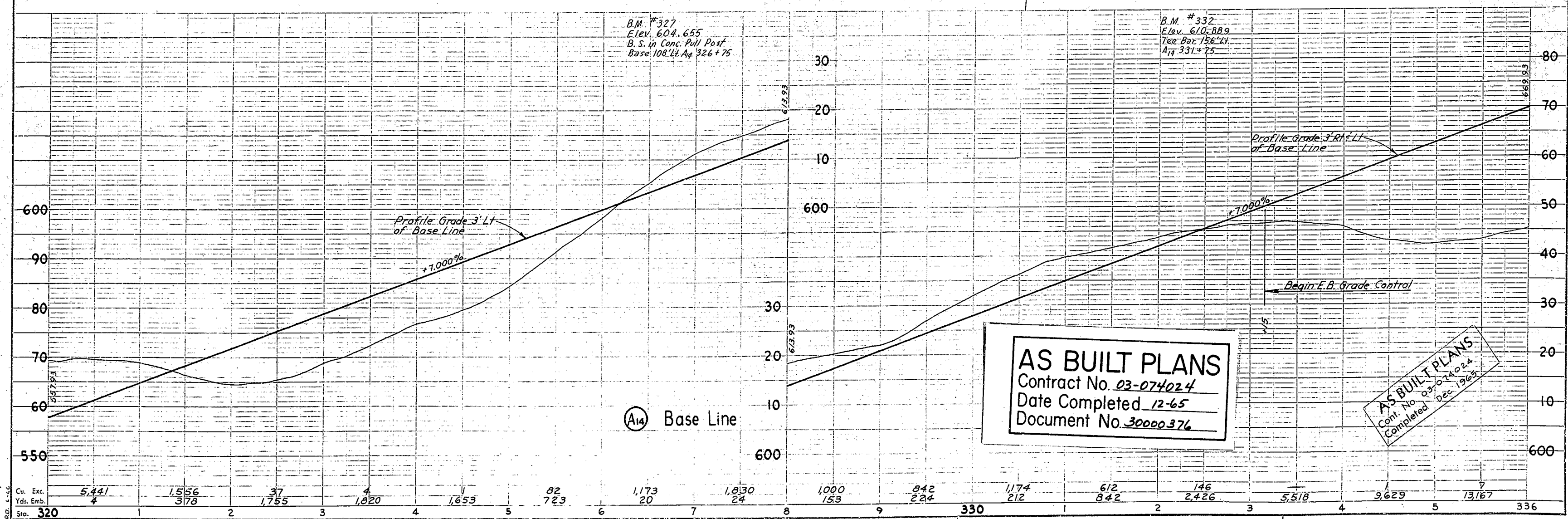
BLANCHE G. RUSSELL



See X-Sections for Correct Top of Cut & Toe of Slope
Sta. A16 307 to A16 338

BLANCHE ATWOOD et al

BLANCHE G. RUSSELL



Cu. Exc.	5,441	1,556	37	4	82	1,173	1,830	1,000	842	1,174	612	146	5,518	9,629	7
Yds. Emb.	4	378	1,755	1,820	1,655	723	20	24	153	224	212	842	2,426	5,518	13,167
Sta.	320	1	2	3	4	5	6	7	8	9	330	1	2	3	4

Project Engineer: F.W. COMARSH 9-63
Design Engineer: E.W. KNAEBEL 9-63
Approval Recommended By: P.C. SHERIDAN 9-63

25

Class. by
W. H. Warren
Dist. Eng. Dist. III

T.9 N. R.8 E. M.D.B. & M.
Sec. 9 Sec. 10

SAC ED = 50-17.1 2.4

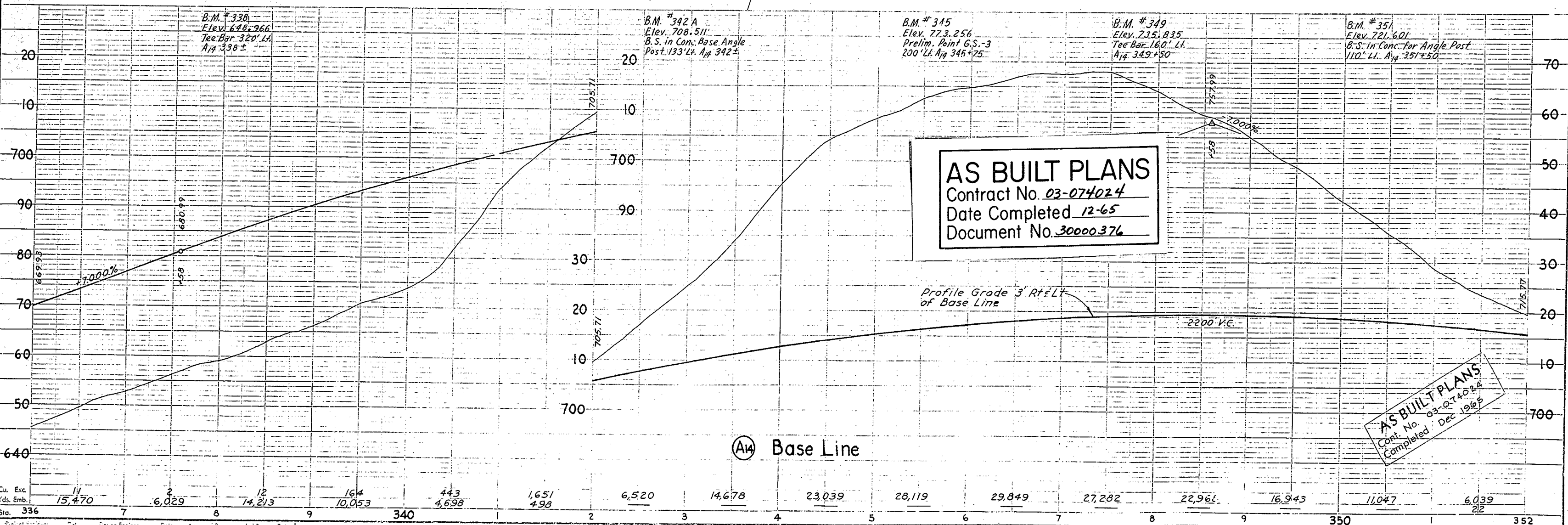
BLANCHE G. RUSSELL

A14 Line
R = 3000'
Δ = 19°46'28"
T = 522.89'
L = 1035.39'

A14 344+07.34 E.C.

A14

BLANCHE G. RUSSELL



AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Cont. No. 03-074024
Completed Dec. 1965

Base Line

Sta.	336	7	8	9	340	1	2	3	4	5	6	7	8	9	350	352
Cu. Exc.																
Yds. Emb.	15,470	6,029	74,213	10,053	443	4,698	1,651	498	6,520	14,678	23,039	28,119	29,849	27,282	22,961	16,943
Sta.	336	7	8	9	340	1	2	3	4	5	6	7	8	9	350	352

26

SAC ED 50-17.1 / 2.4

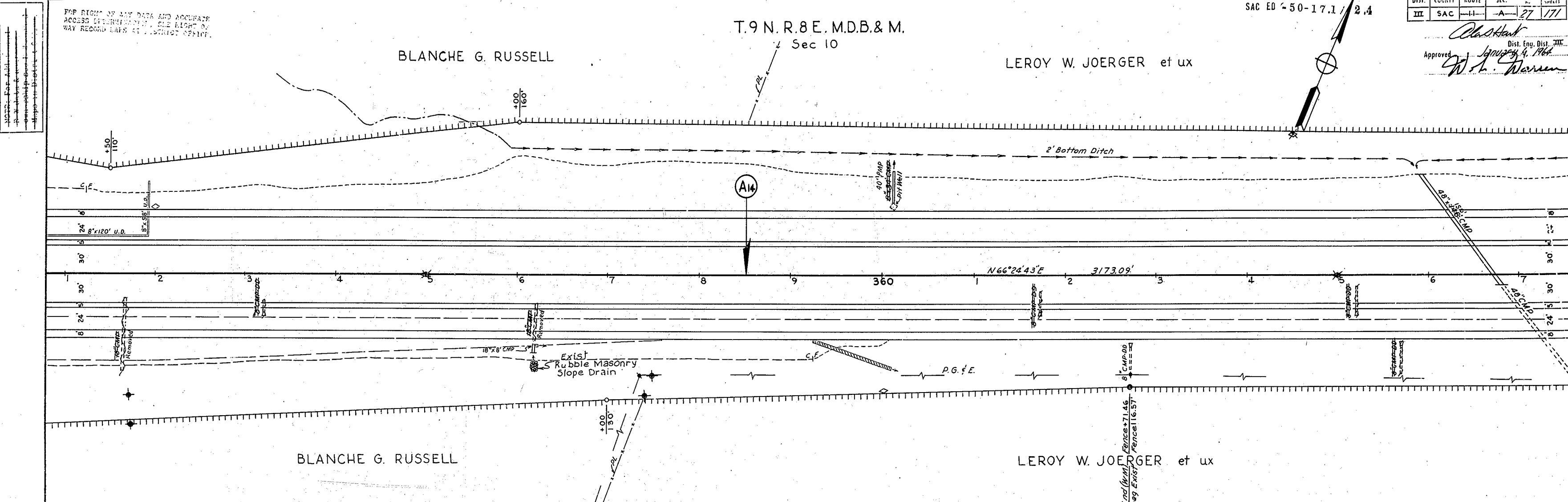
DIS. COUNTY ROUTE SEC. DIST. TOTAL SHEETS
III SAC III A 27 171
Checked by [Signature]
Approved by [Signature]
Dist. Eng. Dist. III
W. L. Warren

FOR RIGHT OF WAY DATA AND ACCURATE ACCESS INFORMATION, SEE RIGHT OF WAY RECORD MAPS IN DISTRICT OFFICE.

BLANCHE G. RUSSELL

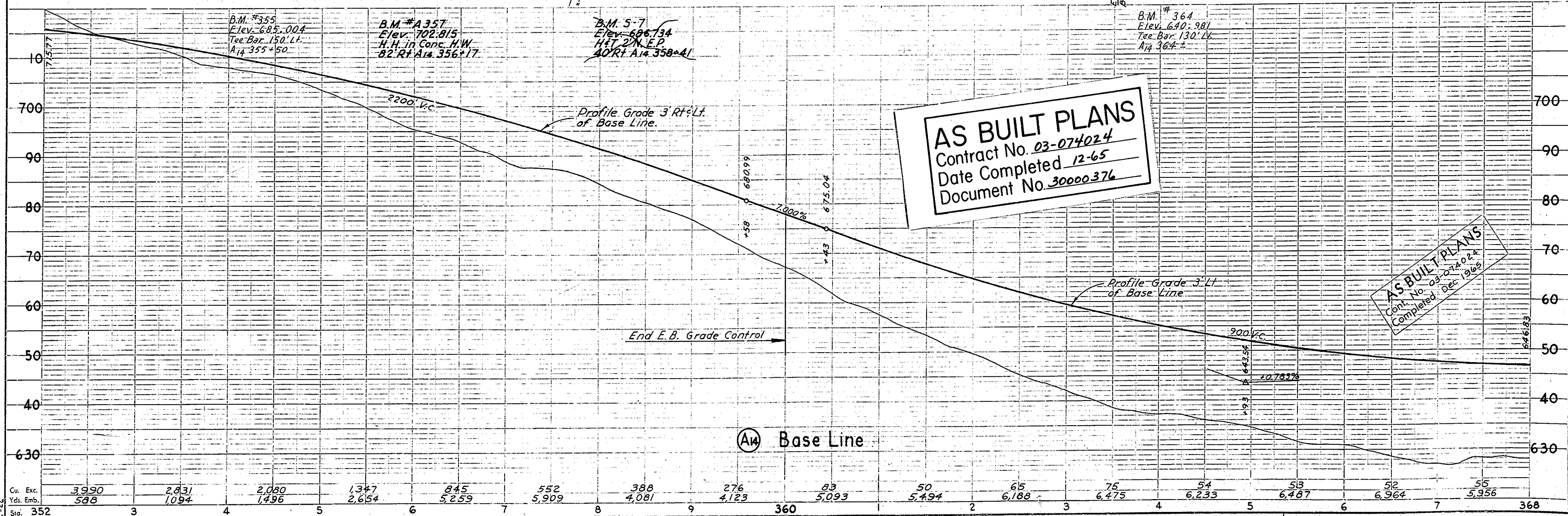
T.9 N. R.8 E. M.D.B. & M.
Sec 10

LEROY W. JOERGER et ux



BLANCHE G. RUSSELL

LEROY W. JOERGER et ux

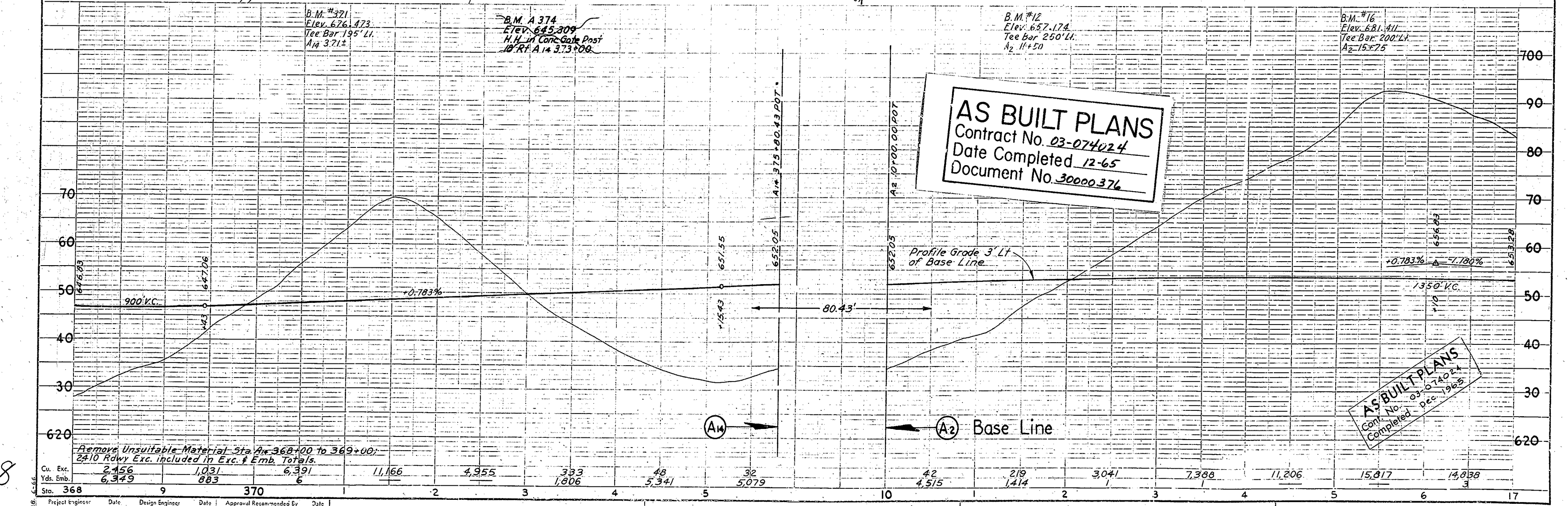
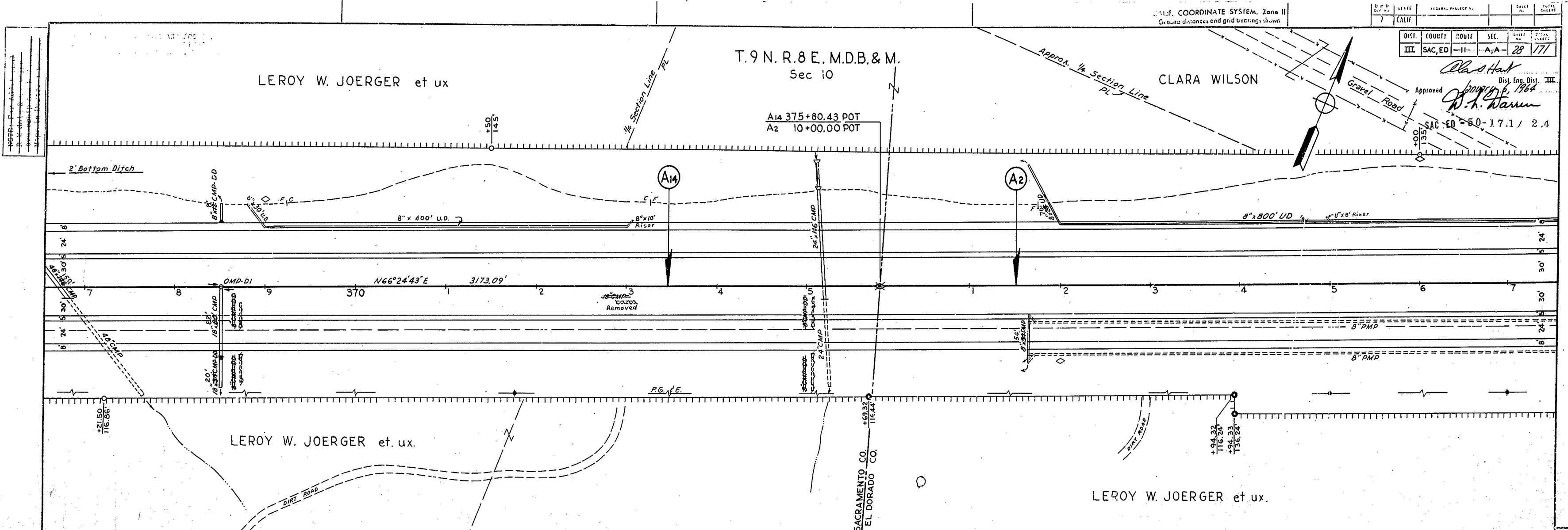


AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Cont. No. 03-074024
Completed Dec. 1965

Cu. Exc.	3,990	2,831	2,080	1,347	845	552	388	276	83	50	65	75	54	53	52	55
Yds. Emb.	588	1,094	1,496	2,654	5,259	5,909	4,081	4,123	5,093	5,494	6,188	6,475	6,233	6,487	6,964	5,956
Sta.	352	3	4	5	6	7	8	9	360	2	3	4	5	6	7	368

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AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

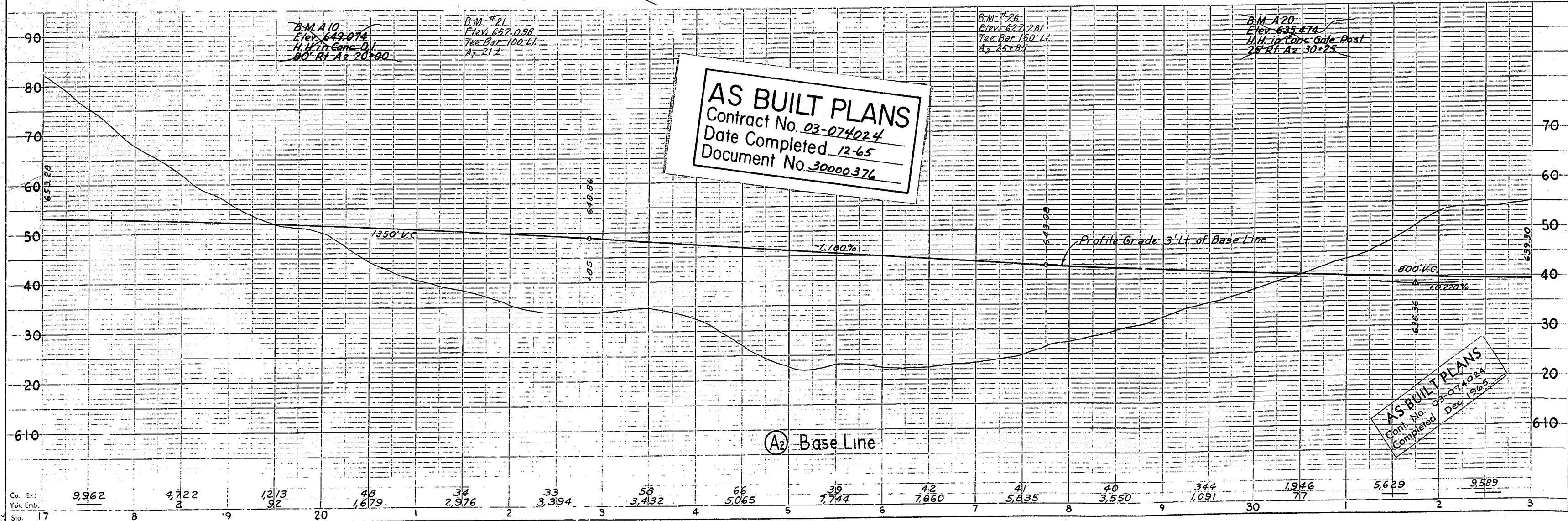
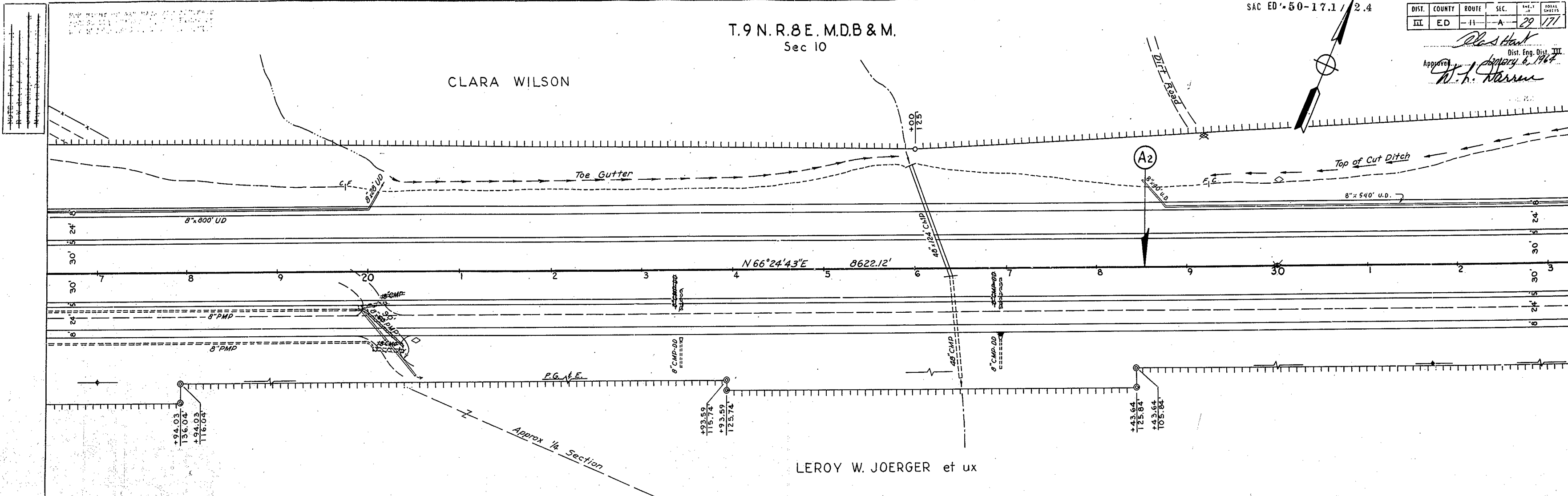
28

T.9 N. R.8 E. MDB & M.
 Sec 10

CLARA WILSON

LEROY W. JOERGER et ux

Blas Hank
 Approved: W. L. Kassar
 Dist. Eng. Dist. III



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

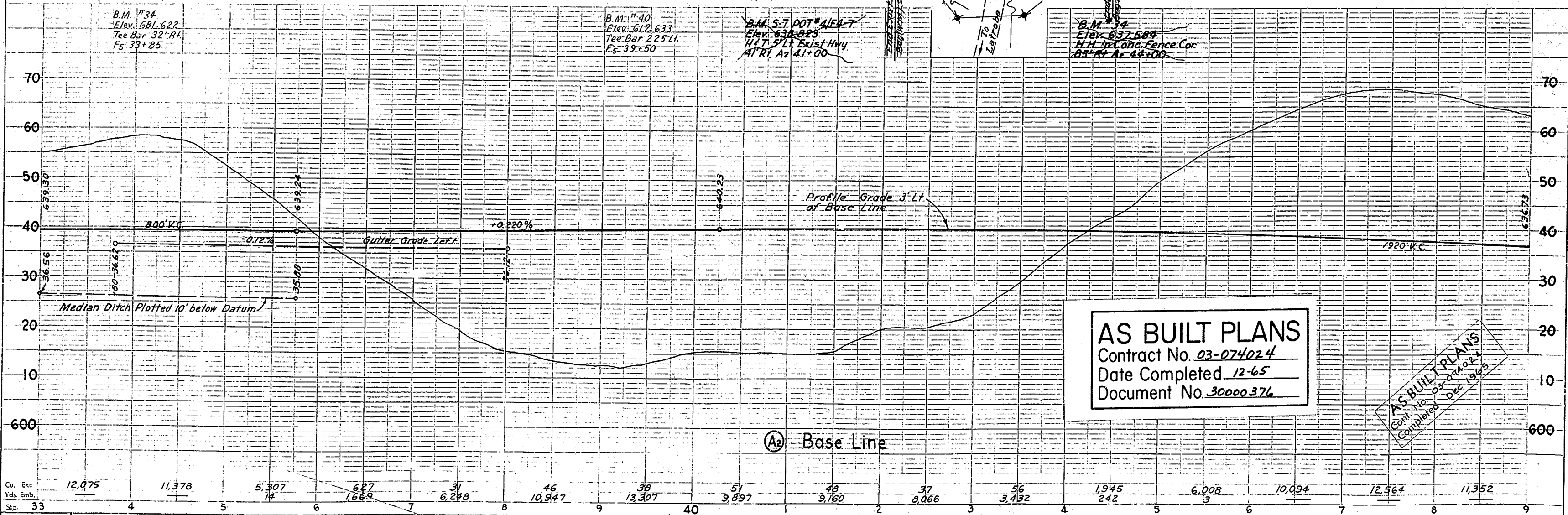
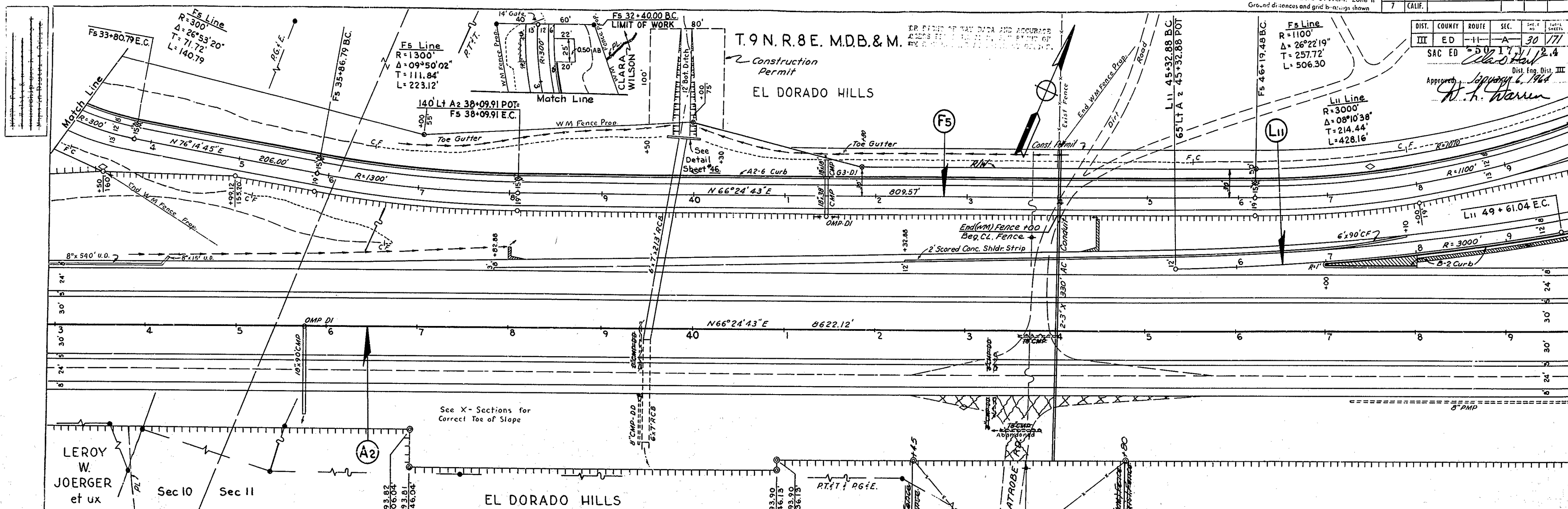
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed Dec 1965

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL	RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN		9-63

29

DIST.	COUNTY	ROUTE	SEC.	SHEET NO.	TOTAL SHEETS
III	ED	-11-	A	30	77

SAC ED *[Signature]*
 Approved *[Signature]*
 H. H. Warren



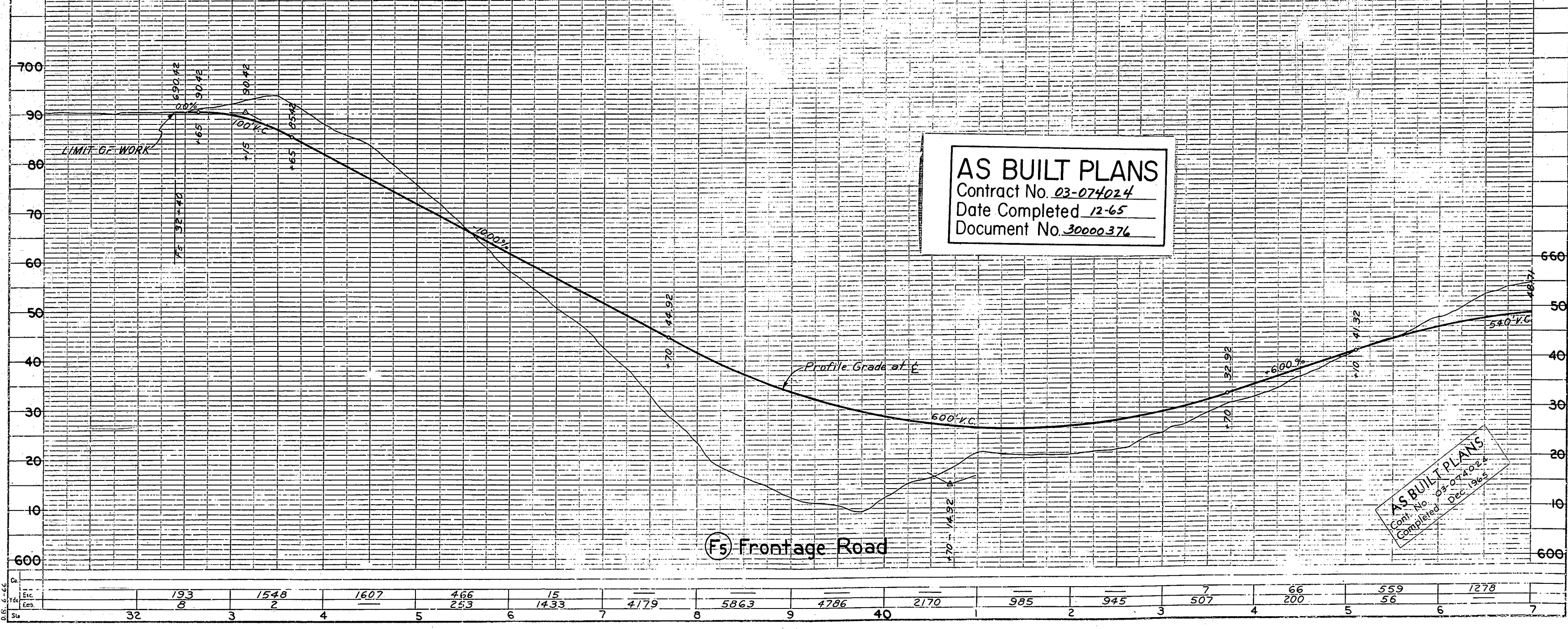
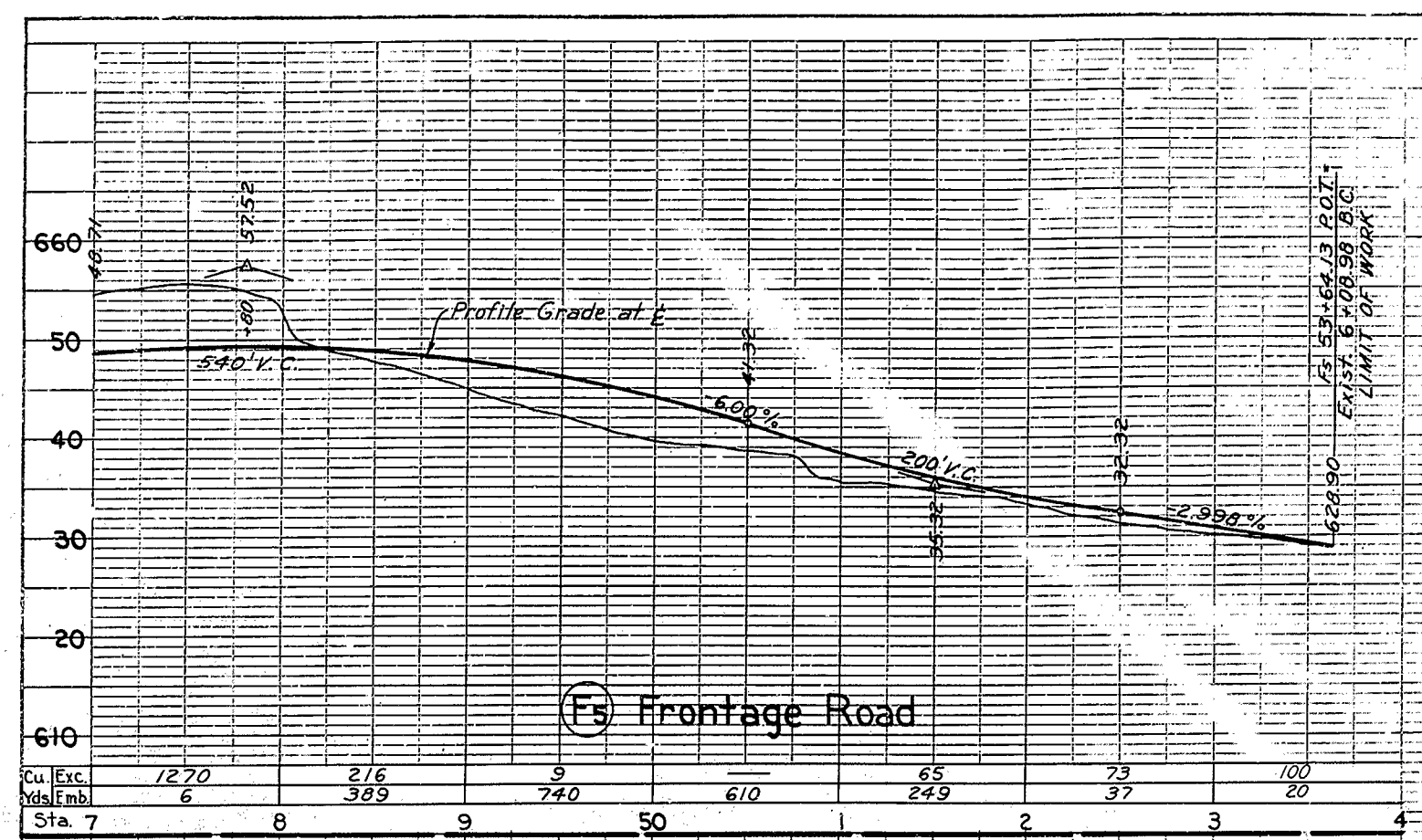
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Contract No. 03-074024
 Completed Dec 1965

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

30

DIST. COUNTY ROUTE SECTION SHEET NO. TOTAL
 III ED - II A - 31 177
 SAC ED - 50-37-1 2.4
 Dist. Eng. Dist. III
 W. H. Johnson



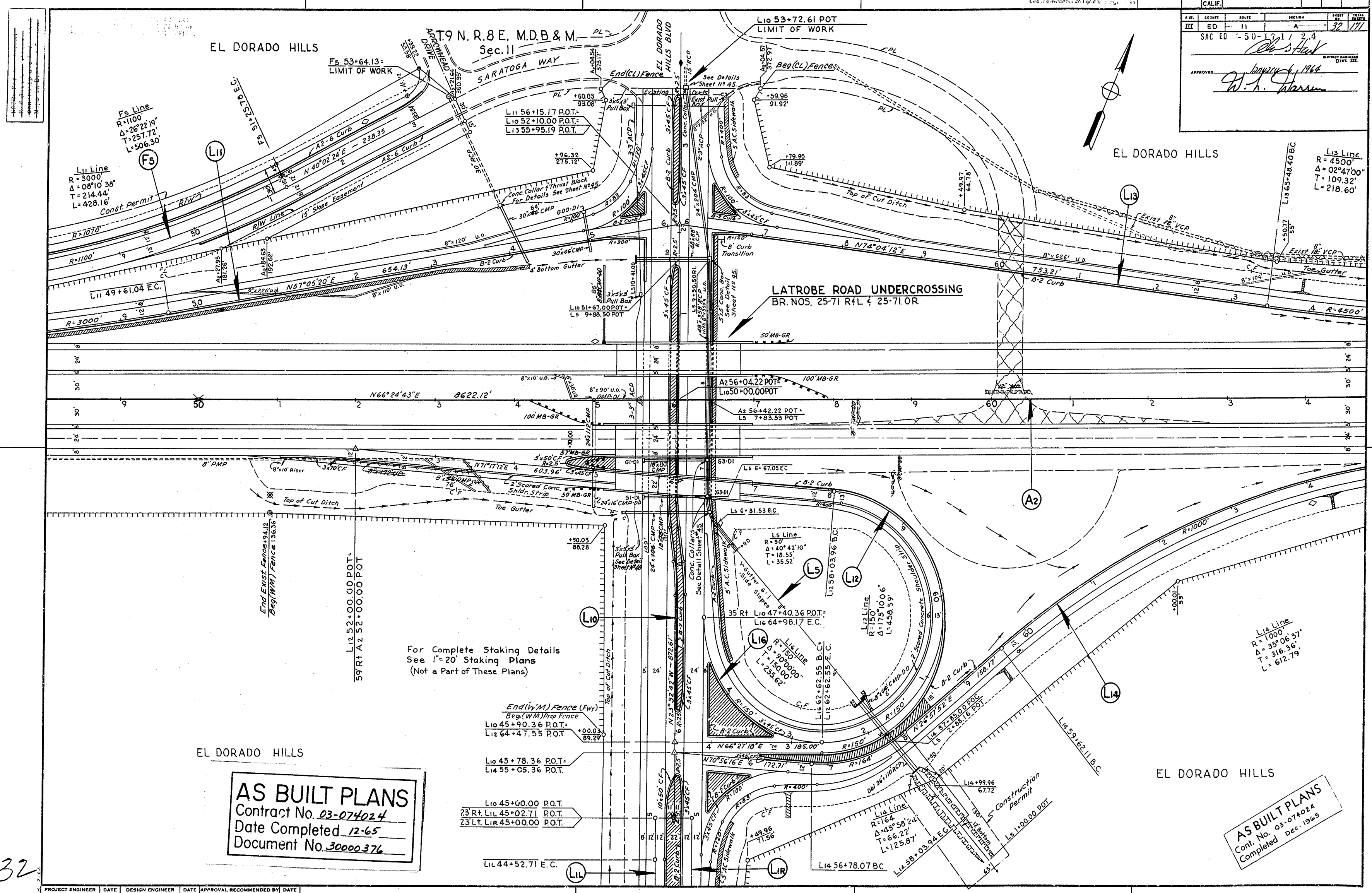
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Contract No. 03-074024
 Completed Dec. 1965

31

CALIF. COORDINATE SYSTEM, Zone II
 Grid and Azimuths are in feet to 0.01

STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
CALIF.		32	177
PROJECT	ROUTE	SECTION	DATE
ED	11	A	1/64
SAC ED - 50-111-34			
APPROVED: <i>[Signature]</i>			
DATE: 1/19/64			
BY: <i>[Signature]</i>			



T.9 N. R.8 E. M.D.B & M. Sec. 11

EL DORADO HILLS

EL DORADO HILLS

EL DORADO HILLS

EL DORADO HILLS

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

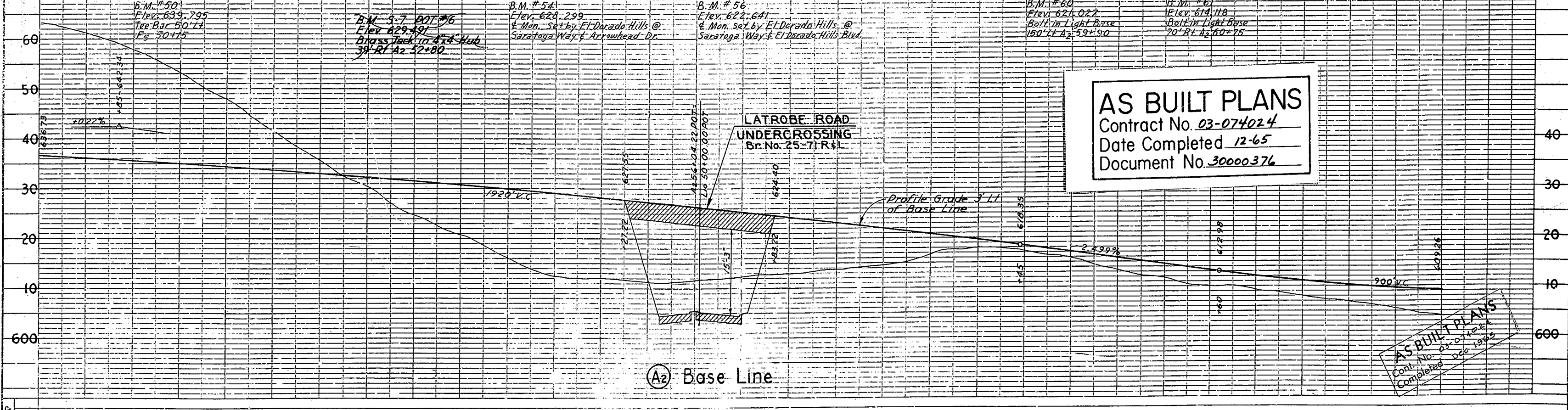
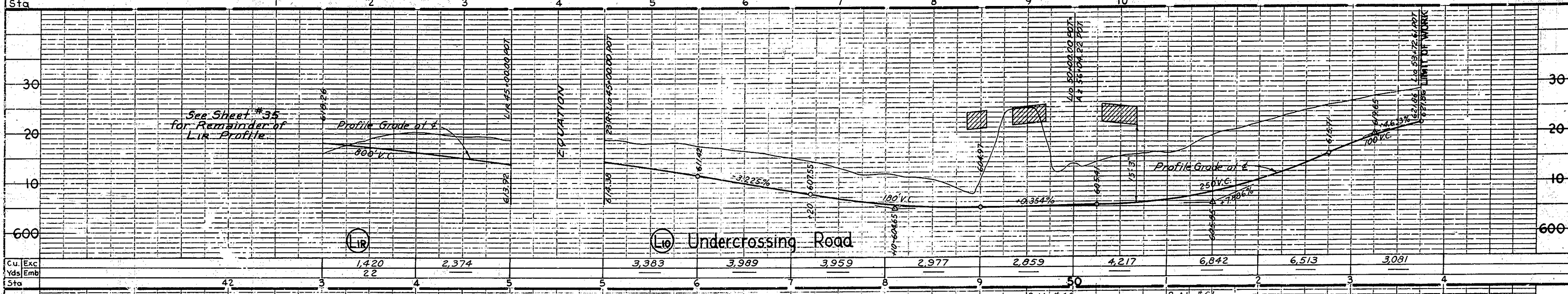
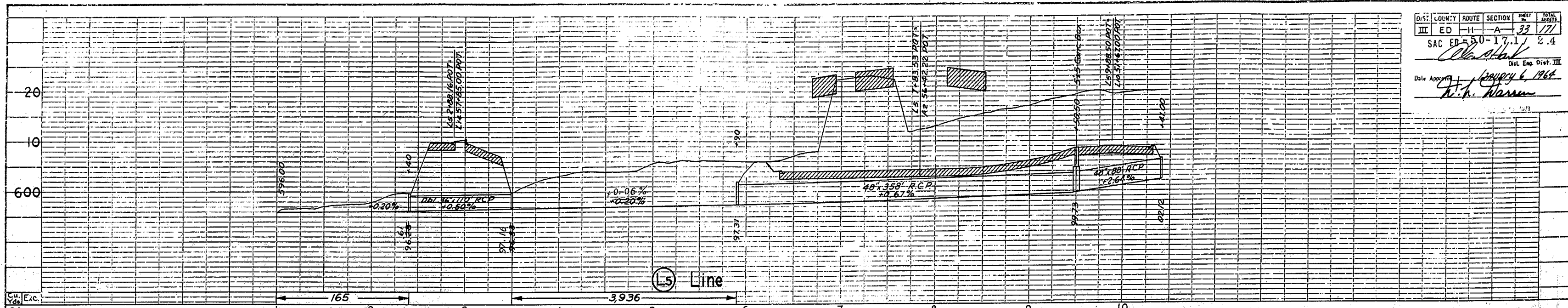
AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

For Complete Staking Details
 See 1"=20' Staking Plans
 (Not a Part of These Plans)

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

32

DIS: COUNTY ROUTE SECTION SHEET TOTAL
 III ED 11 A 33 177
 SAC ED 550-17.1 2.4
 Date Approved: *January 6, 1964*
H.P. Warren



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

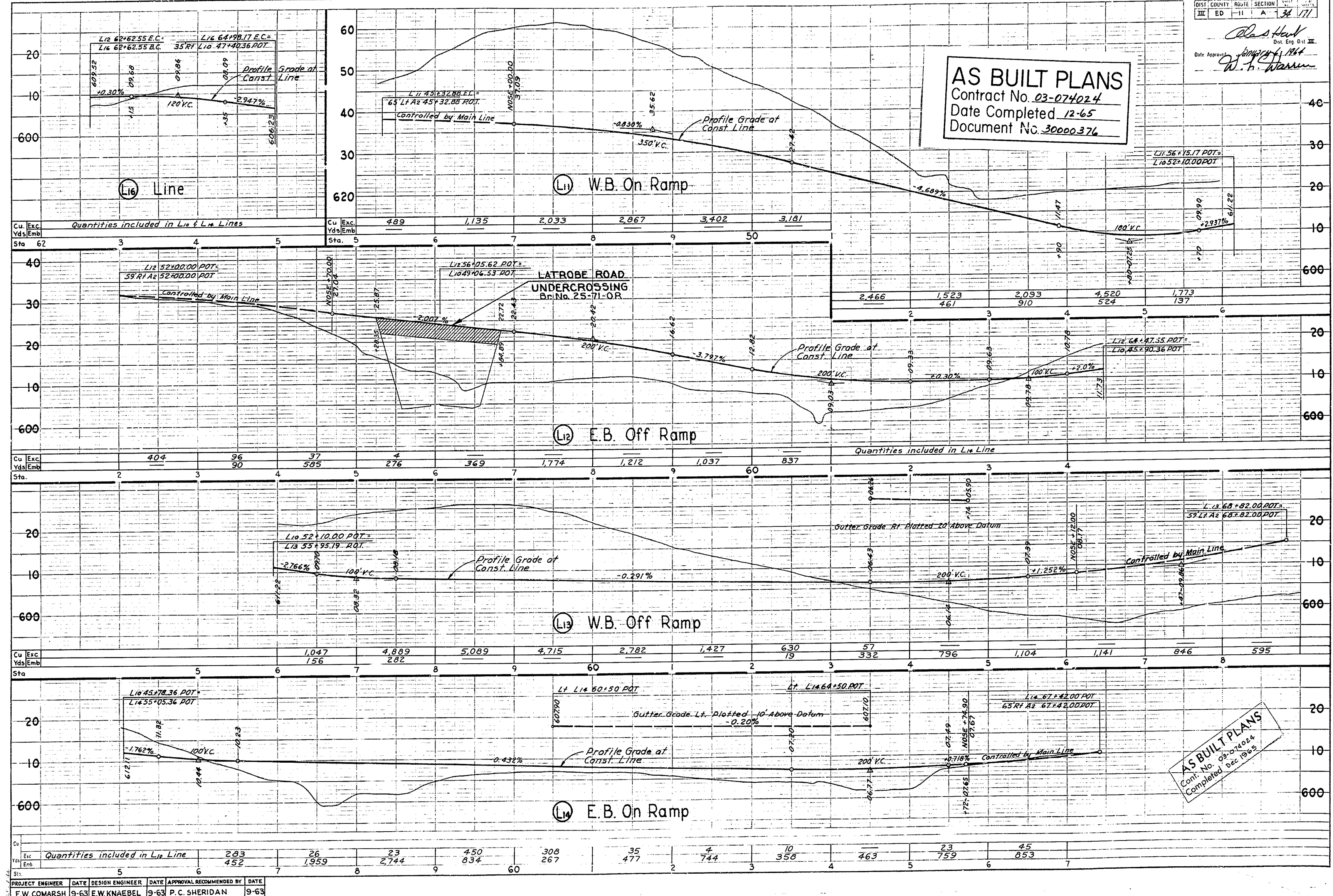
AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec 1965

33

Sta	49	50		2	3	4	5	6	7	8	9	10	60	2	3	4
Exc.	8961	6476	3003	278	48	59	39	17	42	459	1108	690	385	233	99	
Emb.			19	1,065	3,929	5,271	2,162	925	1,967	462	61	32	96	218	785	
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL	RECOMMENDED BY	DATE										
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63											

Olaf Hart
 Dist. Eng. Dist. III
 Date Approved: *12/15/65*
W. D. Warren

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376



AS BUILT PLANS
 Contract No. 03-074024
 Completed Dec 1965

34

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

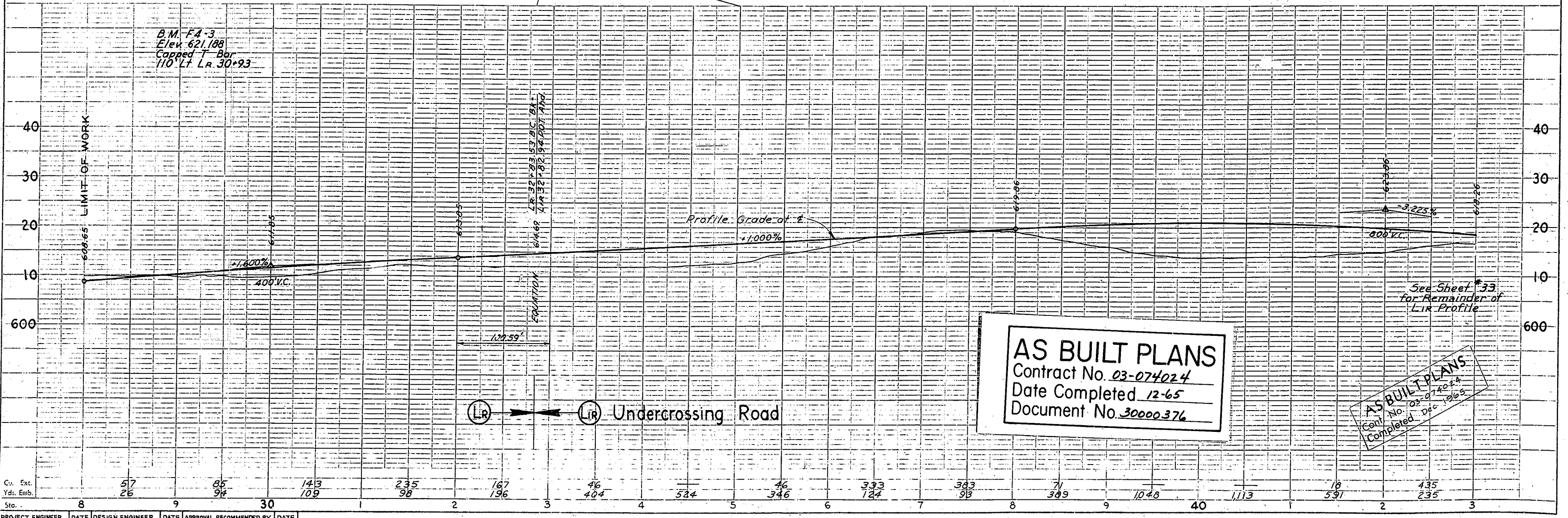
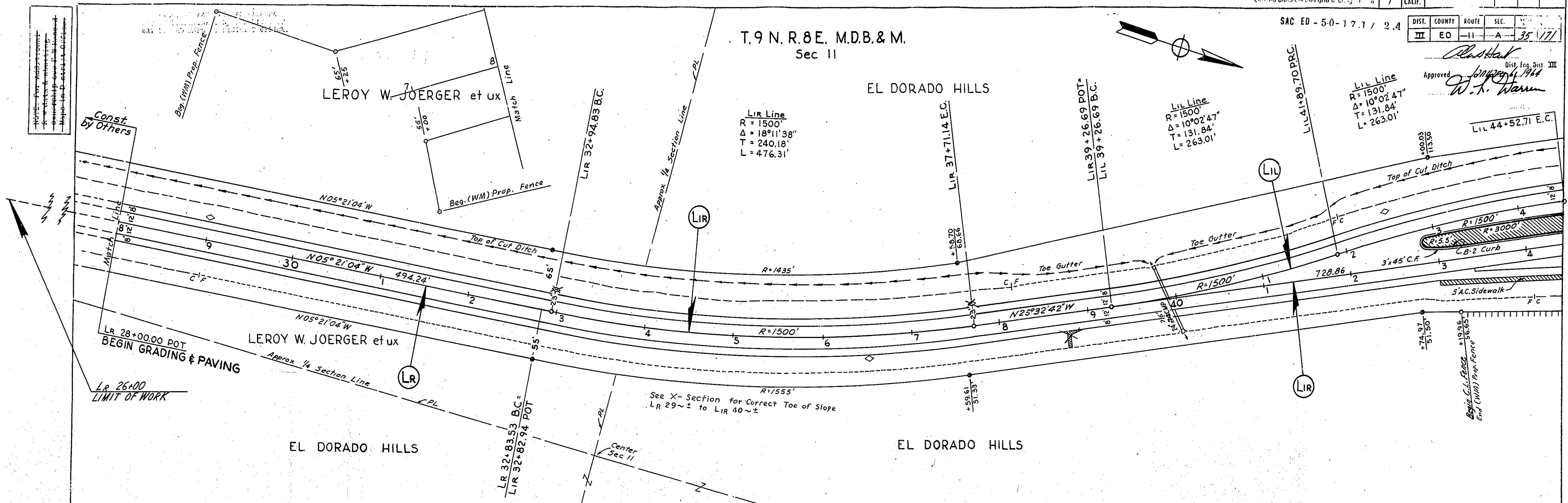
T.9 N. R.8 E. M.D.B.&M.
 Sec 11

EL DORADO HILLS

Approved: *[Signature]*
 W. H. Warrin
 LIL Line
 R=1500'
 Δ=10°02'47"
 T=131.84'
 L=263.01'

LIR Line
 R=1500'
 Δ=18°11'38"
 T=240.18'
 L=476.31'

LIL Line
 R=1500'
 Δ=10°02'47"
 T=131.84'
 L=263.01'



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

Undercrossing Road

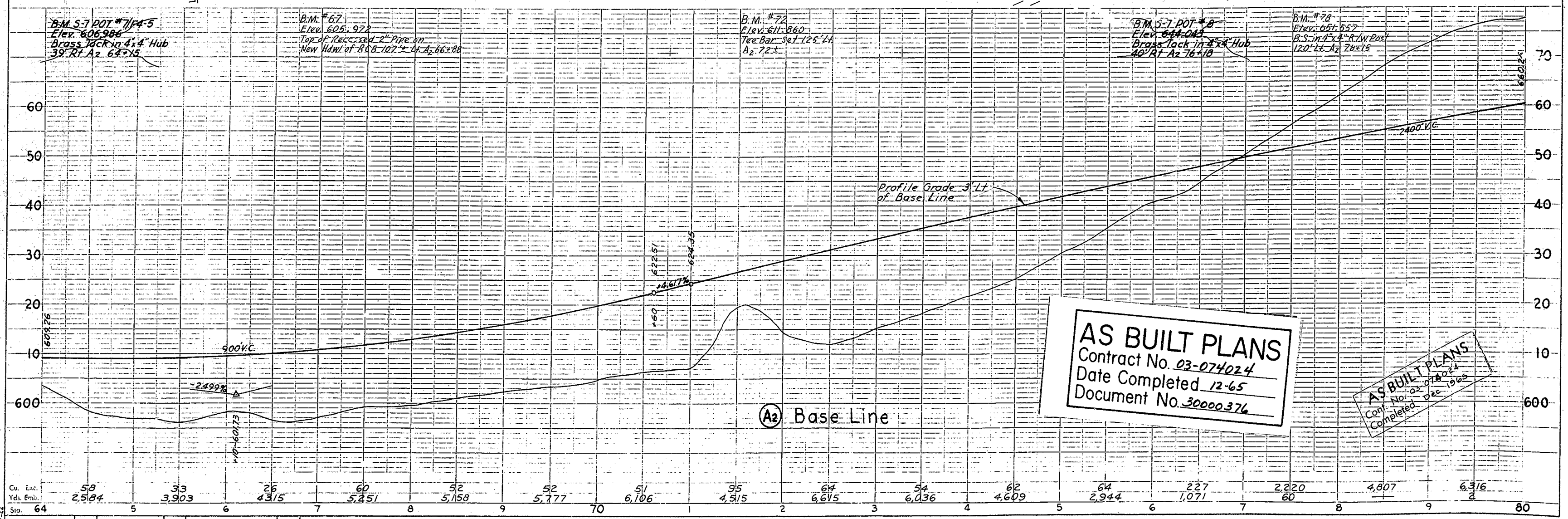
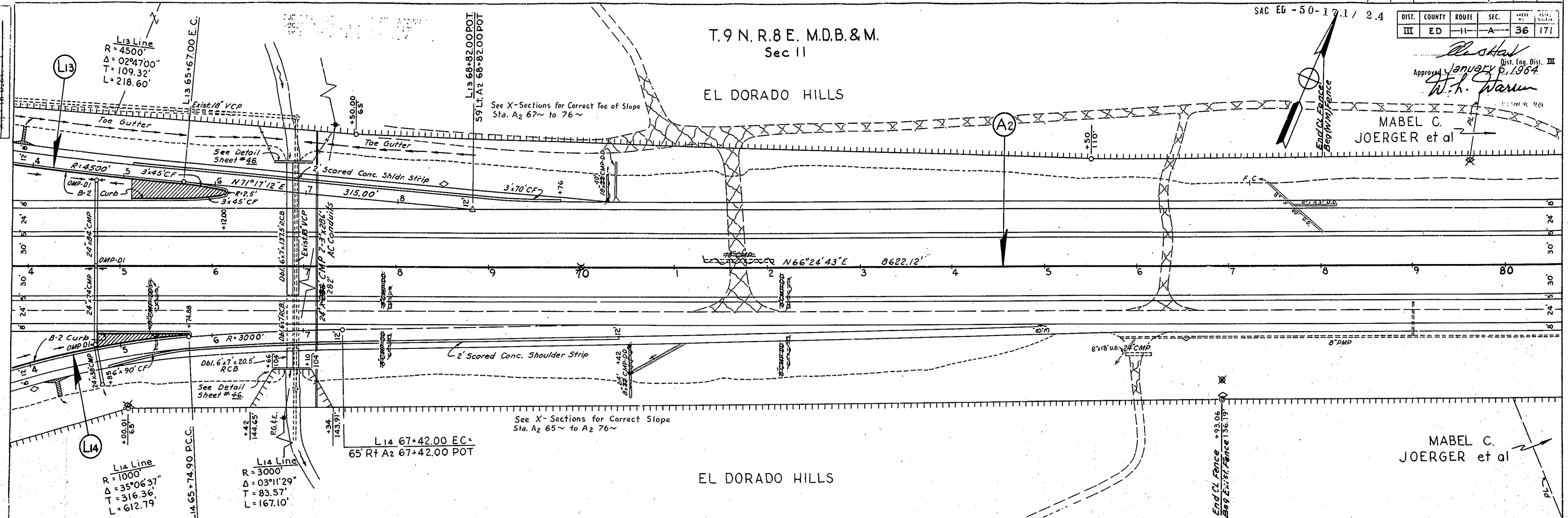
Cu. Exc.	57	85	143	235	167	46	46	333	383	71	18	435
Yds. Emb.	26	96	109	98	196	404	346	124	98	309	591	235
Sta.	8	9	30	1	2	3	4	5	6	7	8	9
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL	RECOMMENDED BY	DATE						
F.W. COMARSH	9-63	E.W. NAEBEL	9-63	P.C. SHERIDAN		9-63						

35

T. 9 N. R. 8 E. M. D. B. & M.
 Sec II

EL DORADO HILLS

Approved: *W. H. Warren* Dist. Eng. Dist. III
 January 6, 1964
 MABEL C. JOERGER et al



Cu. Ent.	58	33	26	60	52	52	51	95	64	54	62	64	227	4,807	6,376
Yds. Empl.	2,584	3,903	4,315	5,251	5,158	5,777	6,106	4,515	6,615	6,036	4,609	2,944	1,071	60	2
Sta.	64	5	6	7	8	9	70	1	2	3	4	5	6	7	80

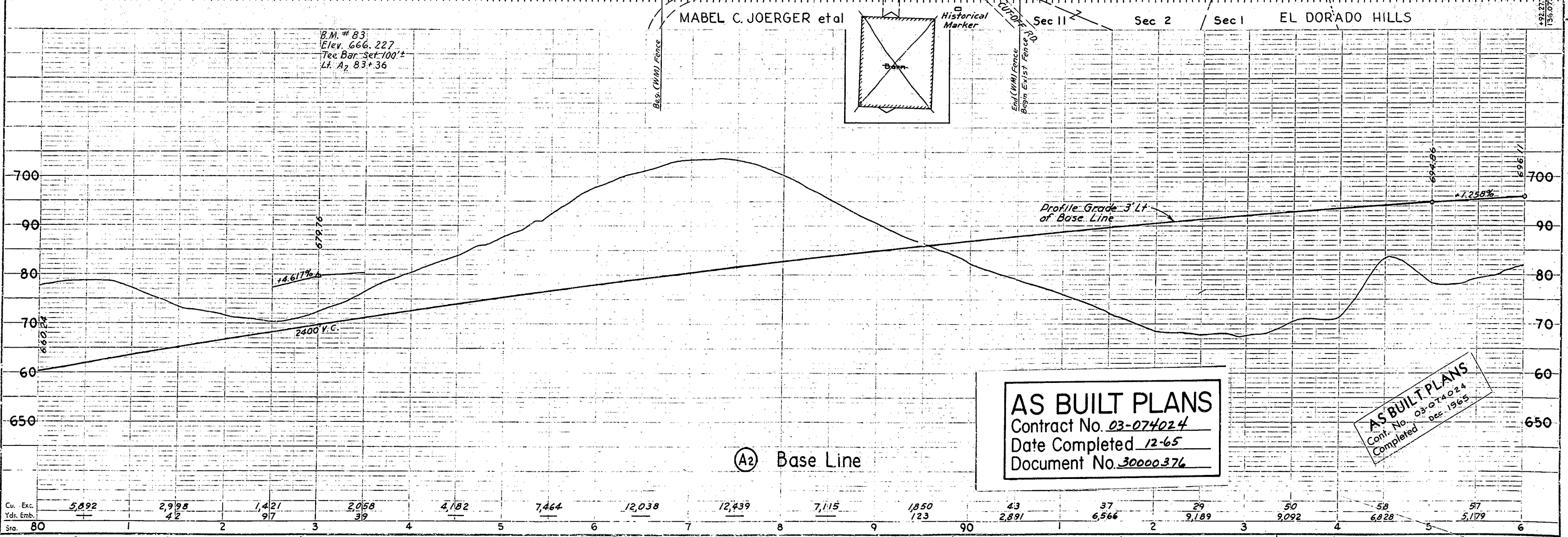
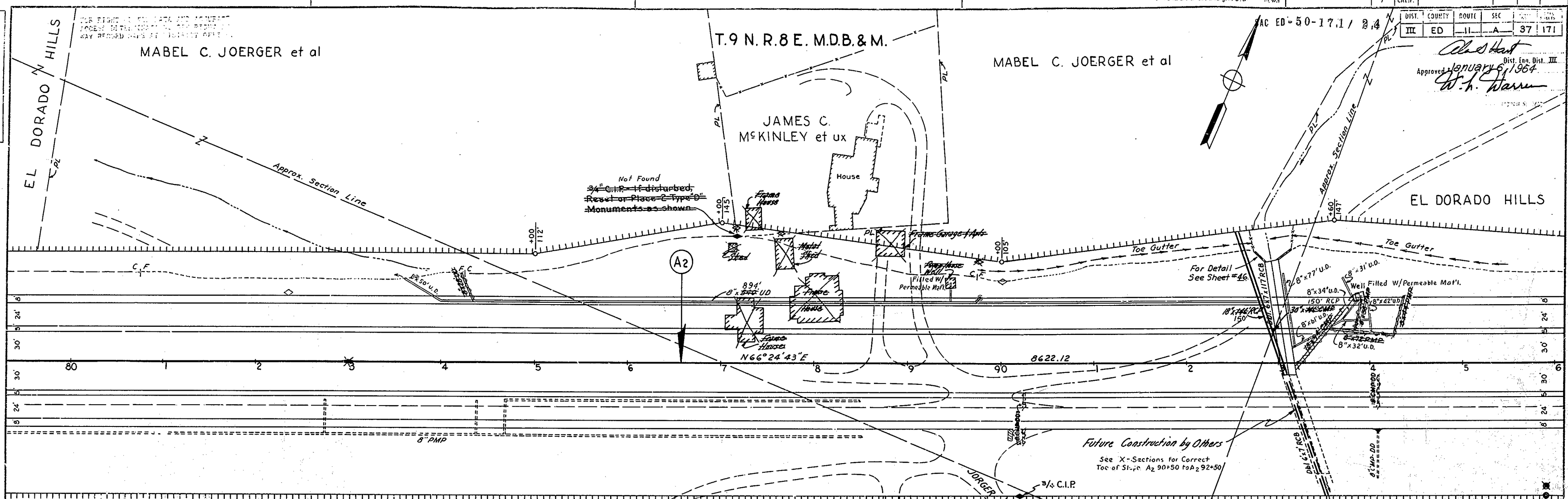
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

36

CALIF. COORDINATE SYSTEM, Zone II
Ground distance, and grid distance

B.P. No.	7	Scale	1" = 40'
DIST.	ED	ROUTE	11
SECTION	A	SECTION	37
171			

Approved January 6, 1964
W. H. Warren
 Dist. Eng. Dist. III

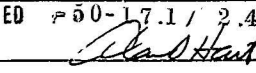


AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

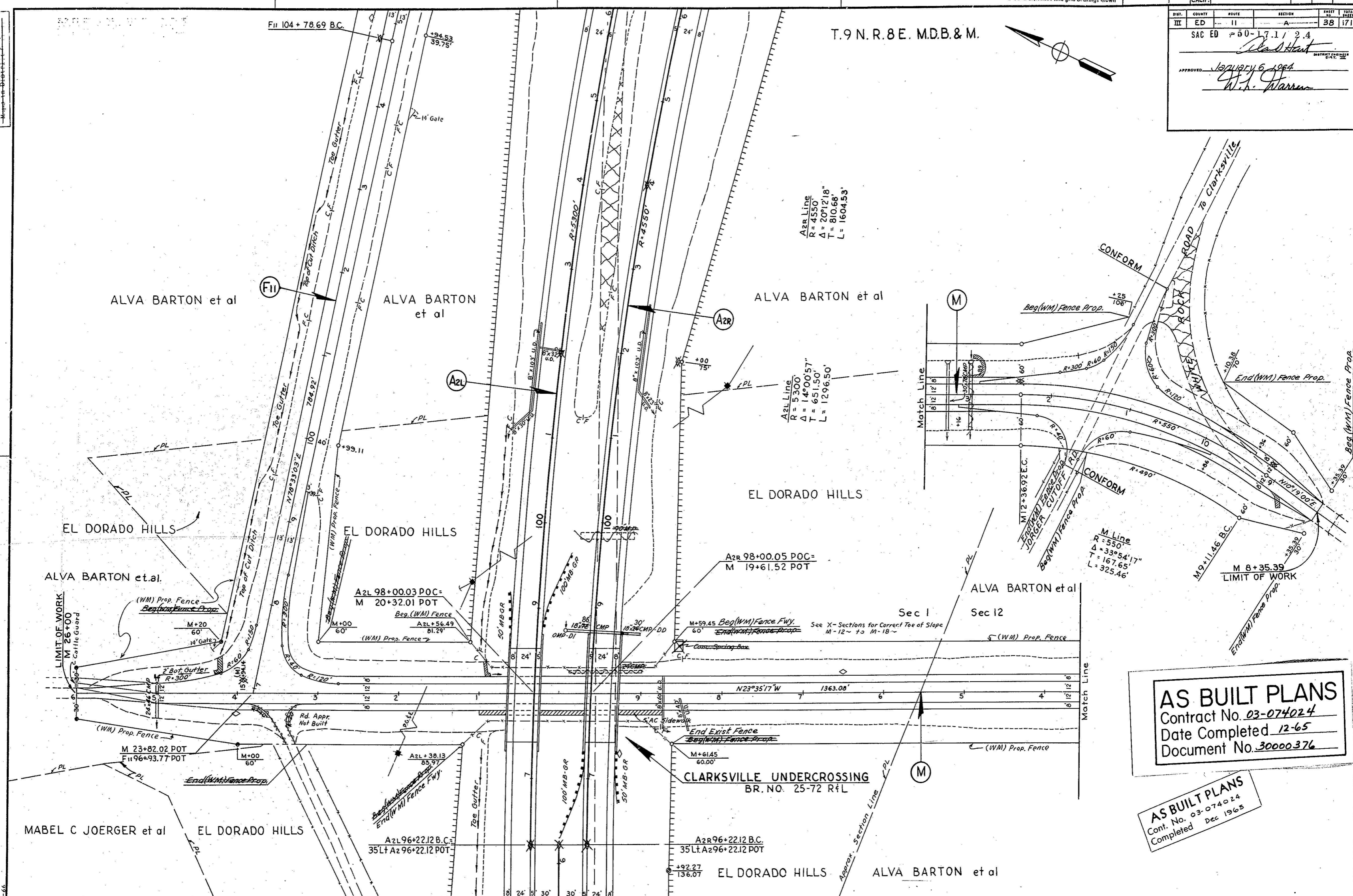
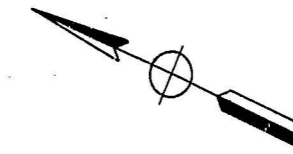
AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec. 1965

Cu. Exc.	5,892	2,995	1,421	2,058	4,182	7,464	12,038	12,439	7,115	1,850	43	37	29	50	58	57
Yds. Emb.	42	917	39							123	2,891	6,566	9,189	9,092	6,228	5,179
Sta.	80	2	3	4	5	6	7	8	9	90	2	3	4	5	6	

Project Engineer: F.W. COMARSH
 Date: 9-63
 Design Engineer: E.W. KNAEBEL
 Date: 9-63
 Approval Recommended By: P.C. SHERIDAN
 Date: 9-63

F.P.C. DIST. NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
III	ED	II	A	38	171
SAC ED # 50-17.1/2.4					
APPROVED: 12/21/65  W.A. Warren					

T.9 N. R. 8 E. M.D.B. & M.



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

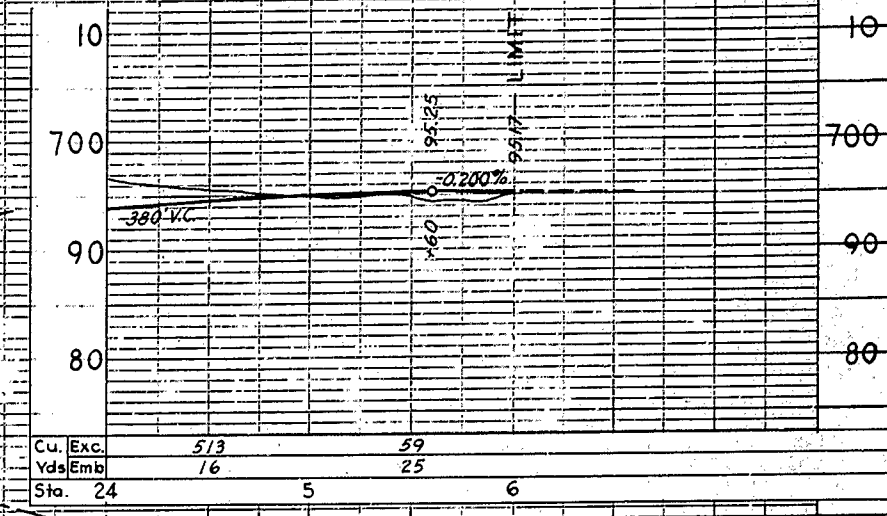
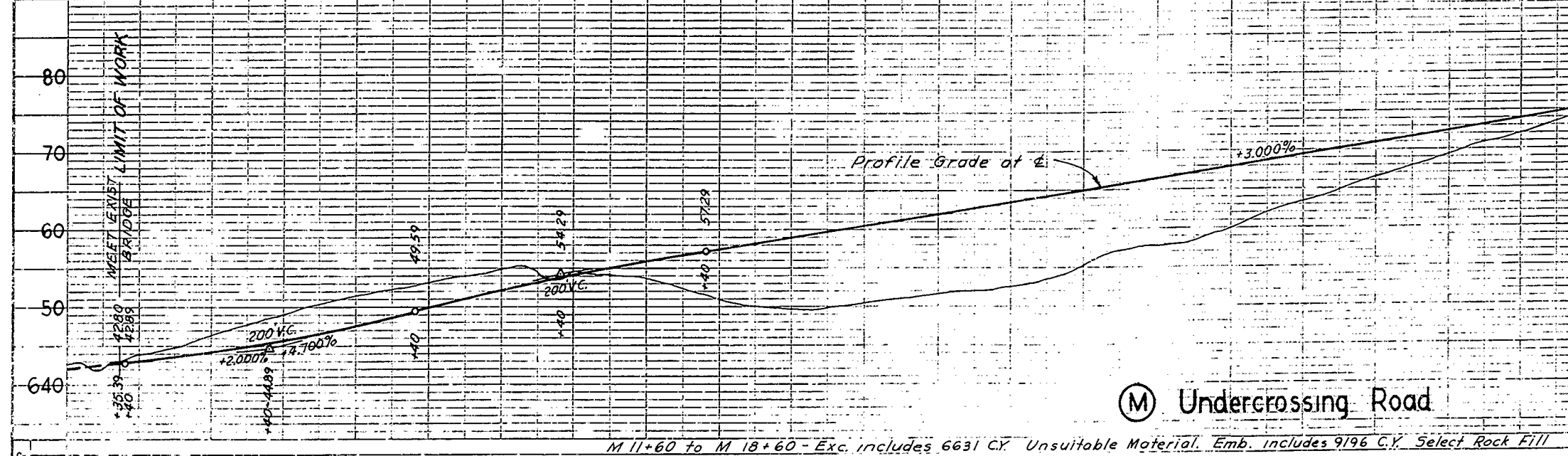
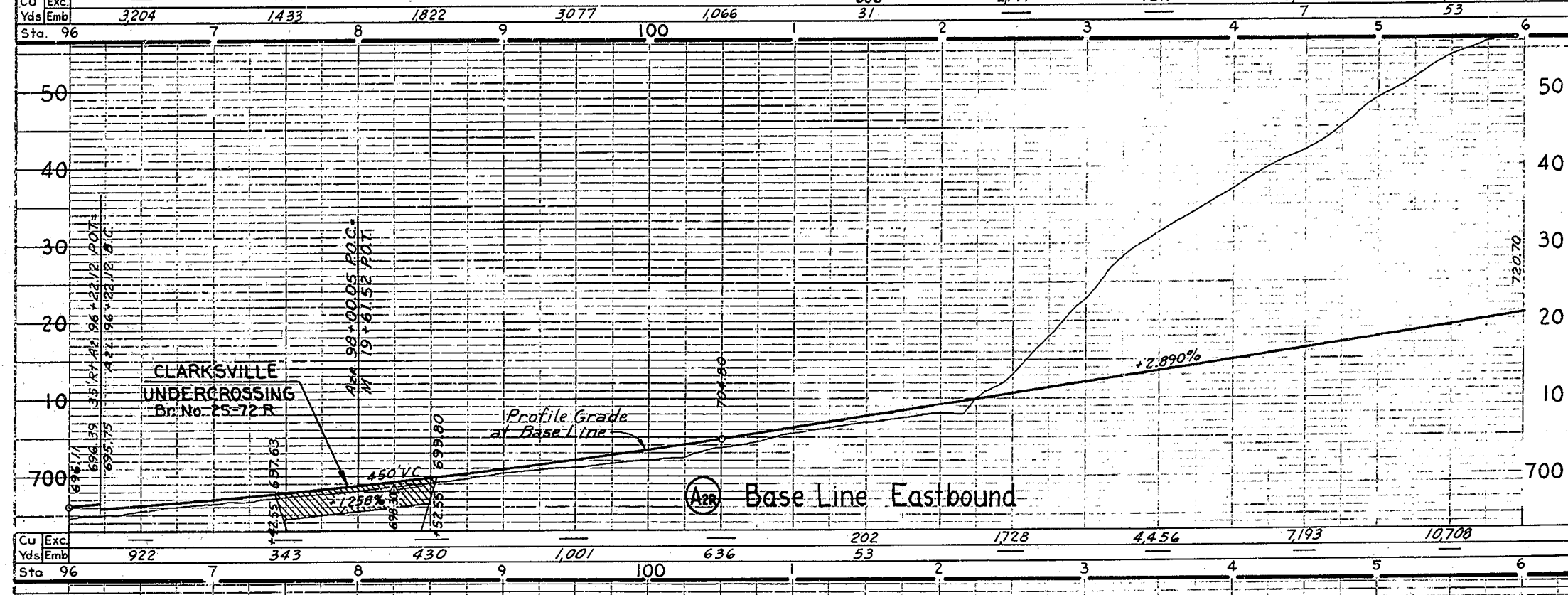
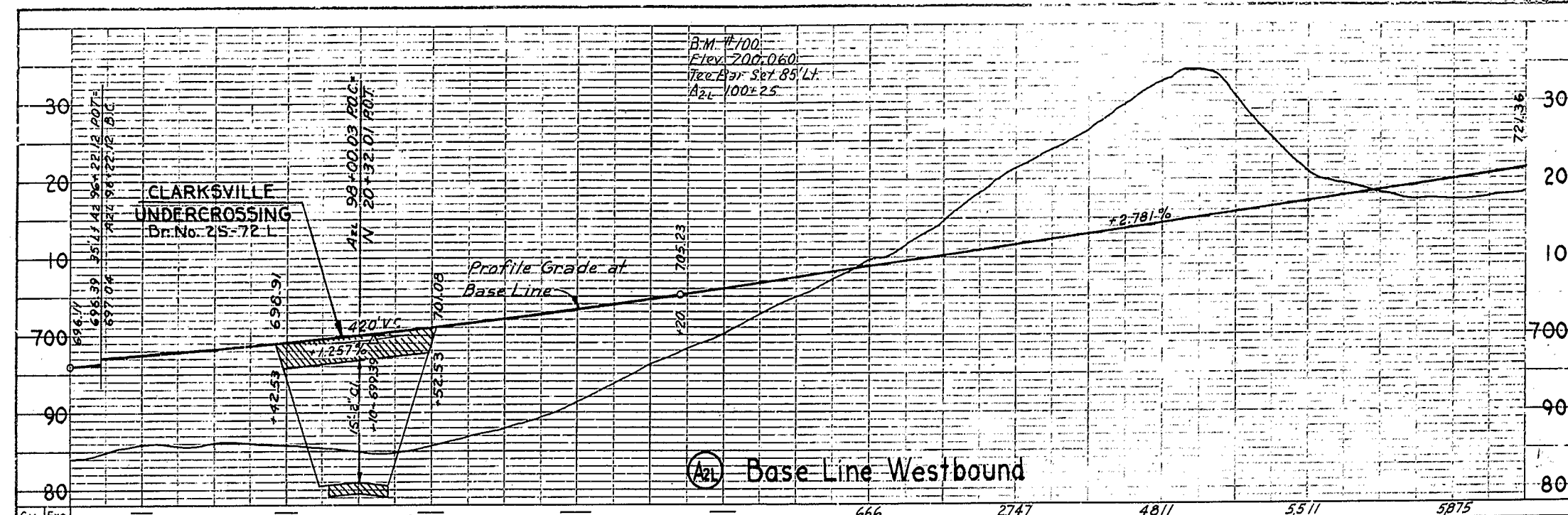
AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec 1965

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W.COMARSH	9-63	E.W.KNAEBEL	9-63	P.C.SHERIDAN	9-63

38

SAC ED-50-17.1 / 2.4
DIST. COUNTY ROUTE SECTION
III ED -11- A- 3e 171

W. H. Warren
 Dist. Eng. Dist. III
 Date Approved *January 9, 1964*
W. H. Warren

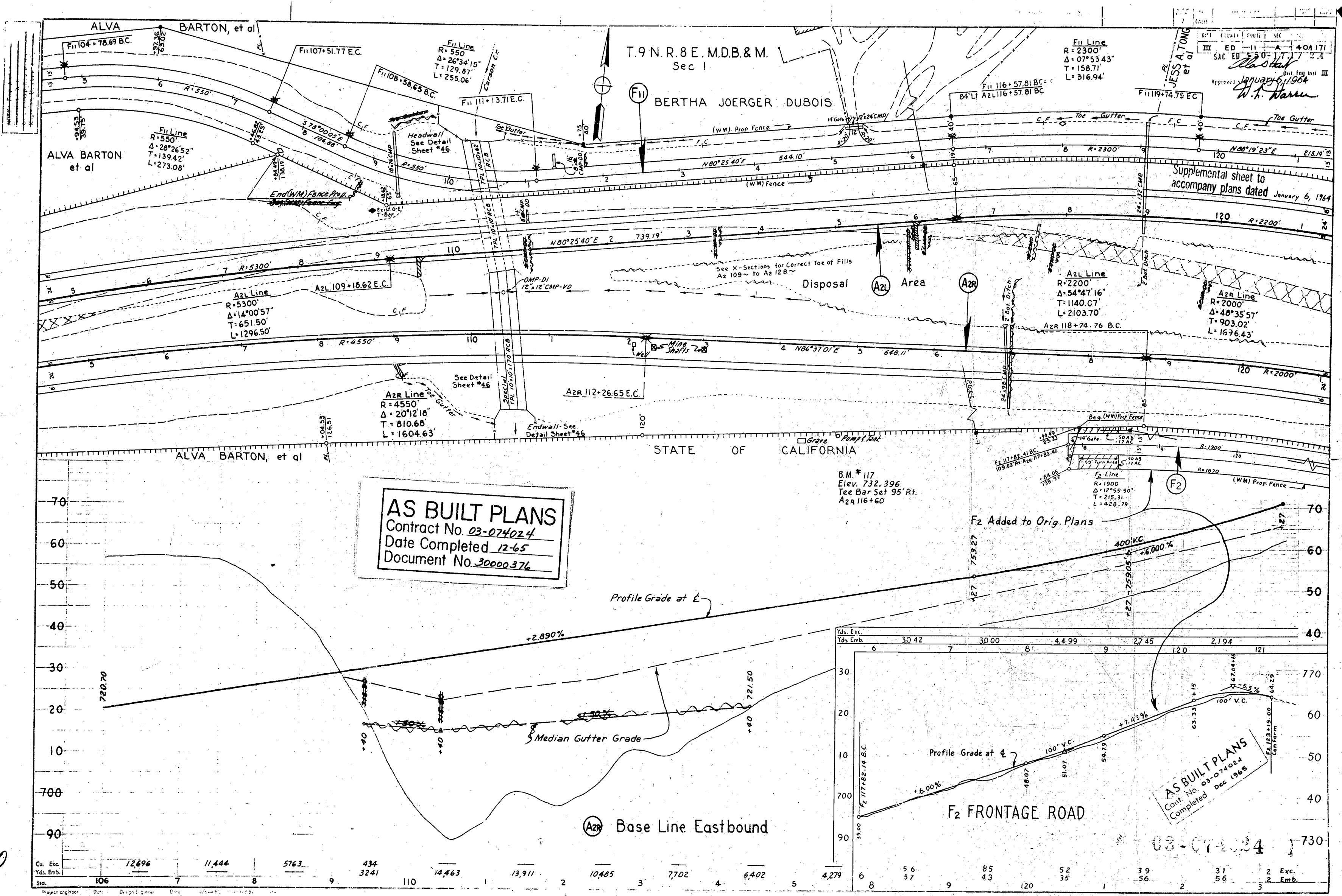


AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec 1965

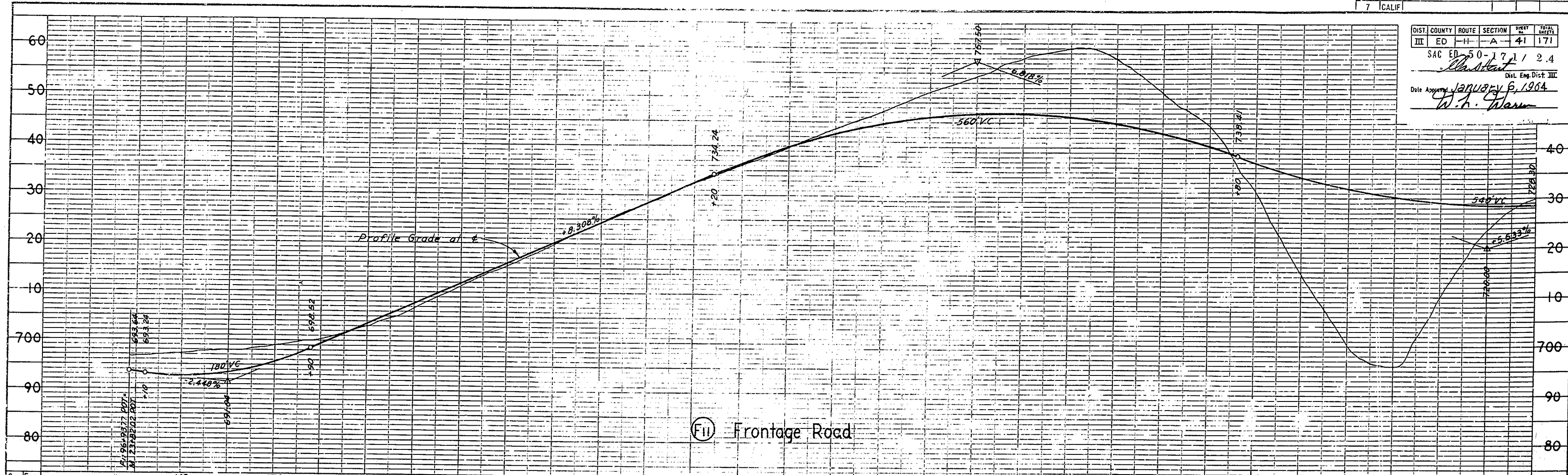
39

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W.COMARSH	9-63	E.W.KNAEBEL	9-63	P.C.SHERIDAN	9-63

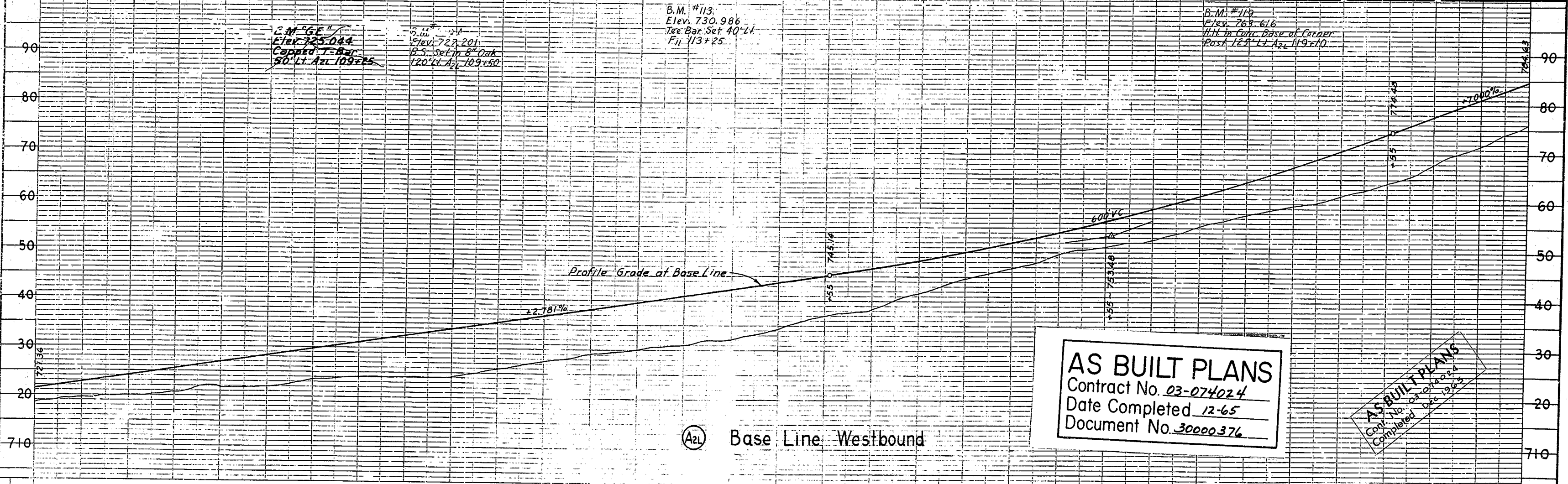


40

DIST	COUNTY	ROUTE	SECTION	SHEET	TOTAL SHEETS
III	ED	H	A	41	171
SAC ED 50-1711 2.4					
Date Approved January 6, 1964					
W. H. Hansen					



Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta													
669	7	574	8	49	9	43	100	56	58	75	3	23	55	305	14	1,113	6	2,233	7	2,303	8	633	158	4,680	9	5,517	10	132	1,239	112



Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta	Exc Yds	Emb Sta											
3,685	6	289	7	1,359	8	526	9	304	10	667	11	1,460	12	4,289	13	2,578	14	1,793	15	1,500	16	1,429	17	940	18	788	19	941	20	1,198	21	1,761	22	120	23	2,066	24	1,776	25	122

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

(FII) Frontage Road

(AZL) Base Line Westbound

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Contract No. 03-074024
 Completed Dec 1965

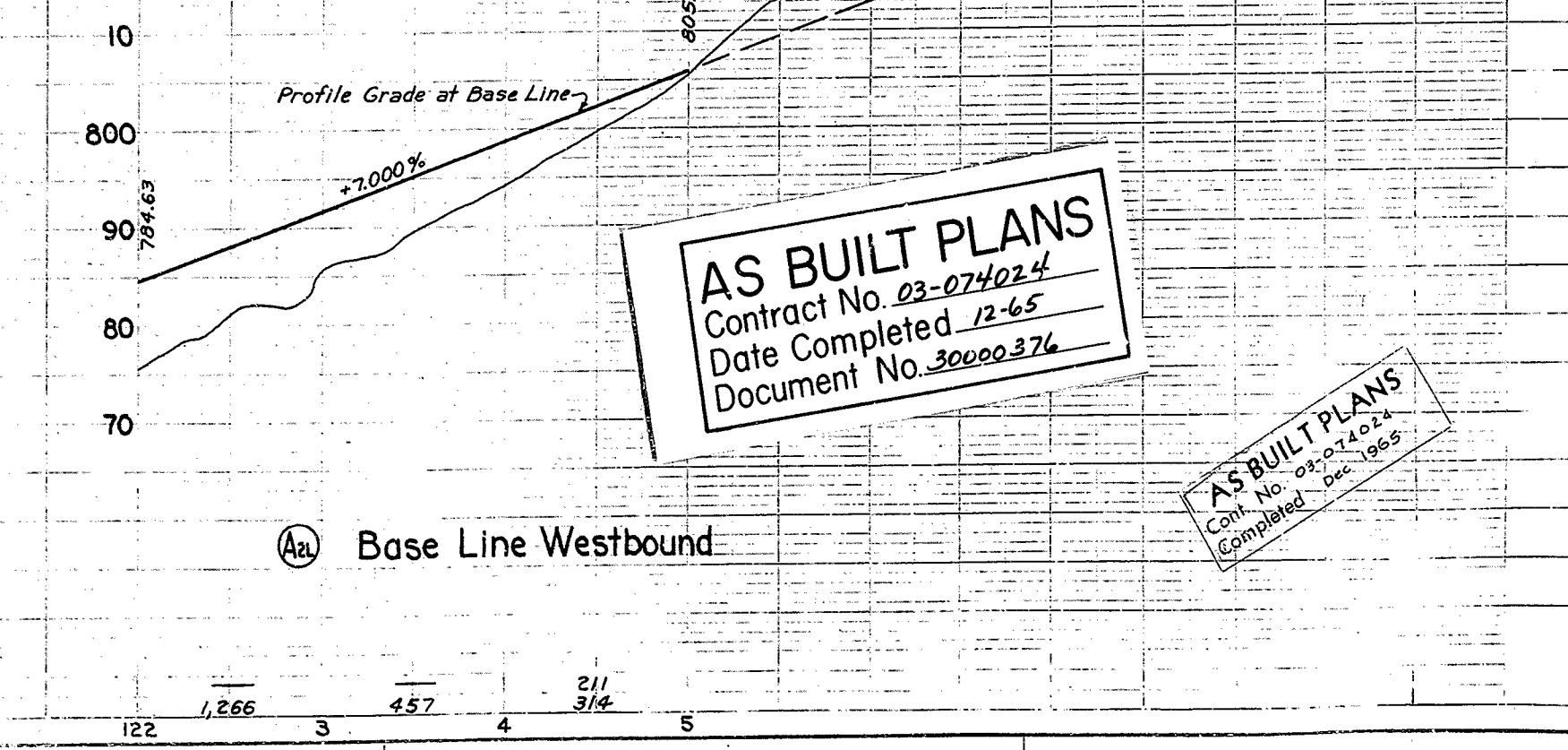
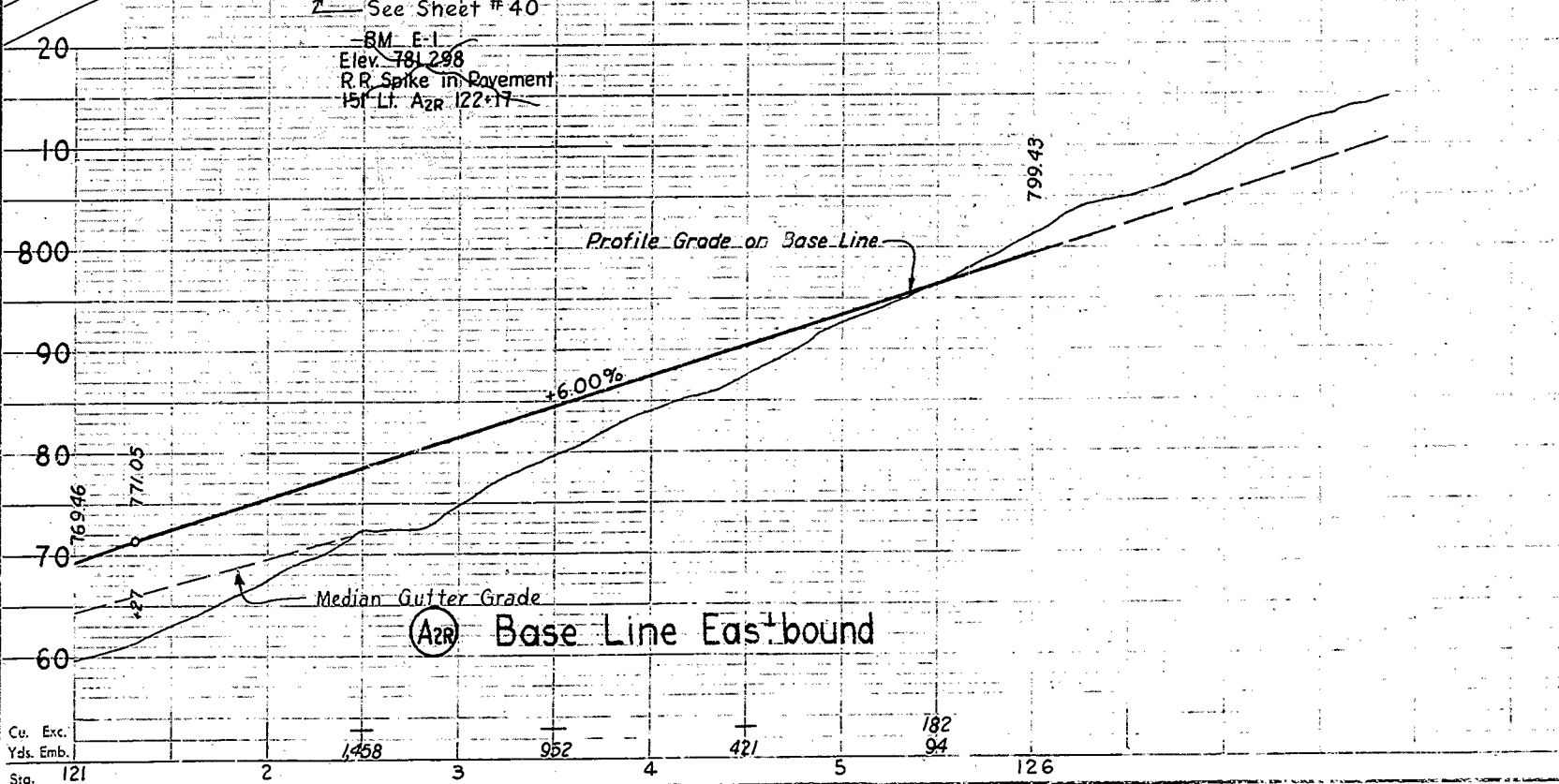
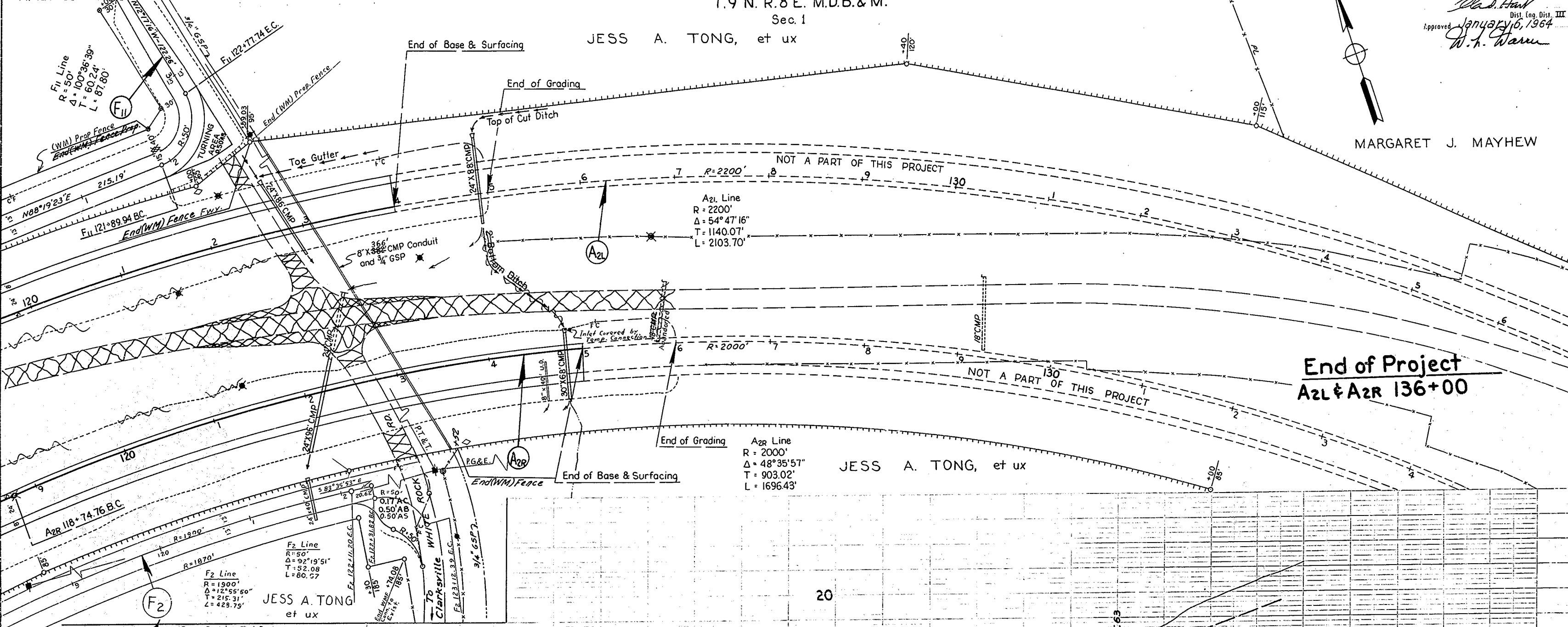
41

T.9 N. R.8 E. M.D.B.&M.
Sec. 1

JESS A. TONG, et ux

Approved: *W.H. Warm*
Dist. Eng. Dist. III
January 16, 1964
MARGARET J. MAYHEW

LIMIT OF WORK
F11 124+00 1/2 gate

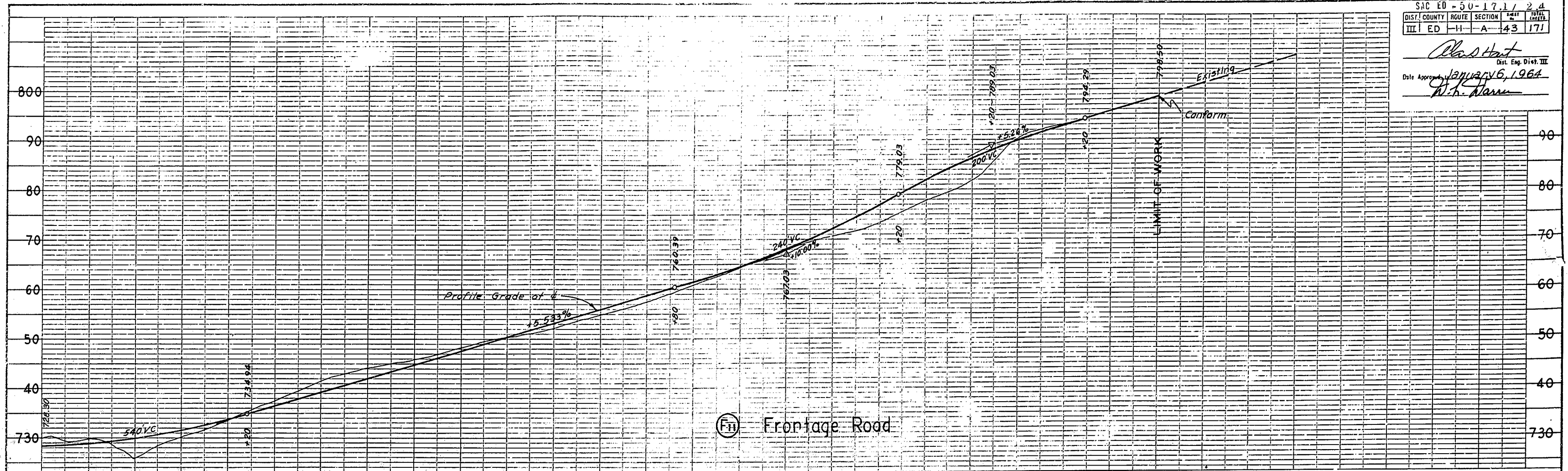


AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Cont. No. 03-074024
Completed Dec 1965

SAC ED	50-17.1/2.4
DIST	III
COUNTY	ED
ROUTE	11
SECTION	A
POST MILE	43
TOTAL MILES	171

Class Hart
 Dist. Eng. Dist. III
 Date Approved January 6, 1964
W.H. Mann



Cu	Exc	315	219	442	393	256	72	69	104	16	651	487	28
Yds	Emb	262	118					58	38	259			
Sta		112	3	4	5	6	7	8	9	120	2	3	4

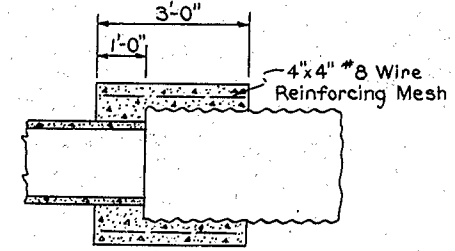
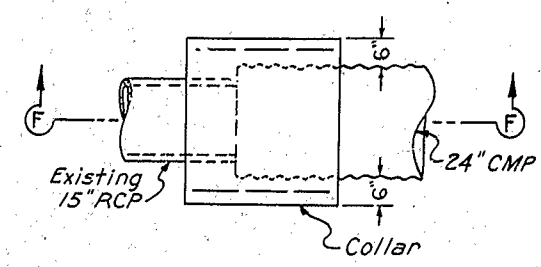
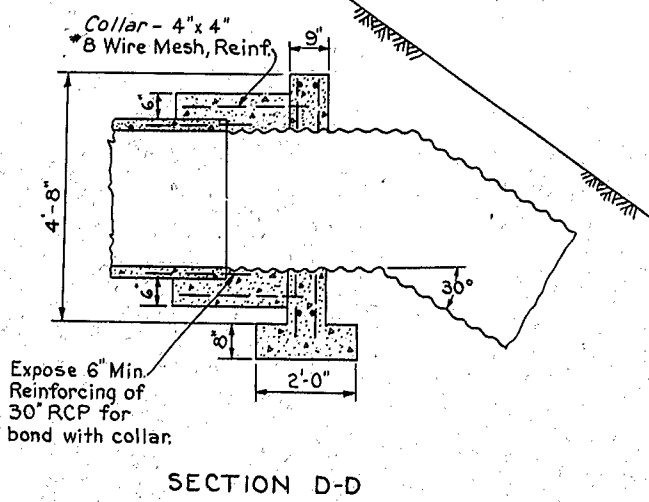
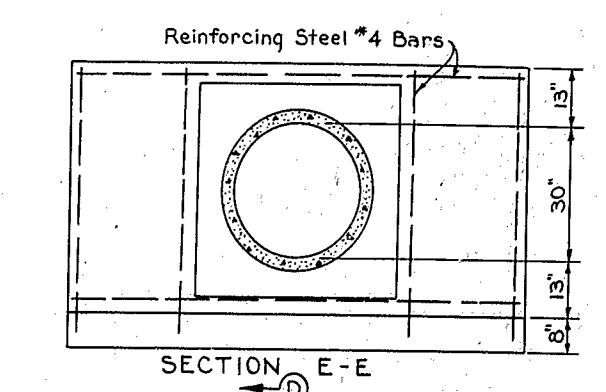
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

AS BUILT PLANS
 Cont. No. 03-074024
 Completed Dec 1965

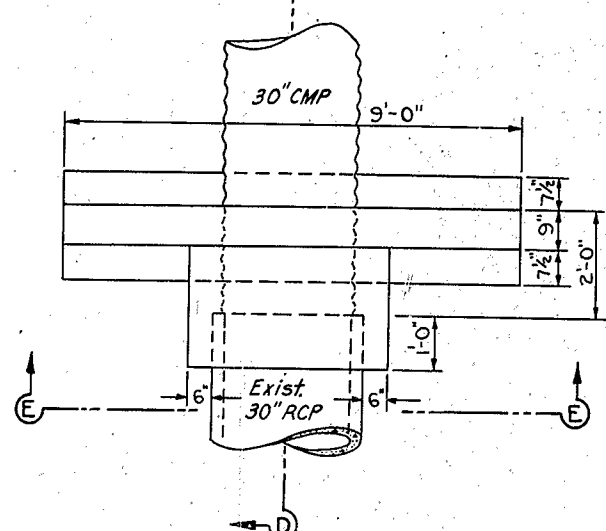
43

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W.COMARSH	9-63	E.W.KNAEBEL	9-63	P.C.SHERIDAN	9-63

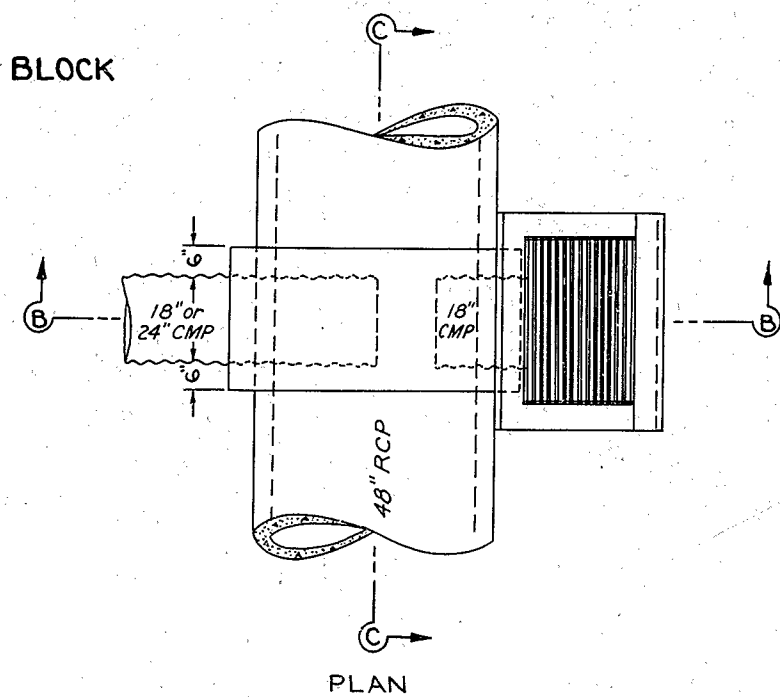
S.P. NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
III	CALIF.			45	171
DIST.	COUNTY	ROUTE	SECTION	SHEET	TOTAL SHEETS
SAC ED	III	50-17.1/2.4	A, A	45	171
SAC ED 50-17.1/2.4					
APPROVED <i>W.D. Hart</i>					
APPROVED <i>W.D. Hart</i>					
APPROVED <i>W.D. Hart</i>					



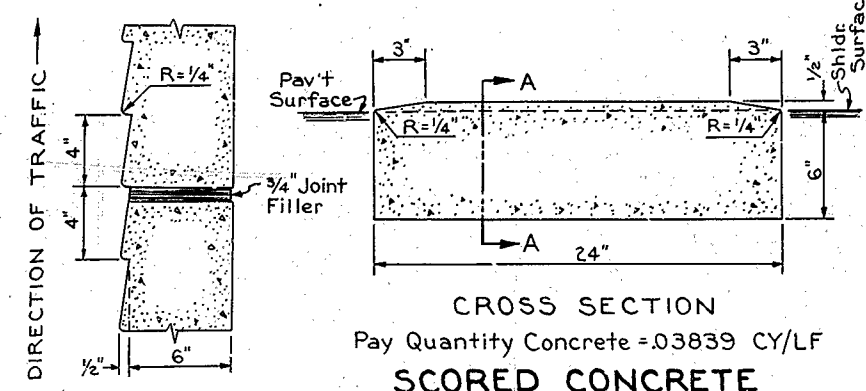
SECTION F-F
CONCRETE COLLAR
6' Rt. Lio 53+72



CONCRETE COLLAR & THRUST BLOCK
59' Lt. Lio 54+15

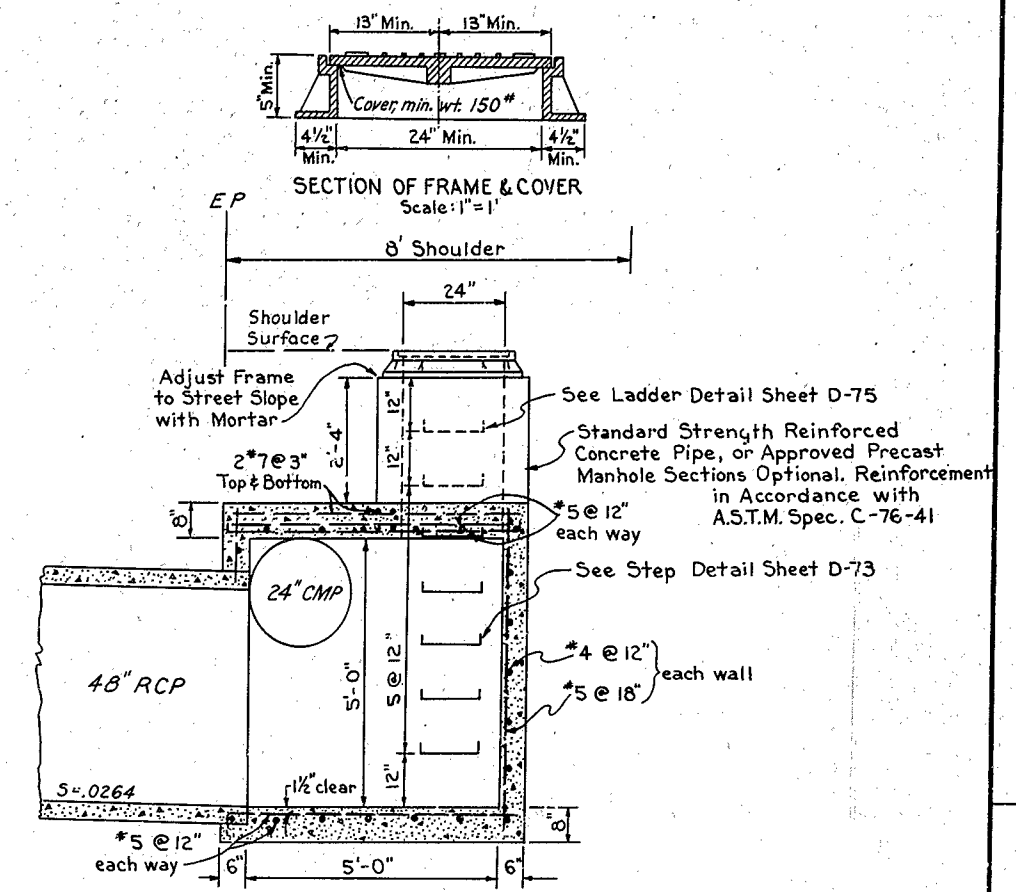


PLAN

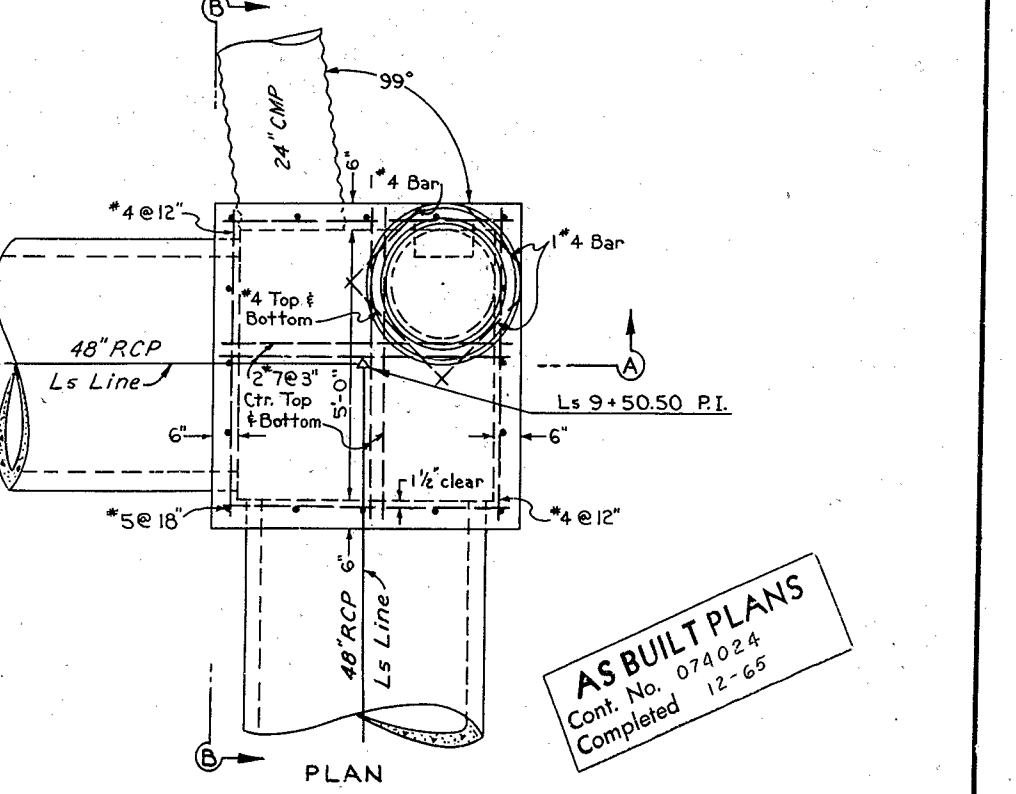


SECTION A-A

CROSS SECTION
Pay Quantity Concrete = 0.3839 CY/LF
SCORED CONCRETE
SHOULDER STRIP
Scale: 1" = 6"



SECTION A-A

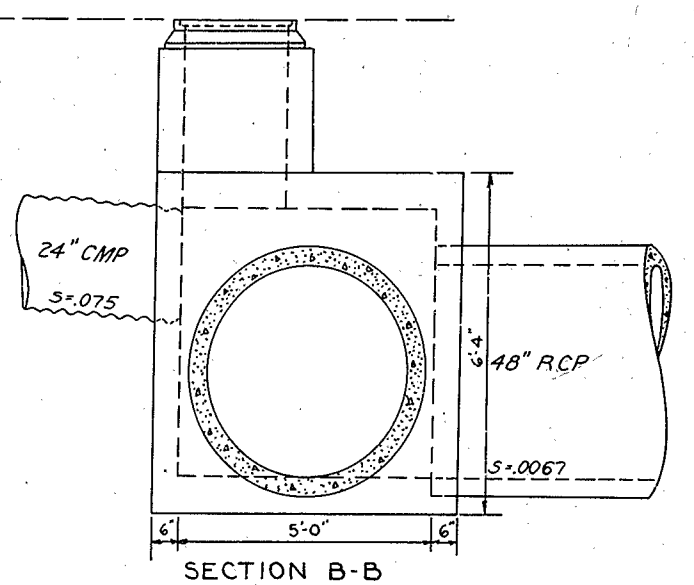


PLAN

JUNCTION BOX
38' Rt. Lio 51+67

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

MISC. DETAILS
Scale: 1" = 2' except as noted



SECTION B-B

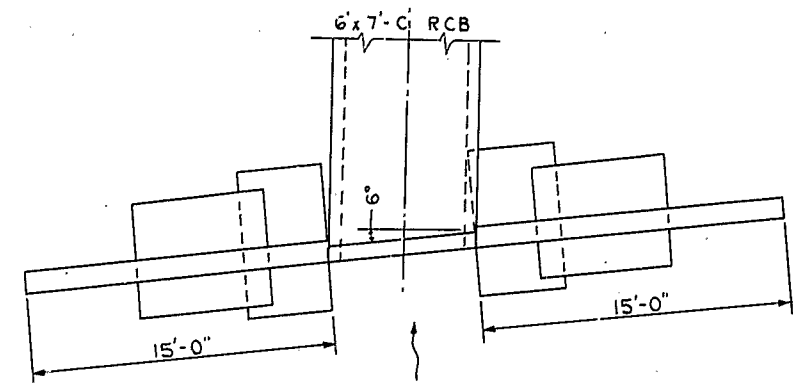
AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

CONCRETE COLLAR
38' Rt. Lio 48+64*, 48+82, 49+27
* 24" CMP without DI

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

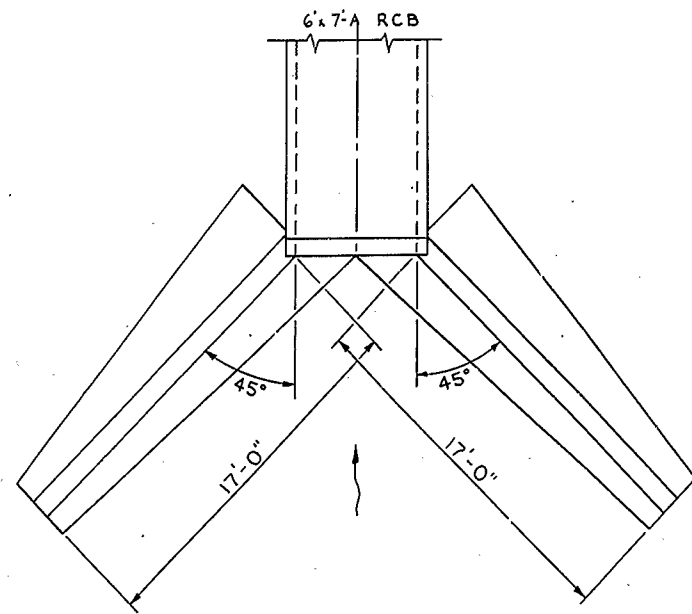
45

Dist. No.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CALIF.				
Dist.	County	Route	Section	Sheet	Total Sheets
III	SAC, ED	11	B, A, A	46	171
SAC ED = 50-17.11.2.4					
APPROVED: <i>W. S. Hunt</i>					
DATE: January 6, 1964					
BY: <i>W. L. Warren</i>					



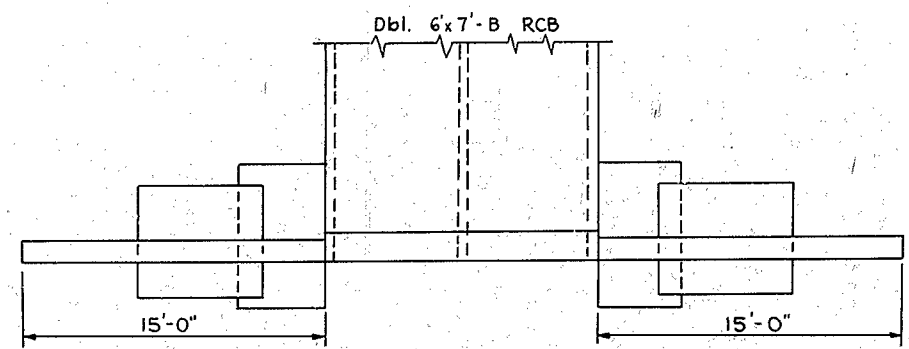
TYPE B HEADWALL
6x7-Cx117' & Dx96' RCB Lt. Az 39+52
Scale: 1"=5'

NOTE: To connect New RCB to existing. Remove stepped wingwalls & 16' culvert end section. Extend exist. long. steel 2' into new construction.



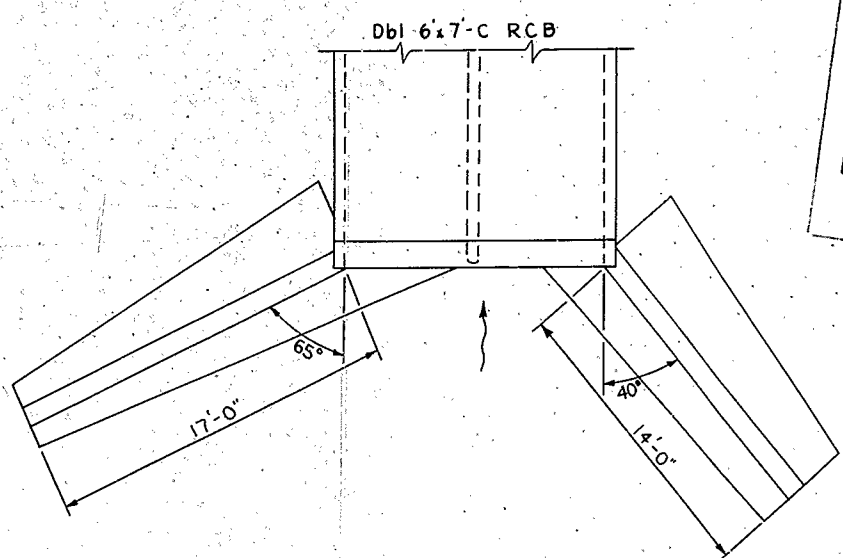
TYPE A HEADWALL
6x7-Ax109' RCB Lt. Az 247+65
Scale: 1"=5'

NOTE: To Connect New RCB to Existing. Remove existing parapet & construct cover slab. See Detail Sheet D-83



TYPE B HEADWALL & ENDWALL
DOUBLE 6x7-Bx137.5' RCB Lt. Az 66+88
DOUBLE 6x7-Bx 20.5' RCB Rt. Az 66+88
Scale: 1"=5'

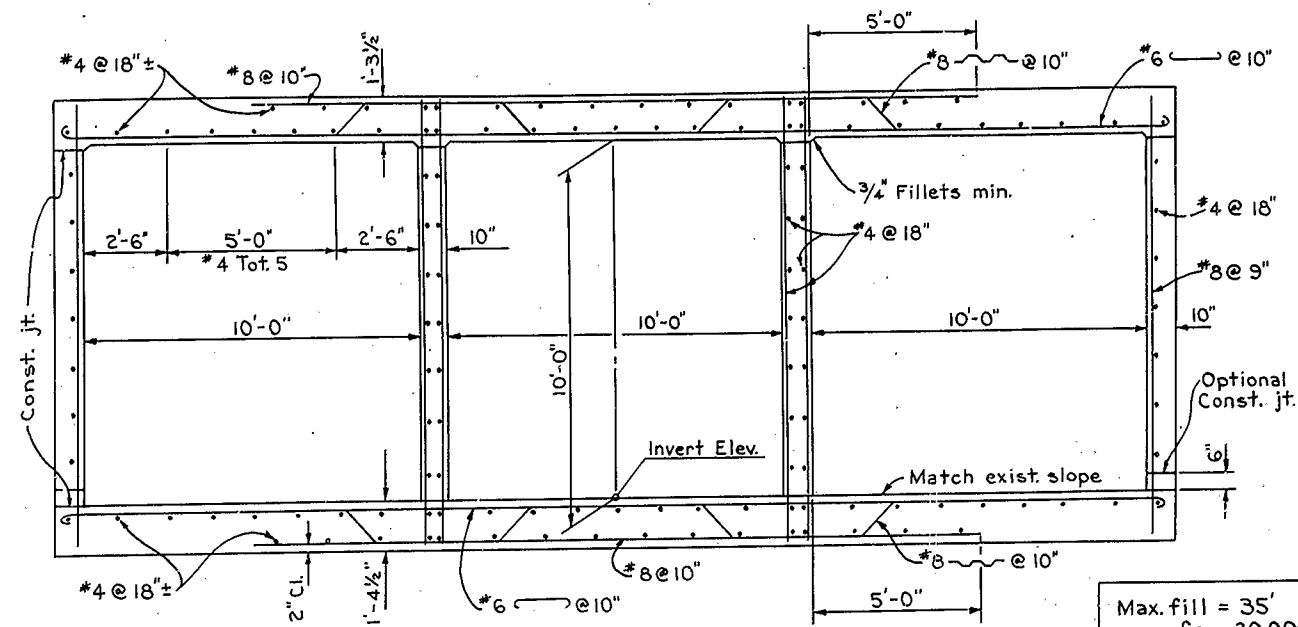
NOTE: To connect New RCB to existing. Remove stepped wingwalls & extend existing longitudinal steel 2' into new construction. Exist. 18" VCP under East Barrel of Exist. RCB & from R/W to R/W.



TYPE A HEADWALL
DOUBLE 6x7-Cx120' RCB Lt. Az 93+02
Scale: 1"=5'

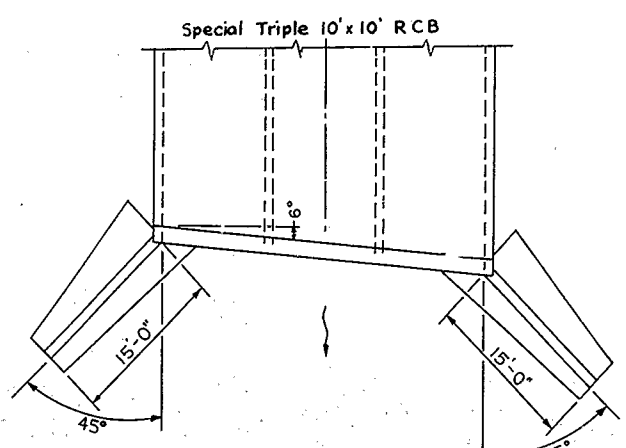
NOTE: To connect New RCB to existing. Remove stepped wingwall & extend existing longitudinal steel 2' into new construction.

NOTE:
For other Dimensions & Reinforcement Detail, See Standard Structures Sheets: D 80, D 82, D 83, D 84 & D 92

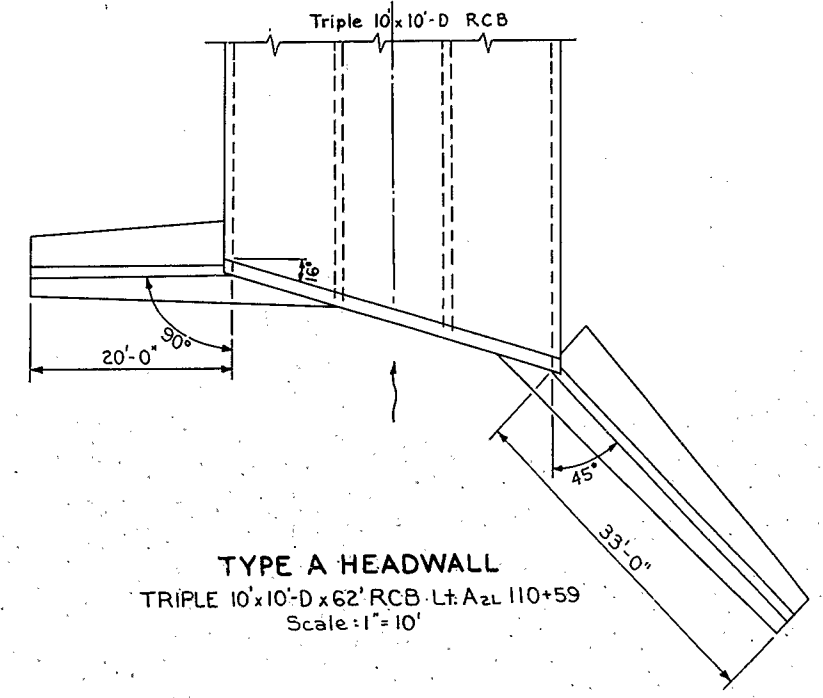


SPECIAL TRIPLE 10x10' RCB EXTENSION
Rt. Az. 110+59
TYPICAL SECTION
Scale: 1"=3'

Max. fill = 35'
fs = 20,000
fc = 1,200
n = 10

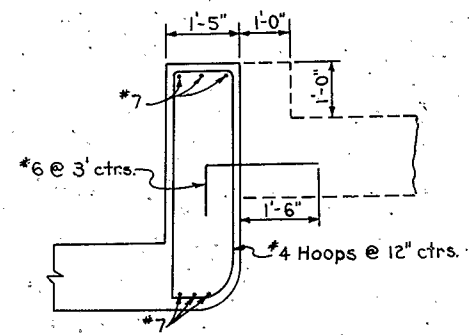


TYPE A ENDWALL
SPECIAL TRIPLE 10x10'x170' RCB Rt. Az. 110+59
Scale: 1"=10'



TYPE A HEADWALL
TRIPLE 10x10-Dx62' RCB Lt. Az. 110+59
Scale: 1"=10'

NOTE:
Tie triple 10x10' RCB extensions to existing box by use of No. 6 dowels, 3' long at 3-foot centers grouted into 2" round holes drilled in existing walls and top slab. Retain parapets on existing culvert and construct special parapets on the culvert extensions. See detail.



SPECIAL PARAPET DETAIL
INLET & OUTLET EXIST. TRIPLE 10x10' RCB Az. 110+59
Scale: 1"=2'

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

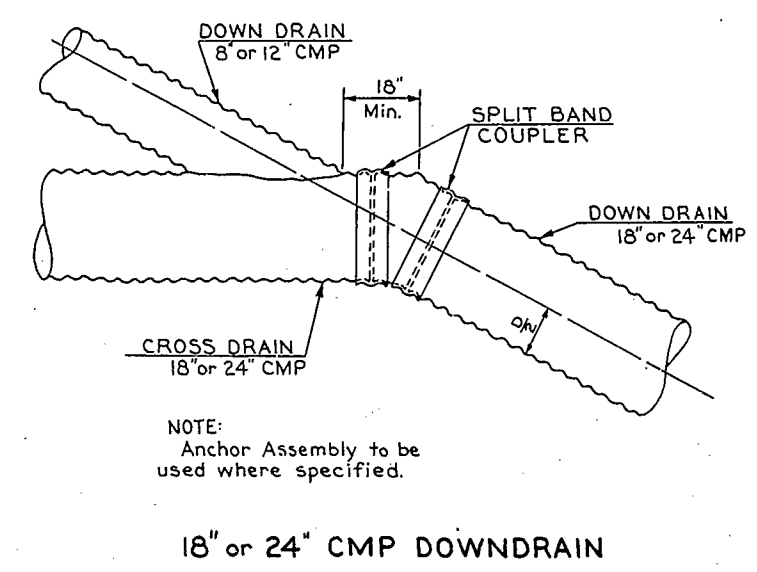
MISC. DETAILS
Scale as noted

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000374

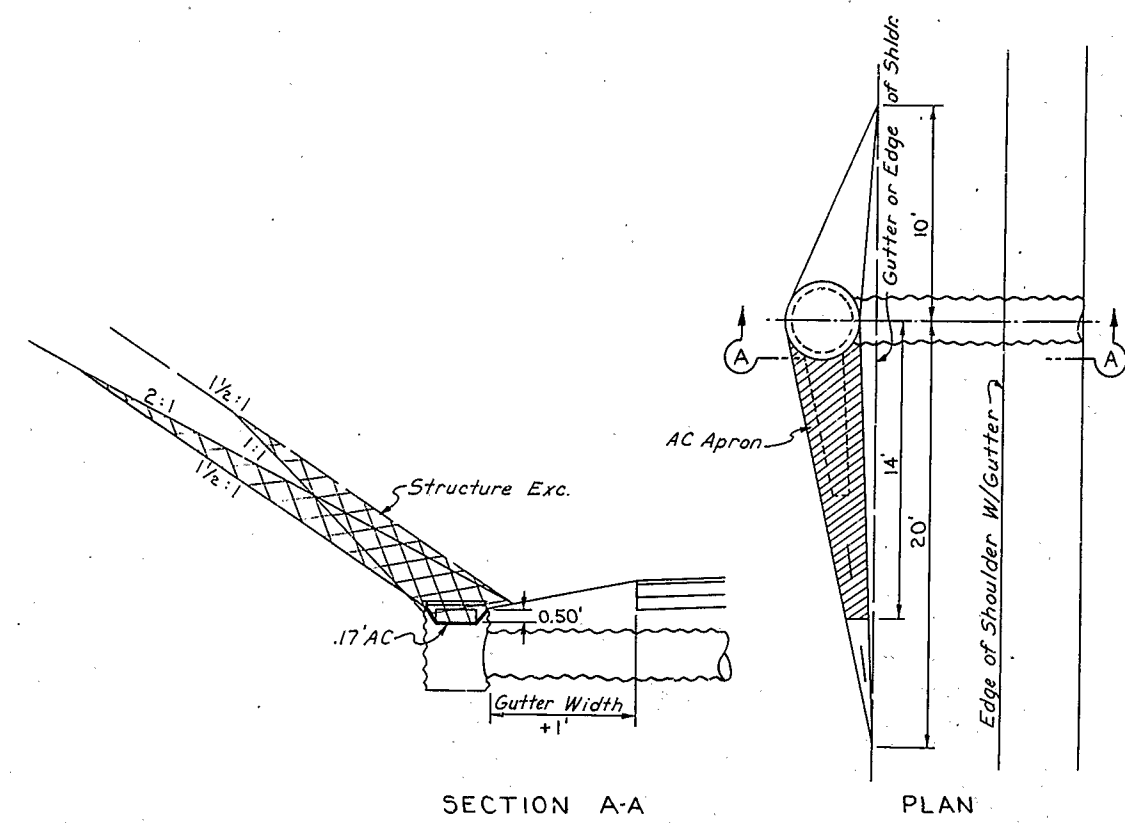
Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

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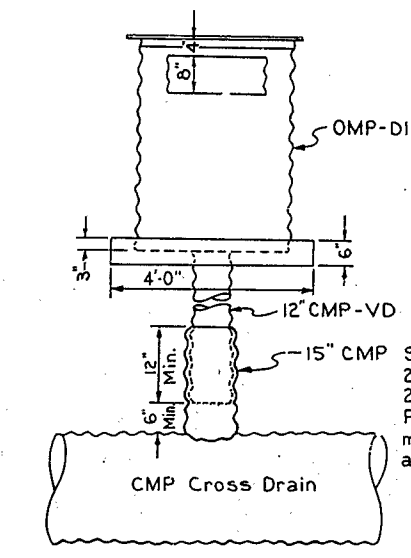
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
III	SAC ED	11	B, A, A	47	171
SAC ED - 50-17.1 / 24					
Alaska Dept. of Transportation					
APPROVED: January 6, 1964					
W. H. Harman					



18" or 24" CMP DOWNDRAIN

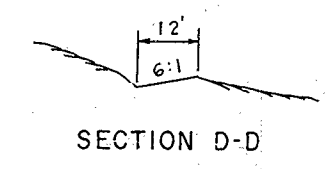


PIPE DROP INLET RECESS
Scale: 1" = 5'

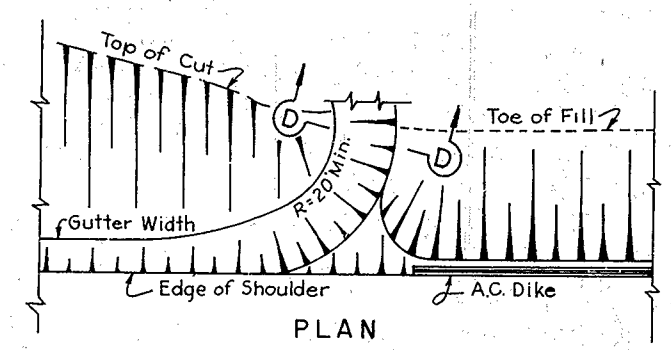


VERTICAL DRAIN FOR PIPE DROP INLET
Scale: 1" = 2'

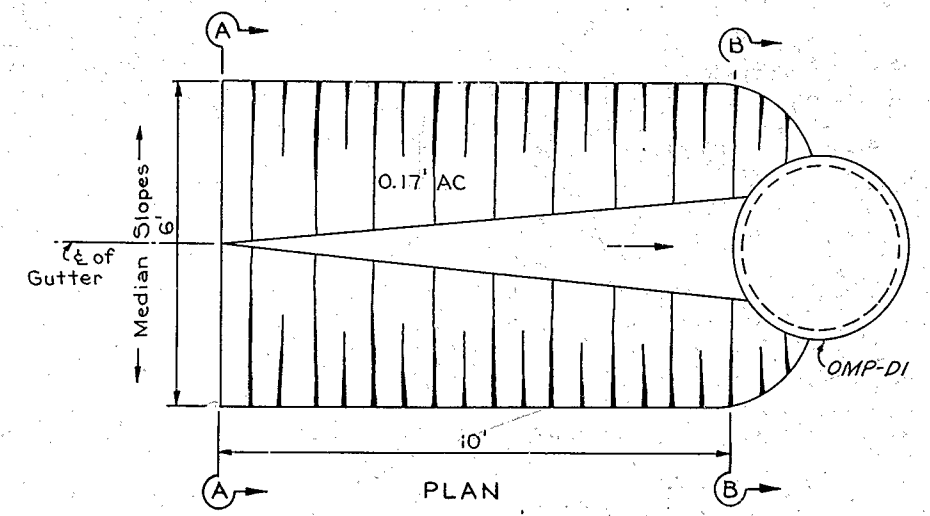
SLIP JOINT
27" x 2' CMP for 24" VD.
21" x 2' CMP for 18" VD.
Packing of suitable material, oakum or asphalt soaked burlap.



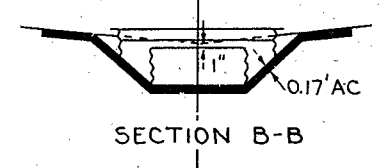
SECTION D-D



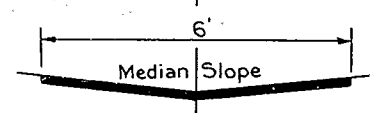
GUTTER TURNOUTS
To be constructed at all outlets of all cuts



PLAN

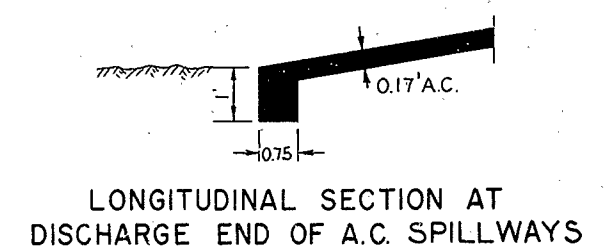


SECTION B-B

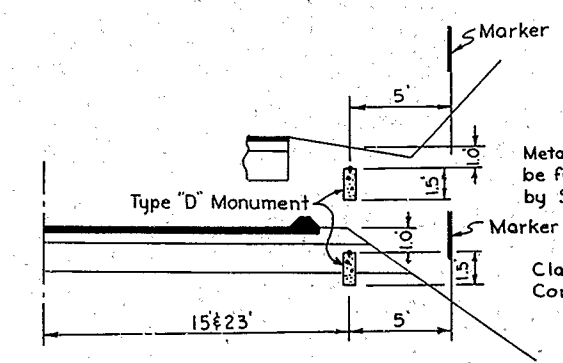


SECTION A-A

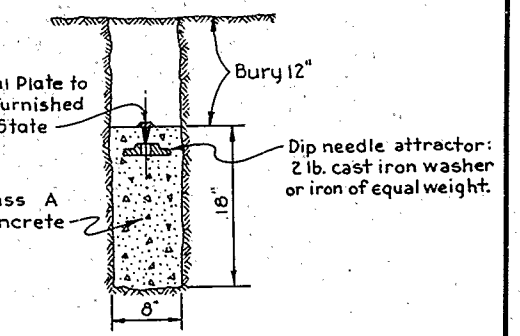
AC APRON FOR TYPE OMP-DI
To be constructed at inlets of all median DI's
Scale: 1" = 2'



LONGITUDINAL SECTION AT DISCHARGE END OF A.C. SPILLWAYS



TYPE "D" MON.-INSTALLATION
for Frontage Roads and Crossing Roads



SECTION TYPE "D" MONUMENT
Cast in Place

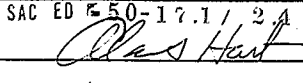
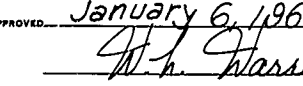
AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000.376

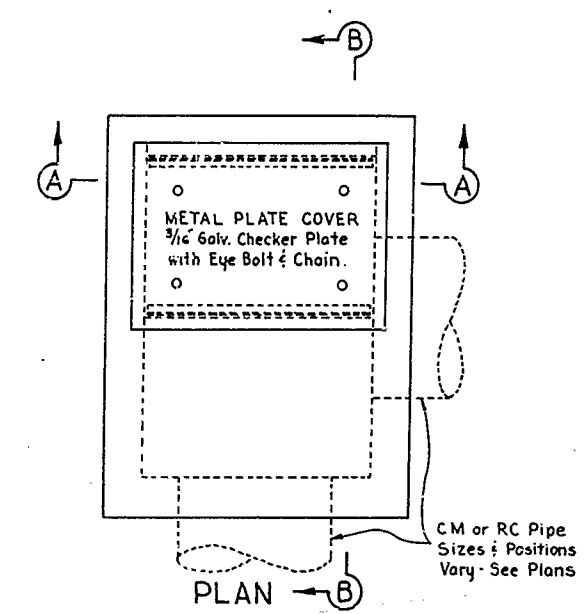
AS BUILT PLANS
Cont. No. 074024
Completed 12-65

MISCELLANEOUS DETAILS

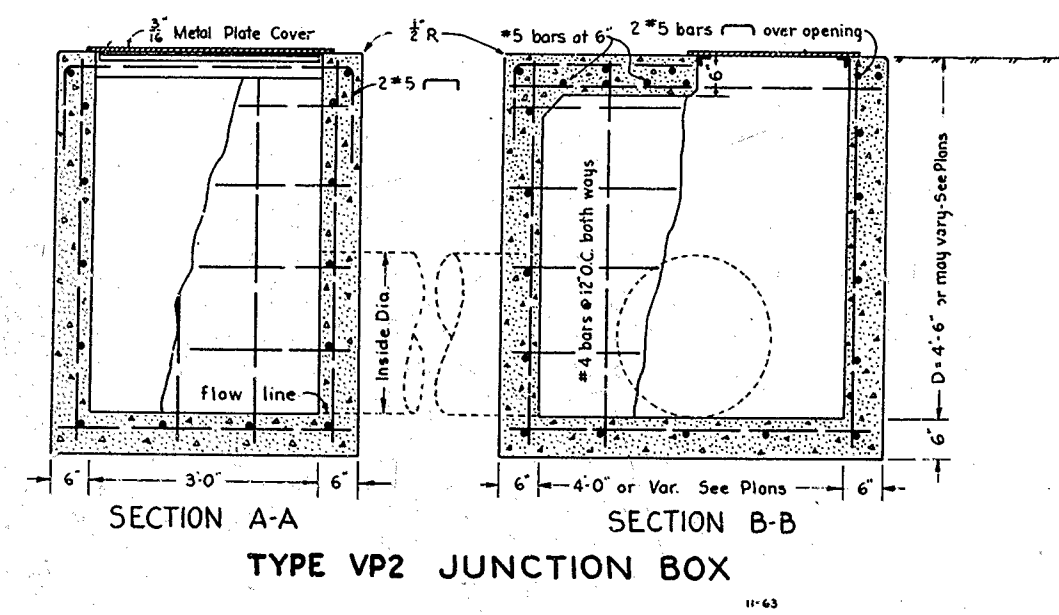
Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	P.C. SHERIDAN	9-63

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STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7 CALIF.				
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.
III	Sac. ED	11	B.A.A.	48
SAC ED 50-17.1 2A				
 APPROVED: <u>January 6, 1964</u>  DISTRICT ENGINEER				

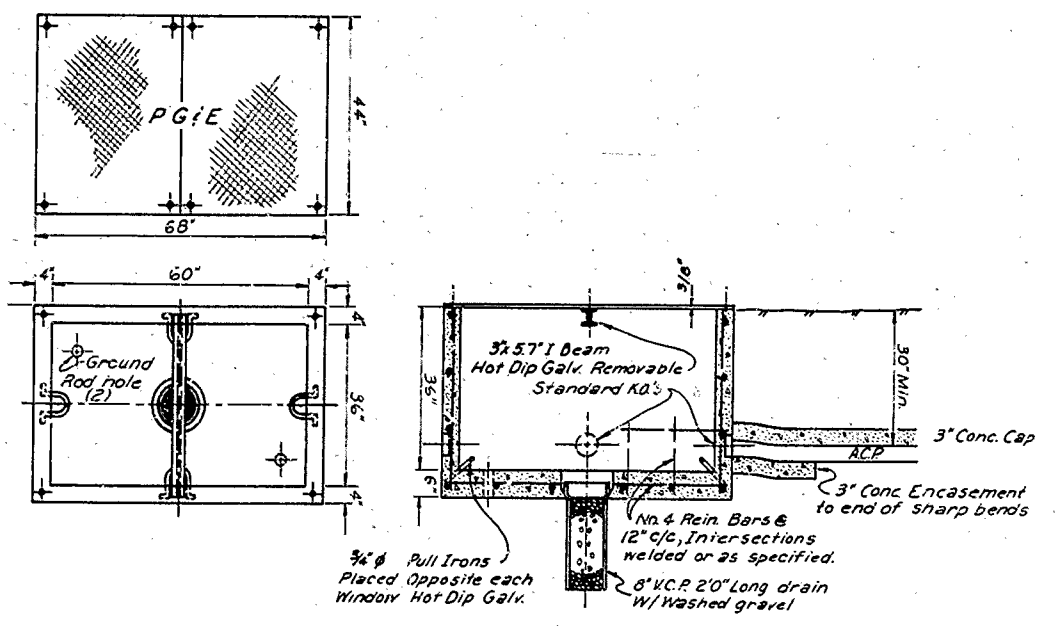


Provide 2' chain as directed by the engineer. Connect to eye bolt and weld to cover.

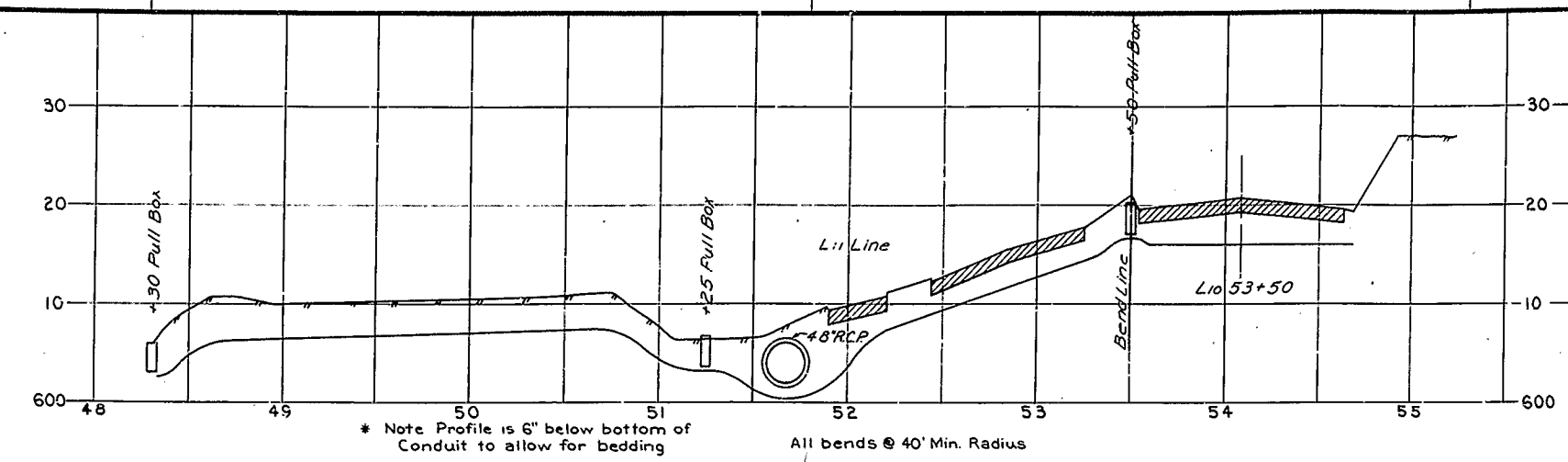


SECTION A-A
SECTION B-B
TYPE VP2 JUNCTION BOX

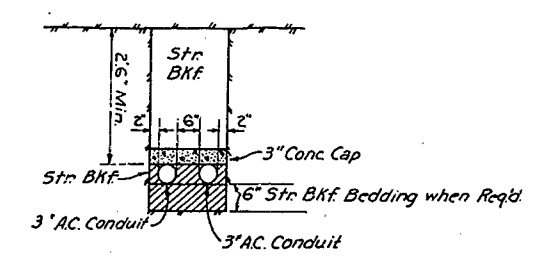
Cover - 2 Piece 3/8 Floor Plate - Hot Dip Galv.
Wt. 170# each half - 340# Total



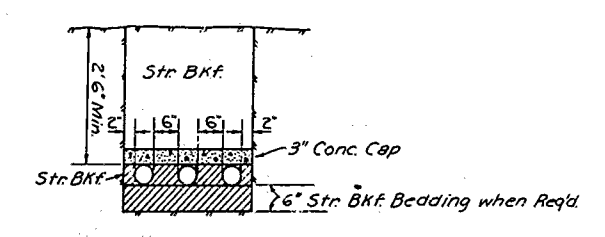
3x5x3 CONCRETE PULL BOX



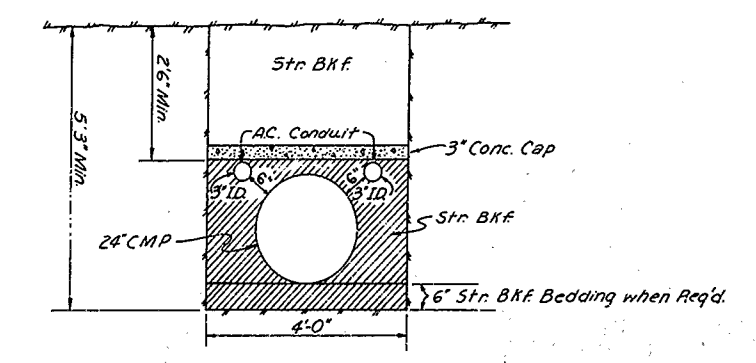
PROFILE OF POWER SYSTEMS DUCTS AT LATROBE U.C.



TYPICAL CROSS SECTION OF POWER SYSTEMS DUCTS AT A2 44+00



TYPICAL CROSS SECTION OF POWER SYSTEMS DUCTS AT LATROBE RD. U.C.



TYPICAL CROSS SECTION OF POWER SYSTEMS DUCTS AT A2 67+12

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date
F.W. COMARSH	9-63	E.W. KNAEBEL	9-63	R.C. SHERIDAN	9-63

ADDED-17R-12-63

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Plasht
 January 6, 1964
 W. H. Warner

AC (MISC. AREAS)

STATION	LOC.	TYPE	LIN. FT.	SQ. YD.
A ₁₄ 66+50	Lt.	Spillway	15	5.3
A ₁₆ 87+17	Lt.	"	15	5.3
H ₁₁ 61+20	Lt.	"	5	1.7
A ₁₆ 166+50	Rt.	"	12	4.2
A ₁₆ 169+00	Lt.	"	10	3.5
H ₁₀ 71+95	Lt.	"	15	5.3
H ₁₄ 74+75	Rt.	"	18	
A ₁₄ 259+00	Lt.	"	15	5.3
A ₁₄ 266+50	Lt.	"	15	5.3
A ₁₄ 280+75	Rt.	"	10	3.5
J ₀ 91+85	Lt.	"	25	8.7
J ₀ 98+50	Lt.	"	15	5.3
A ₀ 38+00	Lt.	"	12	4.4
A ₀ 44+45	Lt.	"	31	10.8
L ₁₄ 58+50	Rt.	"	15	5.3
L ₁₀ 61+90	Rt.	"	5	1.5
L ₁₀ 63+87	Lt.	"	15	5.3
L ₁₄ 64+25	Rt.	"	15	5.3
M 25+95	Rt.	"	20	7.0
M 34+90	Rt.	Spillway	20	7.0
SUB-TOTAL				105.3
A ₁₄ 209+70 to A ₁₄ 222+10	Median	Median Gutter	1,240	837.7
A ₁₄ 251+80 to A ₁₄ 301+80	Median	"	3,990	2,695.4
A ₁₄ 303+90 to A ₁₄ 345+40	Median	"	4,190	2,830.6
A ₁₄ 351+70 to A ₁₄ 368+20	Median	"	1,450	979.5
A ₀ 58+90 to A ₀ 62+20	Median	"	530	358.0
A ₀ 67+90 to A ₀ 88+70	Median	"	2,340	1,513.3
A ₀ 98+75 to A ₀ 101+10	Median	"	237	160.0
A ₁₀ 164+00 to A ₁₀ 167+50	Rt.	Y-Gutter	350	161.8
A ₁₄ 280+70 to A ₁₄ 288+00	Lt.	"	730	337.4
L ₁₁ 48+00 to L ₁₁ 54+05	Rt.	"	605	279.6
SUB-TOTAL				10,153.2
TOTAL				10,358.5
A.C. APPROX FROM CURB LIST				233.0
SIDEWALKS & ISLANDS				4,897.0
LIST TOTAL				15,388.5
ADD				311.5
USE				15,700.0

CURB & GUTTERS

STATION	TO	STATION	LOC.	LIN. FT.	S.S.	
A ₁₆ 166+50	N ₁₁ 62+07	Lt.		102	587	
A ₁₆ 161+15	A ₁₆ 162+17	Lt.		102		
H ₁₁ 61+17 Rt.	H ₁₁ 21+32 Lt.	Lt.		830		
H ₁₁ - H ₁₂	Island			161		
A ₁₆ 168+06	H ₁₀ 63+70	Rt.		464		
A ₁₆ 162+68	A ₁₆ 163+70	Rt.		104		
H ₁₀ 62+68	H ₁₁ 18+70	Lt.		767		
H ₁₁ - H ₁₀	Island			163		
H ₁₁ - H ₁₂	Island			173		
H ₁₁ 21+18	H ₁₀ 69+48	Rt.	38			
H ₁₀ 68+48	H ₁₀ 76+32	Rt.		684		
A ₁₆ 175+30	A ₁₆ 174+33	Lt.		104		
H ₁₀ 74+30	A ₁₆ 179+94	Lt.		464		
H ₁₁ - H ₁₀	Island			164		
H ₁₁ 18+56 Rt.	H ₁₄ 70+38 Lt.		45			
H ₁₁ 70+38	H ₁₄ 76+34	Lt.		596		
A ₁₄ 175+33	A ₁₄ 176+34	Rt.		102		
H ₁₄ 74+30	A ₁₄ 181+00	Rt.		597		
A ₁₄ 275+50	J ₁ 80+57	Lt.		557		
A ₁₄ 279+68	A ₁₄ 280+67	Lt.		102		
J ₁ 79+68 Rt.	J ₁ 22+87 Lt.			1,052		
J ₁ - J ₀	Island			174		
A ₁₄ 276+06	J ₀ 88+90	Rt.		464		
A ₁₄ 279+68	A ₁₄ 280+70	Rt.		104		
J ₀ 79+68	J ₀ 17+08	Lt.		1,014		
J ₀ - J ₁	Island			159		
J ₁ 21+31	J ₀ 89+51	Rt.	178			
J ₀ 89+51	J ₀ 96+82	Rt.		733		
A ₀ 295+80	A ₀ 296+82	Lt.		104		
J ₀ 95+80	A ₀ 300+40	Lt.		464		
J ₀ - J ₁	Island			146		
J ₁ 18+72 Rt.	J ₁ 90+13 Lt.		195			
J ₁ 90+13	J ₁ 95+54	Lt.		628		
A ₁₄ 294+53	A ₁₄ 295+54	Rt.		102		
J ₁ 94+63	A ₁₄ 300+20	Rt.		557		
F ₀ 32+40	F ₀ 53+25	Lt.	2,095			
F ₀ 50+00	F ₀ 55+50	Rt.	300			
A ₀ 42+18	A ₁₁ 47+75	Lt.		102		
A ₀ 46+92	A ₀ 49+00	Lt.		923		
L ₁₁ - L ₁₀	Island			97		
L ₁₀ 42+91 Lt.	L ₁₀ 45+53 Lt&Rt			532		
L ₁₀ 46+28	L ₁₀ 51+59	Rt.		1,068		
L ₁₀ 52+35	L ₁₀ 53+63	Rt.		240		
A ₀ 51+05	L ₁₀ 55+28	Rt.		422		
L ₁₀ 56+84	L ₁₀ 63+30	Rt.		688		
A ₀ 54+68	A ₀ 55+11	Rt.		45		
L ₁₀ 54+88	L ₁₀ 55+28	Lt.		568		
L ₁₀ 56+85	L ₁₀ 63+33	Lt.		289		
L ₁₀ - L ₁₀	Island			161		
L ₁₀ - L ₁₄	Island			521		
L ₁₀ 64+38	L ₁₀ 68+48	Rt.		102		
L ₁₀ - L ₁₁	Island			967		
L ₁₀ 56+45	L ₁₀ 66+14	Rt.		104		
A ₀ 65+12	A ₀ 66+14	Lt.		464		
L ₁₀ 65+12	A ₀ 66+14	Lt.		987		
L ₁₄ 58+19	A ₀ 66+14	Lt.		108		
A ₀ 64+75	A ₀ 65+76	Rt.		557		
L ₁₄ 64+85	A ₀ 70+38	Rt.				
LIN. FT. SUB-TOTAL			977	2,435	14,879	6,881
CONVERSION FACTOR			.06379	.05903	.06171	.09481
C.Y. SUB-TOTAL			62.32	143.74	905.84	232.57
CURB						S.S.
LIST TOTAL				1,111.90	332.57	
ADD				28.10	5.43	
USE				1,140.00	338.00	

PRIVATE ROAD APPROACHES

STATION	LOC.
H 27+90	Lt.
M 23+65	Lt.
F ₁₁ 115+30	Lt.

NOT CORRECTED

AC DIKES (0.5')

STATION	TO	STATION	LOC.	LIN. FT.
A ₀ 63+00	A ₁₀ 103+50	Lt.		4,050
A ₁₀ 127+50	A ₁₀ 158+50	Lt.		3,200
A ₁₀ 158+70	A ₁₀ 160+00	Rt.		130
H ₁₁ 58+50	H ₁₁ 27+78	Lt.		1,440
H ₁₀ 60+00	H ₁₀ 70+00	Rt.		1,010
A ₁₀ 166+50	A ₁₀ 173+50	Rt.		700
H ₁₁ 11+62	H ₁₁ 17+53	Lt.		600
H ₁₁ 11+62	H ₁₁ 77+75	Lt.		1,295
H ₁₁ 21+87	H ₁₁ 29+87	Rt.		710
H ₁₀ 69+00	H ₁₀ 76+00	Lt.		900
A ₁₀ 169+00	A ₁₀ 175+35	Lt.		635
A ₁₀ 179+00	A ₁₀ 180+30	Lt.		130
A ₁₀ 200+30	A ₁₄ 222+10	Lt.		2,180
A ₁₄ 246+00	A ₁₄ 250+50	Lt.		450
A ₁₄ 254+50	A ₁₄ 278+00	Lt.		2,340
A ₁₄ 278+50	A ₁₄ 277+00	Rt.		150
A ₁₄ 281+10	A ₁₄ 295+80	Lt.		1,470
J ₁ 78+00	J ₁ 26+10	Lt.		1,415
J ₀ 77+00	J ₀ 82+67	Rt.		1,274
J ₁ 13+90	J ₁ 16+00	Lt.		210
J ₁ 17+10	J ₁ 18+88	Lt.		178
J ₁ 21+38	J ₁ 29+85	Lt.		175
J ₁ 13+90	J ₁ 87+90	Rt.		1,050
J ₁ 23+50	J ₁ 26+10	Rt.		280
J ₀ 89+85	J ₀ 92+50	Lt.		955
A ₁₄ 297+20	A ₁₄ 302+20	Rt.		500
A ₁₄ 299+50	A ₁₄ 301+40	Lt.		190
A ₁₄ 303+00	A ₁₄ 322+50	Lt.		1,850
A ₁₄ 326+00	A ₁₄ 246+40	Rt.		1,850
A ₁₄ 341+60	A ₁₄ 345+40	Rt.		430
A ₁₄ 351+70	A ₁₄ 360+00	Rt.		830
A ₁₄ 351+90	A ₁₄ 375+80	Rt.		2,382
A ₀ 10+00	A ₀ 29+25	Lt.		1,528
A ₀ 38+00	A ₀ 43+33	Lt.		723
A ₀ 50+50	A ₀ 51+82	Lt.		470
A ₀ 50+70	A ₀ 51+82	Rt.		130
L ₁₁ 53+00	L ₁₁ 53+73	Lt.		1,150
L ₁₁ 53+00	L ₁₁ 55+20	Rt.		320
L ₁₀ 67+00	L ₁₀ 64+44	Rt.		657
L ₁₀ 68+00	L ₁₀ 68+73	Rt.		185
L ₁₀ 68+00	L ₁₀ 51+40	Lt.		2,340
L ₁₀ 68+00	L ₁₀ 32+00	Rt.		400
L ₁₀ 68+75	L ₁₀ 56+50	Rt.		700
L ₁₄ 58+50	L ₁₄ 60+50	Rt.		200
L ₁₄ 64+25	L ₁₄ 67+75	Rt.		317
L ₁₀ 58+65	L ₁₀ 68+62	Lt.		1,295
A ₀ 58+80	A ₀ 61+50	Rt.		470
A ₀ 57+42	A ₀ 76+00	Rt.		858
L ₁₀ 68+82	A ₀ 96+25	Lt.		1,343
M 8+38	M 11+55	Lt.		385
M 8+38	M 11+00	Rt.		375
M 11+75	M 17+30	Lt.		595
M 13+00	M 17+00	Rt.		400
M 18+50	F ₁₁ 68+40	Rt.		685
M 18+75	M 23+30	Lt.		500
M 23+85	M 25+00	Lt.		115
F ₁₁ 108+70	F ₁₁ 112+70	Lt.		400
F ₁₁ 121+10	F ₁₁ 123+82	Lt.		270
A ₁₀ 109+10	A ₁₀ 115+60	Lt.		650
A ₁₀ 109+30	A ₁₀ 102+00	Rt.		580
A ₁₀ 109+10	A ₁₀ 112+85	Lt.		1,470
A ₁₀ 88+70	A ₁₀ 101+80	Rt.		310
A ₁₀ 108+10	A ₁₀ 125+00	Rt.		1,580
TOTAL				58,831
ADD				899
USE				59,700

MARKERS AND TRAFFIC DELINEATORS

TYPE	NUMBER	FEET	
F	209	6	
G	296	2	
H	6	2	
I	30	27	
K			
L			
SUB-TOTAL			570
PULL BOX MARKERS			14
FROM CURB LIST			142
FROM UNDERDRAIN LIST			7
FROM MONUMENT LIST			134
TOTAL			887
ADD			13
USE			900

FENCES

STATION	TO	STATION	LOC.	LIN. FT.	72" CHAIN LINK	FWY. FENCE (TYPE RM)	PROP. FENCE (TYPE RM)	USE
A ₁₆ 105+50	A ₁₆ 106+50	Rt.		101				
A ₁₆ 104+00	A ₁₆ 106+00	Lt.		202				
A ₁₆ 143+50	A ₁₆ 144+50	Lt.		101				
A ₁₆ 155+92 Rt.	H ₁₁ 15+35 Lt.	Lt.		1,554				
H ₁₁ 15+35	H ₁₁ 15+35	Lt.		398				
H ₁₁ 15+35	H ₁₁ 15+35	Rt.		397				
H ₁₁ 15+35	A ₁₀ 183+99	Rt.		233				
A ₁₆ 155+90	H ₁₀ 24+72	Lt.		1,354				
H ₁₀ 24+72	H ₁₀ 27+70	Lt.		284				
H ₁₀ 28+87	H ₁₀ 24+72	Rt.		437				
H ₁₀ 24+72 Rt.	J ₁ 26+20 Lt.	Lt.		19,800				
J ₁ 26+20	J ₁ 27+00	Lt.		81				7,221
A ₁₆ 183+99	A ₁₄ 254+80	Rt.		1,082				960
A ₁₄ 254+80	A ₁₄ 285+20	Rt.						

SAC ED -50-17.1 / 2.4

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
III	SAC, ED	-11-	B:A-A-	54	171

W. H. Sherwin
 January 6, 1964
W. H. Sherwin
 Civil Engineer No. 7003

STATION	LOCATION L. or Rt. Existing C.	LENGTH	REMOVE & DISPOSE (Not a Pay Item)	USE AS EXISTS	STATION	LOCATION L. or Rt. Existing C.	LENGTH	REMOVE & DISPOSE (Not a Pay Item)	USE AS EXISTS
A ₁₄ 61+50*	Lt.	36'		X	A ₉ 23+44	Rt.	30'		X
A ₁₄ 208+90	Lt.	48'	X		A ₂ 26+94	Lt.	32'	X	
A ₁₄ 208+90	Rt.	48'		X	A ₂ 26+94	Rt.	38'		X
A ₁₄ 273+90	Lt.	20'	X		A ₉ 39+50	Lt.	60'	X	
A ₁₄ 274+90	Rt.	18'		X	A ₉ 39+50	Rt.	60'		X
A ₁₄ 276+40	Lt.	24'	X		A ₉ 43+35	Lt.	16'	X	
A ₁₄ 277+90	Rt.	28'	X		A ₉ 43+35	Rt.	16'		X
A ₁₄ 278+90	Lt.	20'	X		A ₉ 55+68	Lt.	22'	X	
A ₁₄ 280+92	Rt.	12'	X		A ₉ 55+68	Rt.	26'	X	
A ₁₄ 303+92	Rt.	50'		X	A ₉ 58+33	Lt.	2'	X	
A ₁₄ 304+44	Lt.	44'	X		A ₉ 58+78	Rt.	6'	X	
A ₁₄ 307+80	Rt.	30'		X	A ₉ 65+40	Lt.	16'	X	
A ₁₄ 307+90	Lt.	28'	X		A ₉ 65+40	Rt.	10'	X	
A ₁₄ 318+95	Rt.	14'		X	A ₉ 68+00	Lt.	20'	X	
A ₁₄ 323+40	Rt.	18'		X	A ₉ 68+00	Rt.	20'	X	
A ₁₄ 323+40	Lt.	12'	X		A ₉ 72+24	Lt.	28'	X	
A ₁₄ 328+36	Lt.	50'	X		A ₉ 72+24	Rt.	26'	X	
A ₁₄ 328+86	Lt.	54'	X		A ₉ 90+24	Lt.	8'	X	
A ₂₀ 355+90	Lt.	12'	X		A ₂ 90+24	Rt.	10'		X
A ₁₄ 361+71	Lt.	20'	X		A ₉ 94+09	Lt.	44'	X	
A ₁₄ 362+71	Rt.	22'		X	A ₉ 94+02	Rt.	54'		X
A ₁₄ 365+21	Lt.	28'	X		A ₉₉ 98+24	Lt.	24'	X	
A ₁₄ 365+71	Rt.	36'		X	A ₉₉ 98+24	Rt.	30'	X	
A ₁₄ 368+75	Lt.	20'	X		A ₉ 113+20	Rt.	44'	X	
A ₁₄ 368+75	Rt.	24'	X		A ₉ 113+45	Rt.	16'	X	
A ₁₄ 376+05	Lt.	30'	X		A ₉ 116+20	Rt.	8'	X	
A ₁₄ 376+05	Rt.	36'		X	A ₉ 117+90	Rt.	4'	X	
A ₉ 23+44	Lt.	30'	X		A ₉ 118+95	Rt.	8'	X	

STATION TO	STATION	LOC.	TYPE	L.F.	C.Y.
A ₁₆ 118+00	A ₁₆ 120+00	Lt.	Top of Cut	200	20
A ₁₆ 194+00	A ₁₆ 200+00	Lt.	Top of Cut	600	61
H 22+00	H 25+50	Rt.	2' Bottom	350	768
H ₁₂ 72+80	H ₁₂ 77+00	Lt.	Top of Cut	410	43
A ₁₆ 180+50	A ₁₆ 180+00	Lt.	Top of Cut	850	87
A ₁₄ 205+20	A ₁₄ 208+20	Lt.	Top of Cut	100	11
A ₁₄ 225+40	A ₁₄ 230+60	Lt.	Top of Cut	510	52
A ₁₄ 243+90	A ₁₄ 246+40	Lt.	2' Bottom	250	565
A ₁₄ 255+00	A ₁₄ 278+75	Rt.	2' Bottom	2,175	2,370
A ₁₄ 257+80	A ₁₄ 259+40	Lt.	2' Bottom	160	68
A ₁₄ 280+75	A ₁₄ 288+00	Lt.	V	725	48
A ₁₄ 311+00	A ₁₄ 322+50	Lt.	Top of Cut	1,150	117
A ₁₄ 355+30	A ₁₄ 367+70	Lt.	2' Bottom	1,220	639
A ₉ 50+50	A ₉ 53+30	Rt.	Top of Cut	280	29
L ₁₂ 42+00	L ₁₂ 48+60	Lt.	Top of Cut	660	67
L ₁₂ 28+00	L ₁₂ 38+00	Lt.	Top of Cut	1,000	102
L ₁₂ 57+00	L ₁₂ 62+10	Lt.	Top of Cut	610	62
F ₁₁ 97+25	F ₁₁ 99+50	Lt.	Top of Cut	225	23
F ₁₁ 101+35	F ₁₁ 102+70	Lt.	Top of Cut	135	14
A ₉₁ 124+90	A ₉₁ 125+70	Lt.	Top of Cut	80	8
A ₉₁ 124+90 Rt.	A ₉₁ 124+83 Lt.		2' Bottom	147	115
SUB-TOTAL					5,275
FROM CULVERT LIST					698
TOTAL					5,973
ADD					327
USE					6,300

STATION TO	STATION	LOC.	LIN. FT.
A ₁₆ 162+02	A ₁₆ 170+02	Rt. Med.	100
A ₁₆ 162+20	A ₁₆ 170+20	Rt. Sho.	100
A ₁₆ 169+19	A ₁₆ 170+19	Lt. Sho.	100
A ₁₆ 169+39	A ₁₆ 170+39	Lt. Med.	100
A ₁₄ 288+83	A ₁₄ 288+83	Rt. Sho.	100
A ₁₄ 288+87	A ₁₄ 288+87	Rt. Med.	100
A ₁₄ 288+20	A ₁₄ 290+20	Lt. Med.	100
A ₁₄ 288+23	A ₁₄ 290+23	Lt. Sho.	100
J 21+29	J 21+79	Lt. Sho.	50
A ₁₄ 300+95	A ₁₄ 301+90	Rt. Med.	100
A ₁₄ 301+15	A ₁₄ 302+15	Rt. Sho.	100
A ₁₄ 303+13	A ₁₄ 303+63	Lt. Sho.	50
A ₁₄ 303+38	A ₁₄ 304+38	Lt. Med.	100
A ₉ 54+16	A ₉ 55+11	Rt. Med.	100
L ₁₂ 54+85	L ₁₂ 55+15	Rt. Sho.	50
A ₉ 54+20	A ₉ 55+15	Rt. Gore	57
A ₉ 56+98	A ₉ 57+48	Lt. Sho.	50
A ₉ 56+98	A ₉ 57+98	Lt. Med.	100
A ₉₉ 96+31	A ₉₉ 97+31	Lt. Med.	100
A ₉₉ 96+81	A ₉₉ 97+31	Rt. Sho.	50
A ₉₁ 98+70	A ₉₁ 99+20	Lt. Sho.	50
A ₉₁ 98+70	A ₉₁ 99+65	Rt. Med.	100
TOTAL			1,857
ADD			43
USE			1,900

STATION	DESCRIPTION OF WORK	STR. K.C. C.Y.	STR. EXP. C.Y.	18" R.C.P.
Az 44+00	DBL 3"x39" ACP Conduit**	**	**	
Az 55+54	Triple 3"x51" & Dbl. 3"x119" ACP Conduit**	**	**	
Az 67+12	24"x28" CMP (Dbl. 3"x28" ACP Conduit)**	403	357	
Az 93+06	Azm 70' 30"x14" CMP & 18"x14" RCP Conduits	182	141	146
Az L 123+08	Azm 66' 8"x38" CMP & 3/4"x39" GSP Connect to Exist 3/4" GSP	160	156	
		745	654	146

** Items included in Lump Sum for Power System Ducts.

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
SUPERVISOR	

STATION TO	STATION	LOCATION	8" UNDERDRAIN (INCL. RISERS)	8" PMP	STRUCTURE EXCAVATION	CLASS 1 OR 3 PERMISSIBLE MATERIAL	STRUCTURE BACKFILL	UNDERDRAIN RISERS	MARKERS	REMARKS
A ₉ 11+65		38' Rt. to 72' Rt.		34	6	6				Connect to ends of existing PMP's
A ₉ 12+00		Lt.		28	4					Connect to 8"x800' UD
A ₉ 12+00	A ₉ 20+00	62' Lt.	808		138	138				
A ₉ 19+97	A ₉ 20+42	40' Rt. to 80' Rt.		60	11					
A ₉ 20+00		Lt.		28						Connect to 8"x800' UD
A ₉ 51+78	A ₉ 53+50	72' Rt. to 87' Rt.	180		32	30				
A ₉ 53+26	A ₉ 53+75	72' Rt. to 110' Rt.		56	7					Connect to existing PMP & 8"x172' UD
A ₉ 84+35		Lt.		28	4					Connect to 8"x540' UD
A ₉ 84+35	A ₉ 89+75		548		100	83				
A ₉ 93+40	A ₉ 94+15	30' Lt. to 87' Lt.		152		369				Connect to 18" CMP Well Domain (Ex. as Roadway Ex.)
TOTAL			1,620	302	316	636	28		7	
ADD			380	98		164				
USE			2,000	400	*	800	*		*	* Totalled on other lists

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

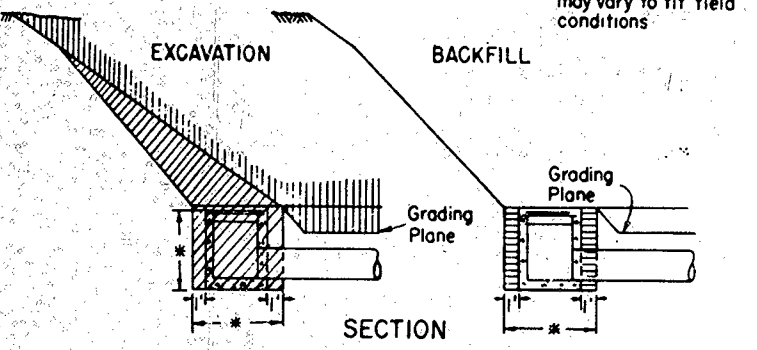
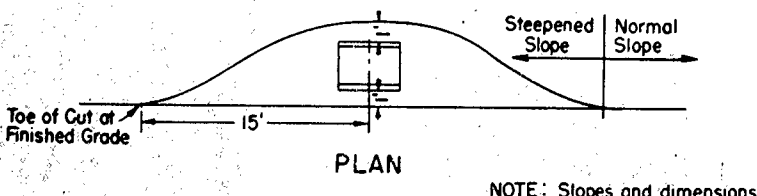
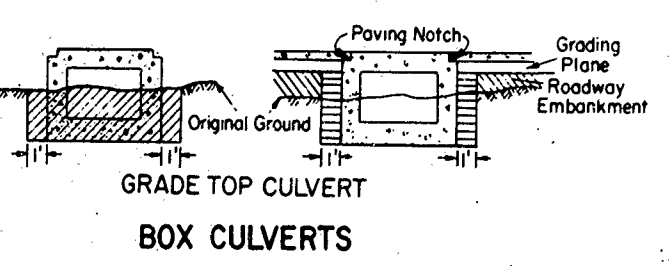
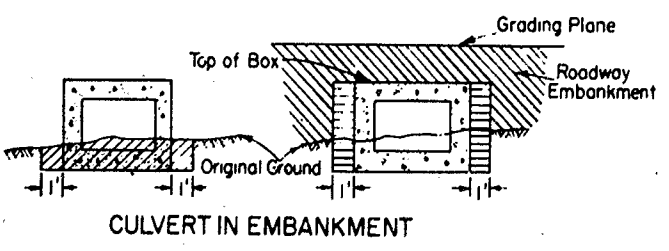
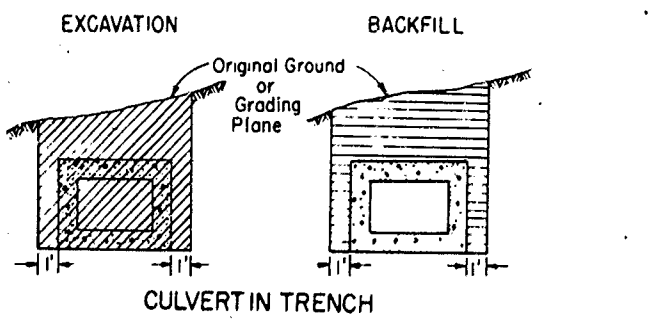
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

MISC. LISTS

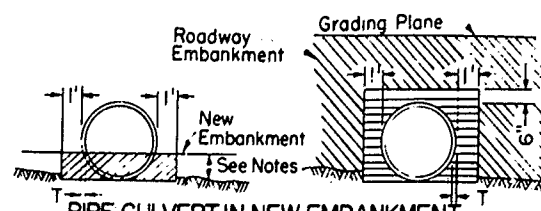
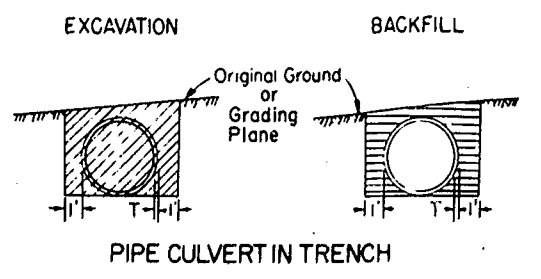
To accompany plans dated January 6, 1964
 DISTRICT COUNTY ROUTE SECTION SHEET TOTAL
 111 SACRAMENTO B-A-R1- 55 171
 SAL. ED. - 30-17.1 / 2.4
 Approval Recommended

[Signature]
 Assistant State Highway Engineer - Bridges
[Signature]
 Assistant State Highway Engineer - Operations

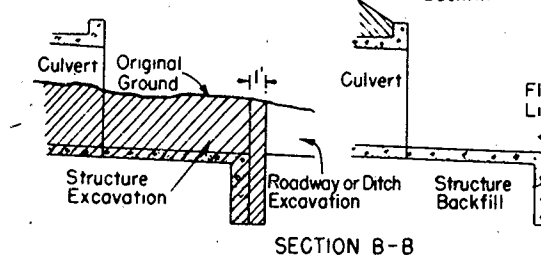
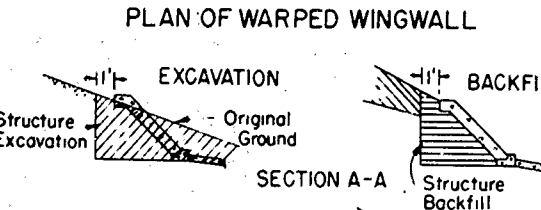
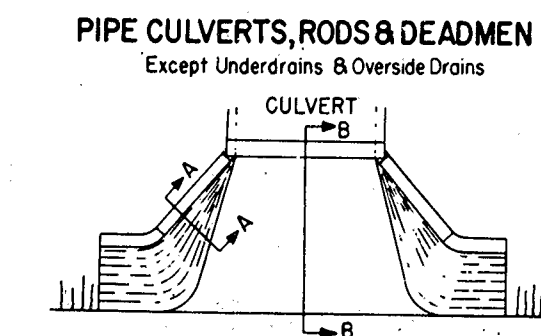
Approved February 1, 1963
[Signature]
 State Highway Engineer
 Civil Engineer License No. 5945



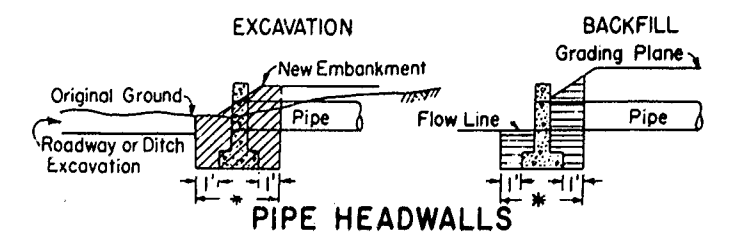
* When concrete is being paid for as Class A Concrete (Minor Structure) the cost of Excavation and Backfill is included in the price paid for Class A Concrete (Minor Structure).



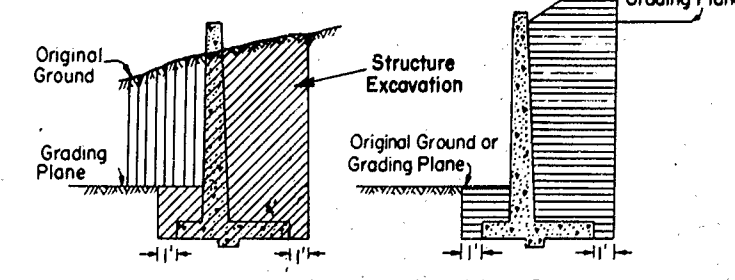
Height of Top of Embankment Before Excavating for Pipe Shall Be As Follows:
 For pipe 24" dia or less: 6" above top of pipe, or 30" max.
 For C.M.P. over 24" to 90" dia: 30" above bottom of pipe.
 For C.M.P. over 90" dia: 1/3 point of dia above bottom of pipe.
 For R.C.P. over 24" dia: 30" above bottom of pipe.
 For field assembled plate culvert: 1/3 point of dia above bottom of pipe.
 Structure Backfill 6" above top of pipe.
 For payment quantities excavation and backfill concrete pipe T = min wall thickness as shown in A.A.S.H.O. M170 for Class III Pipe, Wall A
 For C.M.P. T = 0.00



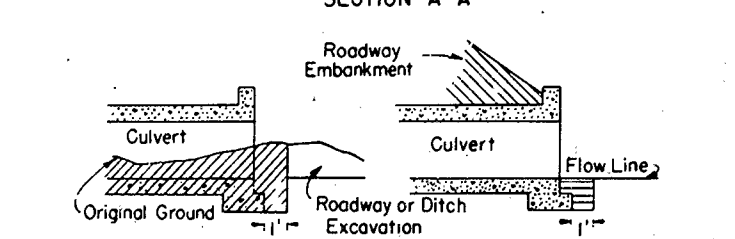
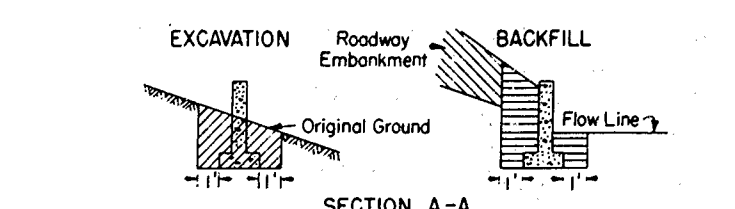
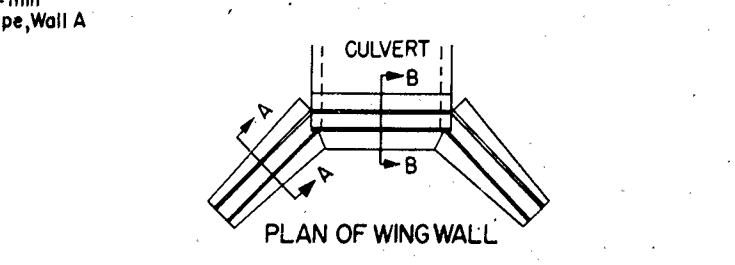
WARPED WING WALLS



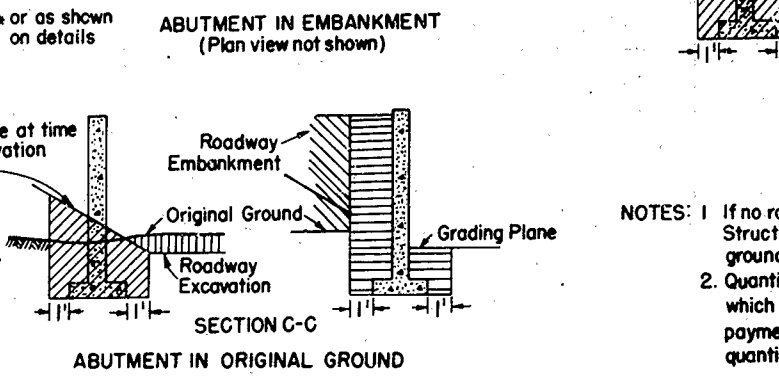
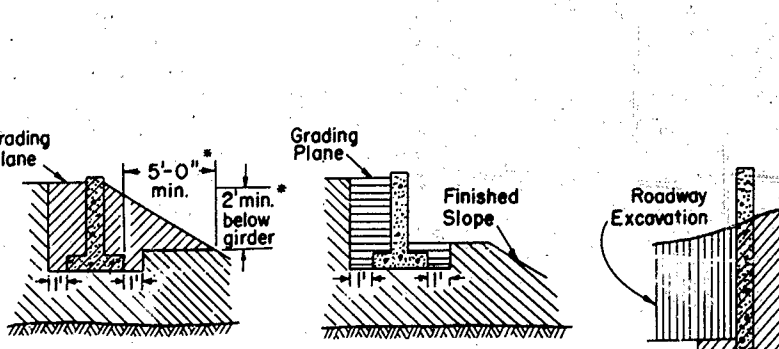
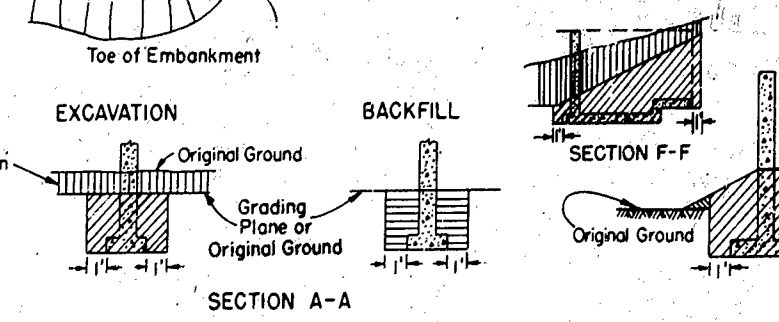
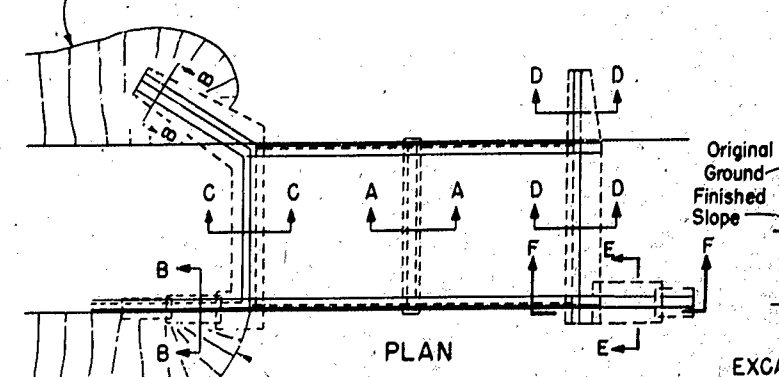
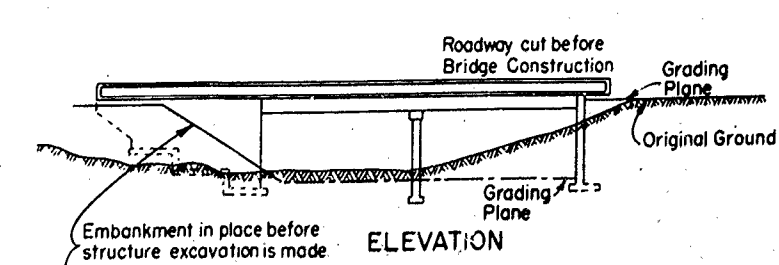
* When concrete is being paid for as Class A Concrete (Minor Structure) the cost of Excavation and Backfill is included in the price paid for Class A Concrete (Minor Structure).



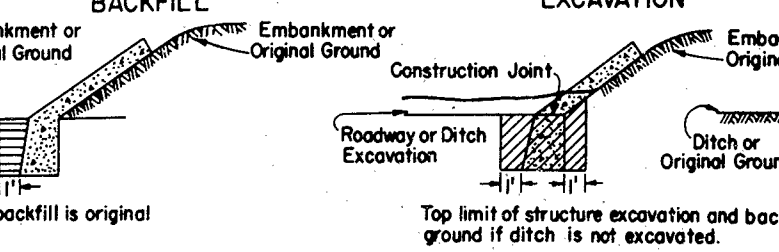
Note: If no roadway excavation is involved at the wall Structure excavation will be measured from the original ground



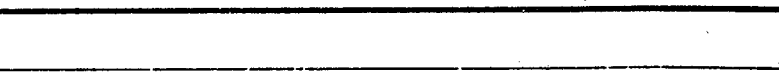
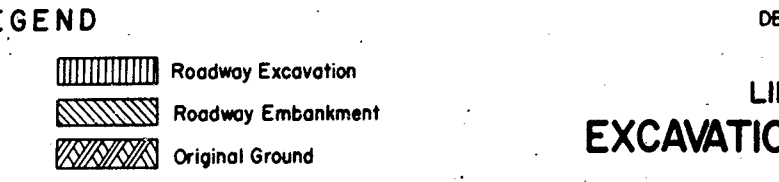
WING WALLS



BRIDGE PIERS, ABUTMENTS & ADJOINING WING WALLS



CONCRETE SLOPE PROTECTION



ROADWAY EXCAVATION - DITCH EXCAVATION

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

LEGEND

	Structure Excavation		Roadway Excavation
	Structure Backfill		Roadway Embankment
	Ditch Excavation		Original Ground

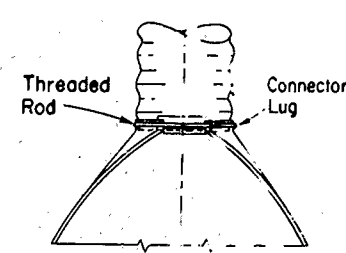
STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS
LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL A 62-5

To Accompany Plans Dated January 6, 1964

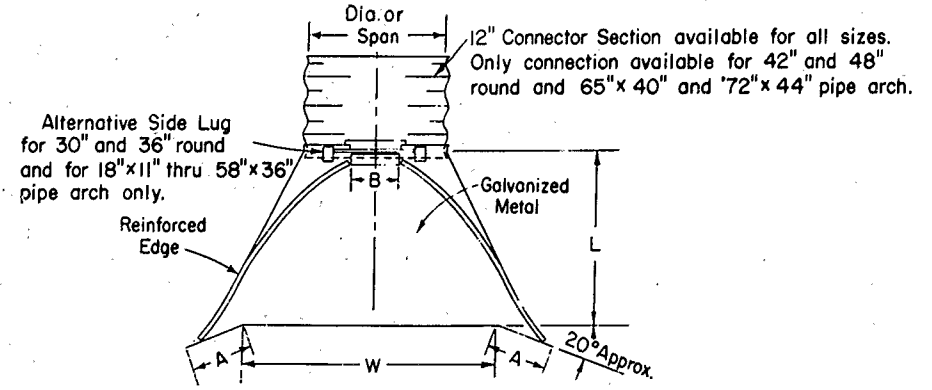
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
III	SACED	11	1A1F04	56	177

SAC ED - 50-17.1 / 2.4

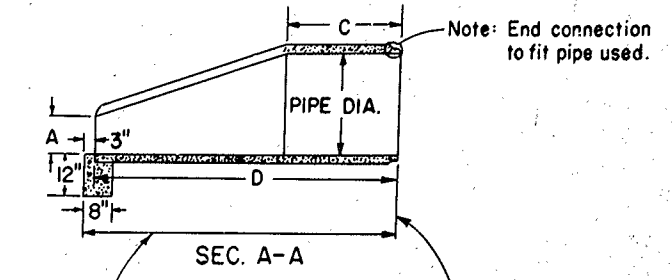
Approval Recommended
J. A. ...
 Engineer of Design
 Approved October 18, 1967
A. ...
 State Highway Engineer
 Civil Engineer License No. 2084



ALTERNATIVE CONNECTION FOR 12" PIPE THRU 24" PIPE ONLY

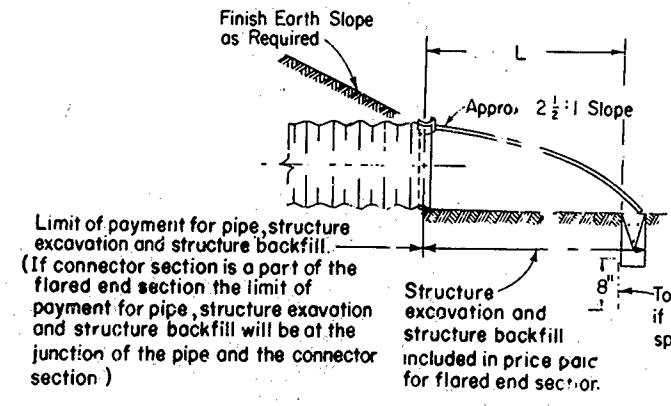


PLAN



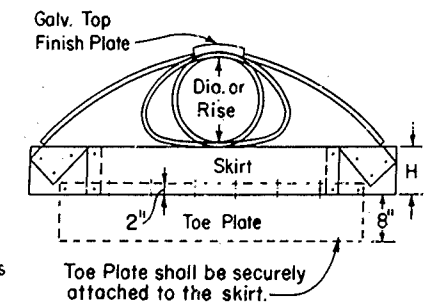
Structure excavation and structure backfill included in price paid for flared end section.

Limit of payment for pipe, structure excavation and structure backfill.

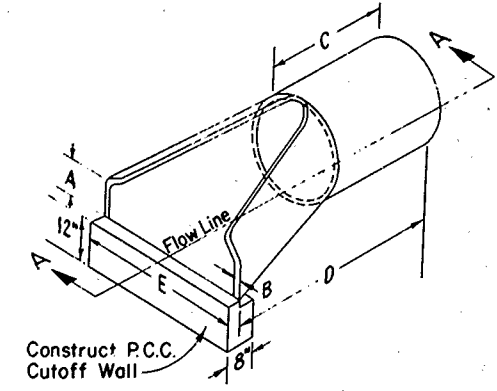


Limit of payment for pipe, structure excavation and structure backfill. (If connector section is a part of the flared end section the limit of payment for pipe, structure excavation and structure backfill will be at the junction of the pipe and the connector section.)

Structure excavation and structure backfill included in price paid for flared end section.



ELEVATION



DIA. OF PIPE	MINIMUM DIMENSIONS				
	A	B	C	D	E
12	4	1 1/4	2-0 1/4	4-0	2-0
18	9	2	1-9	4-0	3-0
24	9 1/2	2 1/2	2-6	6-1 1/2	4-0
30	11-0	3	1-9	6-1 1/2	5-0
36	11-3	3 3/4	2-10 3/4	8-1 1/2	6-0
42	11-9	3 3/4	2-11	8-2	6-6
48	12-0	4 1/4	2-2	8-2	7-0
54	12-3	4 3/4	2-9 1/4	8-2 1/4	7-6

PRECAST CONCRETE FLARED END SECTION

TYPICAL CROSS-SECTION

PIPE DIAM.	GA.	DIMENSIONS - INCHES					
		A		B		H	
		Tol.	Max.	Tol.	Max.	Tol.	Max.
12"	16	4 1/4	6	6	21	24	
15"	16	6	8	6	26	30	
18"	16	7	9	6	31	36	
21"	16	8 1/4	11	6	36	42	
24"	14	9 1/2	12	6	42	48	
30"	14	12	15	7 1/2	52 1/2	60	
36"	12	14	18	9	63	72	
42"	12	16	21	10 1/2	73 1/2	84	
48"	12	18	27	12	84	90	

INCHES	Span	Rise	GA.	DIMENSIONS - INCHES					
				A		B		H	
				Tol.	Max.	Tol.	Max.	Tol.	Max.
18	11	16	4 1/2	9	6	19	30		
2	13	16	5 1/4	10	6	23	36		
2 1/2	16	16	6 1/4	11 1/2	6	28	42		
2 3/4	18	14	7	14	6	31 1/2	48		
3 1/2	22	14	8 3/4	16	6	38 1/2	60		
4 3/4	27	12	10 3/4	17 1/2	7 3/4	47	75		
5 0	31	12	12 1/4	20	9 1/4	54	85		
5 8	6	12	14	26	10 3/4	63	96		
6 5	4	12	15 3/4	23	10 3/4	70	112		
7 2	4 1/4	10	17 1/4	24	12 1/4	77	128		

NOTES

Connector section, corner plate and toe plate to be same gage as skirt.

Length of toe plate if required by special provisions

W + 10" for pipe dia. 12" to 30" incl.

W + 22" for pipe dia. 36" to 48" incl.

W + 10" for pipe arch rise 11" to 27" incl.

W + 18" for pipe arch rise 31" to 44" incl.

FLARED END SECTIONS FOR C.M.P. CULVERTS

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

FLARED END SECTIONS

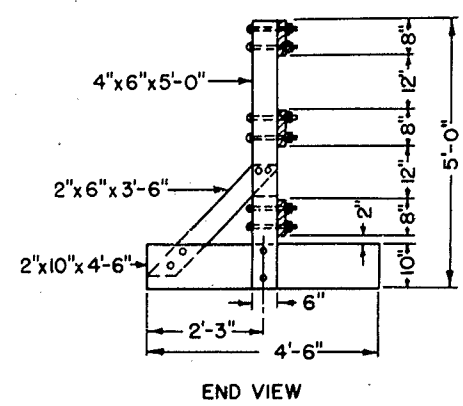
FED. AID DIST. NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	ROUTE	TOTAL LENGTH
	CALIF.				

To accompany plans dated January 6, 1964

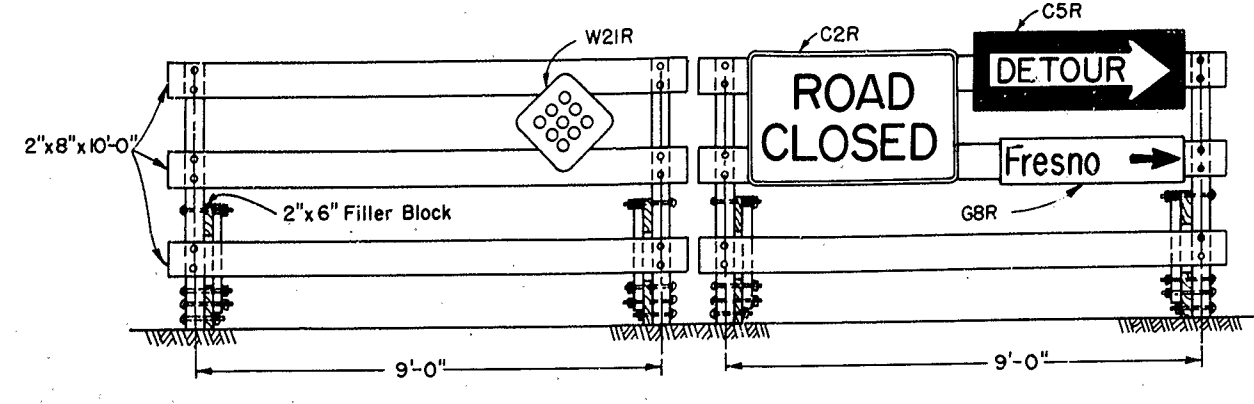
DISTRICT	COUNTY	ROUTE	SECTION	SHEET	TOTAL SHEETS
111	18	ED-11	B.A. 70	57	111

SAL. ED. 501-17.1/2.4
APPROVAL RECOMMENDED 7.1/2.4

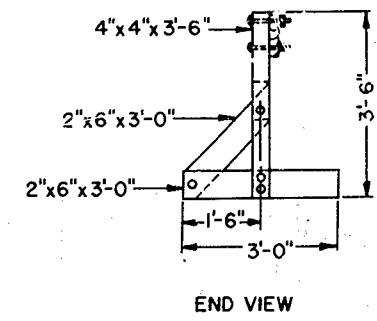
H. L. Hansen
Engineer of Design
Registered Civil Engineer No. 7603
Approved October 9, 1963
J. ...
State Highway Engineer
Registered Civil Engineer No. 5945



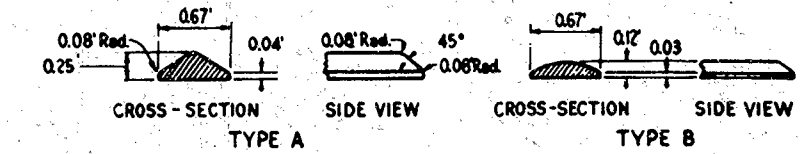
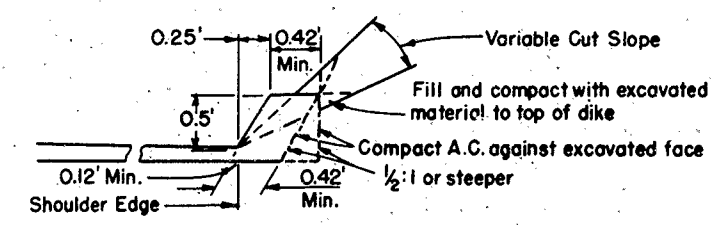
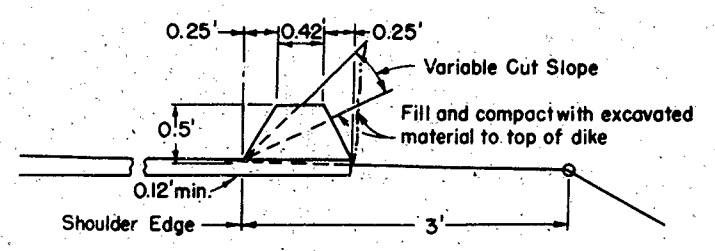
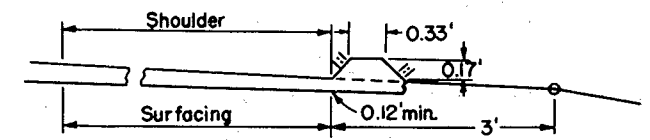
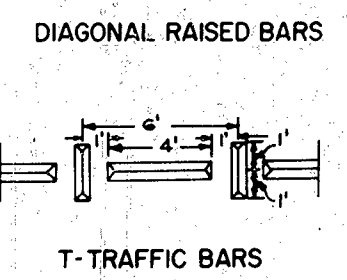
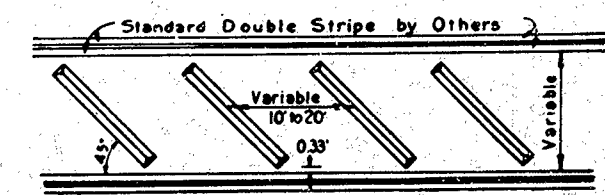
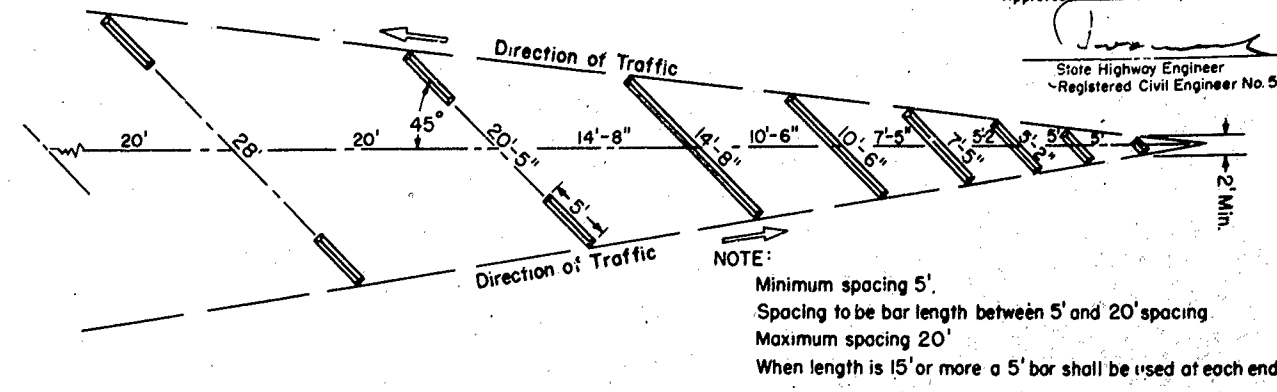
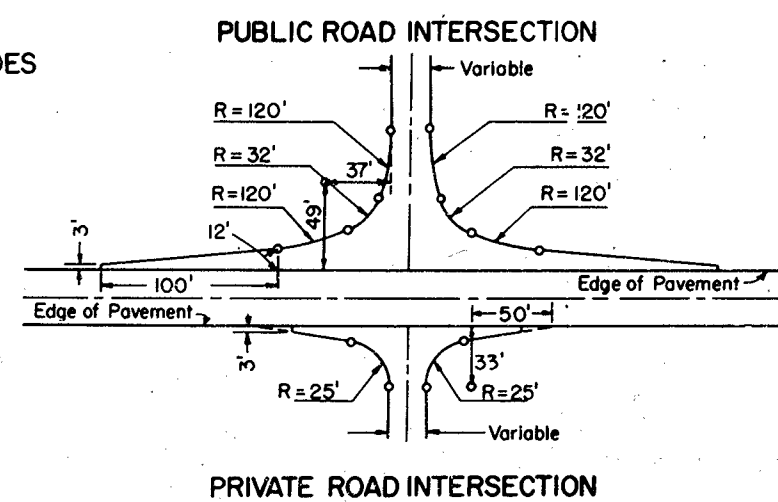
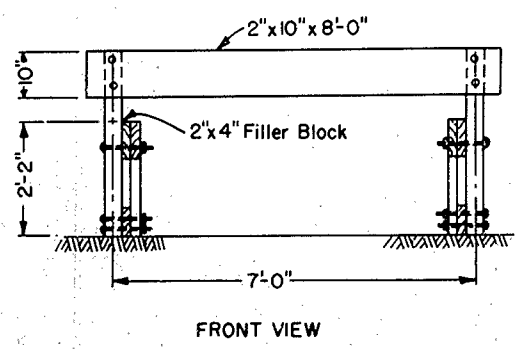
NOTE: Signs to be furnished by State.
All timber to be S4S.
Use 1/2" Carriage bolts with cut washers and nuts.



FRONT VIEW
CLASS I
TIMBER BARRICADES
10' SECTIONS



END VIEW
CLASS II
TIMBER BARRICADE
8' SECTION



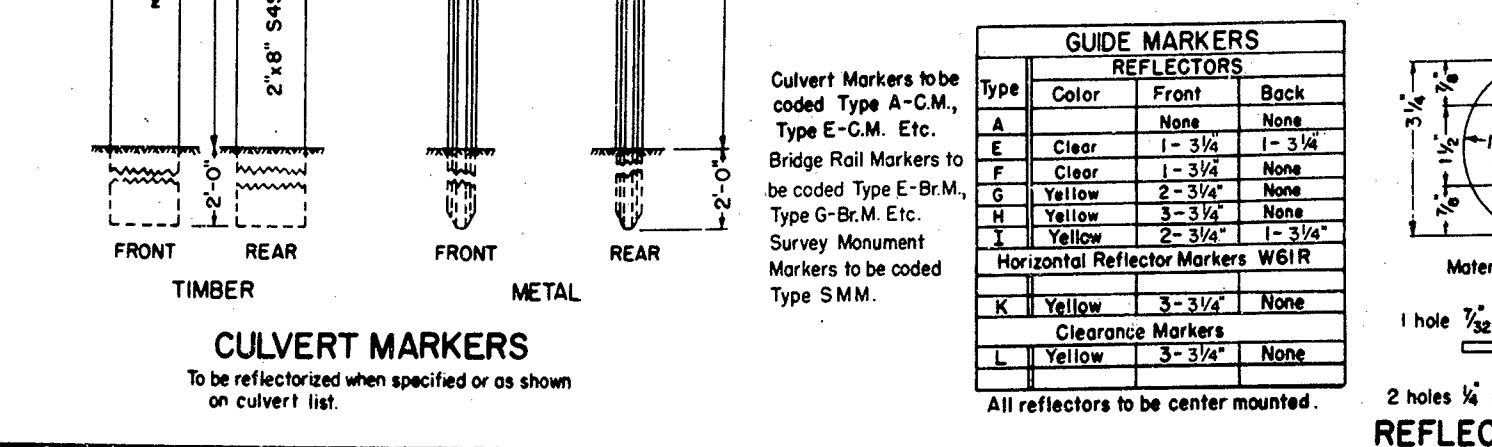
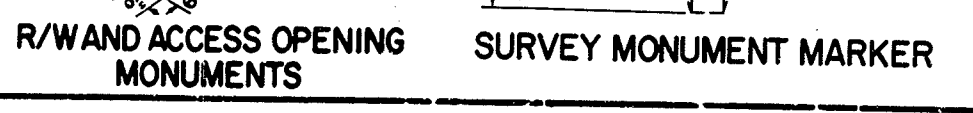
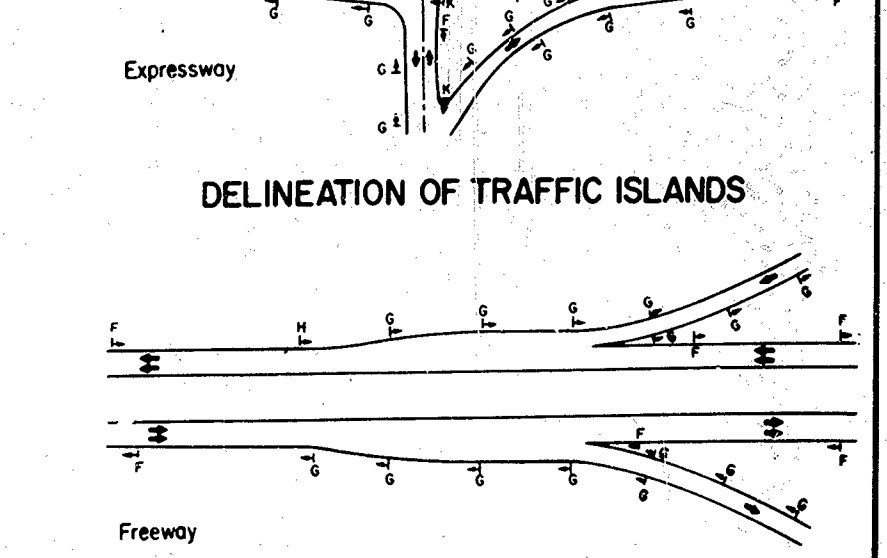
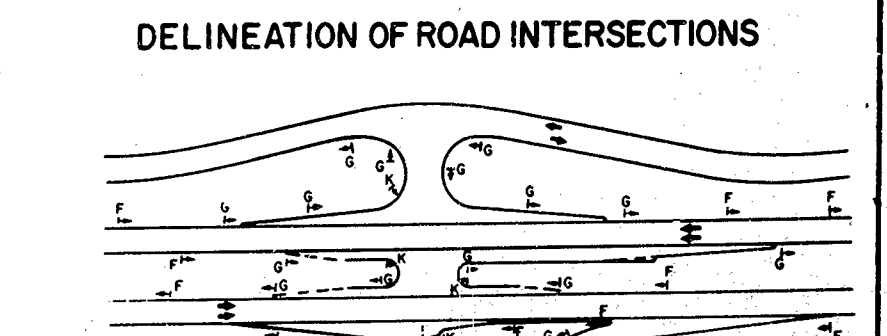
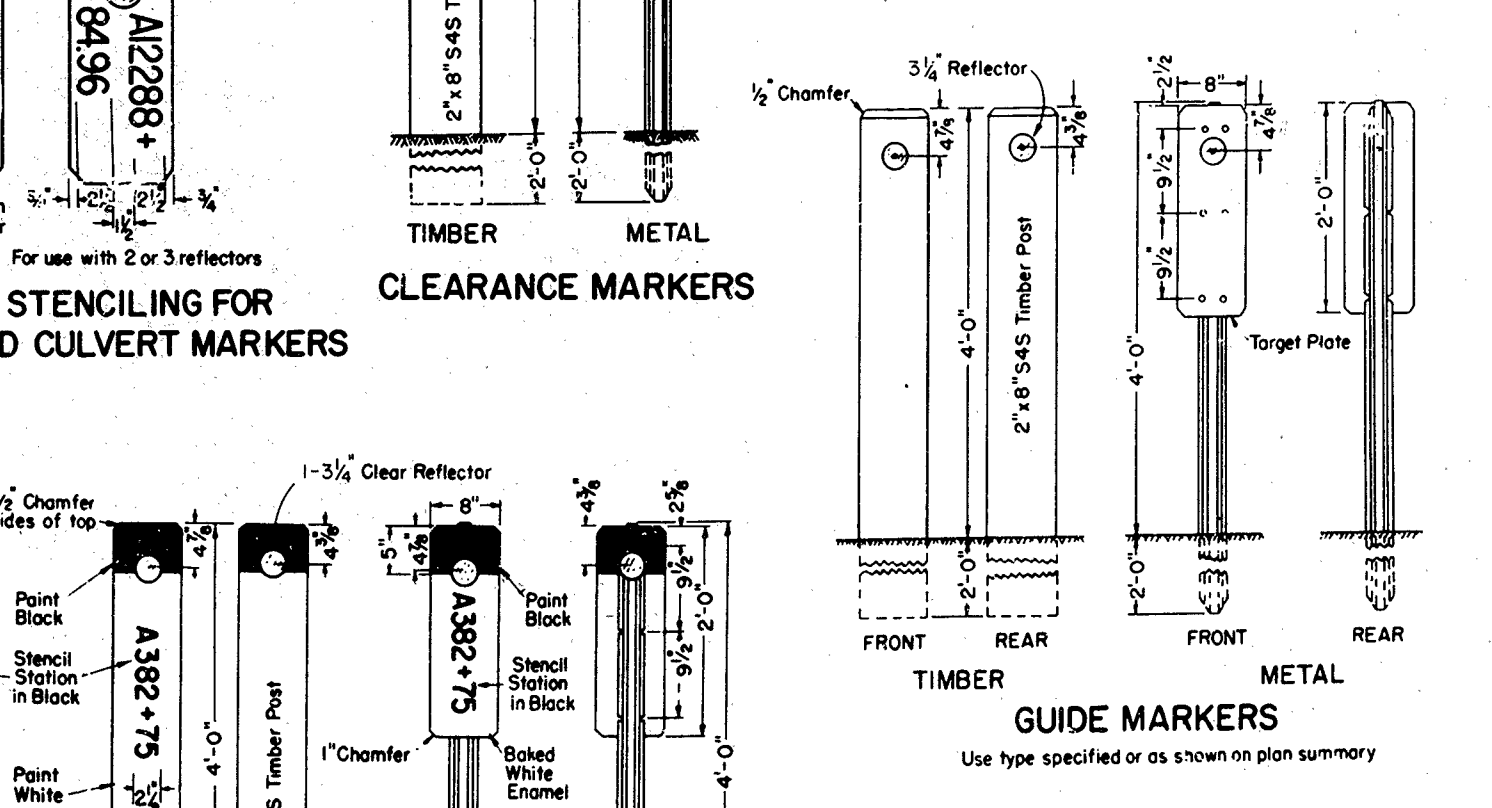
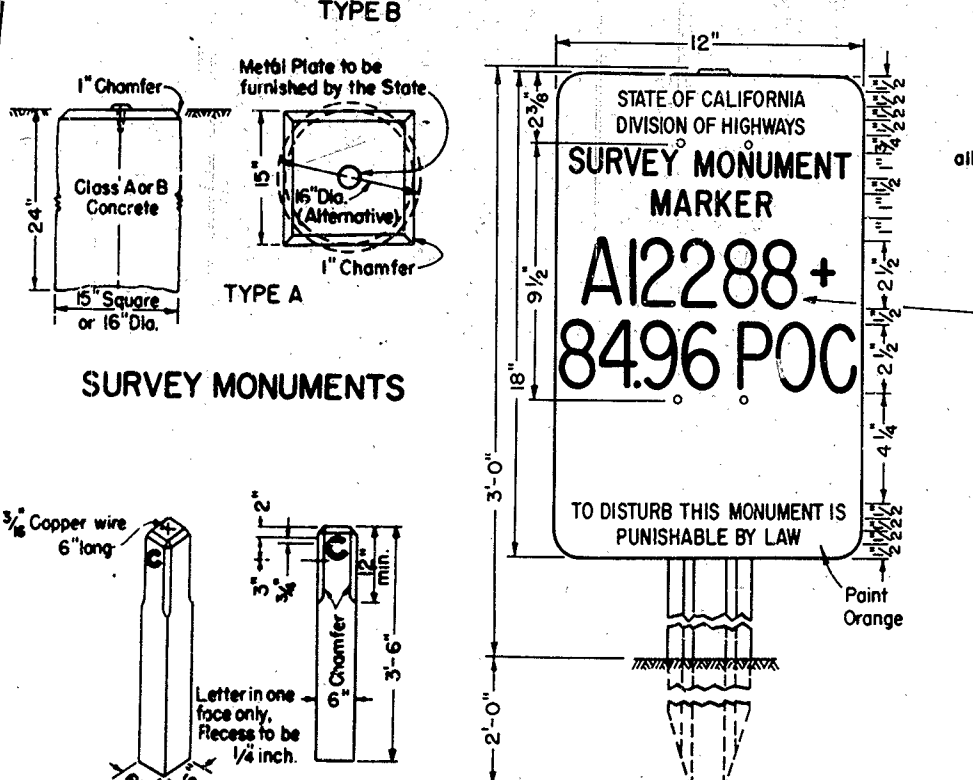
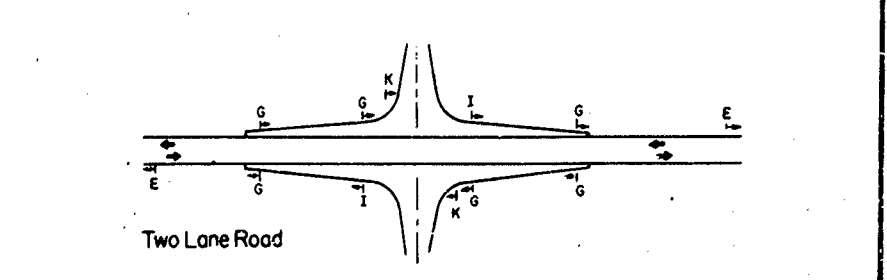
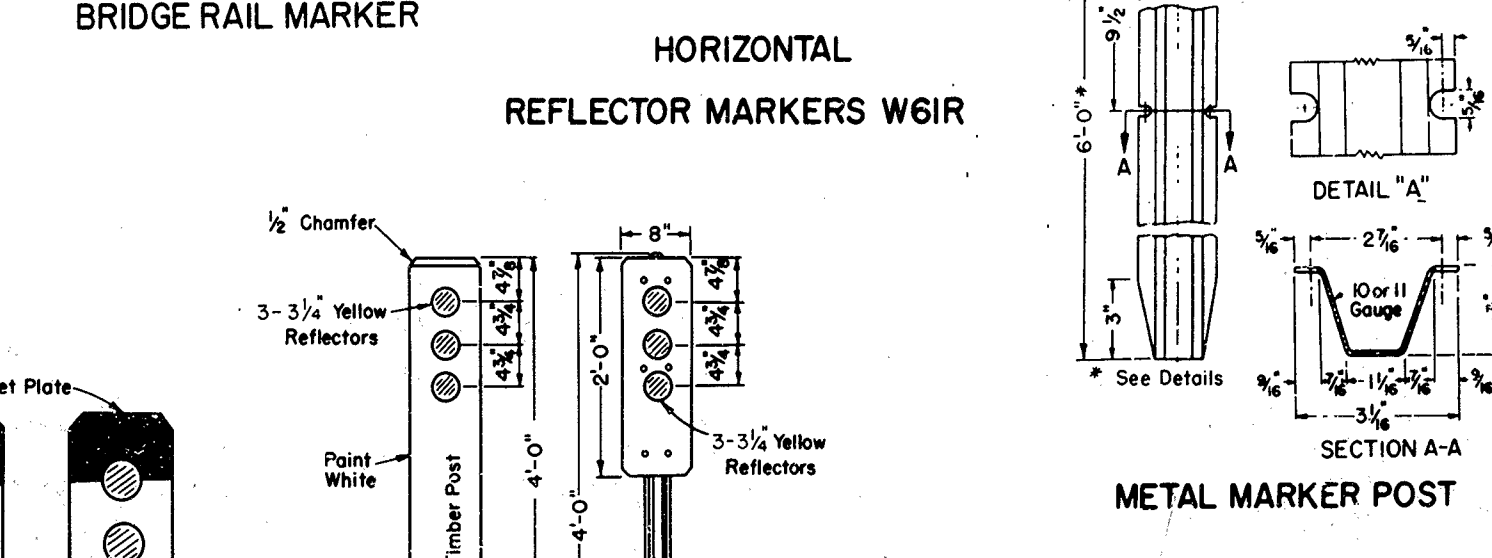
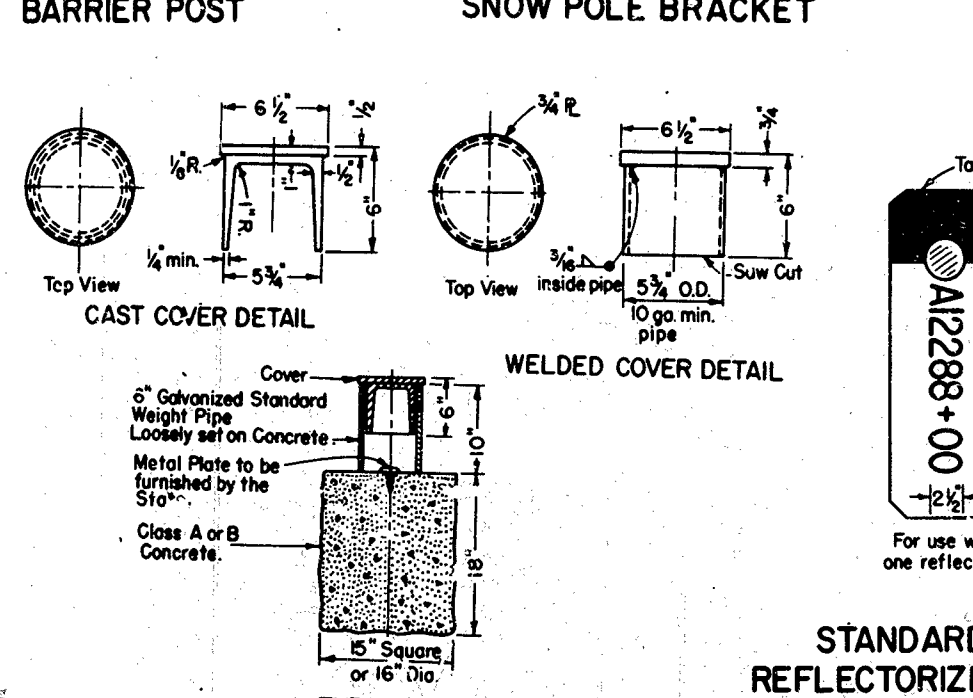
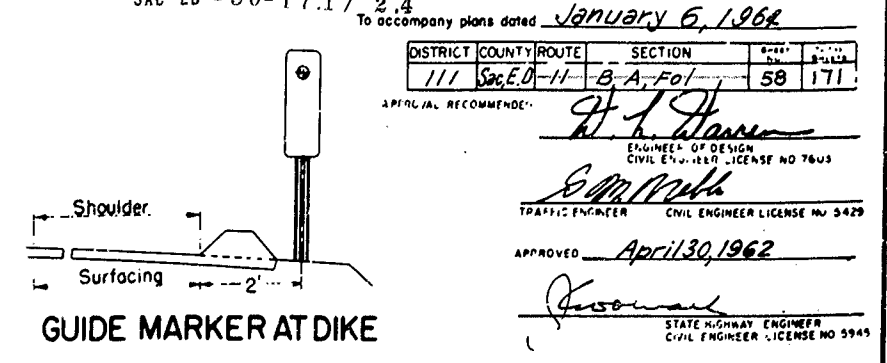
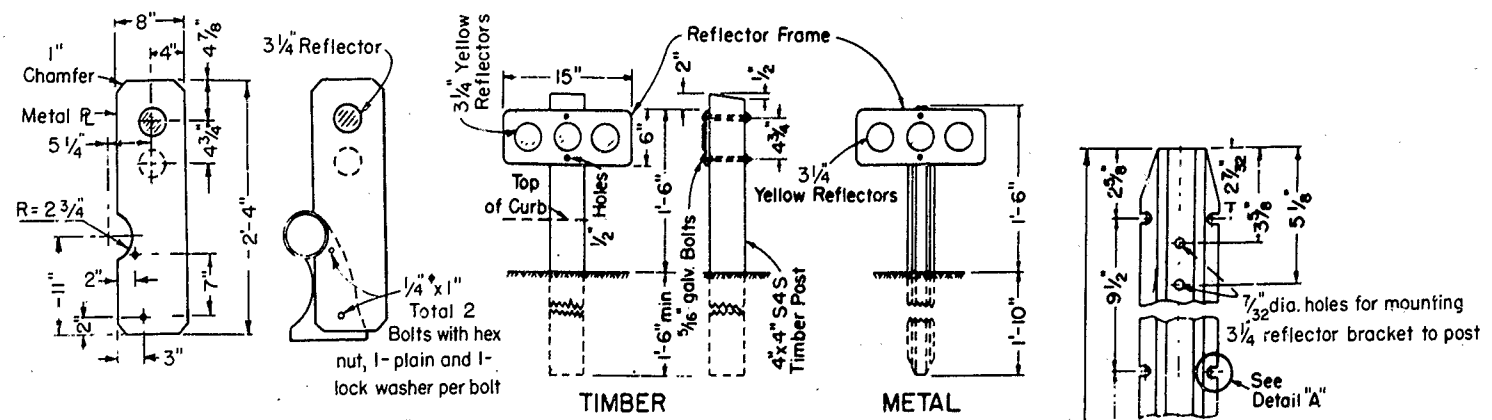
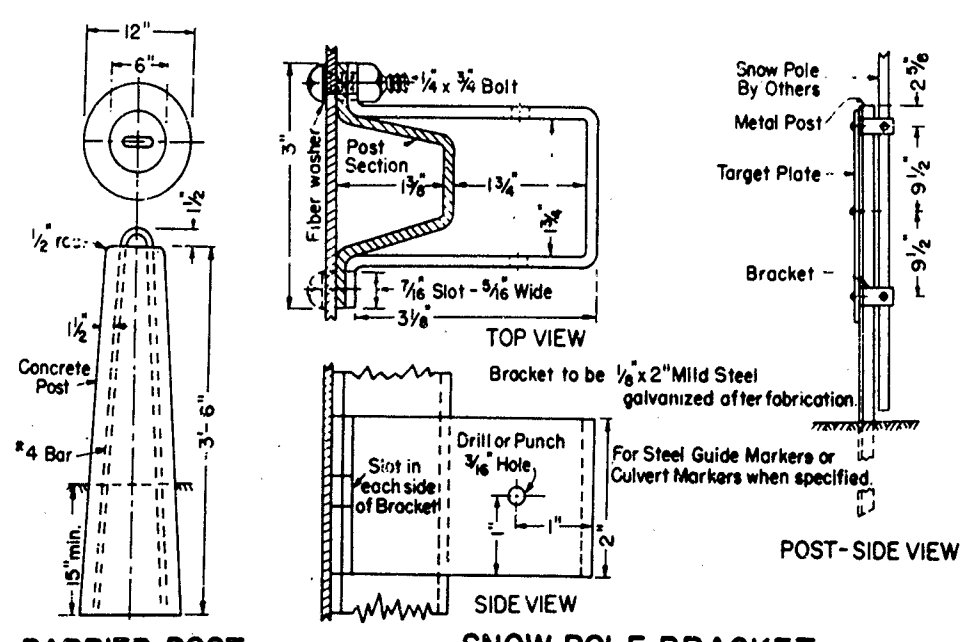
AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

STATE OF CALIFORNIA
HIGHWAY TRANSPORTATION AGENCY
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

TIMBER BARRICADES, RAISED TRAFFIC BARS AND DIKES A73-3

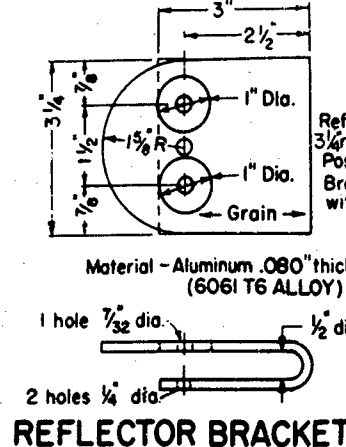
7



Single 3/4" Clear Reflectors continuously on right of through roadways and on outside of curves. 200' spacings on tangent sections and standard spacing on curves as directed by the Engineer. - Type F
 Double 3/4" Yellow Reflectors on right of acceleration and deceleration lanes and tangent ramp sections at 100' spacings and on outside of ramp curves at standard spacing as directed by the Engineer. - Type G
 Triple 3/4" Yellow Reflectors at end of acceleration lane - Type H

GUIDE MARKERS REFLECTORS			
Type	Color	Front	Back
A	Clear	None	None
E	Clear	1 - 3/4"	1 - 3/4"
F	Clear	1 - 3/4"	None
G	Yellow	2 - 3/4"	None
H	Yellow	3 - 3/4"	None
I	Yellow	2 - 3/4"	1 - 3/4"
Horizontal Reflector Markers W61R			
K	Yellow	3 - 3/4"	None
Clearance Markers			
L	Yellow	3 - 3/4"	None

All reflectors to be center mounted.



STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS
MONUMENTS AND MARKERS A74-6

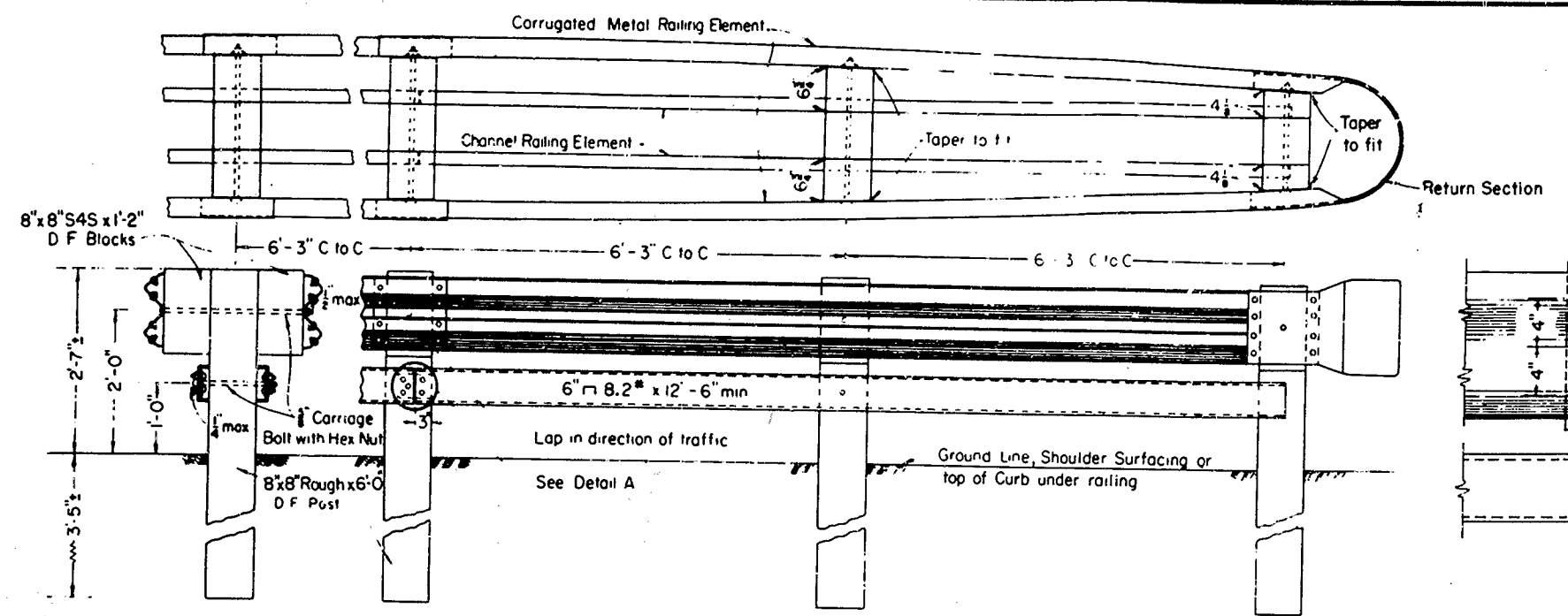
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 50000.376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

S.P. No.	STATE	FEDERAL PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
	CALIF.				

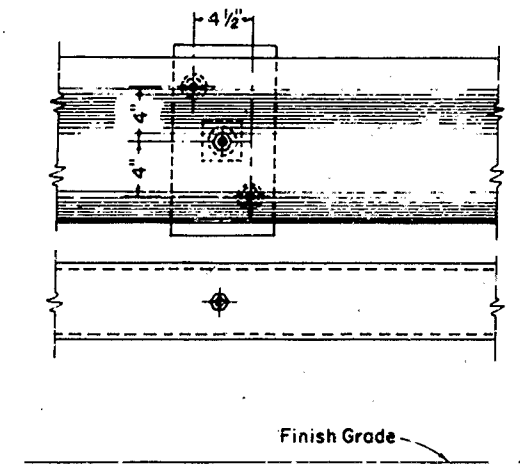
IN REPLY, MAIL DATE *January 6, 1962*
 SAC EU 50-171 2-A
 DISTRICT COUNTY ROUTE SECTION
 111 26 ED 11 B-A-101 59 171
 APPROVAL RECOMMENDED *W. J. ...*
 ENGINEER OF DESIGN CIVIL ENGINEER LICENSE NO. 1605
 TRAFFIC ENGINEER CIVIL ENGINEER LICENSE NO. 5427
 APPROVED *June 4, 1963*
 STATE HIGHWAY ENGINEER CIVIL ENGINEER LICENSE NO. 5948

GENERAL NOTES:
 1. Cut washers are required at all bolt installations.

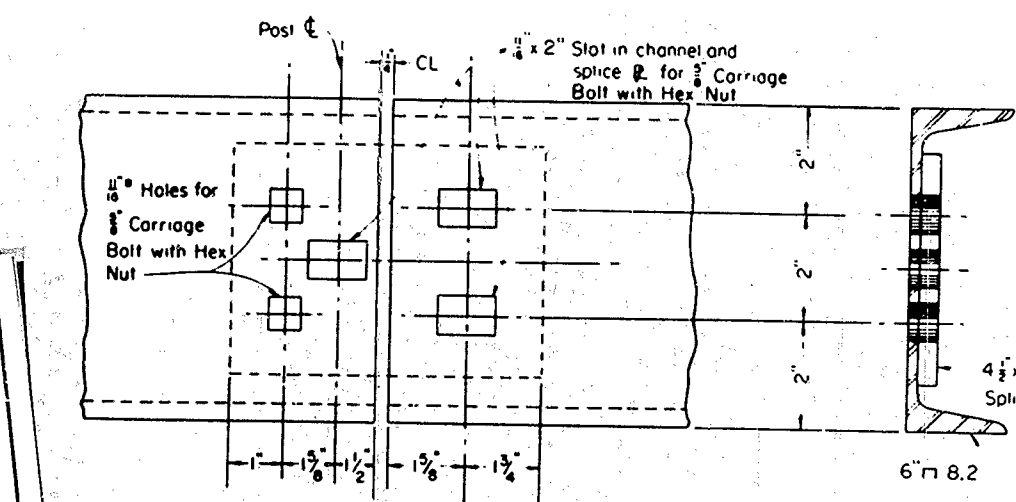


DOUBLE BLOCKED-OUT METAL BEAM BARRIER

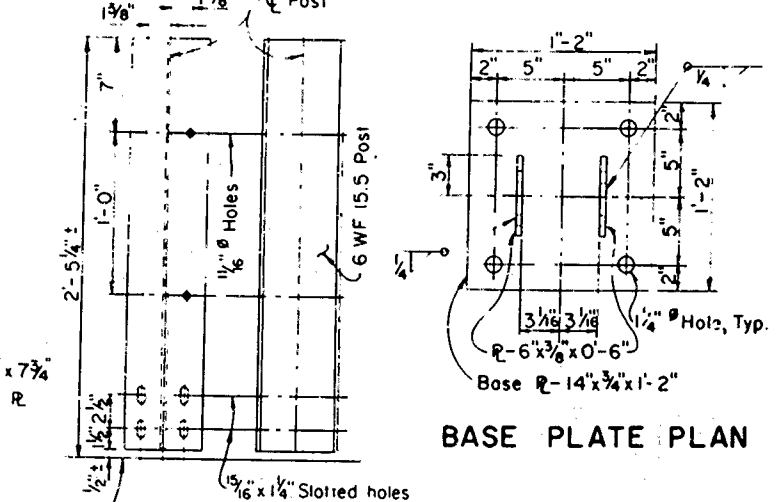
All nuts shown to be hex and placed on outside except rail splice bolts



DETAIL B



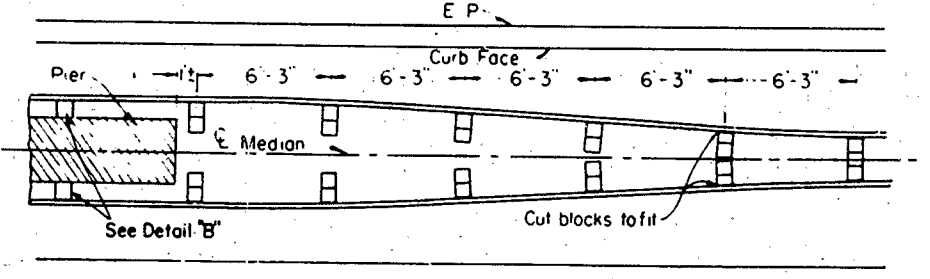
DETAIL "A" OF BOTTOM RAIL SPLICE
 (Rail Splices to occur at Posts only)



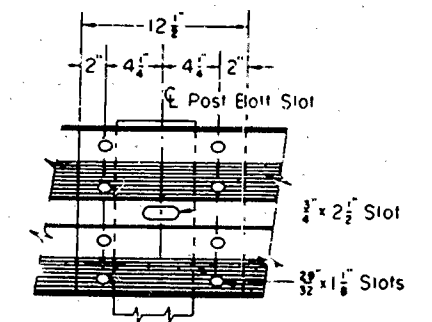
BASE PLATE PLAN

For connection to deck, see Bridge Plans or supplemental details.

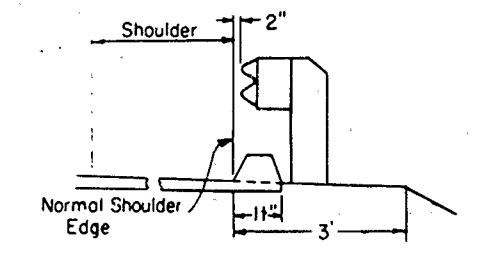
DOUBLE BLOCKED-OUT METAL BEAM BARRIER ON BRIDGE



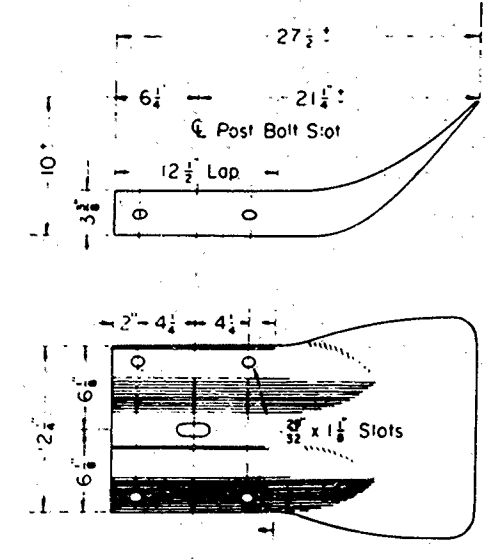
BLOCKED-OUT METAL BEAM BARRIER
 PLAN AT BRIDGE PIERS OR MEDIAN OBSTRUCTIONS



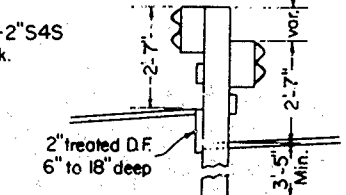
RAIL SPLICE
 All nuts shall be hexagonal



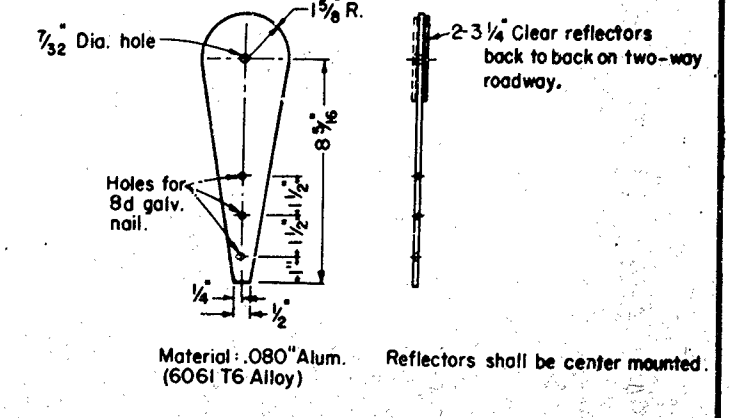
METAL BEAM GUARD RAILING AT DIKE
 (For Dike Detail see Standard Plan A73)



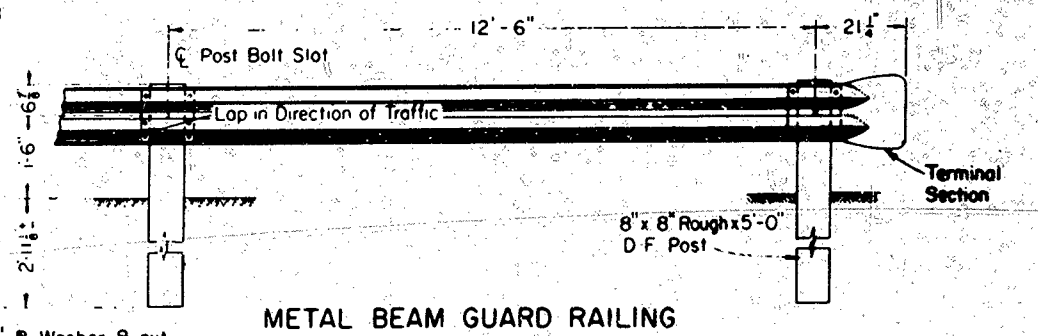
TERMINAL SECTION



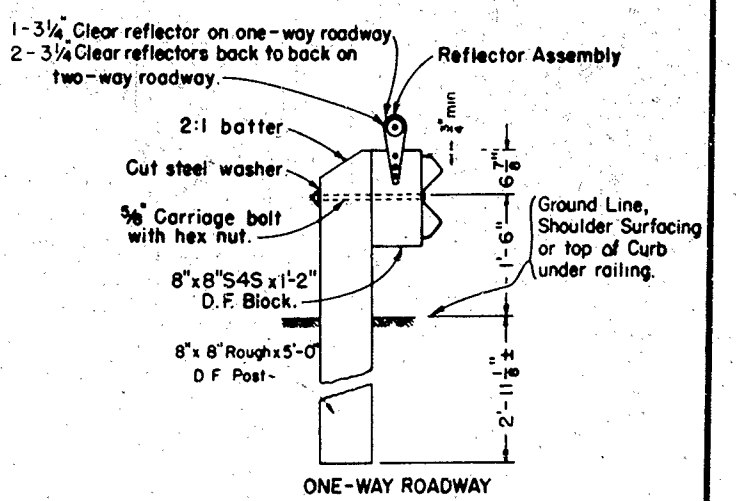
SAW TOOTH INSTALLATIONS



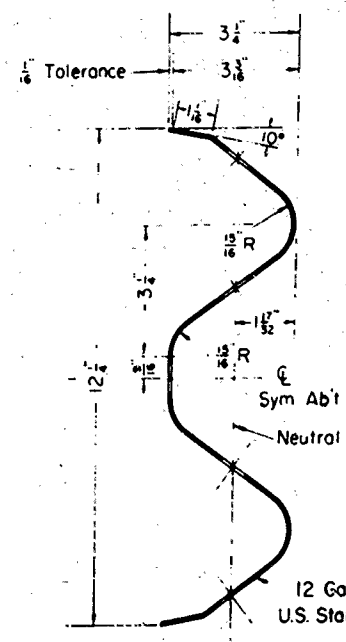
REFLECTOR ASSEMBLY



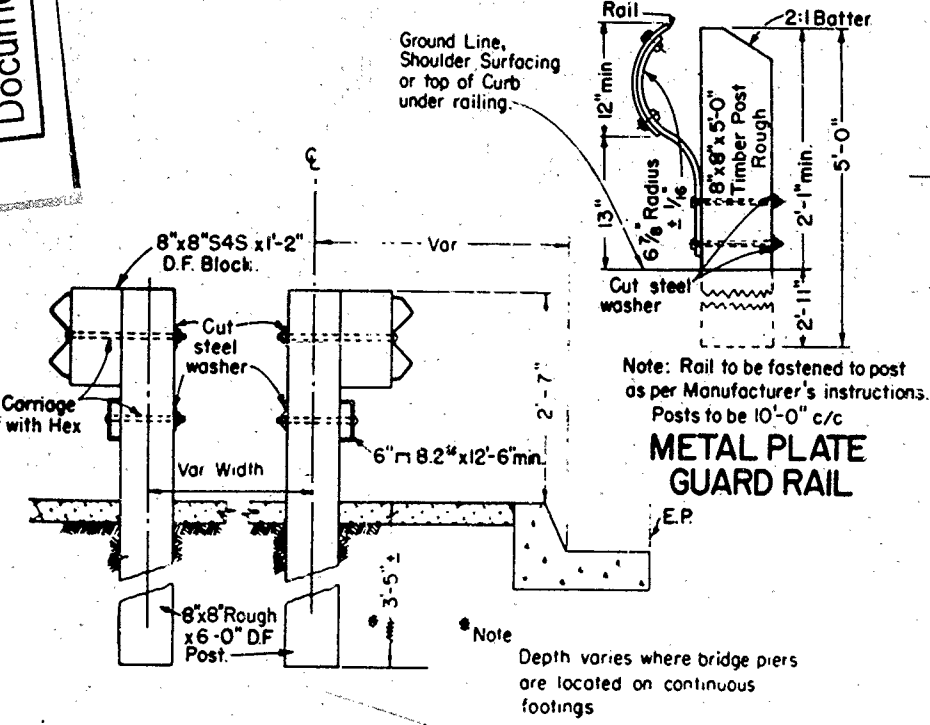
METAL BEAM GUARD RAILING



METAL BEAM GUARD RAILING
 ONE-WAY ROADWAY



SECTION THRU RAIL ELEMENT



SINGLE BLOCKED-OUT METAL BEAM BARRIER

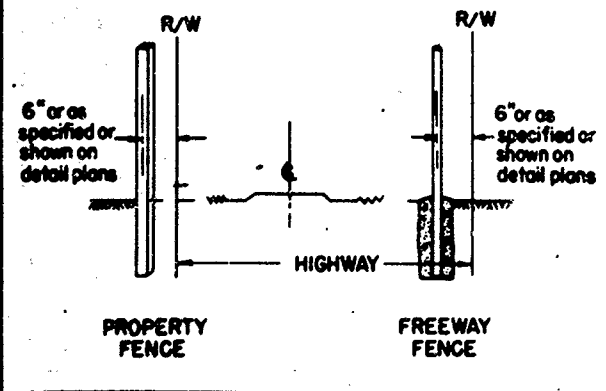
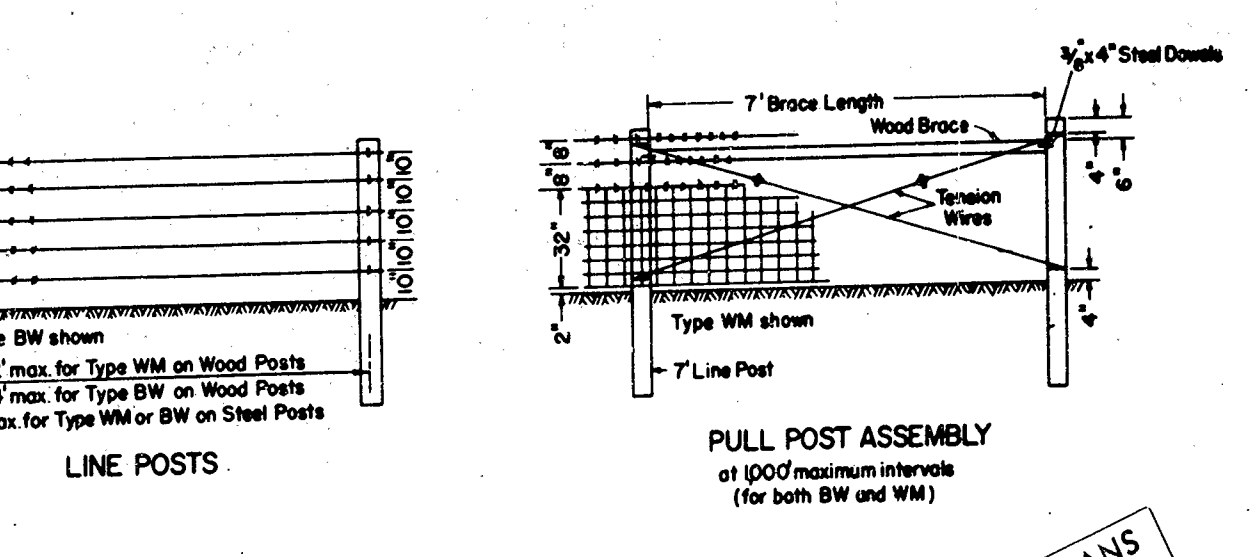
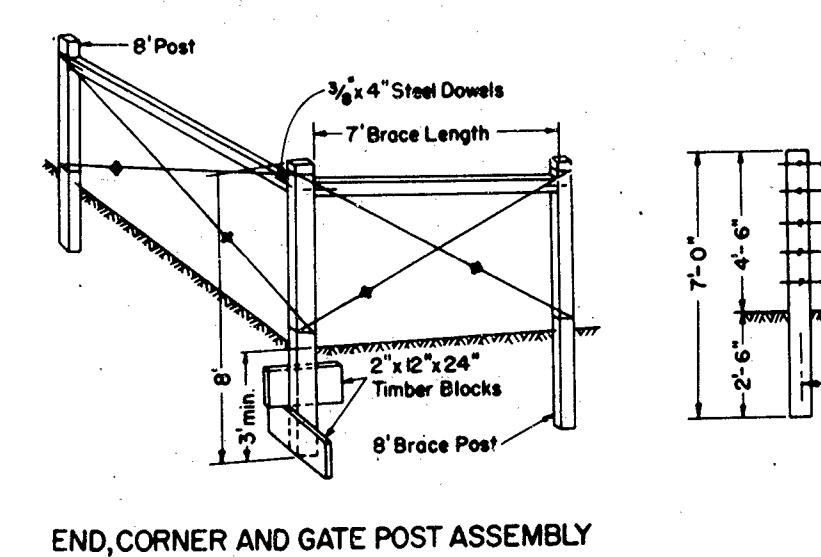
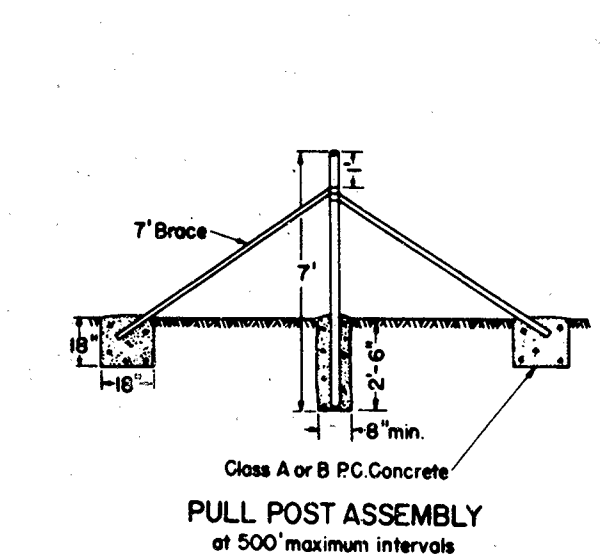
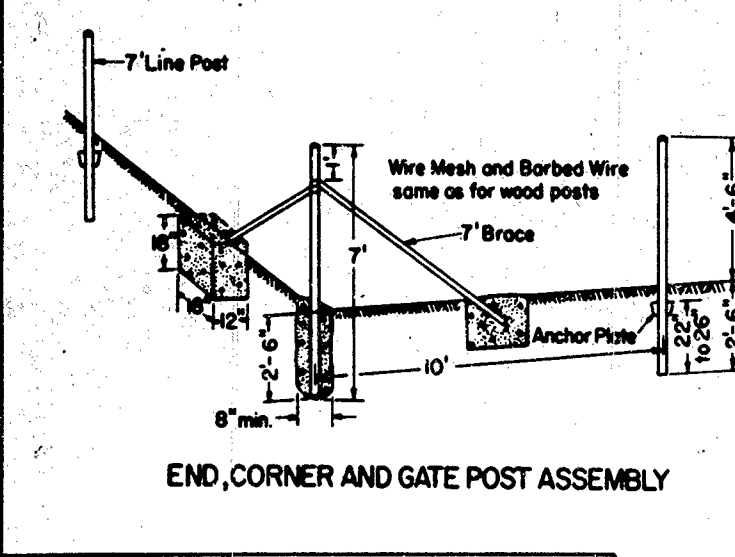
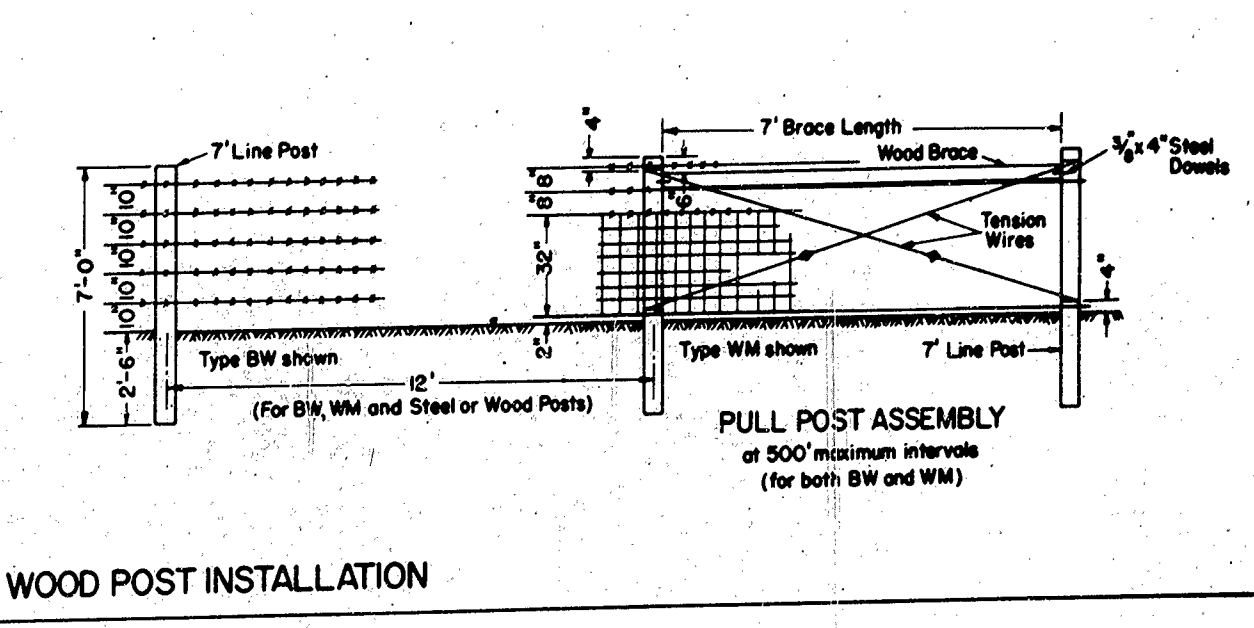
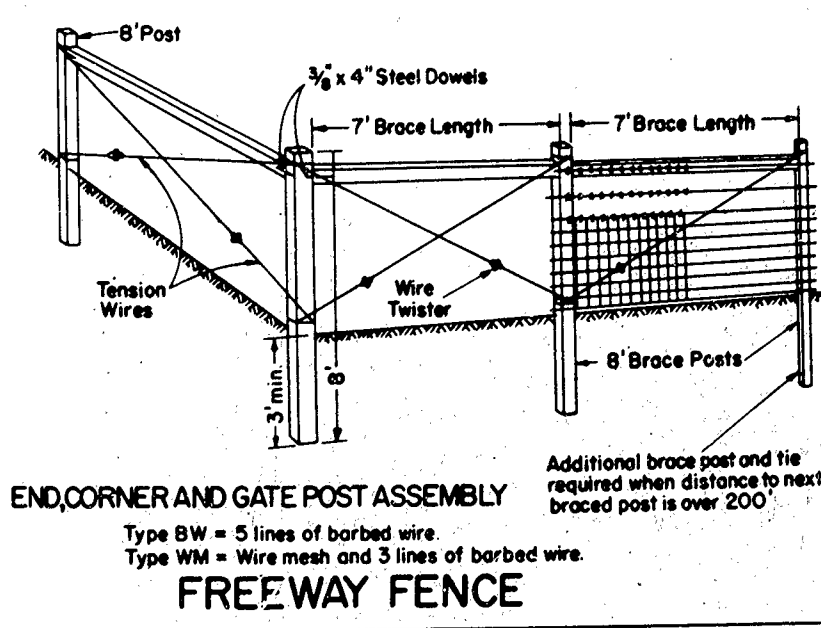
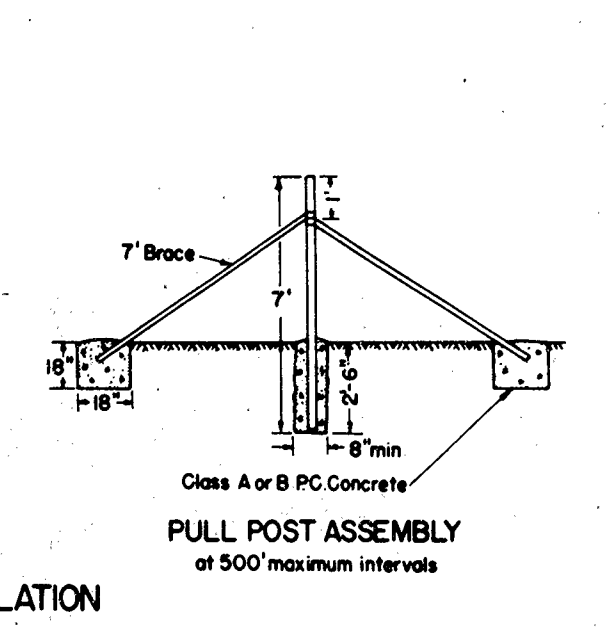
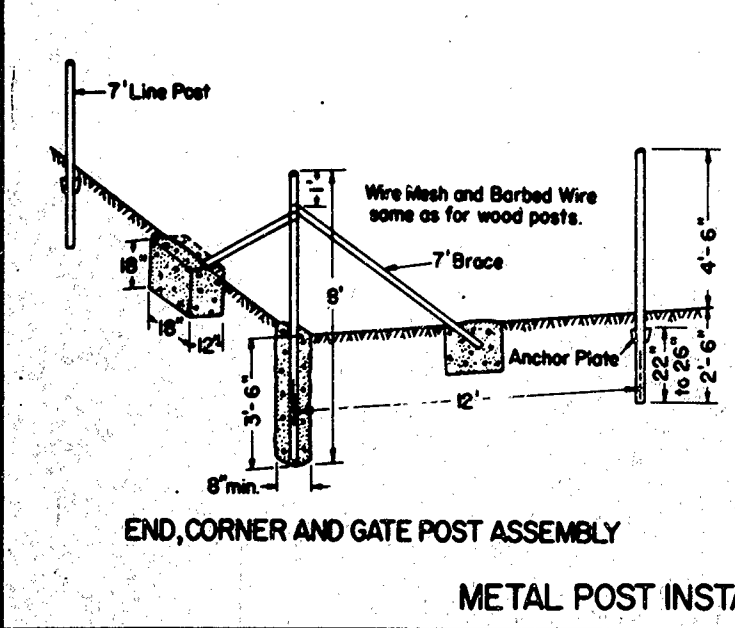
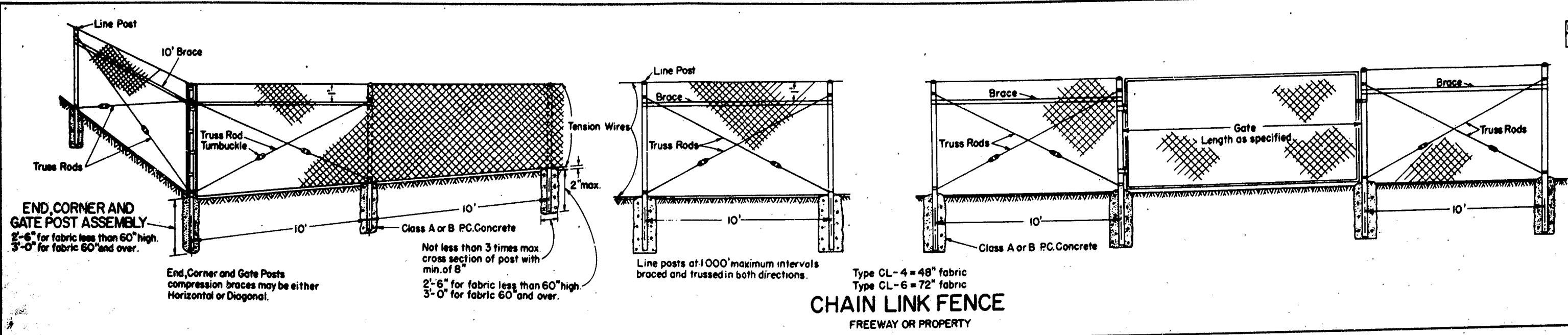
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS
GUARD RAILING & BARRIER RAILING A77-9

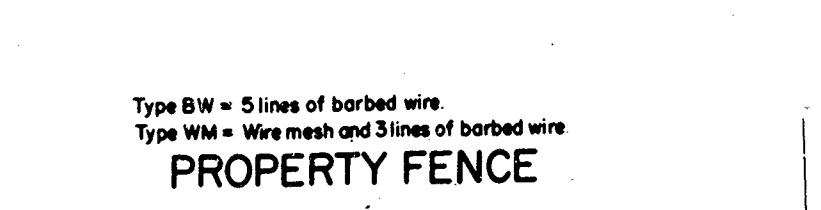
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

19

APP. STATE FEDERAL PROJECT NO. YEAR SHEET NO. TOTAL SHEETS
 CALIF. SAC EO-50-17,1 24
 To accompany plans dated January 6, 1964
 DISTRICT COUNTY ROUTE SECTION
 111 Sac. 60-11 B. A. Col. 60 171
 APPROVAL RECOMMENDATION
 [Signature]
 ENGINEER OF HIGHWAY
 CIVIL ENGINEER LICENSE NO. 9490
 APPROVED AUGUST 7, 1959
 [Signature]
 STATE HIGHWAY ENGINEER
 CIVIL ENGINEER LICENSE NO. 8884



METAL POST INSTALLATION



WOOD POST INSTALLATION

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

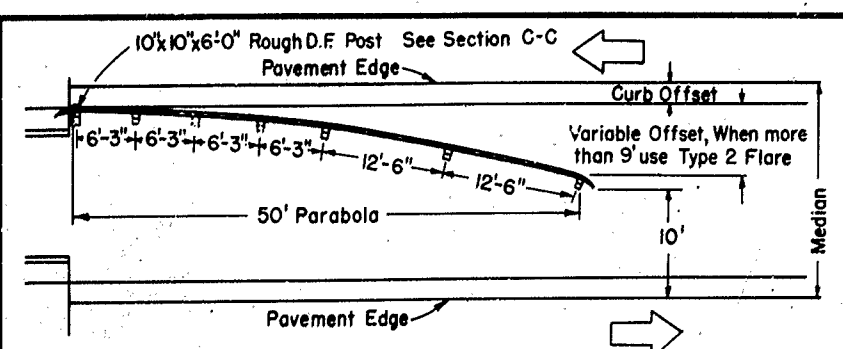
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

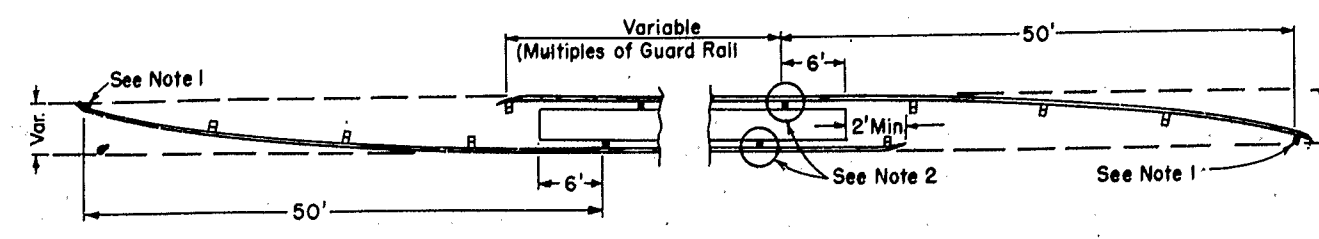
STANDARD FENCES

Revised 1-31-62
 Corrected Gate Length

Approved June 4, 1963
 State Highway Engineer
 Civil Engineer License No. 5948

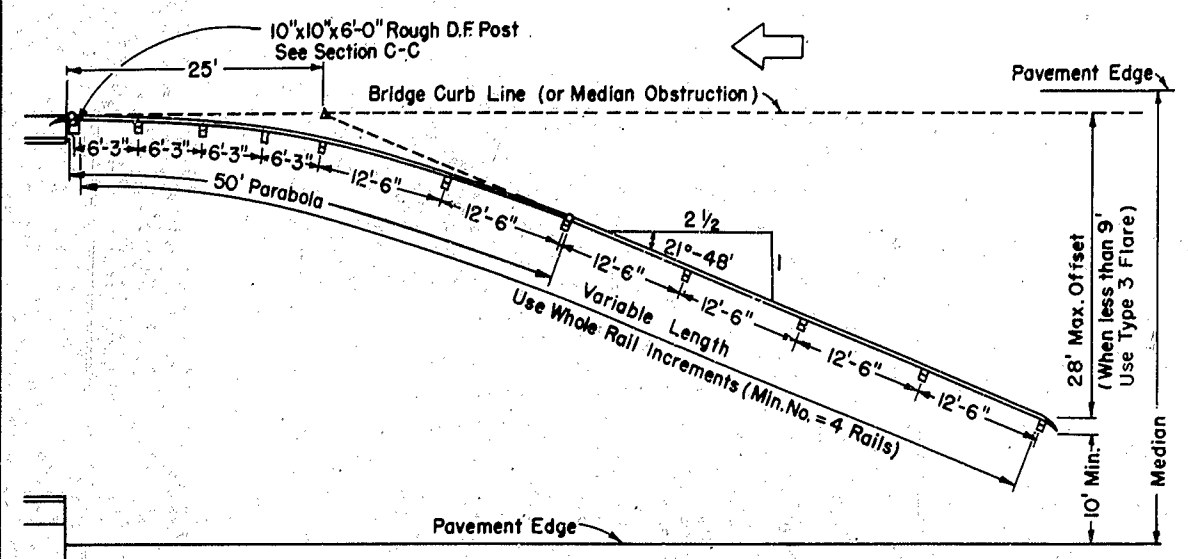


TYPE 3 FLARE - DETAIL A

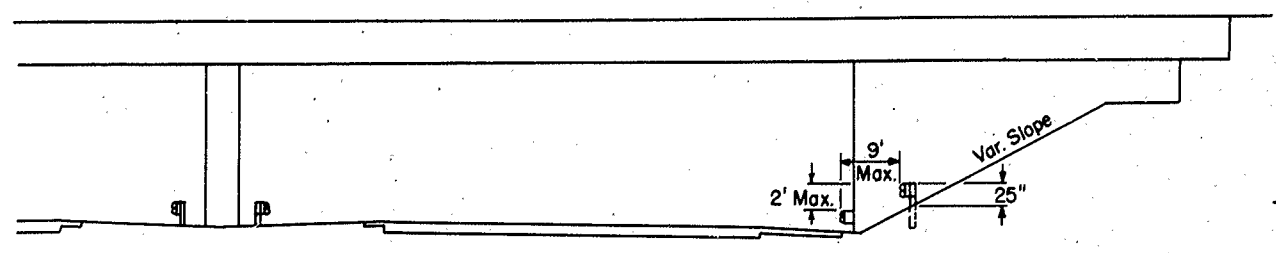


TYPE 3 FLARES - DETAIL B

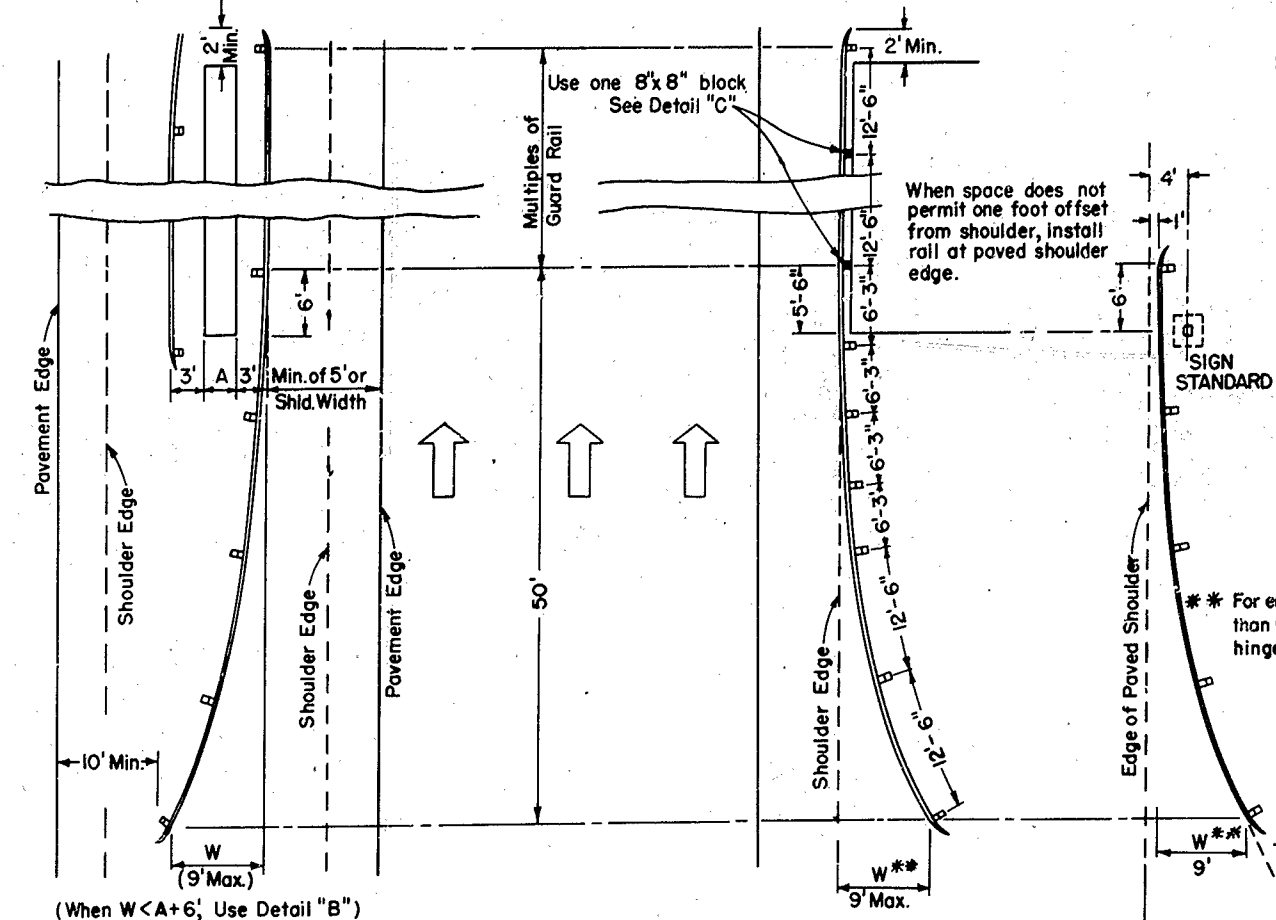
- NOTES:
1. Do not block out rails at end posts on Detail B.
 2. Use timber shims without posts where rail to pier clearance is less than 15" (See Detail C)
 3. On median installations where footing is between 2' and 3' of surface, post may be embedded less than 3' but not less than 2'. When footings are less than 2' from surface, attach to piers using Detail C.
 4. All posts and blocks to be as shown on Standard Plan A77- except as noted.



TYPE 2 FLARE MEDIAN RAIL



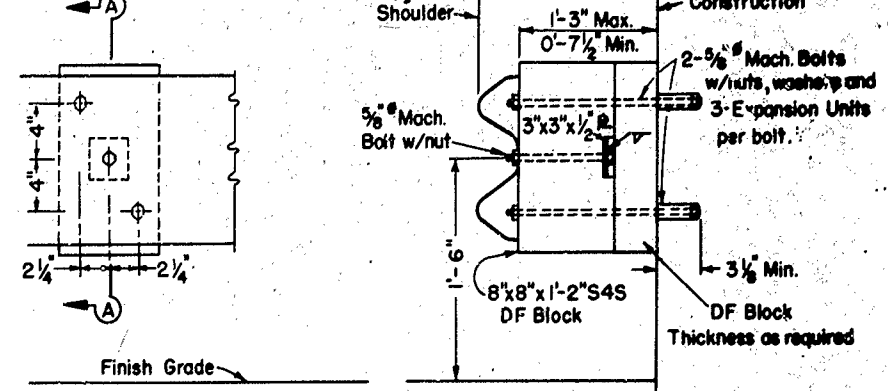
GUARD RAIL-BRIDGE RAIL ALIGNMENT DOWNSTREAM FROM TRAFFIC



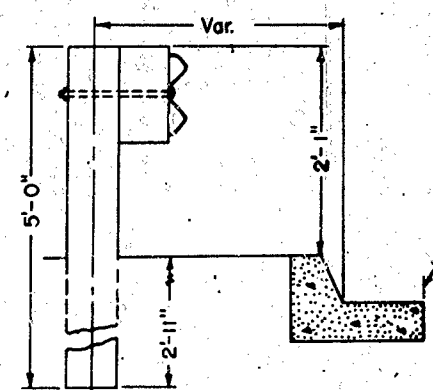
MEDIAN INSTALLATION AT BRIDGE AND/OR SIGN STANDARD

SHOULDER INSTALLATION AT BRIDGE

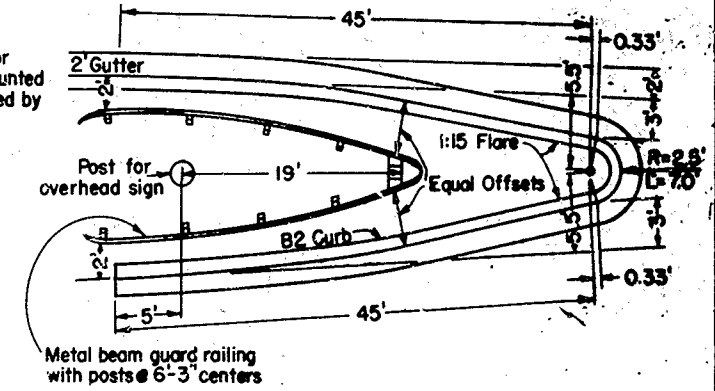
TYPE 3 FLARES



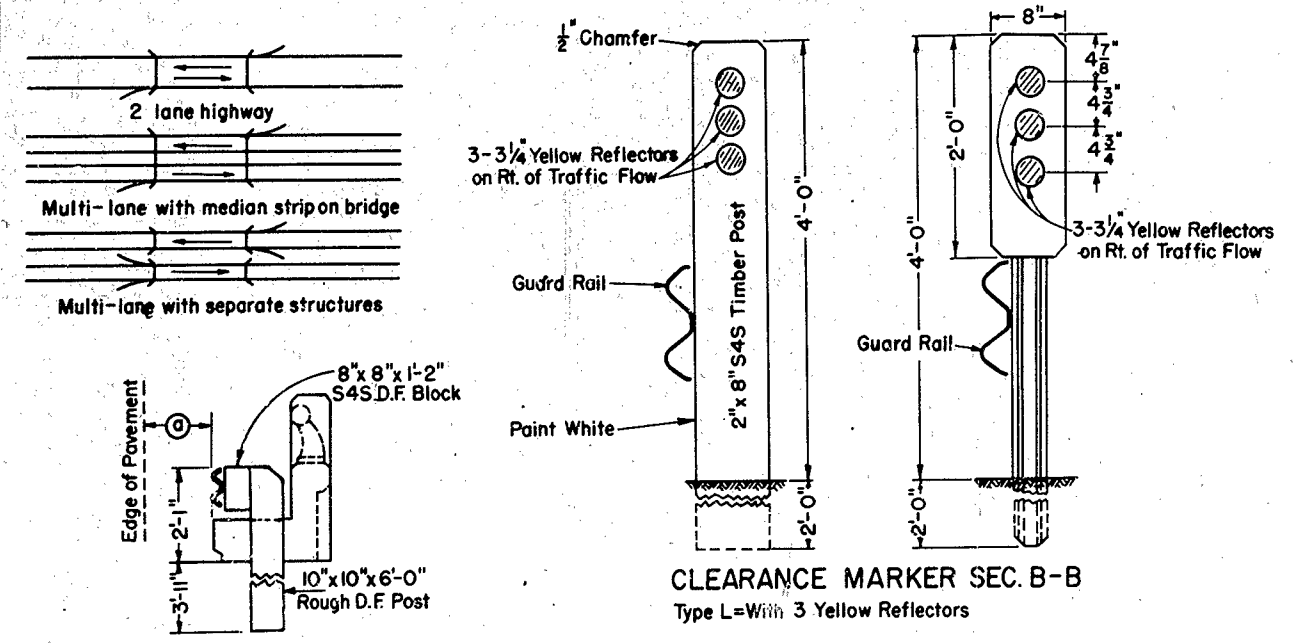
BLOCKOUT DETAIL - ELEVATION SECTION A-A METAL BEAM RAIL OBSTRUCTION DETAIL C



METAL BEAM GUARD RAILING AT CURB

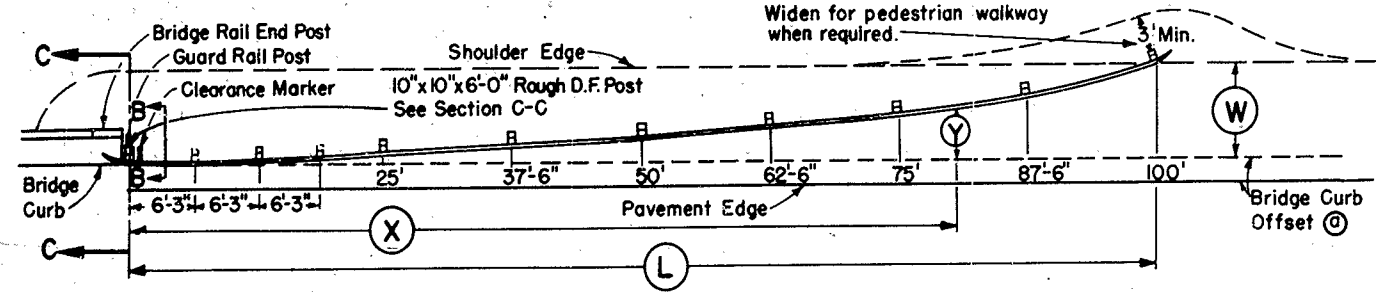


GORE INSTALLATION



CLEARANCE MARKER SEC. B-B Type L- With 3 Yellow Reflectors

SECTION C-C Offset mounting on curb at end of bridge



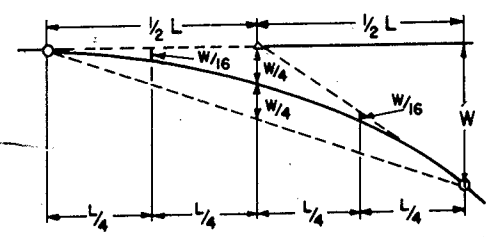
TYPE I FLARE SHOULDER ENCROACHMENTS (RT. OR LT.)

$Y = W \frac{X^2}{L^2}$

TYPE I FLARE LENGTHS

L	W
37'-6"	3'
50'-0"	4'
62'-6"	5'
75'-0"	6'
87'-6"	7'
100'-0"	8'

$L = 12.5 W$



TYPICAL PARABOLIC LAYOUT

SHOULDER INSTALLATION AT SIGN STANDARD

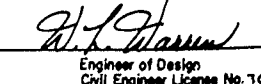

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

GUARD RAIL FLARES A79-3
 (AT PIERS, ABUTMENTS, SIGN STANDARDS, ETC.)

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000374

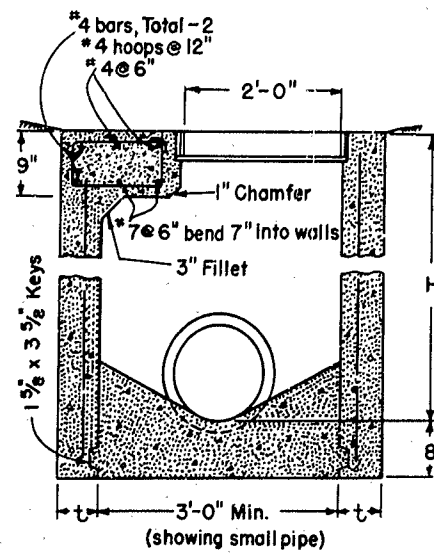
To accompany plans dated January 6, 1964

APPROVAL	RECOMMENDED
 H.L. Warren Engineer of Design Civil Engineer License No. 7605	
Approved <u>July 9, 1963</u>  State Highway Engineer Civil Engineer License No. 5348	

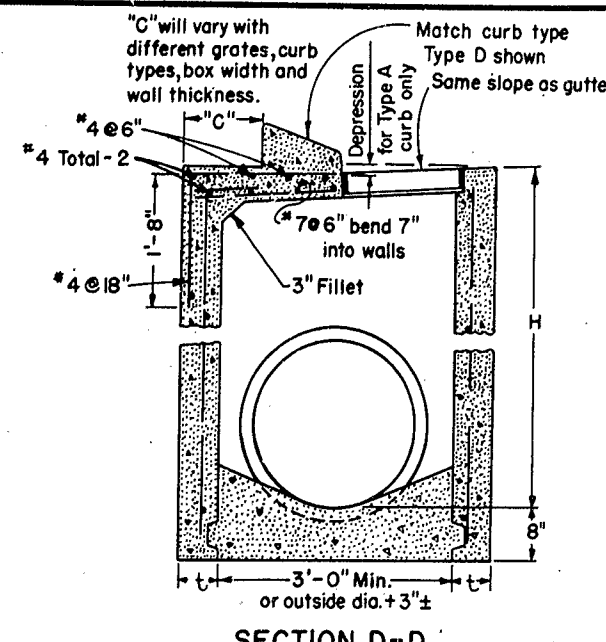
H	t
8'-0" or less	6"
8'-1" to 20'-0"	8"

GENERAL NOTES

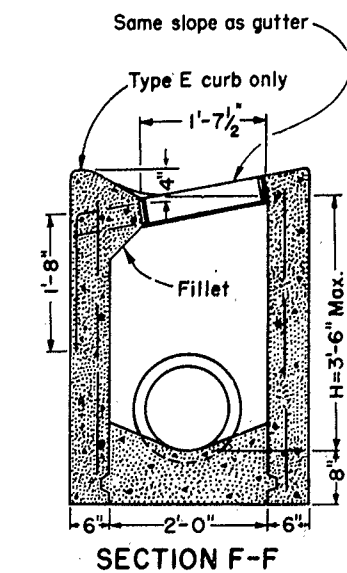
- "H" is the difference in elevation between the outlet pipe flow line and the normal gutter grade line undepressed at the curb face.
- For "t" wall thickness, see Table.
- Reinforcing steel in walls shall be #4 bars @ 18" centers, placed 1/2" clear to inside of box unless otherwise shown.
- Steps - None required where "H" is 3'-6" or less. Install one step 16 1/2" above floor when "H" is more than 3'-6" and less than 5'-0". Where "H" is more than 5'-0" steps shall be evenly spaced @ 12" intervals from 16 1/2" above floor to within 12" of the top of the box. Place steps in wall without pipe openings.
- Details shown apply to both metal and concrete pipe.
- Pipe(s) can be placed in any wall.
- Curb section shall match adjacent curb.
- Basin floors shall have wood trowel finish and a minimum slope of 1/2:3 from all directions toward outlet pipe.
- Galvanizing - See Standard Specifications or Special Provisions.
- Cast-In-Place or Precast alternative is optional with Contractor.
- Set inlet so that grate bars are parallel to direction of principal surface flow.
- See "Standard Grate Details" D77 for Grate and Frame details and Weights of Miscellaneous Iron and Steel.



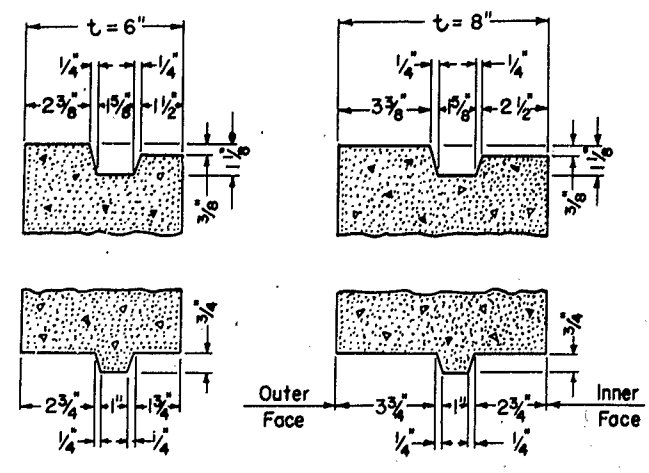
SECTION B-B



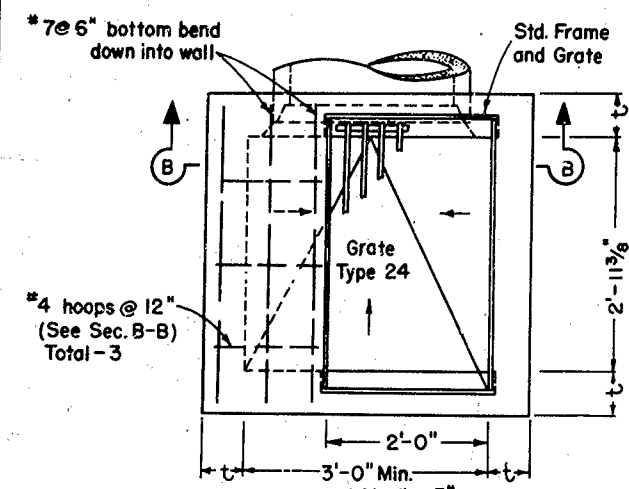
SECTION D-D



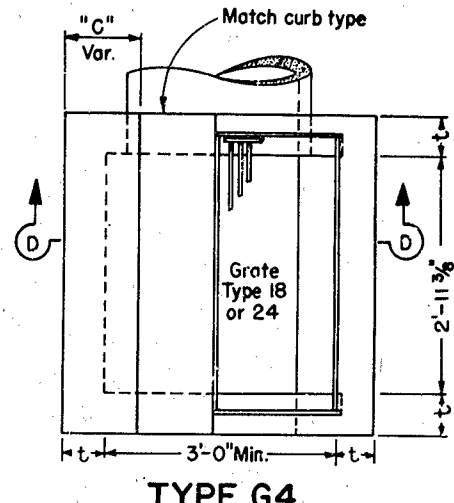
SECTION F-F



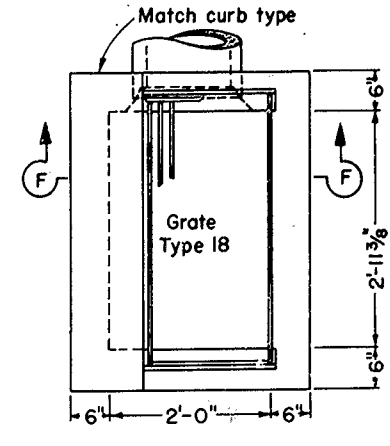
JOINT DETAIL



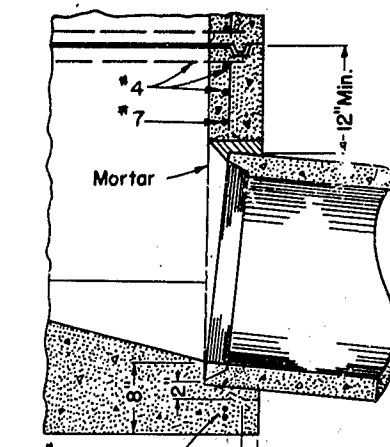
TYPE G2



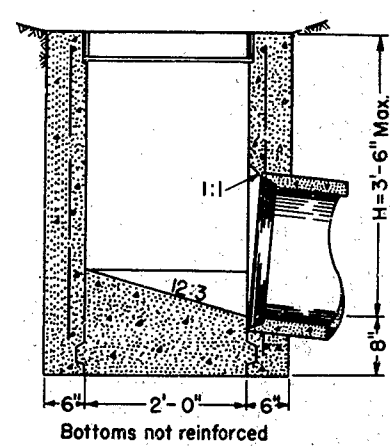
TYPE G4



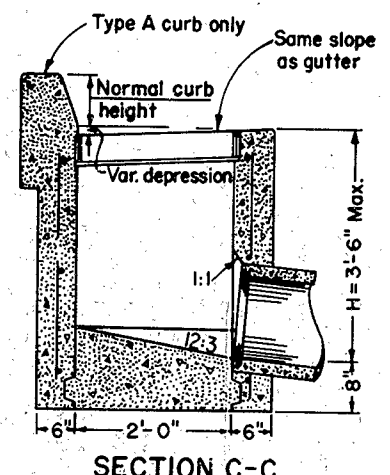
TYPE G6



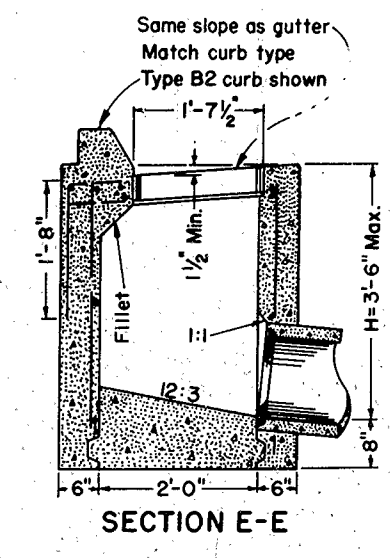
SECTION G-G



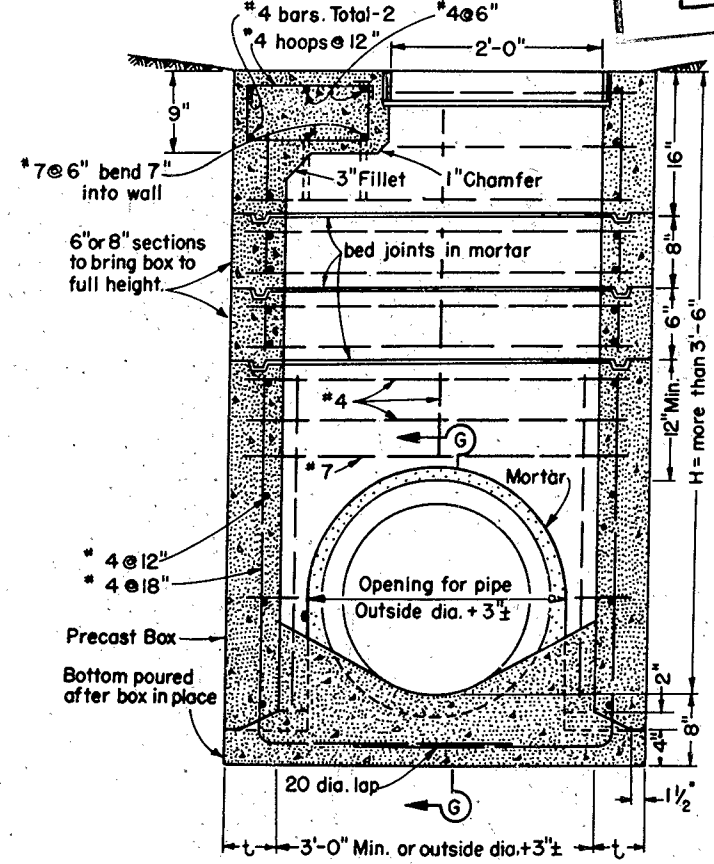
SECTION A-A



SECTION C-C

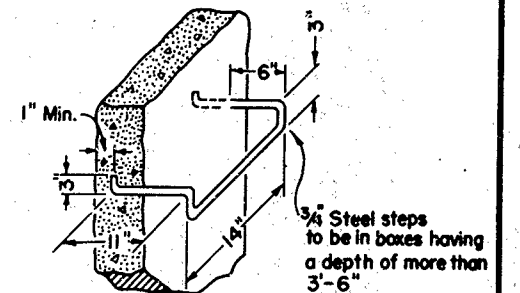


SECTION E-E

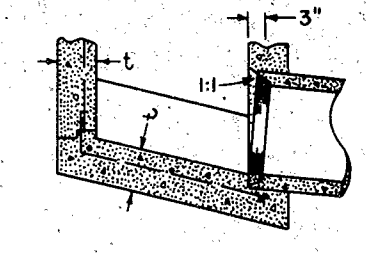


TYPICAL SECTION (INLETS PRECAST IN SECTIONS)

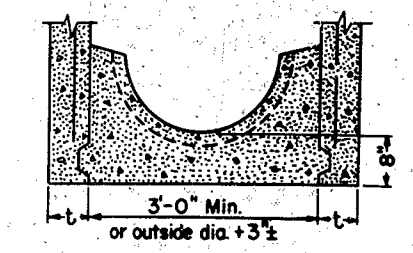
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376



STEP DETAIL



ALTERNATIVE REINFORCED BOTTOM



ALTERNATIVE HALF ROUND BOTTOM

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

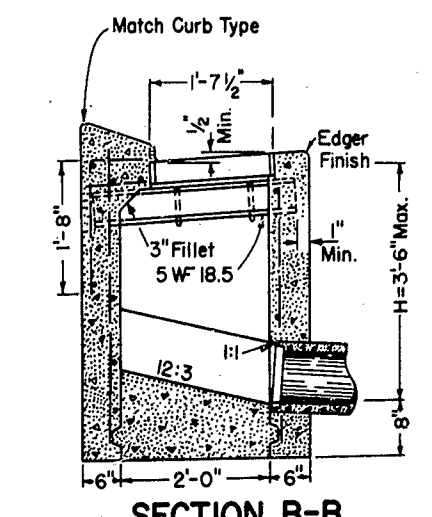
STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD STORM DRAIN INLETS D73-5

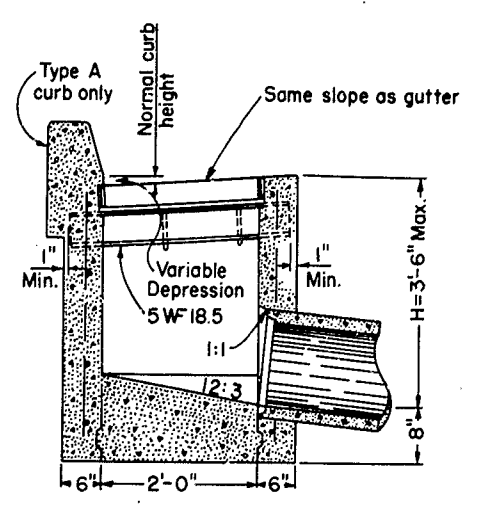
62

To accompany plans dated January 6, 1964
 DISTRICT COUNTY ROUTE SECTION
 177 San Diego 11 B, A, F01 63 171
 APPROVAL RECOMMENDED
 17.11 2.4

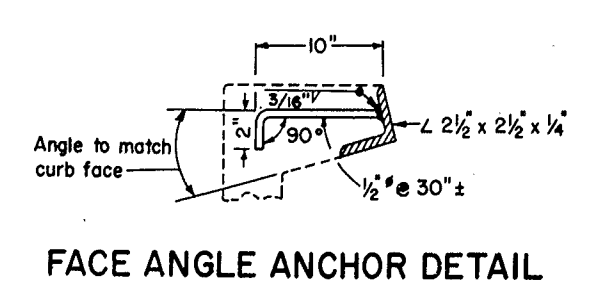
H. H. Hansen
 Engineer of Design
 Civil Engineer License No. 7808
 Approved July 9, 1963
J. Marshall
 State Highway Engineer
 Civil Engineer License No. 5948



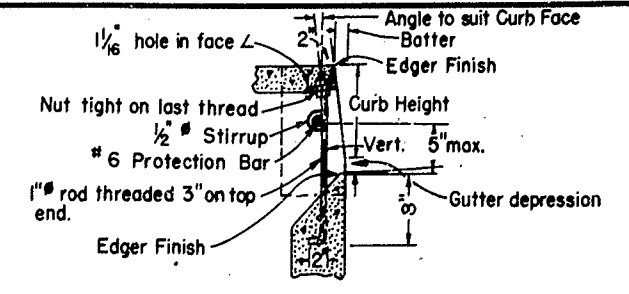
SECTION B-B



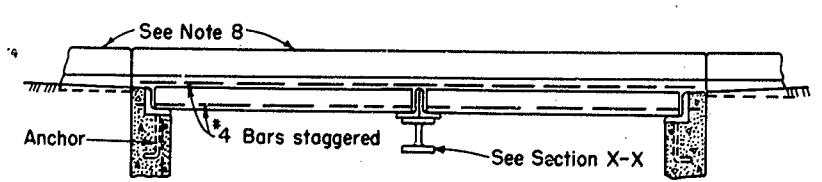
SECTION D-D



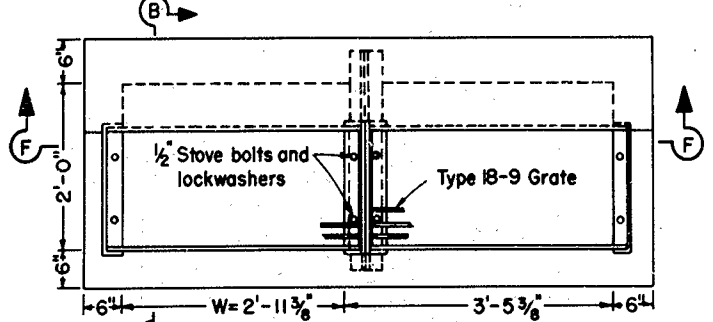
FACE ANGLE ANCHOR DETAIL



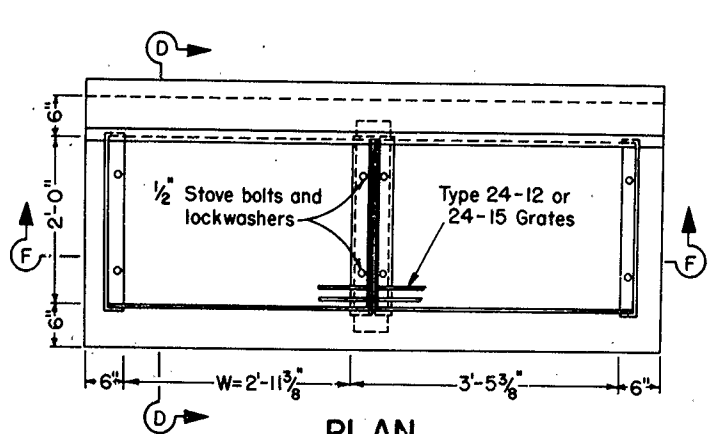
PROTECTION BAR DETAIL
(See Note No. 6)



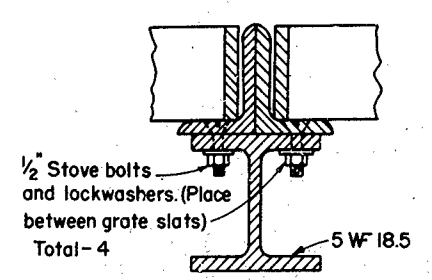
SECTION F-F



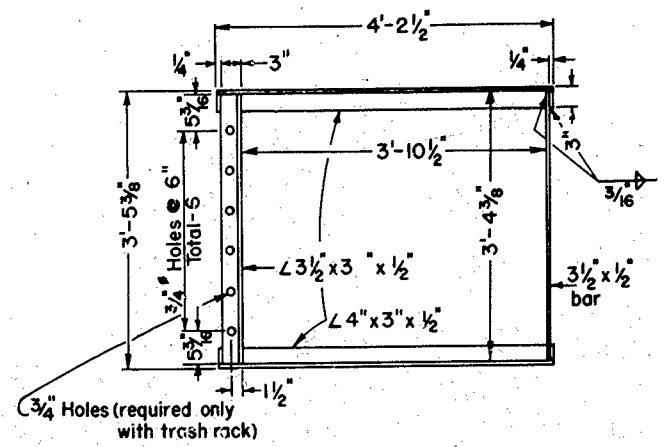
PLAN TYPE GT1



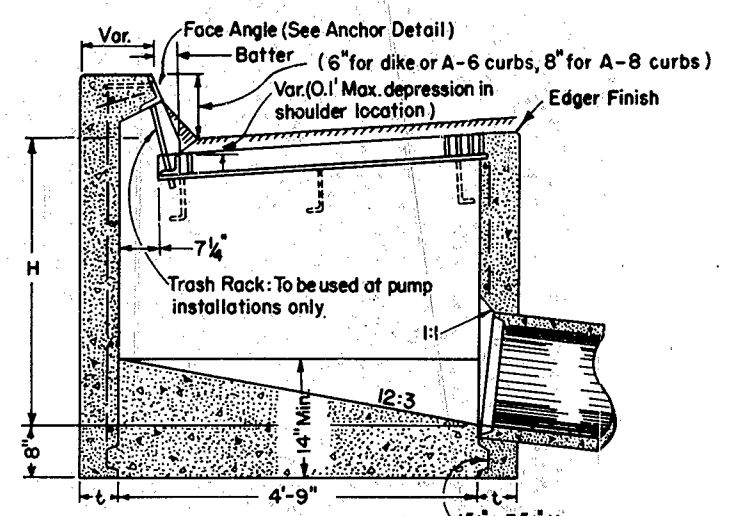
PLAN TYPE GT3



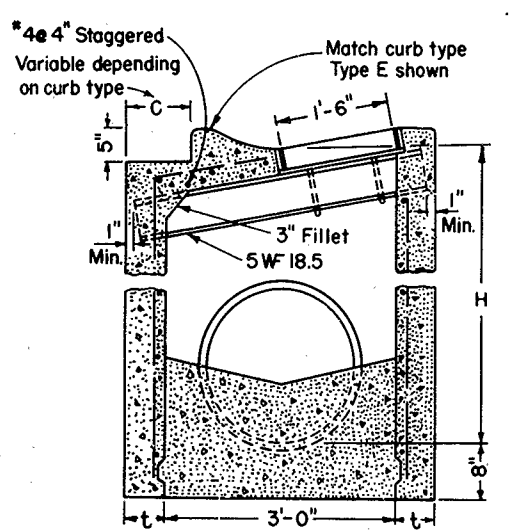
SECTION X-X



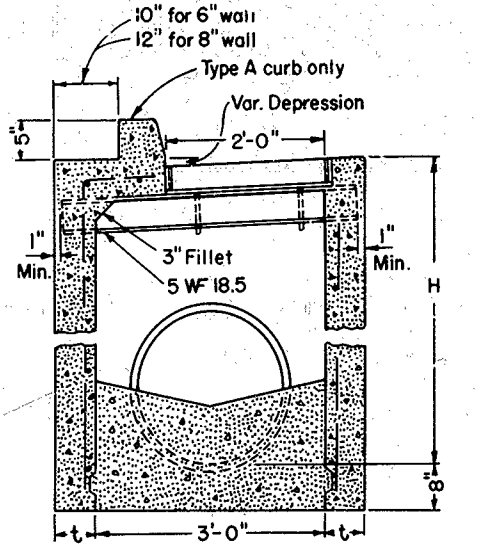
GRATE FRAME DETAIL



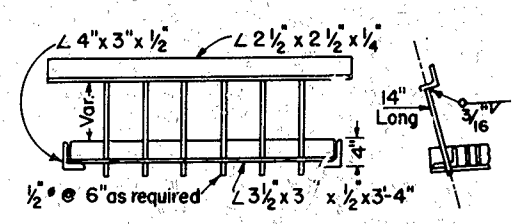
SECTION A-A



SECTION C-C

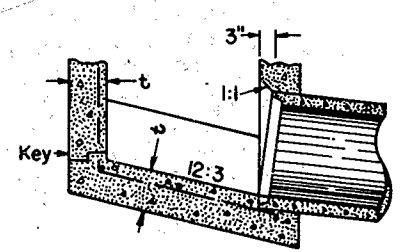


SECTION E-E

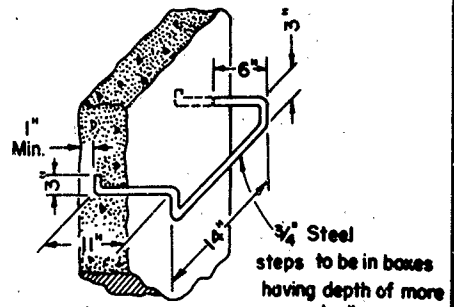


TRASH RACK
(For use with pump installation)

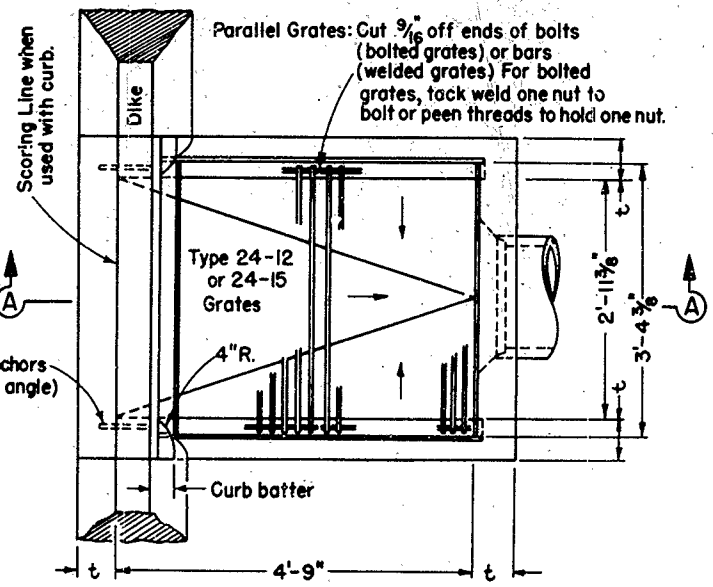
H	t
8'-0" or Less	6"
8'-1" to 20'-0"	8"



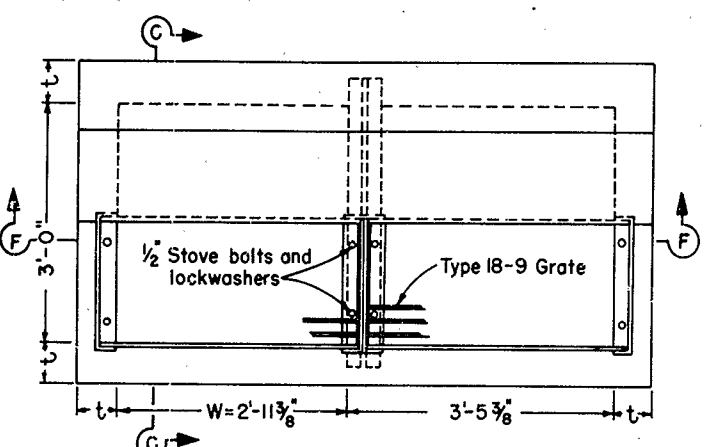
ALTERNATIVE REINFORCED BOTTOM



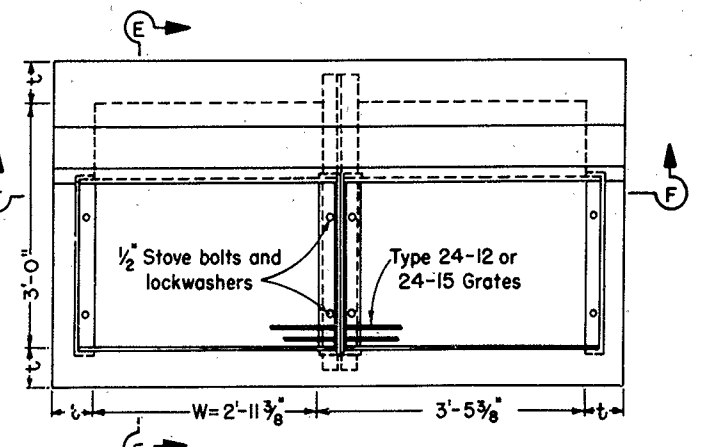
STEP DETAIL



PLAN TYPE GDO



PLAN TYPE GT2



PLAN TYPE GT4

- GENERAL NOTES
- "H" is the difference in elevation between the outlet pipe flow line and the normal gutter grade line undepressed.
 - For "t" wall thickness, see table.
 - Reinforcing steel in walls shall be #4 bars @ 18" centers placed 1 1/2" clear to inside of box unless otherwise shown.
 - Steps - None required where "H" is 3'-6" or less. Install one step 16 1/2" above floor when "H" is more than 3'-6" and less than 5'-0". Where "H" is more than 5'-0", steps shall be evenly spaced @ 12 1/2" intervals from 16 1/2" above floor to within 12 1/2" of the top of the box. Place steps in wall without pipe openings.
 - When shown on the plans, place a #6 protection bar horizontally across the length of the opening and bend back 4" into the inlet wall on each side.
 - Curb openings longer than 7' shall have one curb support for each additional 7' increment or fraction thereof.
 - Pipe(s) can be placed in any wall.
 - Curb section shall match adjacent curb.
 - Basin floors shall have wood trowel finish and a minimum slope of 1:2.3 from all directions toward outlet pipe.
 - Galvanizing: See Standard Specifications or Special Provisions.
 - W = 2'-11 3/8" for one grate. Add 3'-5 3/8" for additional grates in tandem.
 - See "Standard Grate Details" D77- for Grate and Frame details and Weights of Miscellaneous Iron and Steel.
 - See Standard Plan D78- or D79- for Depression Details.
 - Full penetration butt welds may be substituted for the fillet welds on all anchors.
 - Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS
STANDARD STORM DRAIN INLETS D74-4

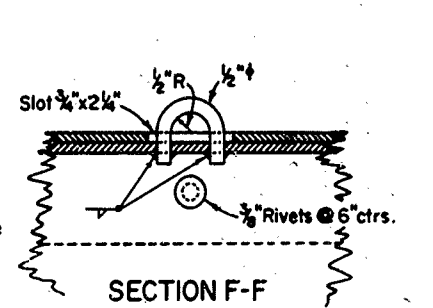
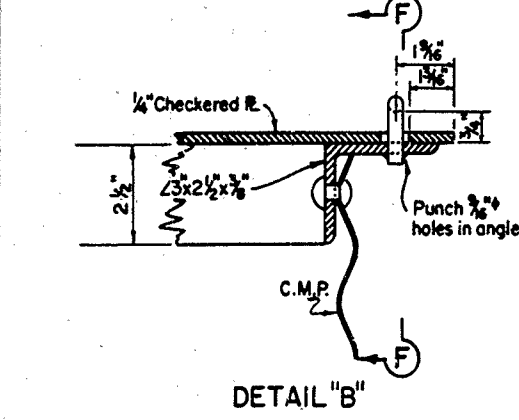
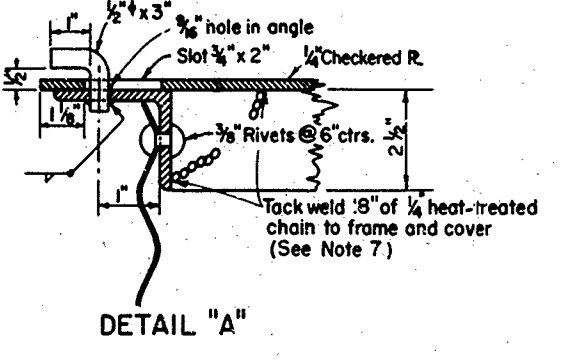
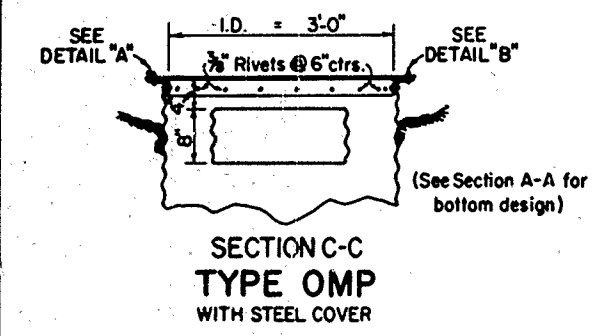
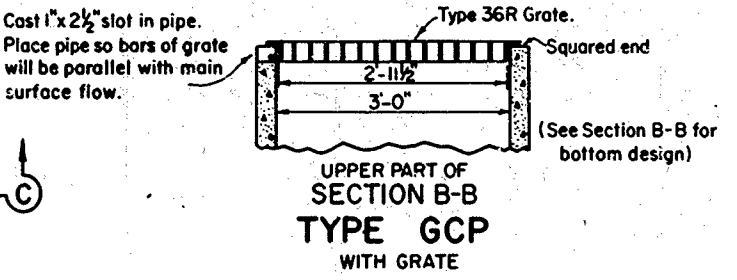
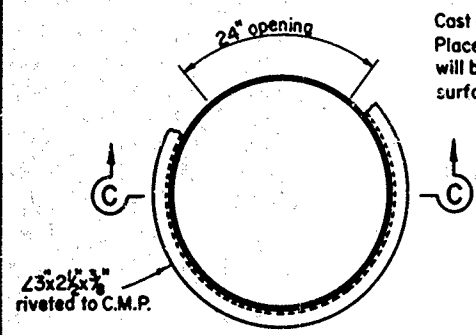
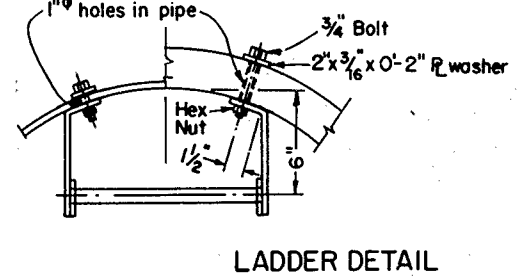
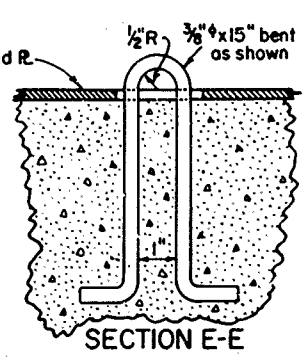
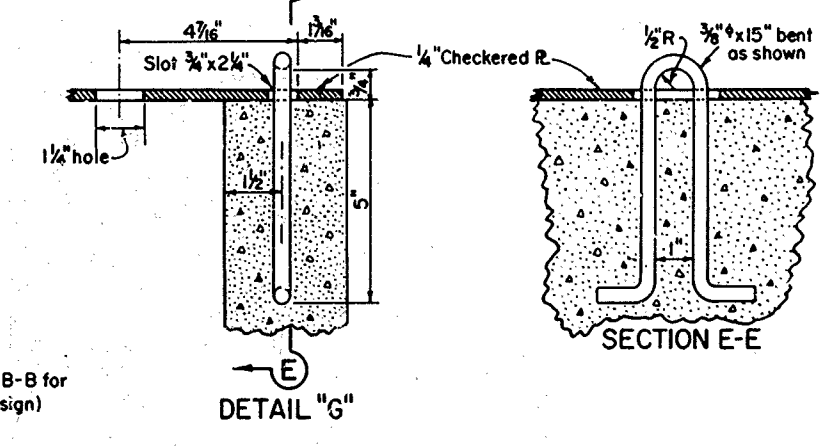
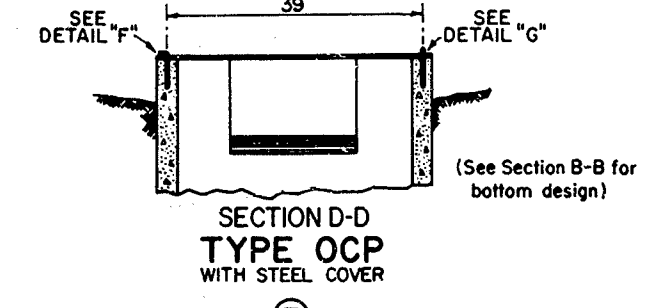
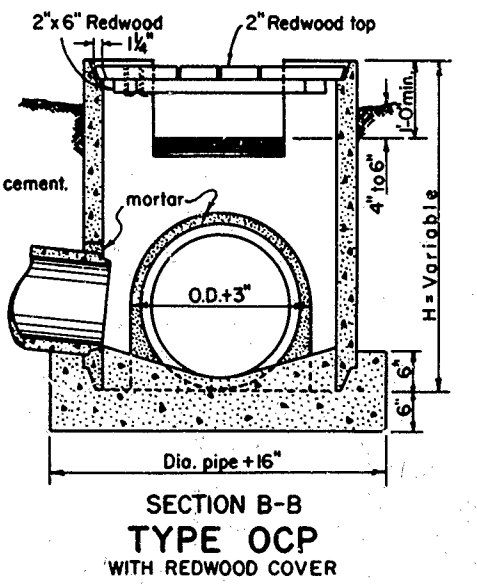
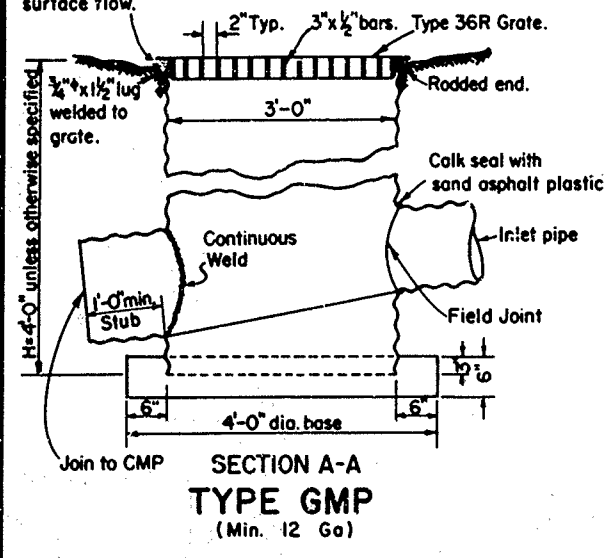
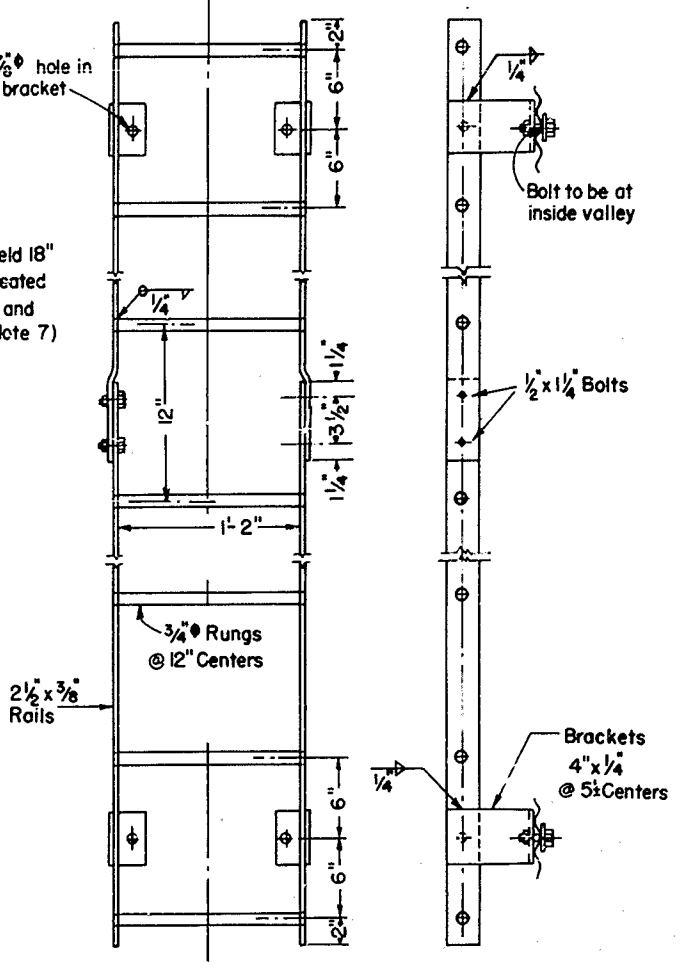
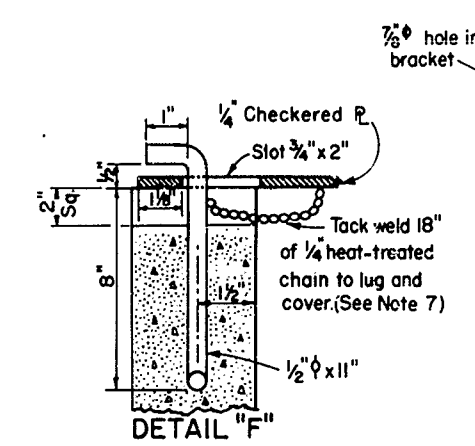
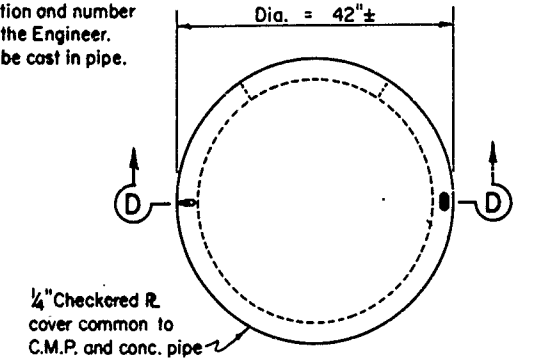
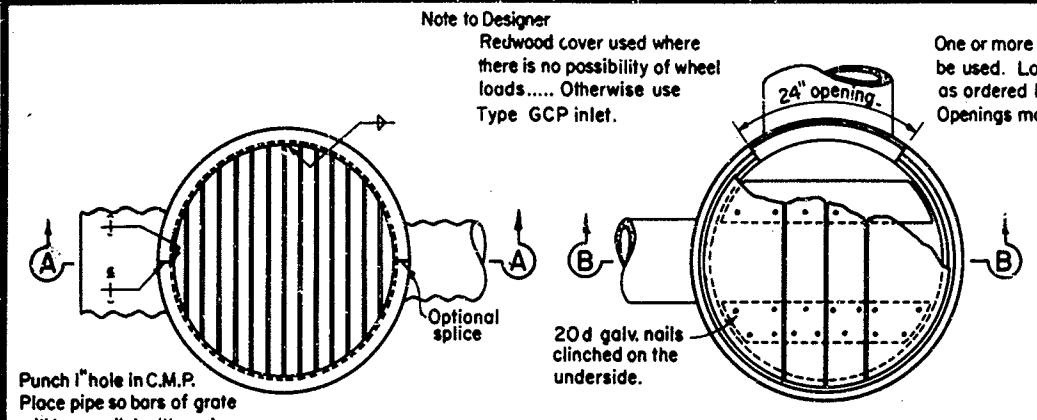
AS BUILT PLANS
 Contract No. 23-074024
 Date Completed 12-65
 Document No. 30000376

To accompany plans dated January 6, 1964
 APPROVAL RECOMMENDED

H. P. Hanson
 Engineer of Design
 Civil Engineer License No. 7803
 Approved July 9, 1965
J. [Signature]
 State Highway Engineer
 Civil Engineer License No. 2848

GENERAL NOTES

- Ladders - None required where "H" is 3'-6" or less. Where "H" is more than 3'-6" place lower rung at 16" above floor and top rung within 12" of the top of the box. Place ladders in wall without pipe openings.
- Inlet pipes shall not protrude more than 1 1/2" into basin.
- Except for inlets used as junction boxes, basin floors shall have a minimum slope of 1:2:3 from all directions toward outlet pipe, and a wood trowel finish.
- Galvanizing: see Standard Specifications or Special Provisions.
- See "Standard Plan" D77- for Grate and Frame Details and Weights of Miscellaneous Iron and Steel.
- Price paid for GMP Drop Inlet shall include outlet stub.
- Chain to be provided when specified.
- Ladder to be used on both C.M.P. and R.C.P. inlets.



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

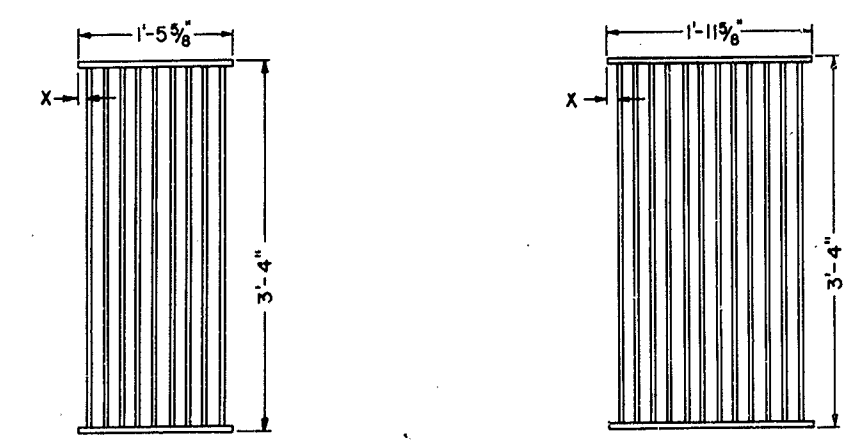
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STANDARD PIPE DROP INLETS

64

G. L. Starker
 Engineer of Design
 Civil Engineer License No. 7803
 Approved May 23, 1963
Donald
 State Highway Engineer
 Civil Engineer License No. 5845

- GENERAL NOTES**
1. Grate type numbers refer to width of grate in inches and number of bars, respectively.
 2. Contractor has the option of using cast nodular iron, cast steel, welded, bolted or cast end block grate.
 3. Grates and frames may be galvanized or asphalt dipped. See Standard Specifications or Special Provisions.
 4. Rounded top of bars optional on all grates.
 5. Pipe drop inlets with a grate shall be placed so that bars parallel direction of principle surface flow.
 6. Full penetration butt welds may be substituted for the fillet welds on all anchors.
 7. Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.



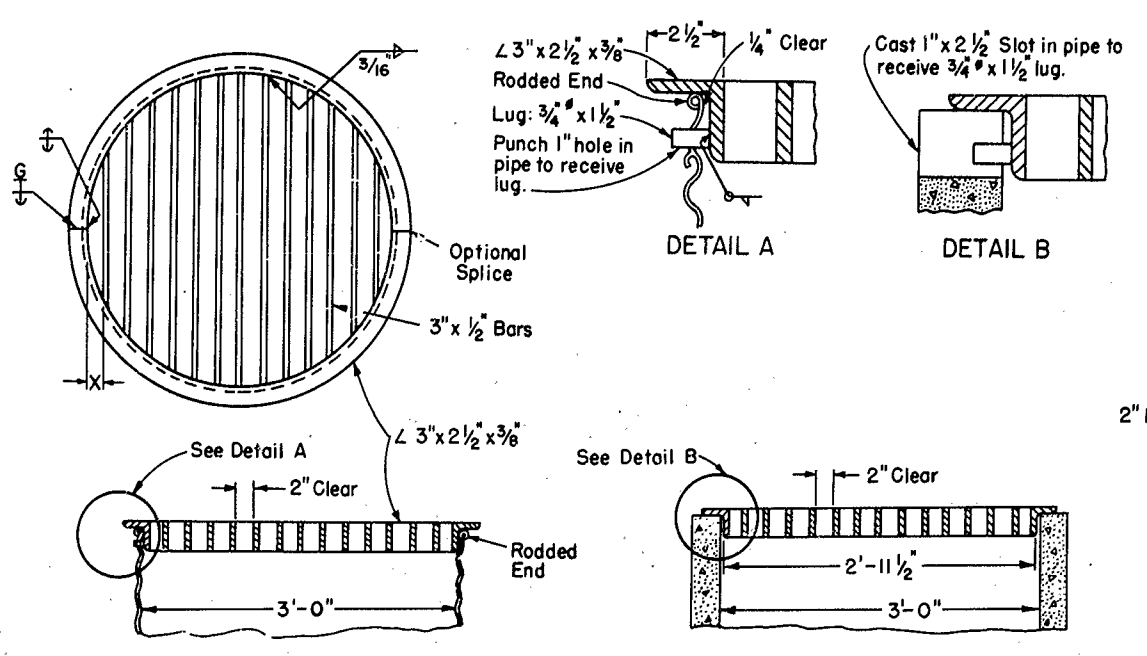
TYPE 18-9
 1 3/8" Clear Spacing
 Use within the roadbed on highways where bicycles and pedestrians are excluded. - or for rural conditions.

TYPE 24-15
 1" Clear Spacing
 Use within the roadbed under urban conditions where bicycles and pedestrians are permitted.

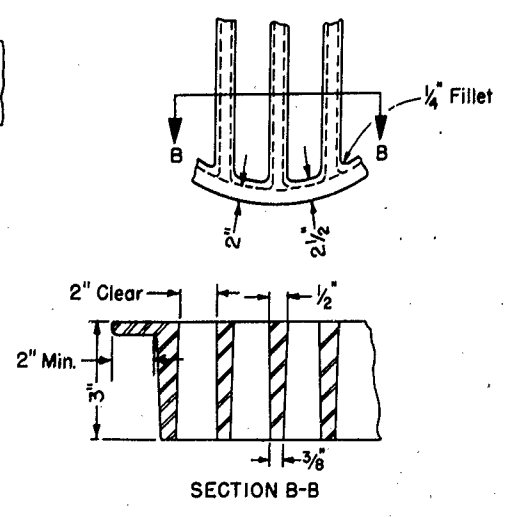
TYPE 24-12
 1 3/8" Clear Spacing
 Use within the roadbed on highways where bicycles and pedestrians are excluded. - or for rural conditions.

TYPE 24-9
 2" Clear Spacing
 Use in locations off the roadbed on all types of highways.

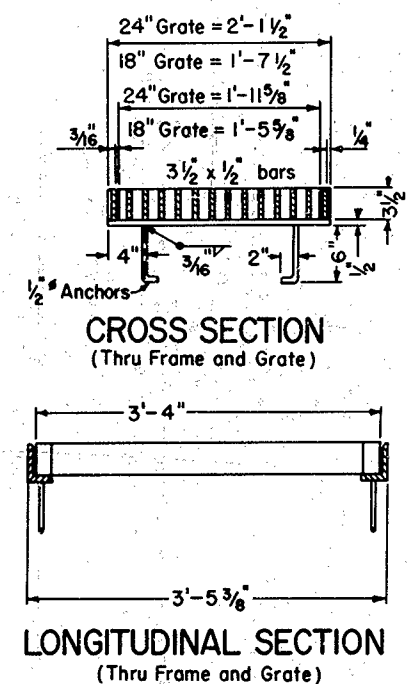
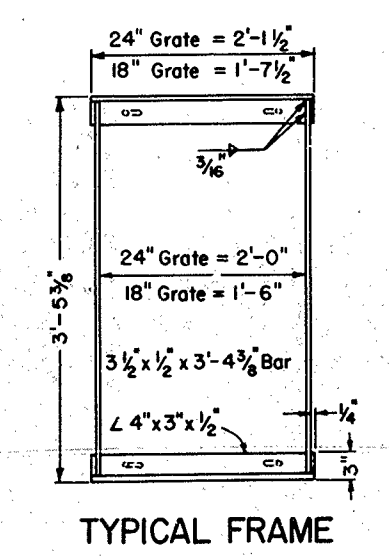
RECTANGULAR GRATE DETAILS
 (SEE TABLE BELOW)



TYPE 36R GRATE DETAILS



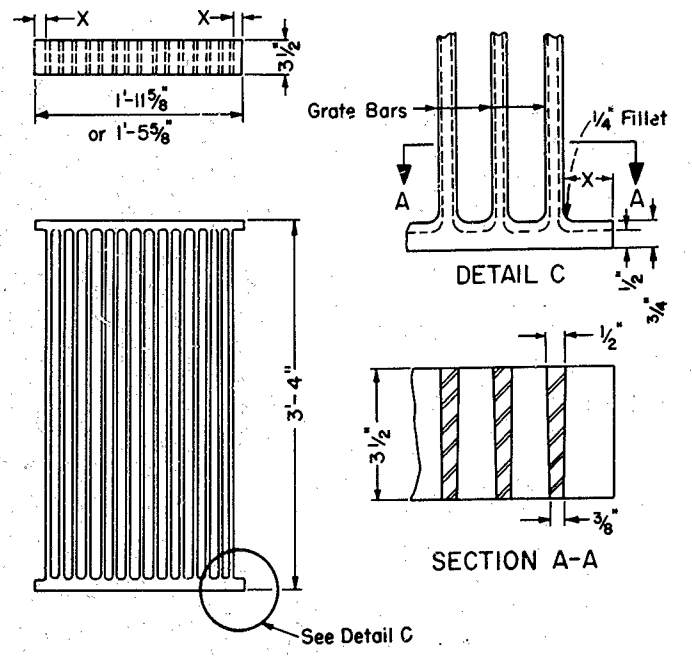
ALTERNATIVE CAST NODULAR IRON GRATE OR CAST STEEL GRATE TYPE 36R



RECTANGULAR FRAME DETAILS
 (For all Rectangular Grates)

GRATE BAR SPACING TABLE

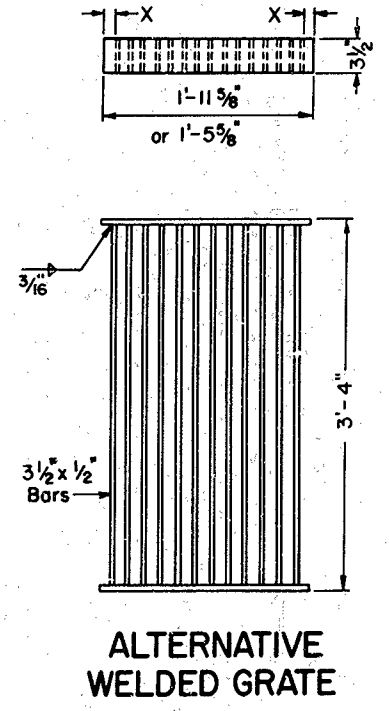
TYPE	NO. BARS	CLEAR BAR SPACING	X
18-9	9	1 7/8"	1 1/16"
24-9	9	2"	1 9/16"
24-12	12	1 3/8"	1 1/4"
24-15	15	1"	1 1/16"
36R	13	2"	2 1/4"



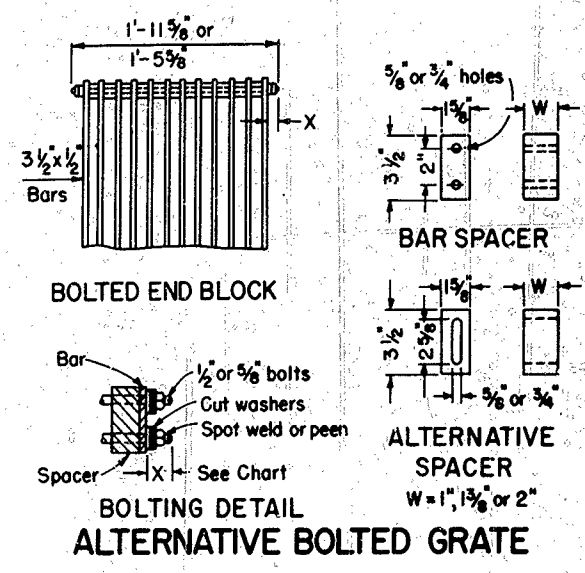
ALTERNATIVE CAST NODULAR IRON GRATE OR CAST STEEL GRATE

INLET TYPE	GRATE TYPE	WEIGHT	PROTECT. BAR WT.
GDO	24-12	642	5
	24-15	744	5
GOL-7	24-12	380	12
	24-15	430	12
GOL-10	24-12	406	16
	24-15	456	16
G1,G2,G3,G4(24")	24-9	270	
	24-12	321	
	24-15	371	
G4(18") G5,G6	18-9	251	
GT-1	18-9	555	
GT-2	18-9	573	
GT-3	24-12	693	
	24-15	795	
GT-4	24-12	712	
	24-15	813	
GMP,GCP	36R	224	
GMPI,GCP1	36R	224	

BASIS FOR MISC. IRON & STEEL FINAL PAY WEIGHTS FOR STORM DRAIN INLETS



ALTERNATIVE CAST NODULAR IRON OR CAST STEEL END BLOCK GRATE



ALTERNATIVE BOLTED GRATE

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Conf. No. 074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD GRATE DETAILS D77-5

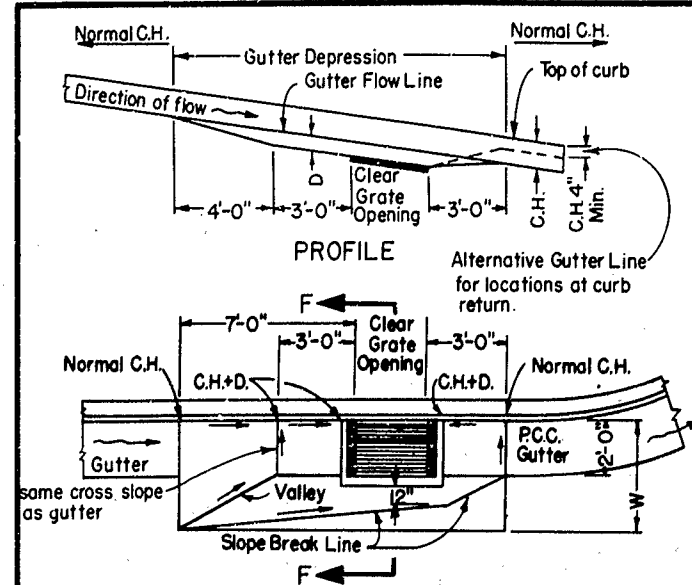
65

To accompany plans dated January 6, 1964

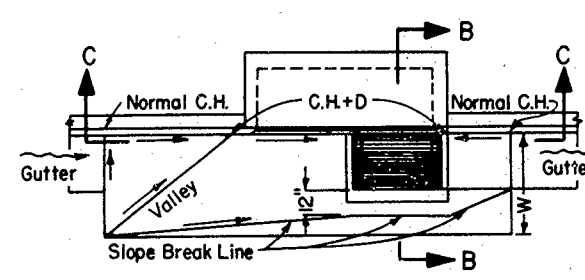
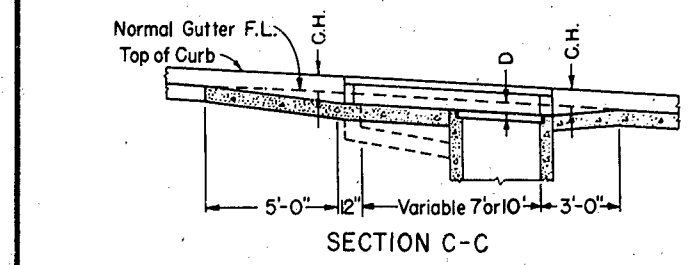
DISTRICT	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
111	San Diego	11	B-A, Fog	66	171

APPROVAL RECOMMENDED

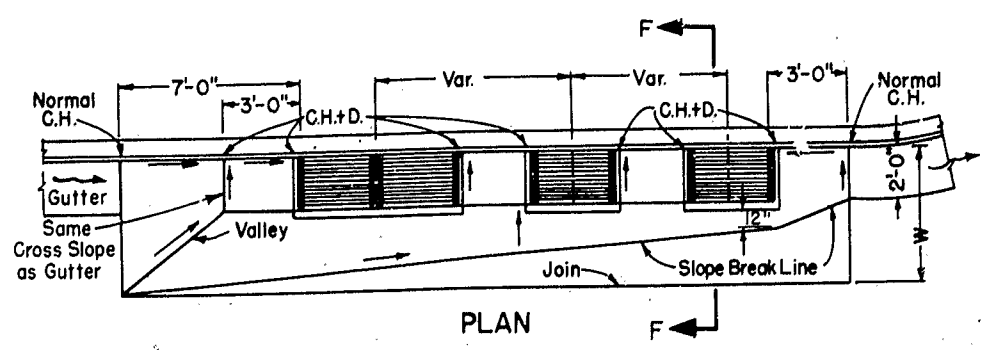
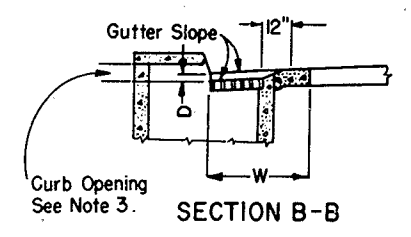
W. L. Warner
 Engineer of Design
 Civil Engineer License No. 7603
 Approved February 5, 1962
Quinn
 State Highway Engineer
 Civil Engineer License No. 5945



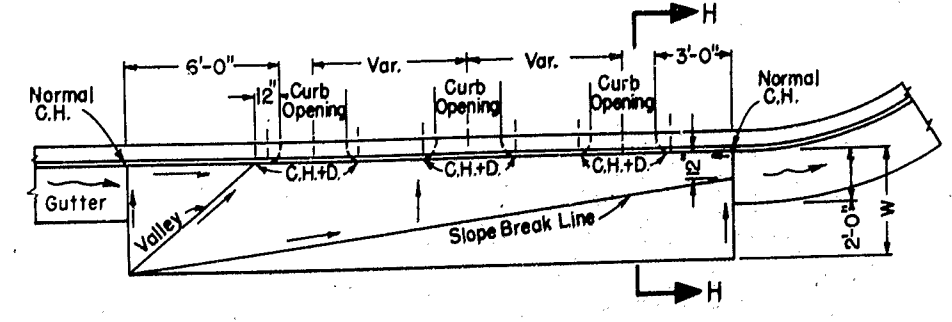
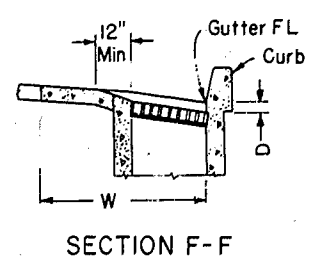
TYPE G₁ THRU G₆ INLETS ON GRADE



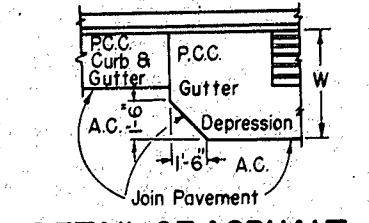
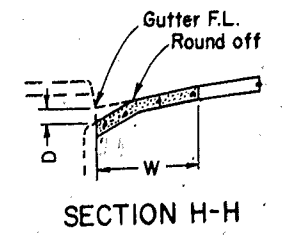
TYPE G0L INLET ON GRADE



GRATE INLET IN SERIES



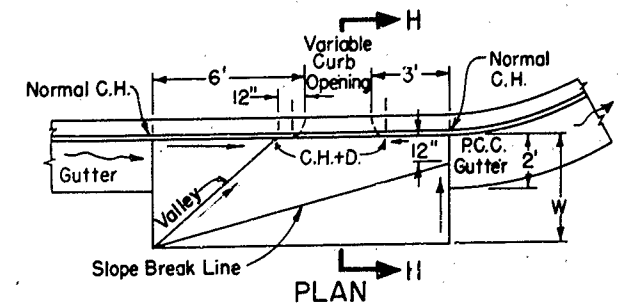
TYPE OS & OL INLETS IN SERIES ON GRADE



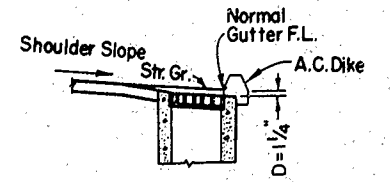
DETAIL OF ASPHALT CONCRETE PAVEMENT
 (See Note 4)

GENERAL NOTES

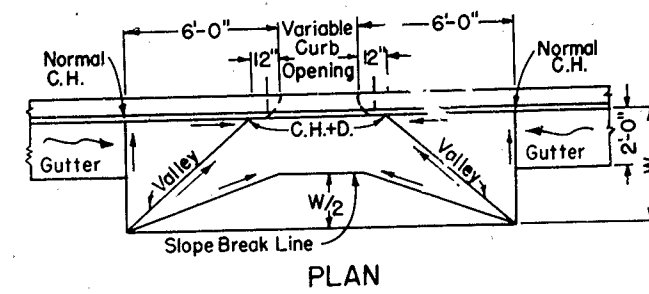
1. W = Width of depressed apron and shall be 4' on shoulders and 4' to 6' in city street gutters unless otherwise shown.
 D = Gutter Depression. It shall be 1/4" for shoulders and 1/4" to 3/8" in city street gutters or locations outside of shoulders unless otherwise shown.
 C.H. = Curb Height.
 — = Straight Grade, Downward Slope.
 ~ = Gutter or Shoulder direction of flow.
2. Gutter depressions shall be Class "B" P.C.C. 8" thick.
3. Establish curb opening height at midpoint of grate.
4. Details shown for P.C.C. pavement. When A.C. pavement is used corners to be cut off as shown on Detail of Asphalt Concrete Pavement.



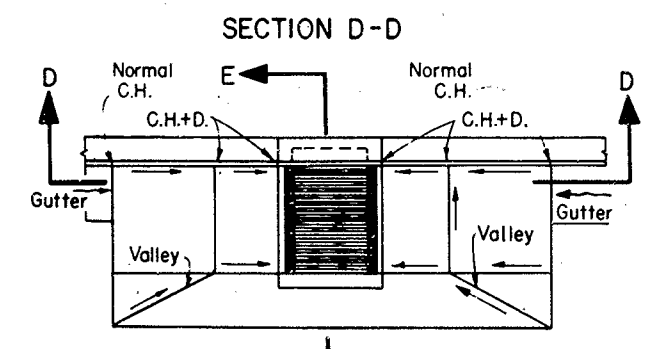
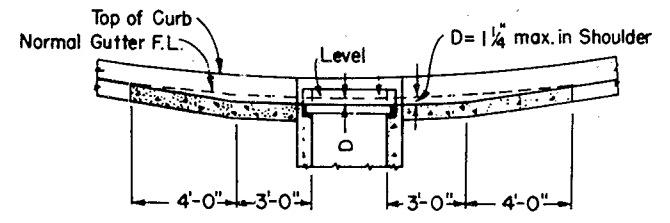
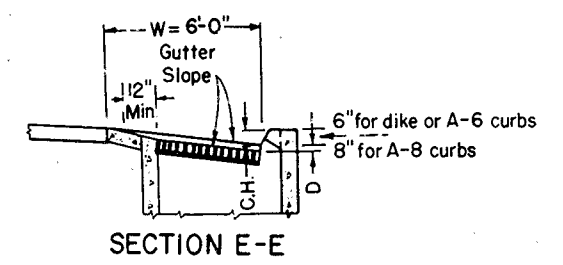
TYPE OS & OL INLETS ON GRADE



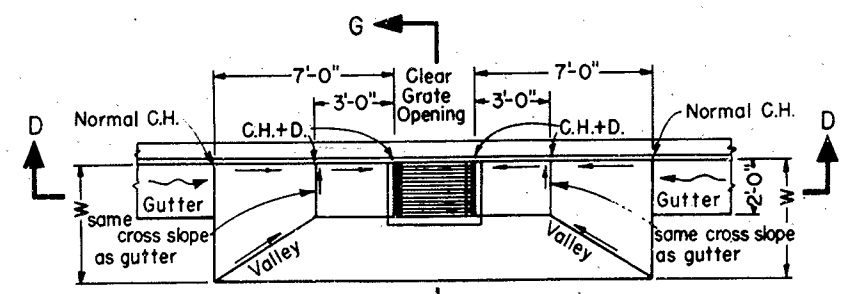
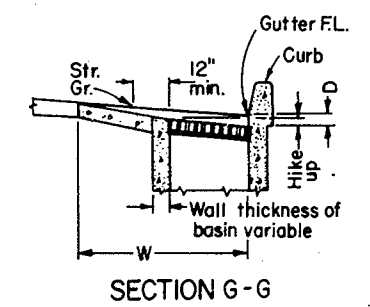
DETAIL OF INLET WITH DIKE
 (SINGLE GRATE SHOWN)



TYPE OS & OL INLETS IN GRADE SAG



TYPE GDO INLET IN GRADE SAG



TYPE G₁ THRU G₆, GT₃ & GT₄ INLETS IN GRADE SAG

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD GUTTER DEPRESSIONS D78

To accompany plans dated January 6, 1964

SAC ED 50-17.1 / 2.4

DATE	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
11/1	SAC ED	-11	BA-PD	67	171

DATE APPROVED October 4, 1960

STATE HIGHWAY ENGINEER CIVIL ENGINEER LICENSE NO. 5945

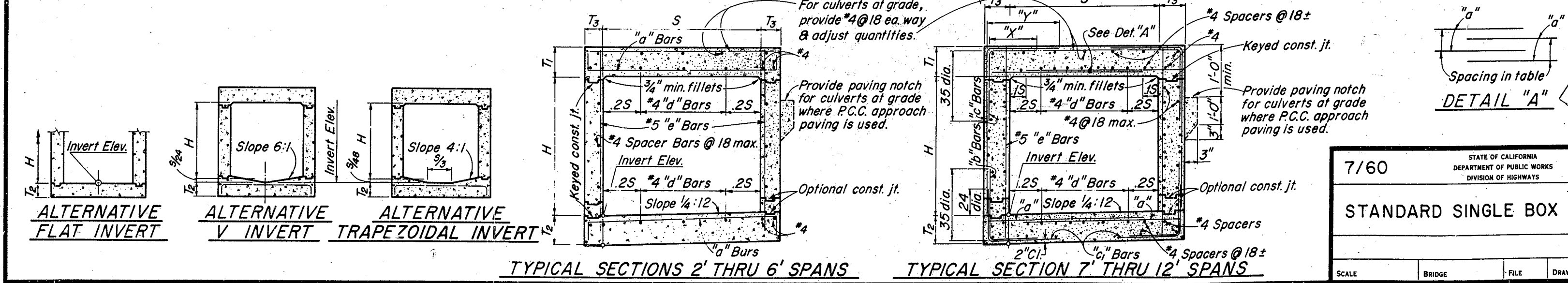
SPAN	2'			3'			4'			5'			6'		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
HEIGHT	1'6"	2'	2'3"	2'3"	3'	3'6"	3'6"	4'	4'6"	4'6"	5'	5'6"	5'6"	6'	6'6"
STRENGTH CLASSIFICATION	A	A	A	B	A	B	A	B	C	A	B	C	A	B	C
MAX. FILL OVER TOP	66	38	38	66	28	28	37	28	37	50	12	27	11	26	35
Top Slab	T ₁	6	6	6 1/4	6 1/4	8	7	7	8	7 1/2	8	8	8 1/2	8 1/2	10
Bottom Slab	T ₂	6	6	6 1/4	6 1/4	8	7	7	8	7 1/2	8	8	8 1/2	8 1/2	10
Sidewalls	T ₃	6	6	6	6	6	6	6	6	6	6	6	6	6	6
"a" Size: Bar #	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5
"a" Spacing	3 1/2	3 1/2	3 1/2	3 1/2	4	4	4 1/2	4 1/2	5	4 1/2	4	4	4	4	4
"a" Length	3-2	3-2	4-2	4-2	4-3	5-3	5-3	5-3	5-3	5-3	5-2	6-3	6-3	6-2	6-2
"d" Dist. Top Slab - No. of Bars	2	2	3	3	2	5	5	3	5	3	3	3	3	3	3
"e" Bars Spacing	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
"e" Bars Spacers Number	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Concrete: C.Y. per lin. ft.	.17	.18	.23	.27	.31	.29	.33	.36	.36	.40	.43	.32	.37	.40	.41
Reinf. lbs. per lin. ft.	27	29	34	36	46	44	45	47	48	52	64	57	56	59	57
Area	A	3	4	6	9	8	12	16	10	15	20	25	12	18	24
Hydraulic Radius	R	.43	.50	.60	.75	.67	.86	1.00	.71	.94	1.11	1.25	.75	1.00	1.20
Neutral Slope	%	.83	.91	.73	.82	.64	.70	.77	.59	.62	.67	.73	.53	.56	.59
Head Factor	k	1.30	1.07	.85	.65	.75	.55	.45	.69	.49	.39	.34	.645	.45	.358
Entrance Capacity	Q ₁₀	11	17	26	48	35	64	99	43	80	123	172	207	272	343
Design Discharge	Q ₁₀₀	18	28	43	79	58	107	163	71	132	203	284	341	448	565

Note:
For boxes of height less than that shown in table, use next greater table height slabs, wall dimensions and reinforcing steel, and make necessary changes in bar lengths, number of spacers and quantities.

SPAN	7'			8'			10'			12'		
	A	B	C	A	B	C	A	B	C	A	B	C
HEIGHT	3'	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
STRENGTH CLASSIFICATION	A	B	C	A	B	C	A	B	C	A	B	C
MAX. FILL OVER TOP	16	26	16	26	35	16	26	35	13	21	13	21
Top Slab	T ₁	7 1/4	8 1/4	7 1/4	8 1/4	9 1/4	7 1/4	8 1/4	9 1/4	7 1/4	8 1/4	9 1/4
Bottom Slab	T ₂	7 1/2	8 1/2	7 1/2	8 1/2	9 1/2	7 1/2	8 1/2	9 1/2	7 1/2	8 1/2	9 1/2
Sidewalls	T ₃	6	7	6	7	8 1/2	6	7	8 1/2	6	7	8 1/2
"a" Size: Bar #	5	5	5	5	5	5	5	5	5	5	5	5
"a" Spacing	5	5	5	5	5	5	5	5	5	5	5	5
"a" Length	6-8	6-9	6-8	6-9	6-8	6-9	6-8	6-9	6-7	7-7	7-8	7-8
"b" Size: Bar #	5	5	5	5	5	5	5	5	5	5	5	5
"b" Spacing	9	7	9	7	9	9	7	9	9	7	9	9
"b" Dimension "x"	1-3	1-4	1-3	1-4	1-3	1-4	1-3	1-4	1-3	1-4	1-3	1-4
"b" Length	3-1	3-2	3-1	3-2	3-1	3-2	3-1	3-2	3-1	3-2	3-1	3-2
"c" Size: Bar #	5	5	5	5	5	5	5	5	5	5	5	5
"c" Spacing	9	7	9	7	9	9	7	9	9	7	9	9
"c" Dimension "y"	1-10	1-11	1-10	1-11	1-10	1-11	1-10	1-11	1-10	1-11	1-10	1-11
"c" Length	5-2	5-4	6-2	6-4	7-2	7-4	7-10	8-2	8-4	8-10	9-2	9-4
"d" Top Slab - No. of Bars	7	4	7	4	7	4	7	4	7	4	7	4
"d" Bottom Slab - No. of Bars	7	4	7	4	7	4	7	4	7	4	7	4
"e" Bars Spacing	18	18	18	18	18	18	18	18	18	18	18	18
Spacers Total Number	24	28	28	32	36	28	32	36	40	40	44	52
Concrete: C.Y. per lin. ft.	.47	.56	.51	.60	.55	.64	.78	.58	.68	.84	.62	.73
Reinf. lbs. per lin. ft.	107	130	114	138	118	143	168	125	150	176	132	158
Area	A	21	28	35	42	49	52	60	74	80	88	112
Hydraulic Radius	R	1.05	1.27	1.46	1.62	1.75	1.91	2.00	2.15	2.22	2.37	2.50
Neutral Slope	%	0.92	0.94	0.57	0.61	0.64	0.50	0.52	0.54	0.56	0.62	0.47
Head Factor	k	0.423	0.332	0.281	0.247	0.224	0.404	0.314	0.262	0.229	0.206	0.189
Entrance Capacity	Q ₁₀	112	173	241	317	400	428	197	276	362	457	558
Design Discharge	Q ₁₀₀	185	285	398	523	659	212	326	455	597	753	921

AS BUILT PLANS
 Contract No. 02-074024
 Date Completed 12-65
 Document No. 30000374

AS BUILT PLANS
 Contract No. 02-074024
 Completed 12-65



7/60

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

STANDARD SINGLE BOX CULVERTS

SCALE BRIDGE FILE DRAWING **D80**

PREL. DRAWING NO. P.

STANDARD DRAWING
 DESIGNED BY
 CHECKED BY
 APPROVED BY
 DATE

Approved: *[Signature]*
 DATE APPROVED: October 4, 1960
 SAC: 50-17.1/ 2.4
 STATE HIGHWAY ENGINEER
 CIVIL ENGINEER LICENSE NO. 5945

To accompany plans dated January 6, 1964

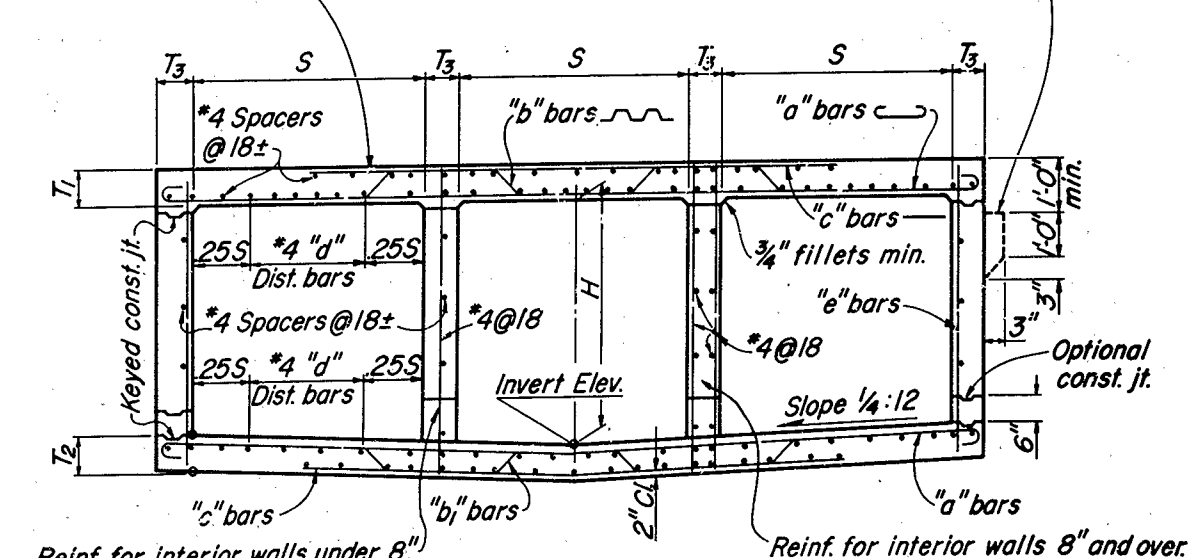
Note:
 For boxes of height less than that shown in table, use next greater table height slabs, wall dimensions and reinforcing steel, and make necessary changes in bar lengths, number of spacers and quantities.

SPAN HEIGHT	4'			5'			6'			8'						
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
STRENGTH CLASSIFICATION	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
MAX. FILL OVER TOP	10 24 38	10 24 38	10 24 38	17 26 35	17 26 35	17 26 35	23 32 41	23 32 41	23 32 41	30 39 48	30 39 48	30 39 48	37 46 55	37 46 55	37 46 55	
Conc.																
Top Slab	T ₁	6 1/4	6 1/4	7 1/4	6 1/4	6 1/4	7 1/4	6 1/4	6 1/4	7 1/4	6 1/4	6 1/4	7 1/4	6 1/4	6 1/4	7 1/4
Bottom Slab	T ₂	6	7	8 1/4	6	7	8 1/4	6	7	8 1/4	6	7	8 1/4	6	7	8 1/4
Sidewalls	T ₃	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Reinforcing Steel																
a	Size: Bar #	5	4	5	5	4	5	5	4	5	5	4	5	5	4	5
	Spacing	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13
	Length	14-9	14-8	14-9	14-9	14-8	14-9	14-9	14-8	14-9	14-9	14-8	14-9	14-9	14-8	14-9
b	Size: Bar #	5	5	6	5	5	6	5	5	6	5	5	6	5	5	6
	Spacing	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13
	Length	14-2	14-2	14-3	14-2	14-2	14-3	14-2	14-2	14-3	14-2	14-2	14-3	14-2	14-2	14-3
c	Size: Bar #	4	5	6	4	5	6	4	5	6	4	5	6	4	5	6
	Spacing	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13	11	11 1/2	13
	Length	9-0	9-0	9-0	9-0	9-0	9-0	9-0	9-0	9-0	9-0	9-0	9-0	9-0	9-0	9-0
d	Dist. Bars	15	9	15	15	9	15	15	9	15	15	9	15	15	9	15
e	Bars	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
f	Bars	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
g	Spacers Number	34	38	42	34	38	42	34	38	42	34	38	42	34	38	42
Hydraulics																
Concrete: C.Y. per lin. ft.	0.67	0.71	0.81	0.75	0.79	0.89	0.82	0.86	0.96	0.82	0.87	0.98	0.90	0.95	1.05	
Reinf. : Lbs. per lin. ft.	122	110	133	127	115	138	131	122	147	150	126	153	155	130	157	
Area	24	36	48	30	45	60	36	54	72	42	63	84	108	144	192	
Hydraulic Radius	.67	.86	1.00	.71	.94	1.11	.75	1.00	1.20	.80	1.11	1.33	1.60	2.00	2.50	
Neutral Slope	.64	.70	.77	.59	.62	.67	.64	.68	.73	.77	.82	.87	.92	.97	1.02	
Head Factor	.75	.55	.45	.69	.49	.39	.64	.45	.34	.25	.18	.13	.09	.06	.04	
Entrance Capacity	Q ₁₀	105	192	297	129	240	369	516	688	888	1116	1380	1680	2160	2760	
Design Discharge	Q ₁₀₀	174	321	489	213	396	609	852	1128	1440	1800	2220	2700	3300	4020	

SPAN HEIGHT	10'			12'			
	A	B	C	A	B	C	
STRENGTH CLASSIFICATION	A	B	C	A	B	C	
MAX. FILL OVER TOP	2 11 20	2 11 20	2 11 20	2 11 20	2 11 20	2 11 20	
Conc.							
Top Slab	T ₁	9	10	12	9	10	12
Bottom Slab	T ₂	7 1/2	10 3/4	13	7 1/2	10 3/4	13
Sidewalls	T ₃	6	6	6	6	6	6
Reinforcing Steel							
a	Size: Bar #	5	7	7	5	7	7
	Spacing	10 1/2	13	10 1/2	10 1/2	13	10 1/2
	Length	32-10	32-10	32-10	32-10	32-10	32-10
b	Size: Bar #	6	7	7	6	7	7
	Spacing	10 1/2	13	10 1/2	10 1/2	13	10 1/2
	Length	32-6	32-7	32-10	32-6	32-7	32-10
c	Size: Bar #	5	7	7	5	7	7
	Spacing	10 1/2	13	10 1/2	10 1/2	13	10 1/2
	Length	21-0	21-0	21-0	21-0	21-0	21-0
d	Dist. Bars	27	15	15	27	15	15
e	Bars	15	15	15	15	15	15
f	Bars	4	4	4	4	4	4
g	Spacers Number	68	68	72	68	72	76
Hydraulics							
Concrete: C.Y. per lin. ft.	1.98	2.40	2.82	2.06	2.48	2.90	
Reinf. : Lbs. per lin. ft.	358	372	470	359	379	482	
Area	150	180	210	240	300	360	
Hydraulic Radius	1.67	1.88	2.06	2.22	2.50	2.80	
Neutral Slope	.49	.51	.52	.54	.58	.62	
Head Factor	.238	.205	.183	.165	.143	.121	
Entrance Capacity	Q ₁₀	1035	1359	1713	2094	2928	
Design Discharge	Q ₁₀₀	1704	2241	2823	3450	4680	

For culverts at grade, extend "c" bars full length, provide additional spacers @ 18" and adjust quantities.

Provide paving notch for culverts at grade where P.C.C. approach paving is used.



TYPICAL SECTION

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

8/60
 STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS
STANDARD TRIPLE BOX CULVERTS
 SCALE BRIDGE FILE DRAWING **D82**
 PREL. DRAWING NO. P-

STANDARD DRAWING
 DIVISION OF HIGHWAYS
 DESIGNED BY: *[Name]*
 CHECKED BY: *[Name]*
 APPROVED BY: *[Signature]*

To accompany plans dated January 6, 1964
SAC ED - 50-17.1/ 2.4

III
SAC ED - 11 - 18A Ref 6E 1271
August 5, 1969
STATE HIGHWAY ENGINEER
CIVIL ENGINEER LICENSE NO. 5998

DESIGN NOTES

SPECIFICATIONS:
DESIGN: A.A.S.H.O. DATED 1957 WITH REVISIONS AND AS SUPPLEMENTED BY BRIDGE PLANNING AND DESIGN MANUAL.
SECTIONS DESIGNED FOR CULVERT IN A TRENCH ON HARD FOUNDATION, OR CULVERT UNTRENCHED ON YIELDING FOUNDATIONS. FOR CULVERTS ON PILES OR ROCK FOUNDATIONS SPECIAL DESIGN WILL BE REQUIRED.

LOADING:
LIVE LOAD = H20-S16-44 OR ALTERNATIVE WITH 30% IMPACT FOR ALL COVER DEPTHS. NEGLECT LIVE LOAD WHEN ON SINGLE SPANS, COVER IS MORE THAN 8' AND EXCEEDS SPAN, AND ON MULTIPLE SPANS WHEN COVER EXCEEDS DISTANCE BETWEEN EXTERIOR WALLS.
CULVERTS AT GRADE TREATED AS A BRIDGE, WITH THE WHEEL LOAD ON THE INVERT SLAB DISTRIBUTED OVER 7.5' TRANSVERSELY AND THE BREADTH OF THE CULVERT LONGITUDINALLY.
WHEEL LOADS DISTRIBUTED UNIFORMLY OVER A SQUARE, THE SIDES OF WHICH ARE 1.75 TIMES THE DEPTH OF FILL, BUT NOT LESS TRANSVERSELY THAN THE DIMENSION FOR GRADE TOP ON THE TOP SLAB, AND NOT LESS THAN 7.5' ON THE INVERT SLAB. WHEN SUCH AREAS FROM SEVERAL CONCENTRATIONS OVERLAP, THE TOTAL LOAD SHALL BE CONSIDERED AS UNIFORMLY DISTRIBUTED OVER THE AREA DEFINED BY THE OUTSIDE LIMITS OF THE INDIVIDUAL AREAS, BUT THE TOTAL WIDTH SHALL NOT EXCEED THE TOTAL WIDTH OF THE SUPPORTING SLAB.

DEAD LOAD: EARTH LOAD OF 120 LBS. PER CU. FT. AND AN EQUIVALENT FLUID PRESSURE OF 36 LBS. PER SQ. FT. (BOTH REDUCED 30% FOR BALANCED DESIGN).
DISTRIBUTION OF WHEEL AT GRADE; E = .175S + 3.2
UNIT STRESSES: $F_s = 20,000$ P.S.I., $N = 10$
 $F_c = 1,200$ P.S.I.

REINFORCEMENT EMBEDMENT IS 1/2 DIA. CLEAR, MIN. 1", EXCEPT AS NOTED.
DISTRIBUTION "d" BARS EXPRESSED AS A % OF MAIN REINFORCEMENT:
CLASSIFICATION "A" TOP SLAB = $\frac{100}{SPAN}$, MAX. 50%
CLASSIFICATION "A" BOTTOM SLAB = MIN. # 4 @ 18
CLASSIFICATION "B", OR ABOVE, TOP AND BOTTOM SLABS MIN. # 4 @ 18

CONSTRUCTION NOTES

SPECIFICATIONS: STANDARD SPECIFICATIONS, DIVISION OF HIGHWAYS, CURRENT EDITION AND SPECIAL PROVISIONS ACCOMPANYING PLANS.

EXPANSION JOINTS: NONE IN INVERT SLAB. UNDER COVER LESS THAN SPAN LENGTH, PLACE 1/2" EXPANSION JOINT FILLER IN TOP SLAB AND SIDE WALLS IN DIVIDING STRIP OR OUTSIDE SHOULDER. UNDER COVER MORE THAN SPAN LENGTH, PLACE EXPANSION JOINTS IN TOP SLAB AND SIDE WALLS ONLY AT 30' ± CENTERS, AND ADDITIONAL JOINTS AS DIRECTED BY THE ENGINEER AT LOCATIONS OF CHANGE OF FOUNDATION CHARACTER.

CONSTRUCTION LOADS: CONSTRUCTION LOADS HEAVIER THAN LEGAL LOADS NOT PERMITTED UNTIL CONCRETE HAS REACHED A STRENGTH OF 3,000 P.S.I. AND STRUCTURE STRUTTED AND CUSHIONED AS DIRECTED BY THE ENGINEER.

LOCATION NOTES

HYDRAULICS: IF SLOPE OF NATURAL CHANNEL EXCEEDS "NEUTRAL SLOPE" OF CULVERT ENTRANCE, CAPACITY FOR 10 YEAR FLOOD (Q10) WILL USUALLY DETERMINE SIZE, OTHERWISE COMPUTE TOTAL HEAD = $\frac{(Q100)^2}{8A^2} (1.05 + KL)$, WHERE "k" IS HEAD FACTOR "A" IS AREA, "L" IS LENGTH OF CULVERT AND Q100 THE 100 YEAR FLOOD, AND COMPARE WITH ALLOWABLE HEAD. TABULATED ELEMENTS ARE FOR FULL NOMINAL SECTION.

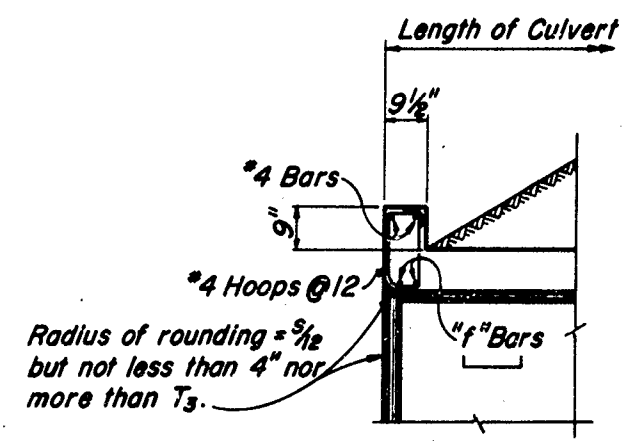
DESIGNATION: SHOW ON PLANS AS SPAN X HEIGHT STRENGTH CLASSIFICATION X LENGTH: THUS 4 x 4 -A x 60', FOLLOWED BY ALTERNATIVES.
ALTERNATIVES: INVERT WILL BE SLOPED UNLESS "TRAPEZOIDAL INVERT", "FLAT INVERT" OR "V INVERT" IS INCLUDED IN DESIGNATION. ENDS OF CULVERT WILL BE ROUNDED UNLESS "SQUARE ENDS" ARE DESIGNATED. PARAPET ON CULVERTS WITH OVER 2' COVER WILL BE 0'-9" UNLESS "___ FT. PARAPET" IS DESIGNATED. SUCH DESIGNATIONS MAY BE DIFFERENT FOR INLET AND OUTLET ENDS.

QUANTITIES: QUANTITIES ARE FOR ESTIMATING ONLY. THEY ARE FOR THE SLOPED INVERT SLAB AND DO NOT INCLUDE SPLICES IN LONGITUDINAL BARS NOR CONCRETE AND REINFORCEMENT FOR SPECIAL COVERAGE, NOR TEMPERATURE REINFORCEMENT FOR GRADE TOP CULVERT.

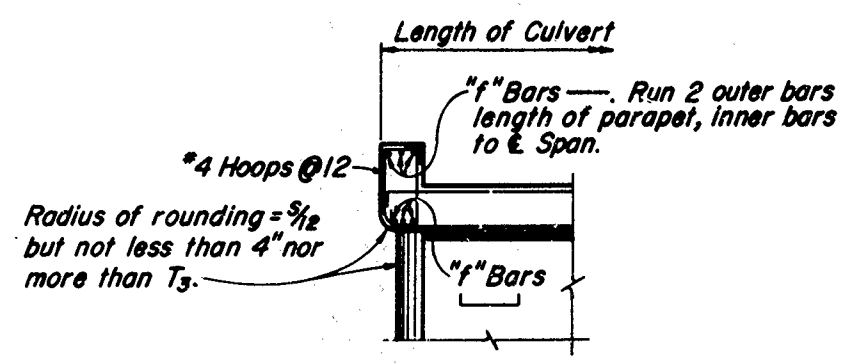
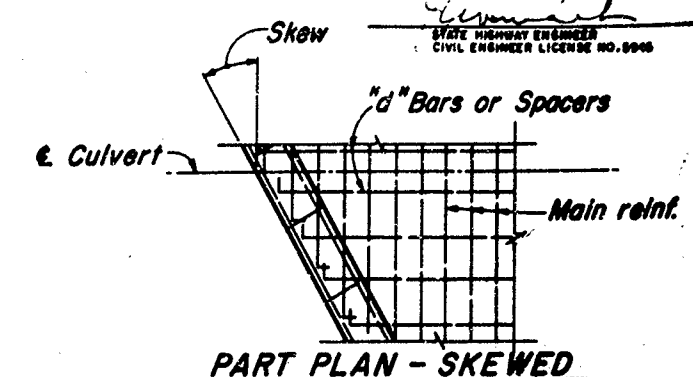
SPECIAL COVERAGE: WHERE CULVERTS ARE EXPOSED TO ACTION OF SALT WATER THICKNESS OF CONCRETE SHALL BE INCREASED TO PROVIDE 4" COVERAGE BETWEEN STEEL AND EXPOSED SURFACES. WHERE SCOUR IS ANTICIPATED, THICKNESS OF BOTTOM SLAB SHALL BE INCREASED TO PROVIDE 2" MINIMUM COVERAGE BETWEEN STEEL AND EXPOSED SURFACE.

USE OF STANDARD PLAN

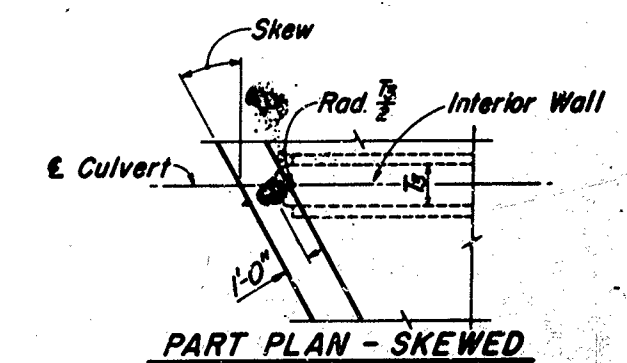
"STRENGTH CLASSIFICATION", SYMBOLIZED BY THE LETTERS "A", "B", "C" ETC., AT THE TOP OF THE DATA TABLE IS MERELY A CONVENIENT DESIGNATION FOR A PARTICULAR STRUCTURAL SECTION FOR A CULVERT OF ANY GIVEN OPENING. IT IS DICTATED BY THE COVER OR DEPTH OF FILL OVER THE TOP SLAB.



PARAPET DETAILS FOR SINGLE SPAN CULVERTS

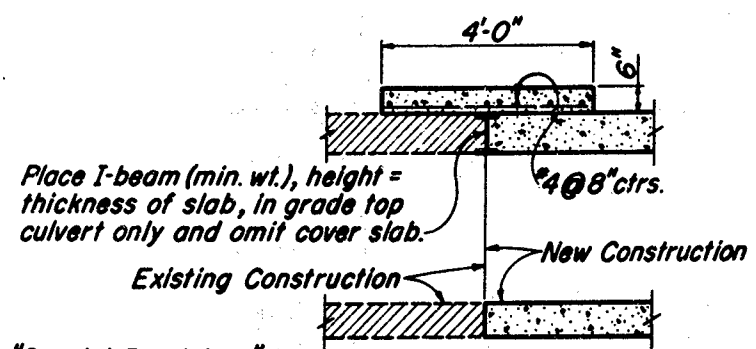


PARAPET DETAILS FOR MULTIPLE SPAN CULVERTS



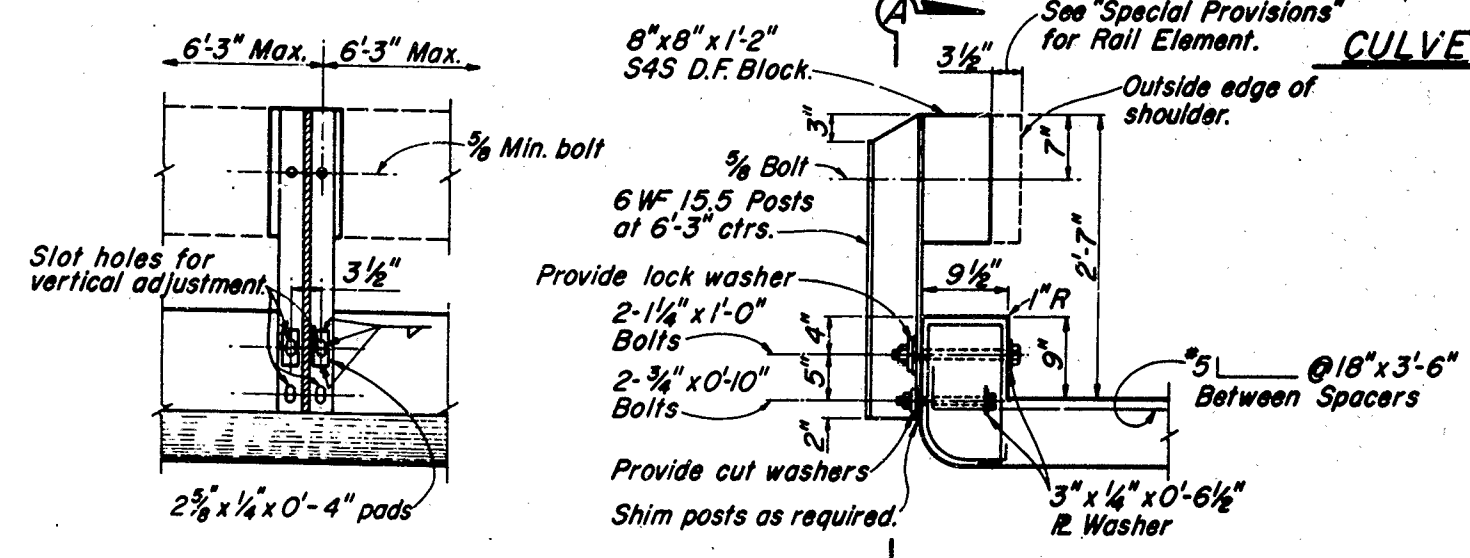
AS BUILT PLANS

Contract No. 03-074024
Date Completed 12-65
Document No. 30000376



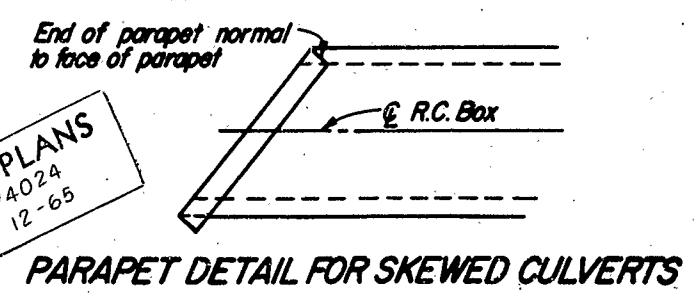
CULVERT EXTENSION

SKEWED PARAPETS		3	4	5	6	8	10	12
0°-15°	Bar No.	4	4	5	6	6	7	8
	No. of bars	2	2	2	3	3	3	3
16°-30°	Bar No.	4	4	5	6	7	8	8
	No. of bars	2	3	3	3	3	3	3
31°-45°	Bar No.	4	4	6	7	8	8	8
	No. of bars	3	3	3	3	3	3	3
0°-45°	#4 Hoops	12" ctrs.						



SECTION A-A
Scale: 1"=1'-0"

RAILING DETAILS
Scale: 1"=1'-0"



PARAPET DETAIL FOR SKEWED CULVERTS

8/60
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
STANDARD BOX CULVERT
MISCELLANEOUS DETAILS
SCALE BRIDGE FILE DRAWING **D83-1**

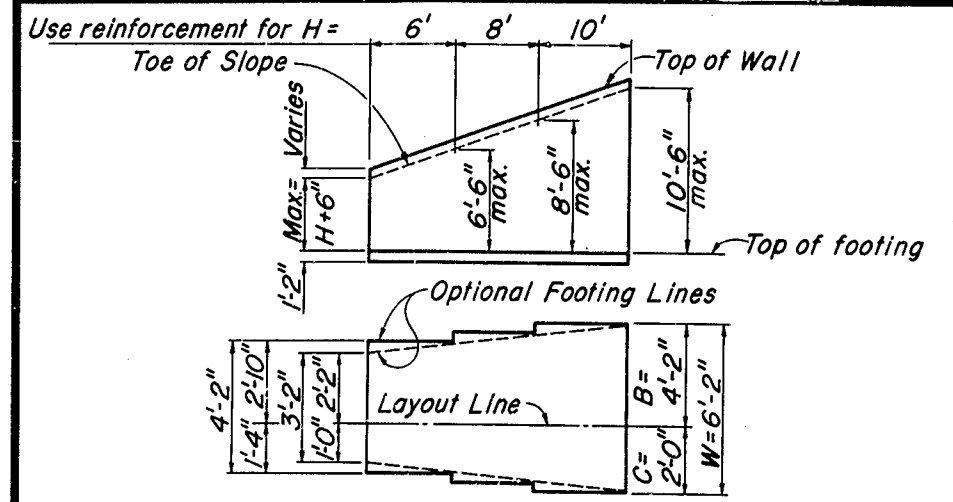
PREL. DRAWING NO. P. _____

Revised 9-21-61
Washed Pools - Rail. Det.

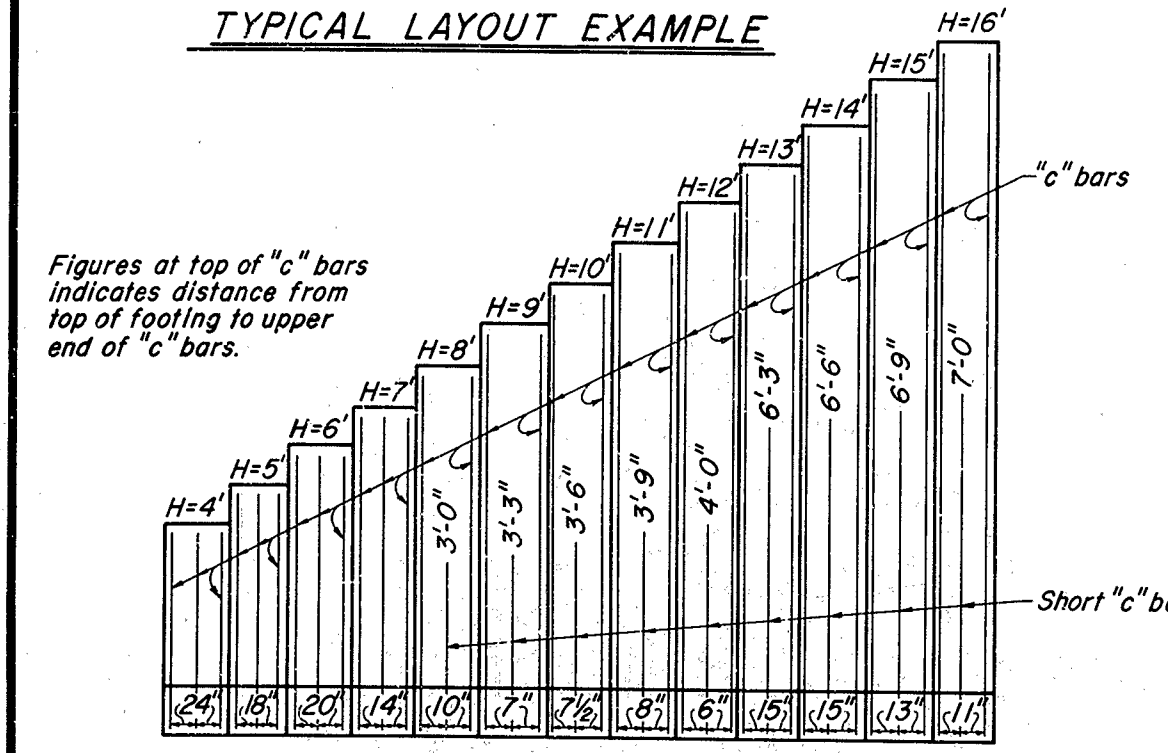
To accompany plans dated January 6, 1964
SAC ED - 50-17.1 / 2.4

DATE APPROVED October 8, 1960

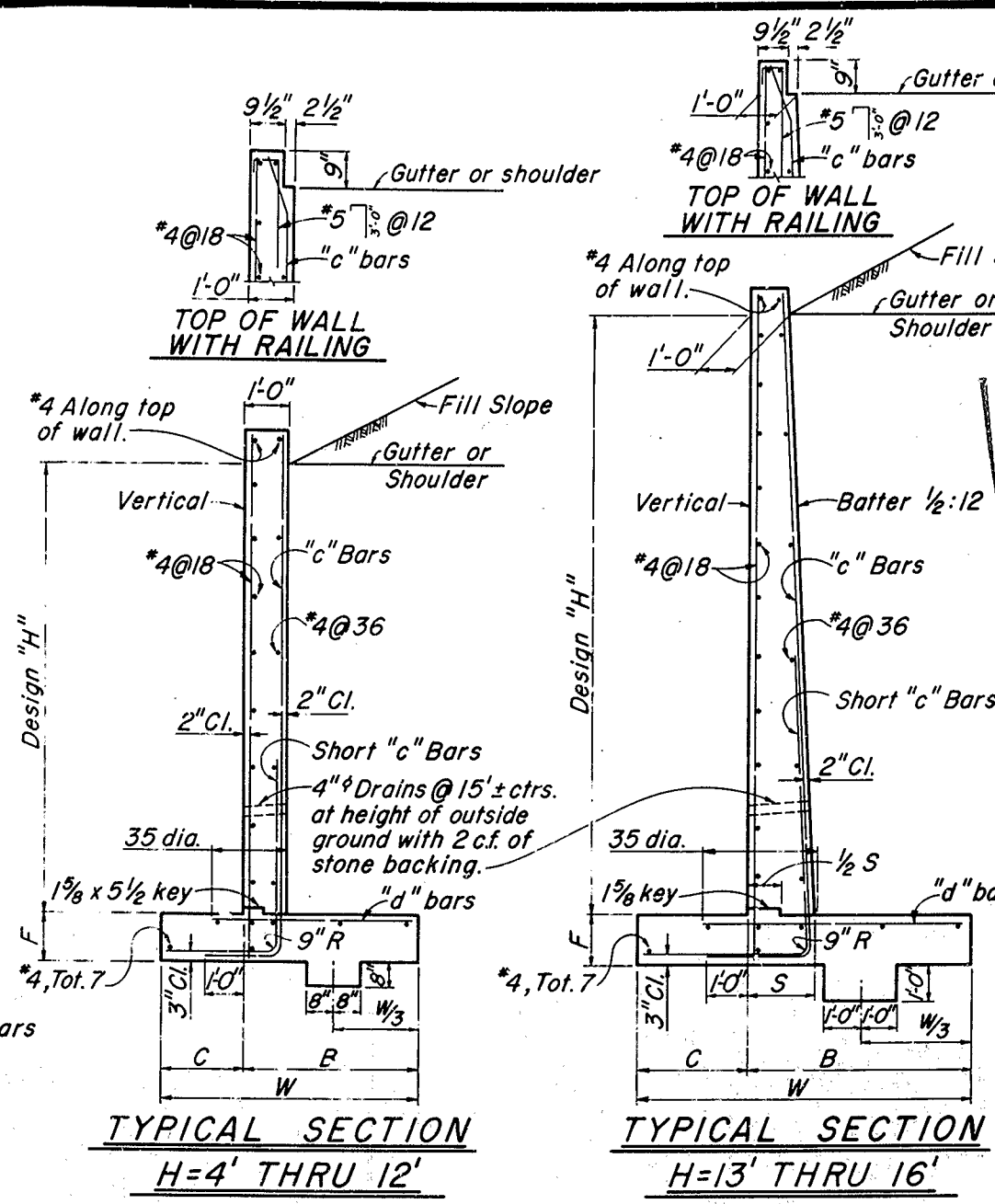
STATE HIGHWAY ENGINEER
CIVIL ENGINEER LICENSE NO. 0845



TYPICAL LAYOUT EXAMPLE



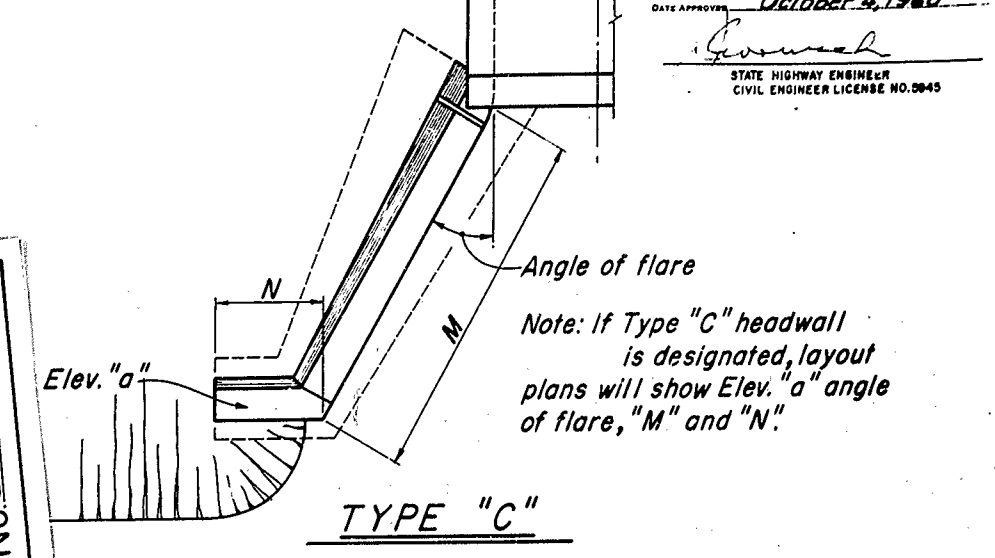
Figures at top of "c" bars indicates distance from top of footing to upper end of "c" bars.



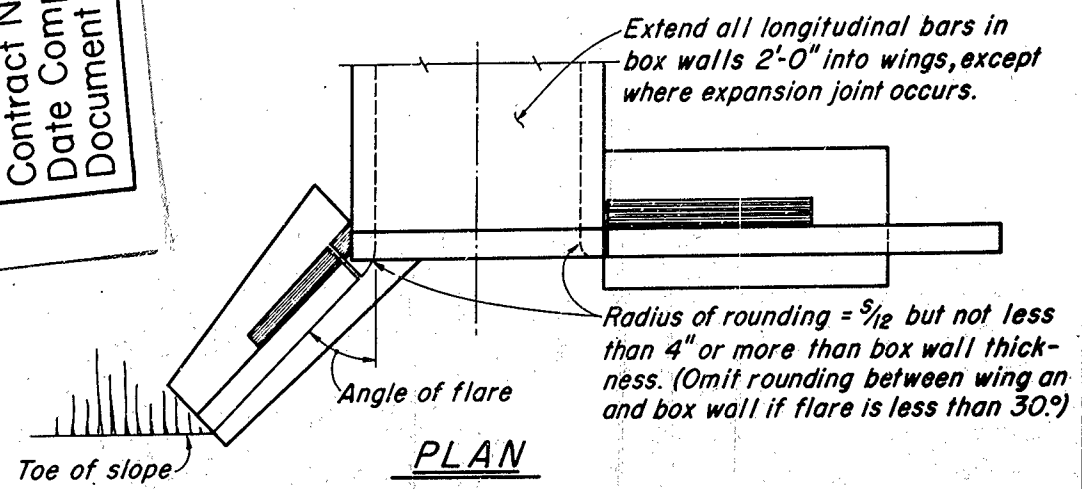
TYPICAL SECTION
H=4' THRU 12'

TYPICAL SECTION
H=13' THRU 16'

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000.376



TYPE "C"



PLAN

Where length of wingwalls exceed 2H, place 1/2" Exp. Jt. Filler at junction of 3'-0" box and wall.

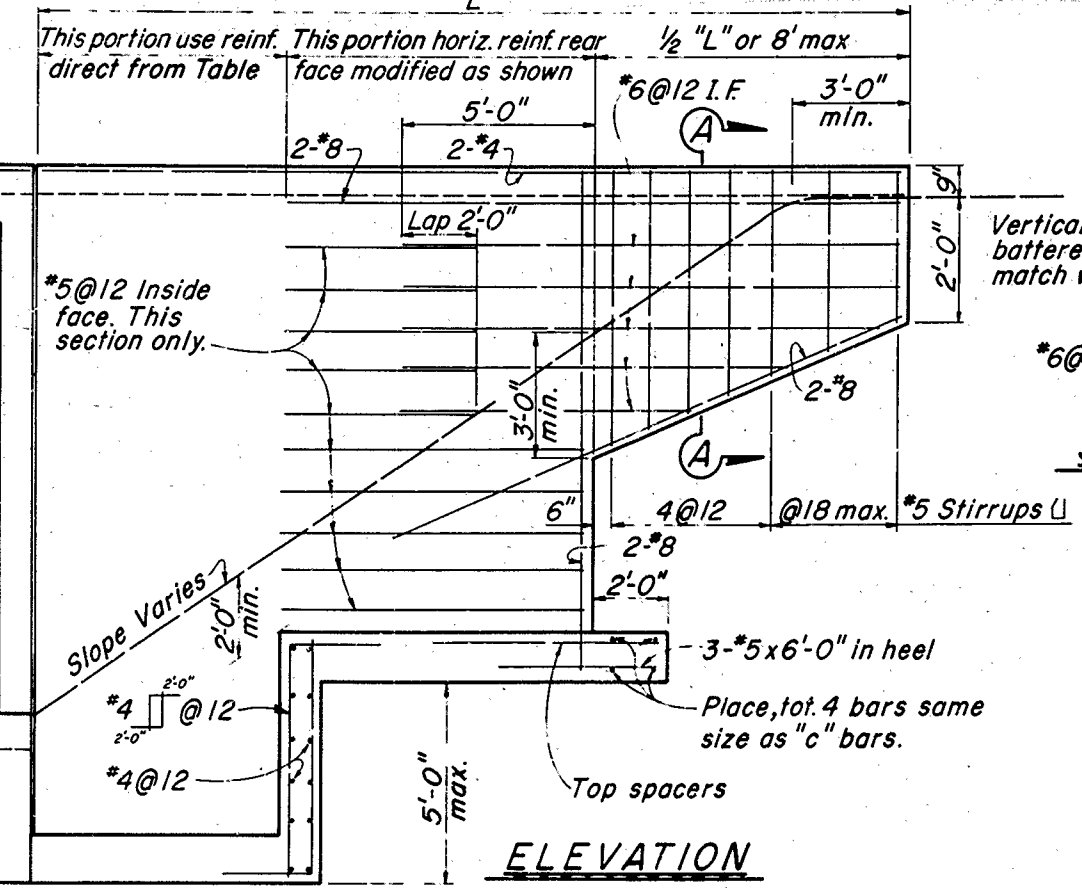
REINFORCED CONCRETE WING HEADWALLS													
H	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'
W	3'-2"	3'-8"	4'-2"	4'-8"	5'-2"	5'-8"	6'-2"	6'-8"	7'-2"	7'-8"	8'-2"	8'-8"	9'-2"
C	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-10"	2'-0"	2'-2"	2'-4"	2'-6"	2'-8"	2'-10"	3'-0"
B	2'-2"	2'-6"	2'-10"	3'-2"	3'-6"	3'-10"	4'-2"	4'-6"	4'-10"	5'-2"	5'-6"	5'-10"	6'-2"
F							1'-2"						
Batter	None												
S	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	1'-7"	1'-7 1/2"	1'-8"	
"c" Bars	4@24	4@18	5@20	5@14	5@10	5@7	6@7 1/2	7@8	7@6	9@15	10@15	10@13	10@11
"d" Bars	4@24	4@18	5@20	5@14	5@10	6@14	7@15	8@16	7@12	8@15	9@15	9@13	9@11
Conc. %L.F.	0.32	0.38	0.44	0.49	0.55	0.61	0.67	0.73	0.79	1.02	1.10	1.18	1.26
Reinf. %L.F.	13	16	19	25	30	37	49	62	76	70	89	104	125

Design Notes:

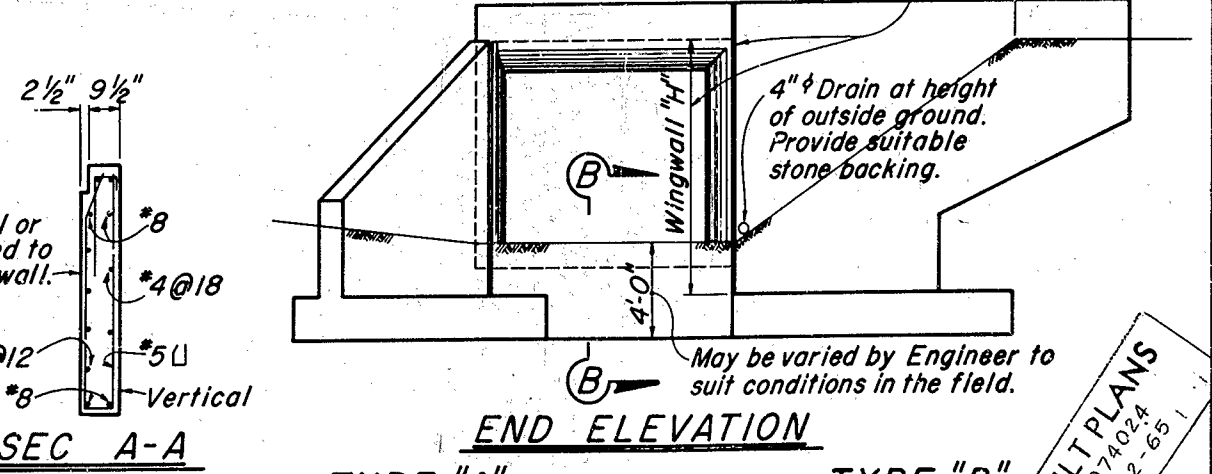
Unit Stresses: $f_s = 20,000$ p.s.i., $f_c = 1200$ p.s.i., $n = 10$

Maximum Toe Pressure = $1/2$ Tons/sq. ft.

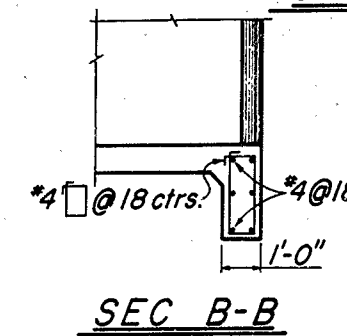
Elevations, length and angle of flare of wings may be varied by the Engineer to suit conditions encountered in the field. Walls designed for 2' liveload surcharge, 1/2:1 sloping surcharge not to exceed 5' in elevation plus 2' liveload surcharge, or unlimited 2:1 surcharge.



ELEVATION



END ELEVATION
TYPE "A" TYPE "B"
STRAIGHT WING HEADWALLS



SEC B-B

7/60

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

STANDARD CULVERT HEADWALLS
TYPES "A", "B" & "C"

SCALE BRIDGE FILE DRAWING D84

PREL. DRAWING NO. P-

Revised 3-29-62
Removed Endwalls

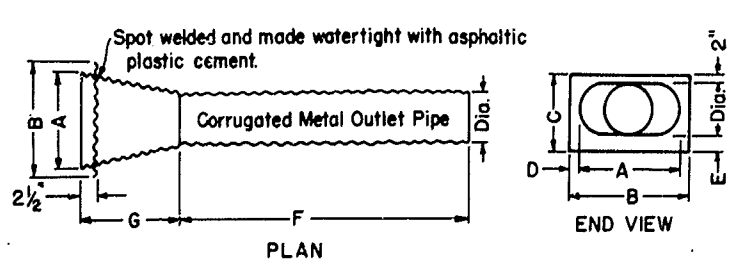
STANDARD DRAWING
Submitted by
Checked by
Approved by

To accompany plans dated January 6, 1964.

DISTRICT	COUNTY	ROUTE	SECTION	DATE
111	Sacramento	11	B-A, Fol	71171

APPROVAL RECOMMENDED
SAL. ED. 8.0-1.7.1 / 2.4

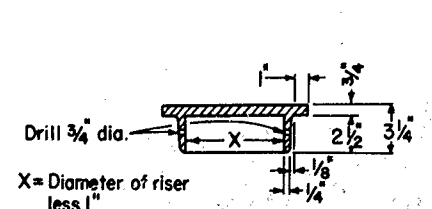
J. H. G. Williams
Engineer of Design
Civil Engineer License No. 7903
Approved July 26, 1962
[Signature]
State Highway Engineer
Civil Engineer License No. 5848



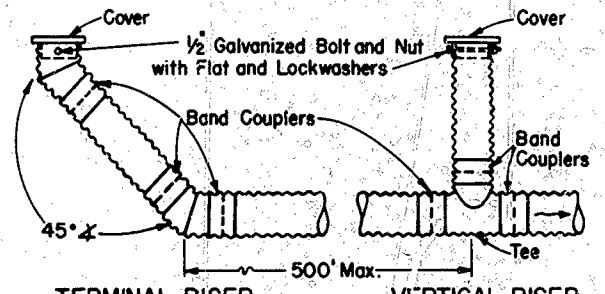
Taper joints may be welded or riveted.
Bulkhead and taper to be galvanized corrugated metal of the same gage as the outlet pipe.
Dimensions to be as tabulated below for Alternatives A and B

Dia.	A	B	C	D	E	F	G
8"	16"	25 1/2"	15"	4 3/4"	5"	6'	2'
12"	18"	25 1/2"	19"	3 3/4"	5"	6'	2'
15"	21"	30"	23"	4 1/2"	6"	6'	2'
18"	24"	34"	27"	5"	7"	6'	2'
24"	34"	46"	35"	6"	9"	4'	4'

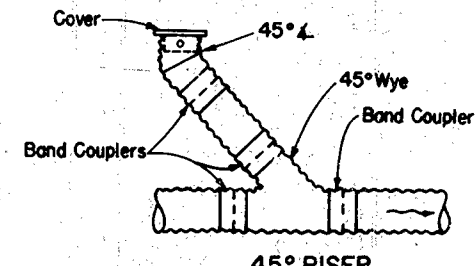
ENTRANCE TAPER ALTERNATIVE A



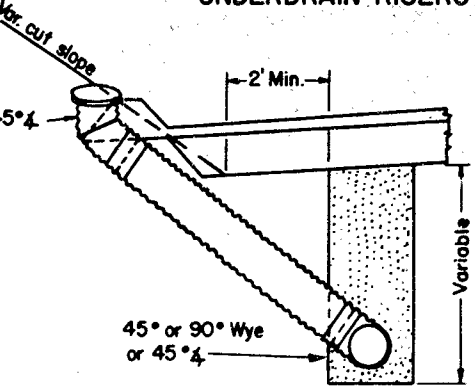
CAST STEEL COVER
Galvanized: See Specifications



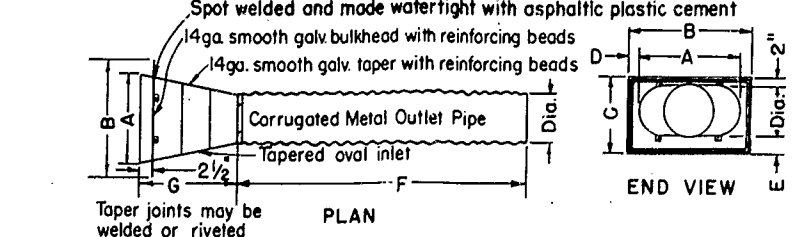
TERMINAL RISER VERTICAL RISER
Corrugated metal pipe risers and perforated metal pipe underdrain shown. Use type of pipe specified.



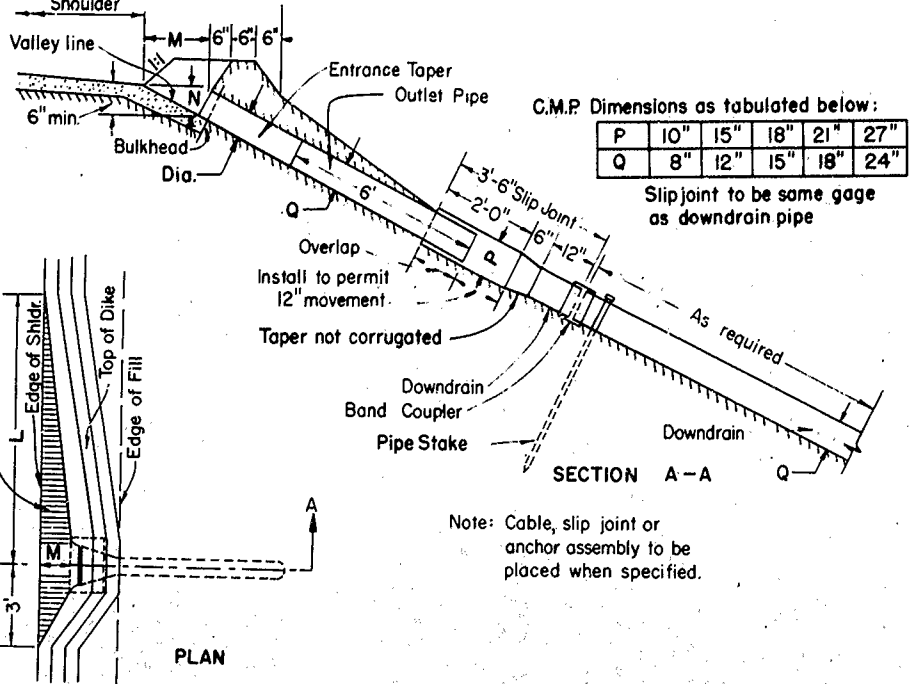
45° RISER



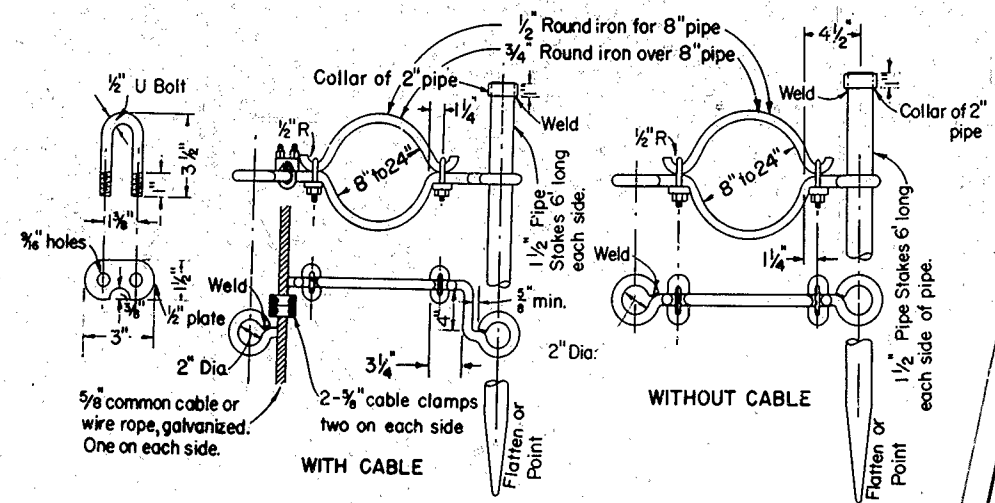
UNDERDRAIN LOCATION AND RISERS ANGLED TO CUT SLOPE



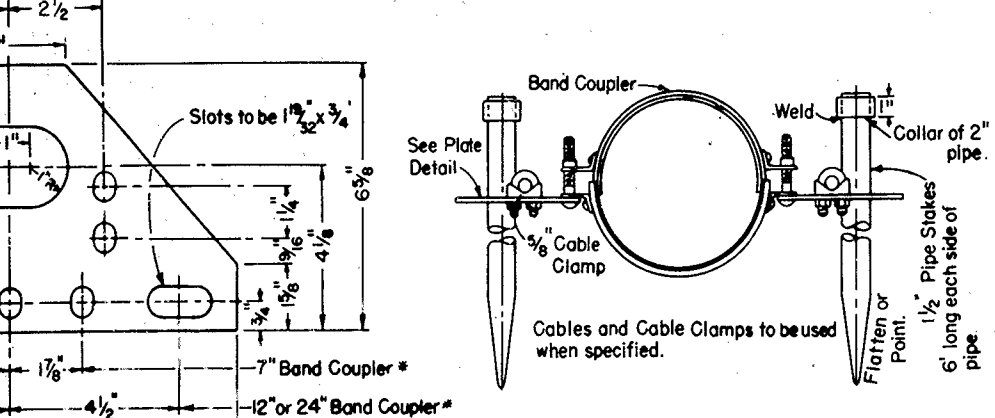
ENTRANCE TAPER ALTERNATIVE B



ENTRANCE TAPER AND PIPE DOWNDRAIN



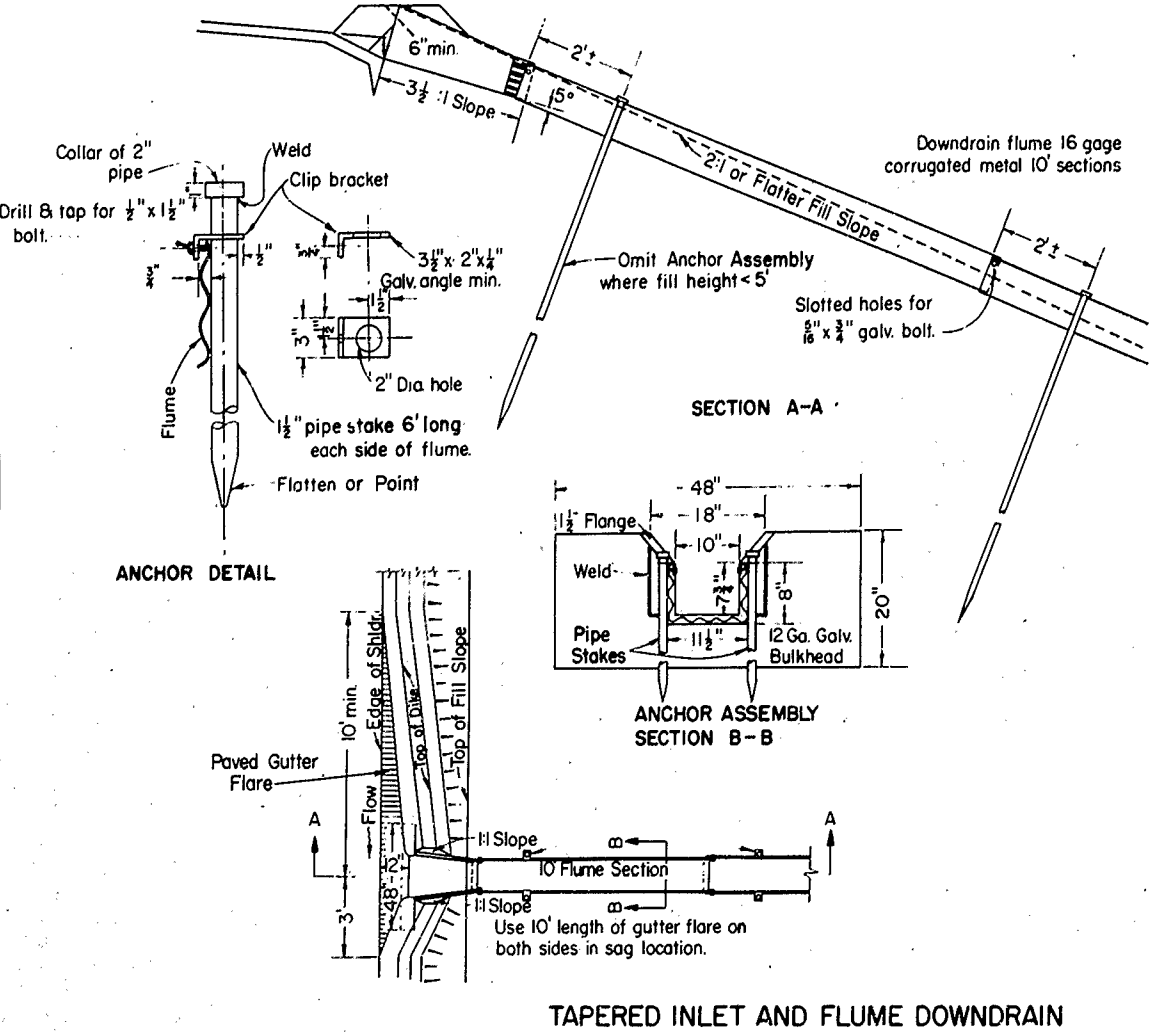
ANCHOR ASSEMBLY ALTERNATIVE A



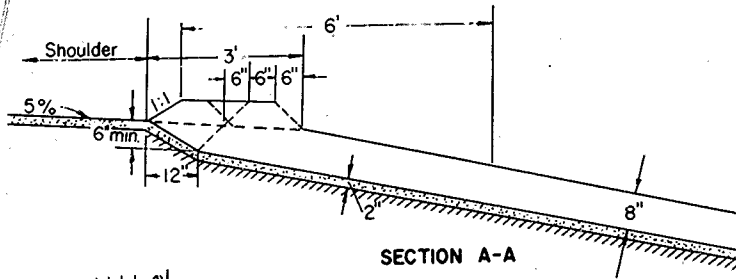
ANCHOR ASSEMBLY ALTERNATIVE B

* Length of band coupler measured parallel to the centerline of the pipe.

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30200376

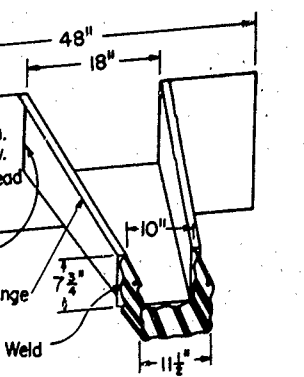
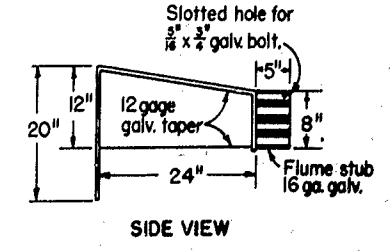


TAPERED INLET AND FLUME DOWNDRAIN

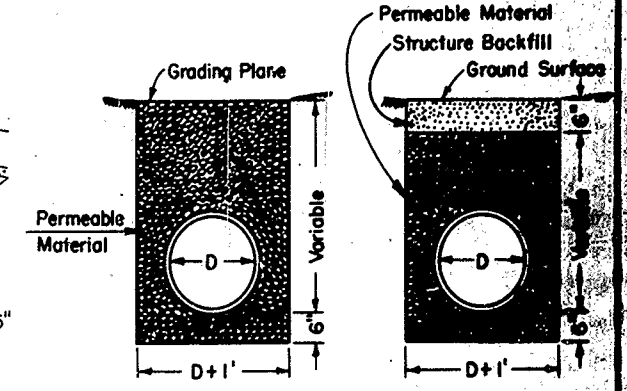


ASPHALT CONCRETE SPILLWAY

- NOTES
All Overside Drains
1 - For payment purposes, an Anchor Assembly shall include two Pipe Stakes.
2 - All Pipe Stakes and Hardware to be galvanized after fabrication.



TAPERED INLET



SECTION INSIDE SUBGRADE AREA SECTION OUTSIDE SUBGRADE AREA
D+1' = Side limits of payment quantities for structure excavation and backfill and for permeable material.

UNDERDRAIN

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
UNDERDRAINS AND OVERSIDE DRAINS D87-2

To accompany plans dated January 6, 1964

DISTRICT	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
111	Sacramento	11	B, A, F01	72	171

APPROVAL RECOMMENDED
SAC ED # 50-17.1 / 2.4

J. E. McManis
Assistant State Highway Engineer
Civil Engineer License No. 8390
Approved SEPTEMBER 18, 1961
J. J. ...
State Highway Engineer
Civil Engineer License No. 5945

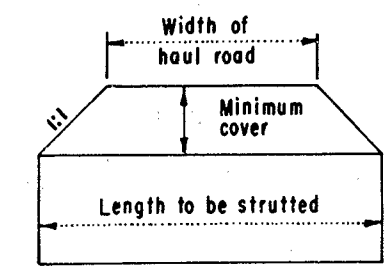
CLASSIFICATION	18-50k AXLE					50-75k AXLE					75-110k AXLE					110-150k AXLE						
	SPAN	TYPE	MIN. COVER	STRUTS REQ'D	STRUT SIZE & SPACING	SPAN	TYPE	MIN. COVER	STRUTS REQ'D	STRUT SIZE & SPACING	SPAN	TYPE	MIN. COVER	STRUTS REQ'D	STRUT SIZE & SPACING	SPAN	TYPE	MIN. COVER	STRUTS REQ'D	STRUT SIZE & SPACING		
BOX CULVERTS	A	2' to 5'	Single	4'	—	2' to 5'	Single	5'	—	—	2' to 4'	Single	3'	—	—	2' to 4'	Single	4'	—	—		
	A	6'	Single	5'	—	6'	Single	5'	1/2 Pt.	Posts 4x6 @ 3' Sills 4x6, Cont.	5' to 6'	Single	5'	1/3 Pts.	Posts 4x6 @ 3' Sills 4x6, Cont.	5' to 6'	Single	5'	1/3 Pts.	Posts 4x6 @ 3' Sills 4x6, Cont.		
	A	7' to 8'	Single	5'	—	7' to 8'	Single	5'	—	—	7' to 8'	Single	5'	—	—	7' to 8'	Single	5'	1/4 Pts.	Posts 4x6 @ 3' Sills 4x6, Cont.		
	A	10' to 12'	Single	5'	—	10' to 12'	Single	5'	—	—	10' to 12'	Single	5'	1/5 Pts.	Posts 6x6 @ 3'-6" Sills 6x6, Cont.	10' to 12'	Single	5'	1/5 Pts.	Posts 6x6 @ 3' Sills 6x6, Cont.		
	A	14'	Single	3'	—	14'	Single	3'	1/5 Pts.	Posts 6x6 @ 3'-6" Sills 6x8, Cont.	14'	Single	3'	1/5 Pts.	Posts 6x8 @ 3'-6" Sills 6x8, Cont.	14'	Single	4'	1/5 Pts.	Posts 6x8 @ 3'-6" Sills 6x8, Cont.		
	A	4' to 12'	Multiple	5'	—	4' to 12'	Multiple	5'	—	—	4' to 12'	Multiple	5'	—	—	4' to 12'	Multiple	5'	—	—		
	B, C, D, E	All	All	Span 1.75 or 5' Min.	—	—	All	All	Span 1.75 or 5' Min.	—	—	All	All	Span 1.75 or 5' Min.	—	—	All	All	Span 1.75 or 5' Min.	—	—	
R.C. PIPES	12" to 36"	Min. Cover = 2'					Min. Cover = 3'					Min. Cover = 4'					Min. Cover = 4'					
	42" to 108"	Dia. 1.75 or 4' Min.					Dia. 1.75 or 4' Min.					Dia. 1.75 or 4' Min.					Dia. 1.75 or 4' Min.					
METAL CULVERTS	PIPES	To 120"	Min. Cover = 2'					Min. Cover = 2'					Min. Cover = 2'					Min. Cover = 2'				
		Over 120"	Dia. 5 or 2' Min.					Dia. 5 or 2' Min.					Dia. 5 or 2' Min.					Dia. 5 or 2' Min.				
	Arches, Pipe Arches	All Spans	Span 7 or 2' Min.					Span 7 or 2' Min.					Span 7 or 2' Min.					Span 7 or 2' Min.				
R.C. ARCH CULVERTS	Spans to 14'	Span 2.5 or 4' Min.					Span 2.5 or 4' Min.					Span 2.5 or 4' Min.					Span 2.5 or 4' Min.					
	Spans to 22'	Span 3.5 or 5' Min.					Span 3.5 or 5' Min.					Span 3.5 or 5' Min.					Span 3.5 or 5' Min.					

Notes: Limits of strutting to be determined by Engineer, but shall not be less than as shown in sketch below. Reference-Std. Box Culverts dated Oct. 4, 1960 Assumed fire patterns:

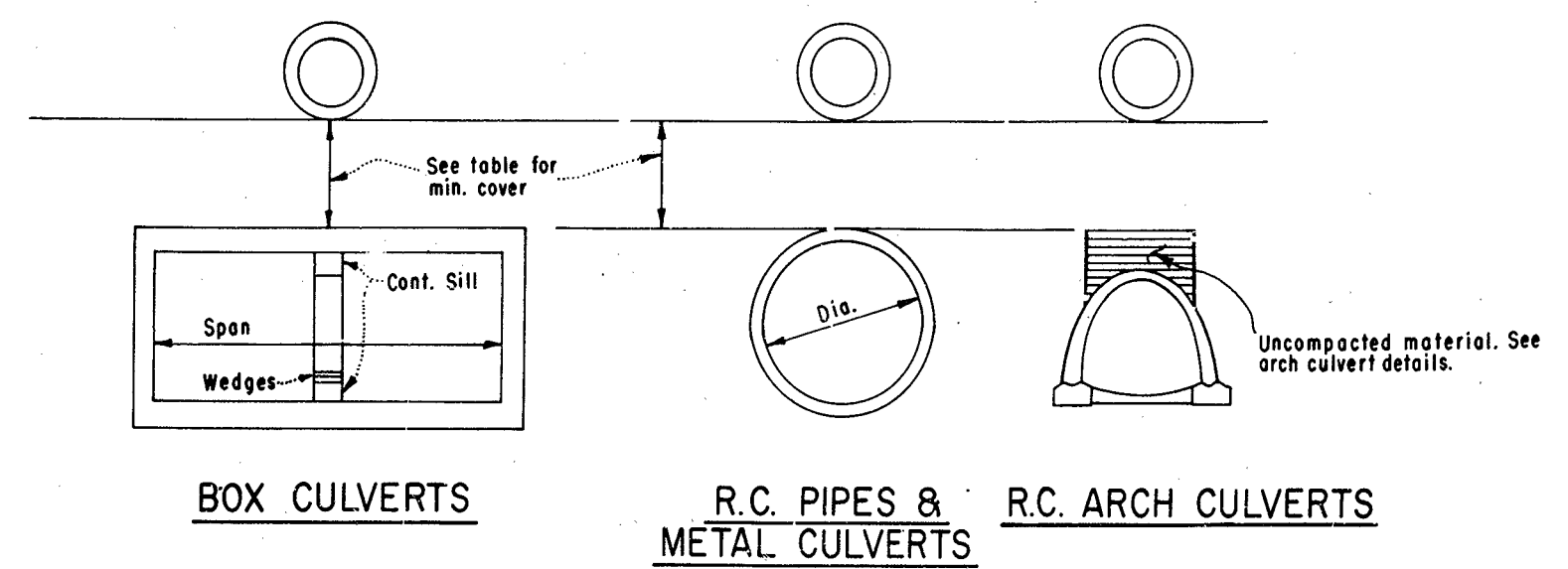
50k Axle 2.0x1.5'
75k Axle 3.0x2.0'
110k Axle 3.0x2.5'
150k Axle 3.0x3.0'

Impact = 50%
Timber sills & posts to be D.F., 1450f. Sills to be glued-laminated or solid timbers.

All strutting and removal to be at expense of the contractor.



MINIMUM LENGTH OF STRUTTING



AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

CONSTRUCTION LOADS ON CULVERTS D88

To accompany plans dated January 6, 1964

DISTRICT	COUNTY ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
111	Sacramento	B, A, F01	73	171

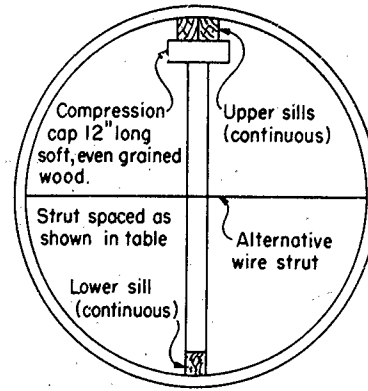
APPROVAL RECOMMENDED
SAC ED = 50-1711/2.4

H. A. Hansen
Engineer of Design
Civil Engineer License No. 7609

Approved September 21, 1961

J. J. [Signature]
State Highway Engineer
Civil Engineer License No. 5945

Note: Compression caps and sills to be same dimension timber as struts. Timber for struts and sills shall be Douglas Fir common.



STRUT DETAILS

SPACING IN FEET OF TIMBER STRUTS FOR CORR. METAL AND FIELD ASSEMBLED PLATE PIPE

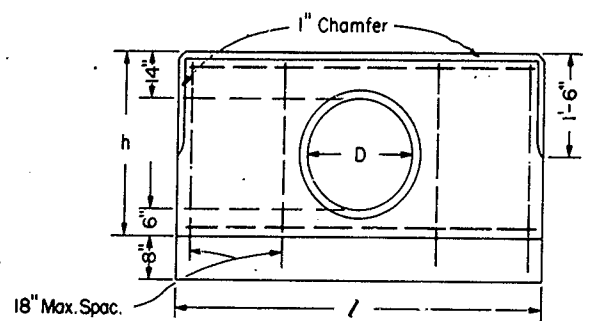
PIPE DIA.	STRUT SIZE	HEIGHT OF FILL IN FEET							
		0-20	30	40	50	60	70	80	100
48"	4 x 4		5.0	3.5					
	4 x 6		6.0	5.0	4.0	3.5	3.0		
	6 x 6				6.0	5.0	4.5	4.0	3.5
60"	4 x 4	6.0	4.0	3.0					
	4 x 6		6.0	4.5	3.5	3.0			
	6 x 6				5.5	4.5	4.0	3.5	3.0
72"	4 x 4	5.0	3.0						
	4 x 6	6.0	5.0	3.5	3.0				
	6 x 6			6.0	4.5	4.0	3.5	3.0	3.0
84"	4 x 4								
	4 x 6	6.0	6.0	5.0	4.0	3.5	3.0		
	6 x 6				5.0	4.5	4.0	3.5	3.0
96"	4 x 4								
	4 x 6	6.0	5.0	3.5	3.0				
	6 x 6				5.5	4.5	4.0	3.5	3.0
108"	4 x 4								
	4 x 6	6.0	5.0	4.0	3.5	3.0			
	6 x 6				6.0	5.0	4.0	3.5	3.0
120"	4 x 4								
	4 x 6	6.0	4.0	3.0					
	6 x 6	6.0	5.5	4.0	3.5	3.0			
132"	4 x 4								
	4 x 6	5.0	3.5						
	6 x 6	6.0	4.5	3.5	3.0				
144"	4 x 4								
	4 x 6	6.0	5.5	4.0	3.0				
	6 x 6				5.5	4.5	4.0	3.5	3.0
156"	4 x 4								
	4 x 6	4.5	3.0						
	6 x 6	6.0	4.5	3.5	3.0				
168"	4 x 4								
	4 x 6	3.5							
	6 x 6	6.0	5.0	4.0	3.0				
180"	4 x 4								
	4 x 6	3.0							
	6 x 6	6.0	4.5	3.5					

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

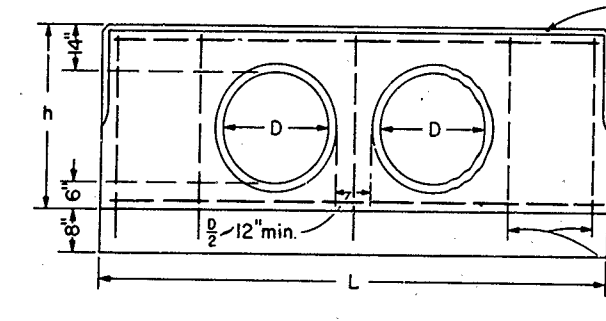
AS BUILT PLANS
Cont. No. 074024
Completed 12-65

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

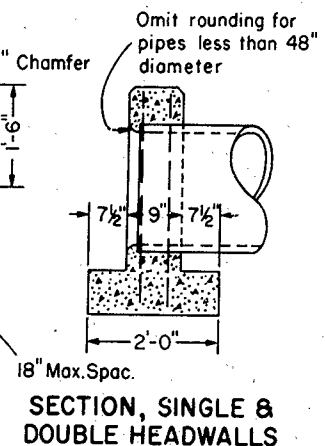
STANDARD PIPE CULVERTS AND HEADWALLS D89



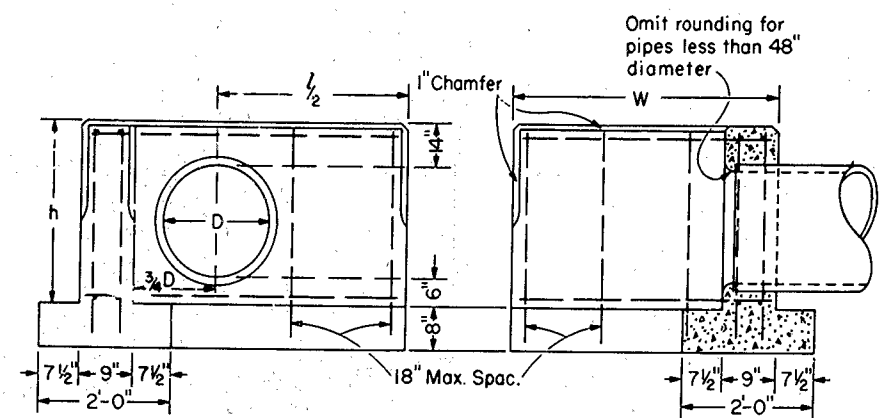
FRONT ELEV. SINGLE HEADWALL



FRONT ELEV. DOUBLE HEADWALL



SECTION, SINGLE & DOUBLE HEADWALLS



FRONT ELEV. "L" HEADWALL SECTION "L" HEADWALL

D	h	Single				Double			
		L	Vert. bars	Steel lbs.	Conc. C.Y.	L	Vert. bars	Steel lbs.	Conc. C.Y.
12	2-8	5-0	8	28	0.60	7-0	10	38	0.82
15	2-11	6-0	12	41	0.75	8-6	14	52	1.04
18	3-2	7-0	12	46	0.91	9-6	14	57	1.21
21	3-5	7-6	12	49	1.02	10-6	14	62	1.38
24	3-8	8-6	12	54	1.20	11-6	14	67	1.57
27	3-11	9-6	16	70	1.39	13-0	18	85	1.84
30	4-2	10-0	16	74	1.52	14-0	18	91	2.04
33	4-5	11-0	16	79	1.73	15-0	18	96	2.25
36	4-8	12-0	16	85	1.95	16-6	18	103	2.56
39	4-11	12-6	16	89	2.09	17-6	20	116	2.79
42	5-2	13-6	16	94	2.34	18-6	20	122	3.03
45	5-5	14-6	20	115	2.60	20-0	26	153	3.38
48	5-8	15-0	20	119	2.75	21-0	26	160	3.64
51	5-11	16-0	20	125	3.03	22-6	26	168	4.02
54	6-2	17-0	20	131	3.31	23-6	26	175	4.30

STRAIGHT HEADWALLS

D	h	L	Length of W					Conc. C.Y.
			2'-0" to 3'-4"	3'-5" to 4'-10"	4'-11" to 6'-4"	6'-5" to 7'-10"	7'-11" to 9'-4"	
			Number of Vertical Bars					
			6	8	10	12	14	
			Steel lbs.					
12	2-8	2-6	28+3W	32+3W				0.38+0.12W
15	2-11	3-0	36+3W	41+3W				0.48+0.13W
18	3-2	3-6	40+3W	45+3W				0.59+0.14W
21	3-5	3-9	43+3W	48+3W				0.66+0.14W
24	3-8	4-3	47+3W	52+3W	58+3W			0.78+0.15W
27	3-11	4-9	57+3W	62+3W	68+3W			0.91+0.16W
30	4-2	5-0	60+3W	66+3W	73+3W	78+3W		1.00+0.17W
33	4-5	5-6	64+3W	71+3W	77+3W	83+3W		1.13+0.17W
36	4-8	6-0	68+3W	75+3W	82+3W	88+3W	95+3W	1.28+0.18W
39	4-11	6-3	79+3W	86+3W	93+3W	100+3W		1.39+0.19W
42	5-2	6-9	83+3W	91+3W	98+3W	106+3W	154+0.19W	
45	5-5	7-3		103+3W	111+3W	119+3W		1.71+0.20W
48	5-8	7-6		108+3W	116+3W	124+3W		1.82+0.21W
51	5-11	8-0		121+3W	130+3W	2.00+0.21W		
54	6-2	8-6		127+3W	136+3W	2.18+0.22W		

"L" HEADWALLS

PIPE CULVERT HEADWALLS

To accompany plans dated January 6, 1964

DISTRICT COUNTY ROUTE SECTION SHEET TOTAL
 111 SACED-11-B-A-Fol-74 171

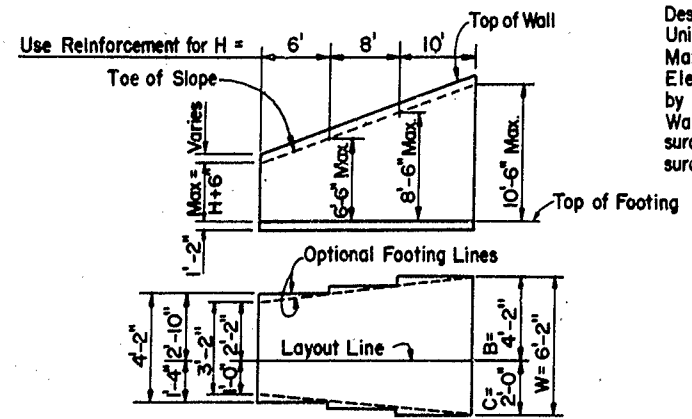
APPROVAL RECOMMENDED
 SAC LU 50-17.1/2.4

[Signature]
 Bridge Engineer - License 5993

Approved May 23, 1963

[Signature]
 State Highway Engineer
 Civil Engineer - License No. 5946

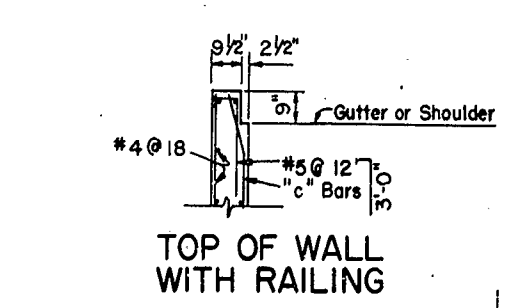
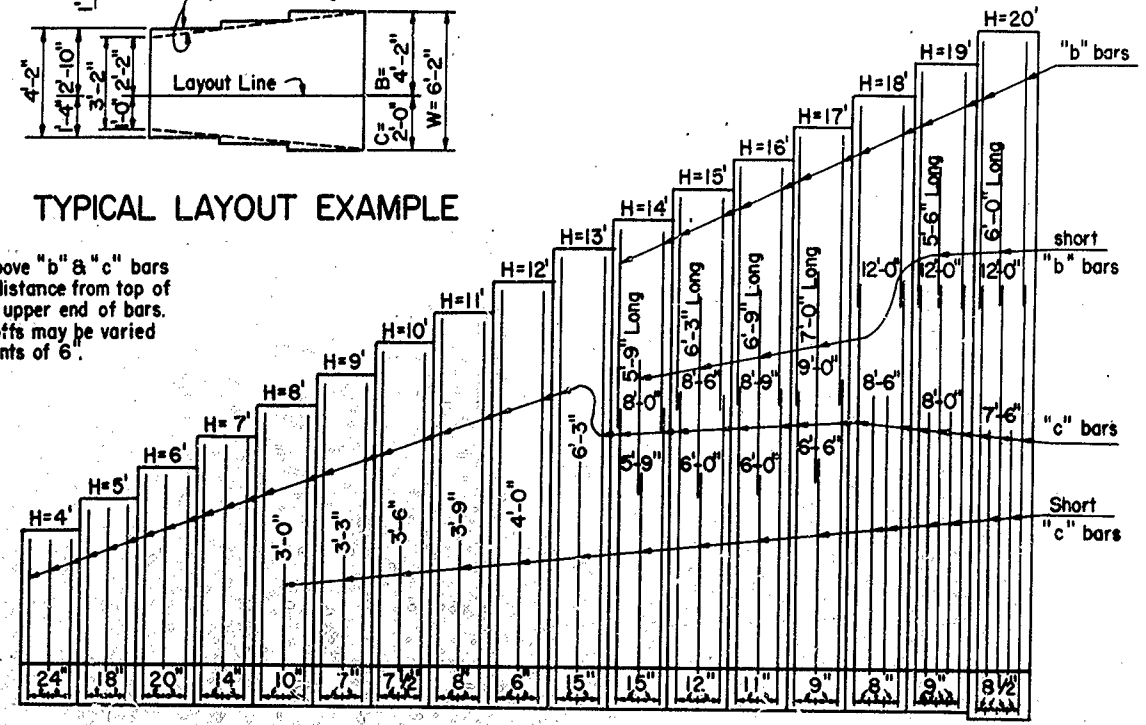
By: *[Signature]*
 Deputy State Highway Engineer
 Civil Engineer - License No. 5486



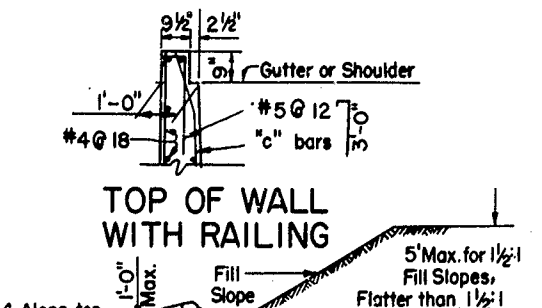
Design Notes:
 Unit Stresses: $f_c = 20,000$ psi, $f_s = 1200$ psi, $n = 10$
 Maximum Toe Pressure = $1 \frac{1}{2}$ Tons/sq.ft.
 Elevations, length and angle of flare of wings may be varied by the Engineer to suit conditions encountered in the field.
 Walls designed for 2' live load surcharge, $1 \frac{1}{2}:1$ sloping surcharge not to exceed 5' in elevation plus 2' live load surcharge, or unlimited 2:1 surcharge.

TYPICAL LAYOUT EXAMPLE

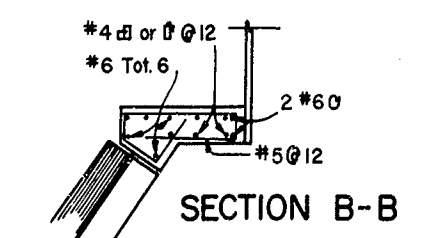
Number above "b" & "c" bars indicates distance from top of footing to upper end of bars. Bar cut-offs may be varied in increments of 6'.



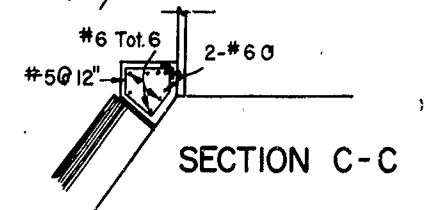
TYPICAL SECTION H=4' THRU 12'



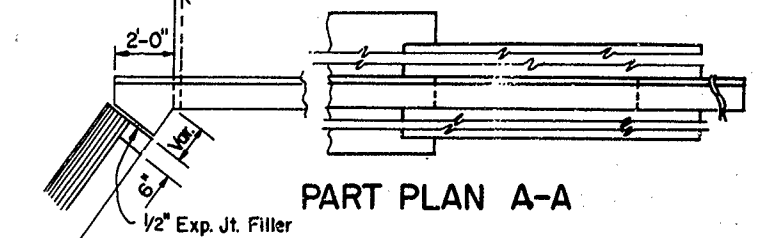
TYPICAL SECTION H=13 THRU 20'



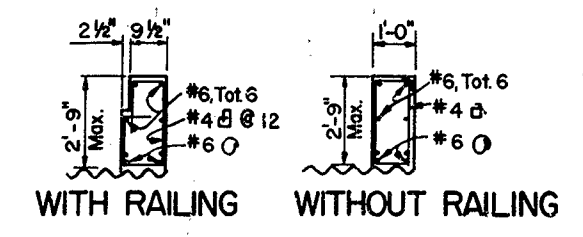
SECTION B-B



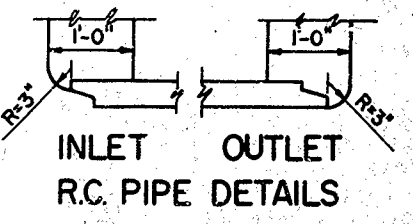
SECTION C-C



PART PLAN A-A



SECTION D-D

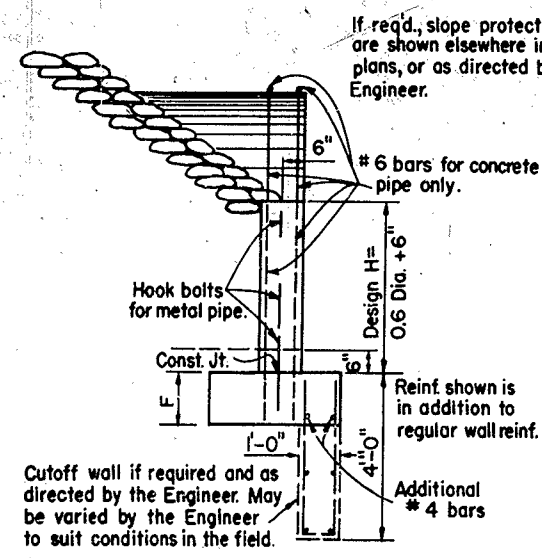


INLET OUTLET R.C. PIPE DETAILS

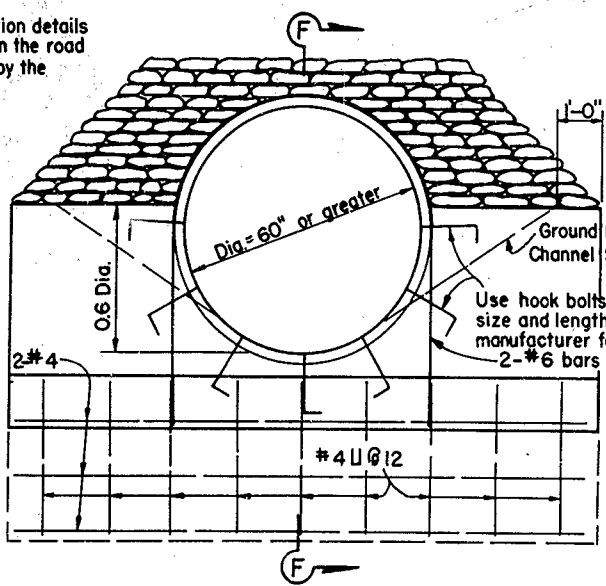
May be varied by the Engineer to suit conditions in the field.

REINFORCED CONCRETE WING HEADWALLS AND ENDWALLS

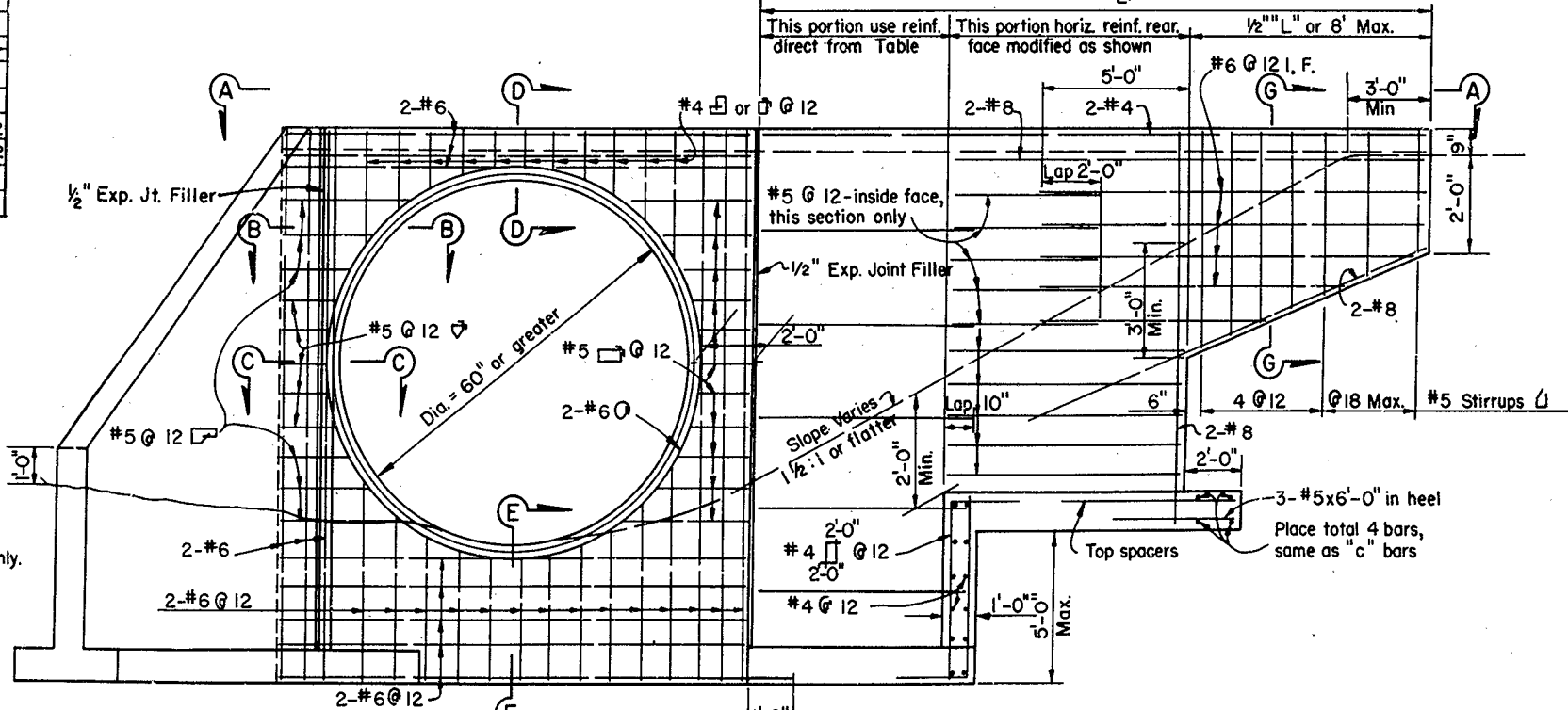
H'	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'	20'
W	3'-2"	3'-8"	4'-2"	4'-8"	5'-2"	5'-8"	6'-2"	6'-8"	7'-2"	7'-8"	8'-0"	8'-6"	9'-0"	10'-0"	10'-6"	11'-4"	12'-0"
C	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-10"	2'-0"	2'-2"	2'-4"	2'-6"	2'-8"	3'-0"	3'-4"	3'-8"	4'-0"	4'-4"	4'-8"
B	2'-2"	2'-6"	2'-10"	3'-2"	3'-6"	3'-10"	4'-2"	4'-6"	4'-10"	5'-2"	5'-4"	5'-8"	6'-0"	6'-4"	6'-8"	7'-0"	7'-4"
F	1'-2"																
Batter	None																
S	1'-0"																
"b" bars	None																
"c" bars	4@24	4@18	5@20	5@14	5@10	5@7	6@7 1/2	7@8	7@6	9@15	10@15	10@12	10@11	10@9	6@24	6@18	7@17
"d" bars	4@24	4@18	5@20	5@14	5@10	6@14	7@15	8@16	7@12	8@15	9@15	9@12	9@11	9@9	9@8	10@9	10@8 1/2
Conc. $\frac{CY}{LF}$	0.32	0.38	0.44	0.49	0.55	0.61	0.67	0.73	0.79	1.02	1.10	1.18	1.26	1.36	1.45	1.55	1.72
Reinf. $\frac{LBS}{LF}$	13	16	19	25	30	37	49	62	76	73	90	104	123	141	170	189	206



SECTION F-F



TYPE C HEADWALL



TYPE A

END ELEVATION

TYPE B

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STANDARD PIPE CULVERT HEADWALLS TYPES "A", "B" & "C" D90-1

74

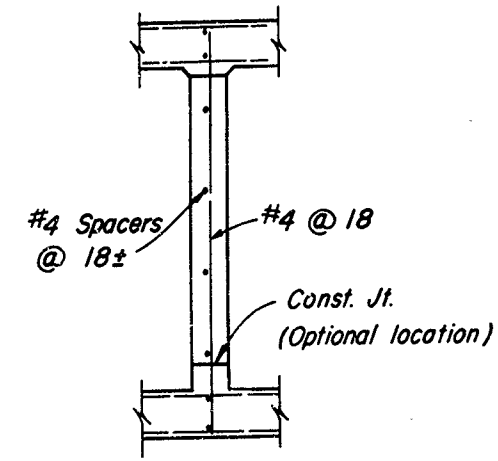
To accompany plans dated January 6, 1964

SAC ED = 50-17.1 / 2.4

DATE APPROVED February 5, 1962
STATE HIGHWAY ENGINEER
CIVIL ENGINEER LICENSE NO. 5284

SPAN	6'				5'				8'				7'				6'				9'				10'				8'				11'				12'			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D				
Strength Classification																																								
Max. Fill Over Top																																								
Top Slab T ₁																																								
Bottom Slab T ₂																																								
Sidewalls T ₃																																								
REINFORCING STEEL	Conc.																																							
	"a"	Size: Bar # "a"																																						
		Spacing "a"																																						
		Length "a" or "a ₁ "																																						
	"b"	Size: Bar # "b"																																						
		Spacing "b"																																						
		Length "b"																																						
	"c"	Size: Bar # "c"																																						
		Spacing "c"																																						
		Length "c" or "c ₁ "																																						
	"d"	Top Slab-Tot. No.																																						
		Bot. Slab-Tot. No.																																						
		Spacing																																						
	"e"	Size: Bar # "e"																																						
		Spacing "e"																																						
Length "e"																																								
"f"	Dimension "X"																																							
	Dimension "Y"																																							
	Dimension "Z"																																							
"g"	Size: Bar # "g"																																							
	Spacing "g"																																							
	Length "g"																																							
"h"	Dimension "X"																																							
	Dimension "Y"																																							
	Dimension "Z"																																							
Spacers	Total No.																																							
	Concrete: C.Y. per lin. ft.																																							
	Reinf. Lbs. per lin. ft.																																							

NOTE:
For boxes of height less than that shown in table, use next greater table height slabs, wall dimensions and reinforcing steel, and make necessary changes in bar lengths, number of spacers and quantities. Reinforcement embedment is 1/2 dia., min. 1", except as noted.

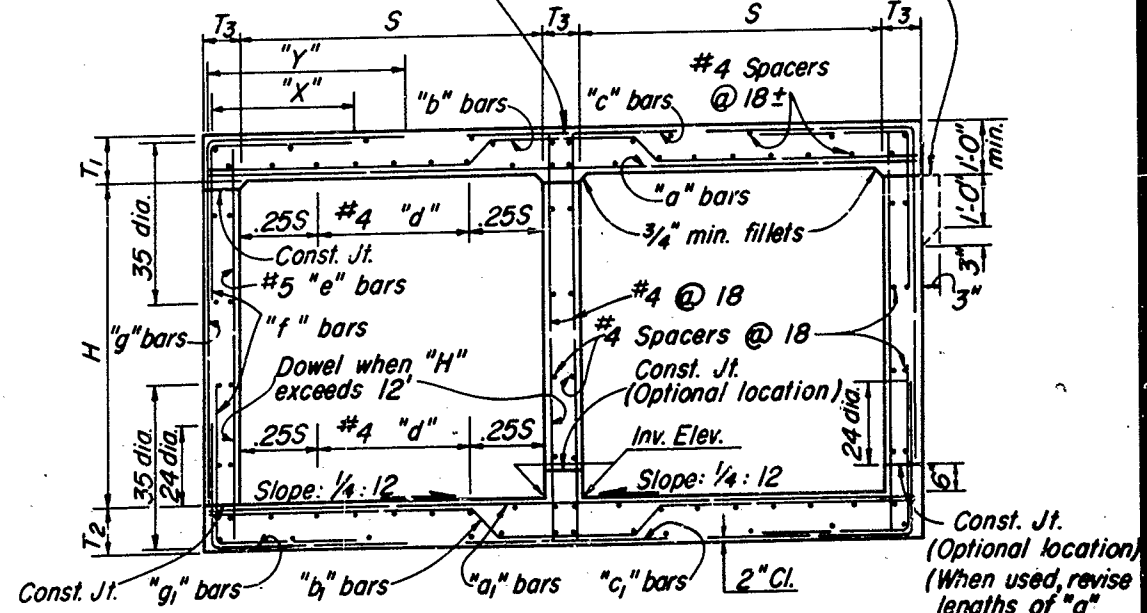


Reinforcement for interior walls under 8'.

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

For culverts at grade, extend "c" bars full length, top slab only, provide additional spacers @ 18" and adjust quantities.
Provide paving notch for culverts at grade where P.C.C. approach paving is used.

SPAN	11'				12'				10'				14'				13'				12'				15'				16'				
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	
Strength Classification																																	
Max. Fill Over Top																																	
Top Slab T ₁																																	
Bottom Slab T ₂																																	
Sidewalls T ₃																																	
REINFORCING STEEL	Conc.																																
	"a"	Size: Bar # "a"																															
		Spacing "a"																															
		Length "a" or "a ₁ "																															
	"b"	Size: Bar # "b"																															
		Spacing "b"																															
		Length "b"																															
	"c"	Size: Bar # "c"																															
		Spacing "c"																															
		Length "c" or "c ₁ "																															
	"d"	Top Slab-Tot. No.																															
		Bot. Slab-Tot. No.																															
		Spacing																															
	"e"	Size: Bar # "e"																															
		Spacing "e"																															
Length "e"																																	
"f"	Dimension "X"																																
	Dimension "Y"																																
	Dimension "Z"																																
"g"	Size: Bar # "g"																																
	Spacing "g"																																
	Length "g"																																
"h"	Dimension "X"																																
	Dimension "Y"																																
	Dimension "Z"																																
Spacers	Total No.																																
	Concrete: C.Y. per lin. ft.																																
	Reinf. Lbs. per lin. ft.																																



TYPICAL SECTION
(Showing reinforcement for interior walls 8" and over)

AS BUILT PLANS
Conf. No. 074024
Completed 12-65

STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS			
SPECIAL DOUBLE BOX CULVERTS			
SCALE	BRIDGE	FILE	DRAWING D92
PRELIMINARY DRAWING NO. P		REVISION DATES	

STANDARD DRAWING
SPECIAL DRAWING
DESIGNED BY
CHECKED BY
APPROVED BY

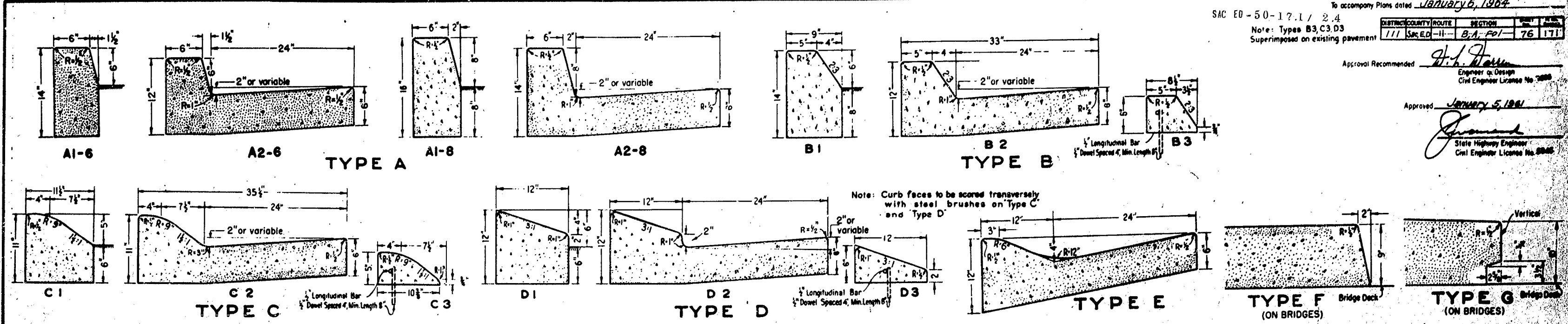
To accompany Plans dated January 6, 1964
 SAC ED-50-17.1 / 2.4
 Note: Types B3, C3, D3
 Superimposed on existing pavement

DISTRICT	COUNTY	ROUTE	SECTION	POST MILE	PLAN
III	Sacramento	11	B.A. Pd	76	171

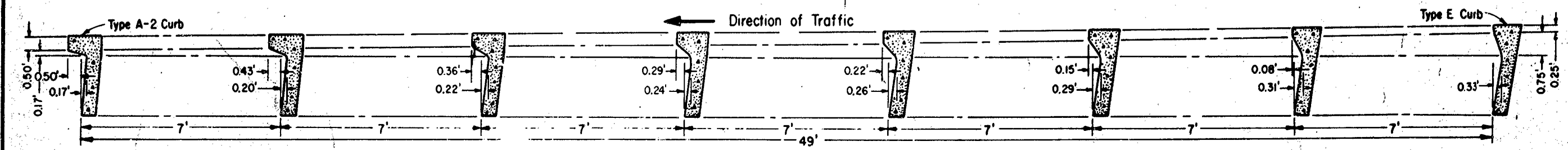
Approval Recommended *J. H. [Signature]*
 Engineer in Charge
 Civil Engineer License No. 3888

Approved January 5, 1964

[Signature]
 State Highway Engineer
 Civil Engineer License No. 8848



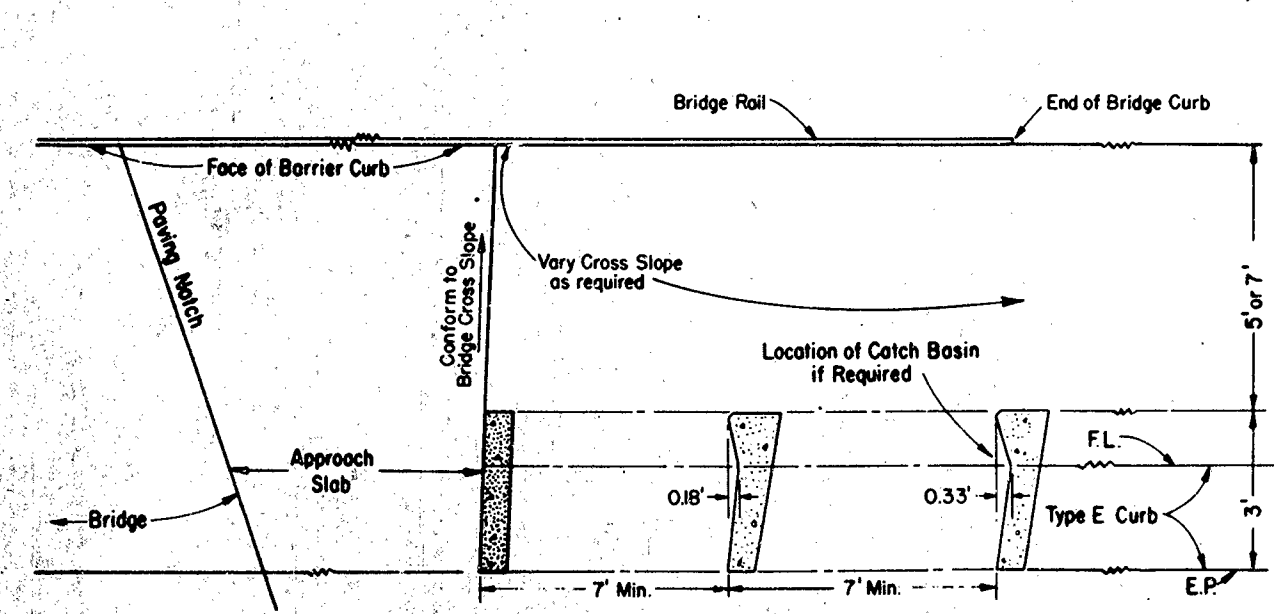
Note: Curb faces to be scored transversely with steel brushes on Type C and Type D



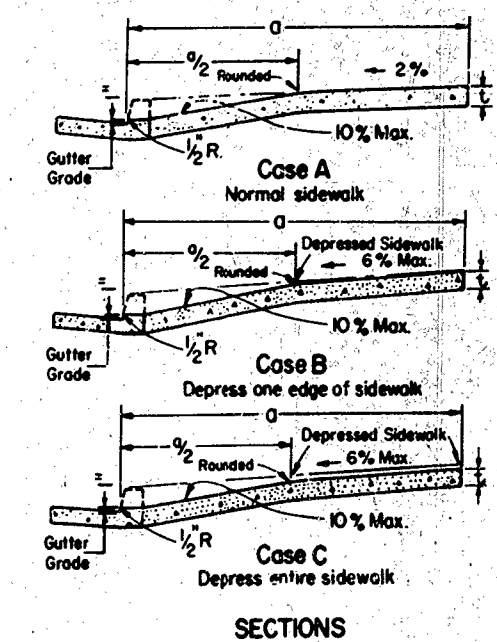
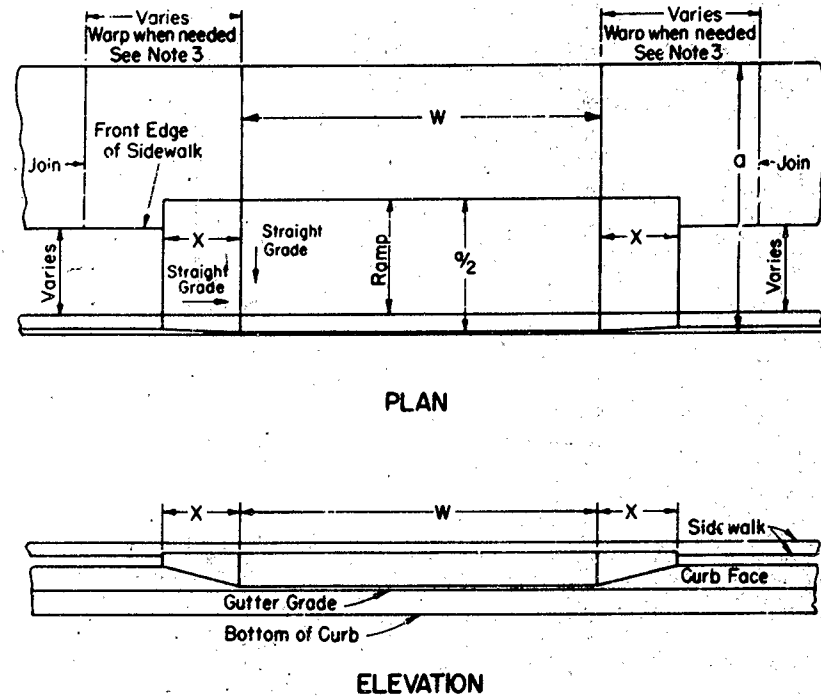
STANDARD CURB TRANSITION - TYPE E TO TYPE A-2

Note: Straight Line Transition in Flow Line and Top of Curb unless otherwise ordered by Engineer

CURB QUANTITIES			
Type	C.Y. Per Lin. Ft.	Type	C.Y. Per Lin. Ft.
A1-6	0.02585	C1	0.02752
A2-6	0.05903	C2	0.03457
A1-8	0.03084	C3	0.00985
A2-8	0.06379	D1	0.03075
B1	0.02930	D2	0.06782
B2	0.06171	D3	0.01223
B3	0.01074	E	0.06661

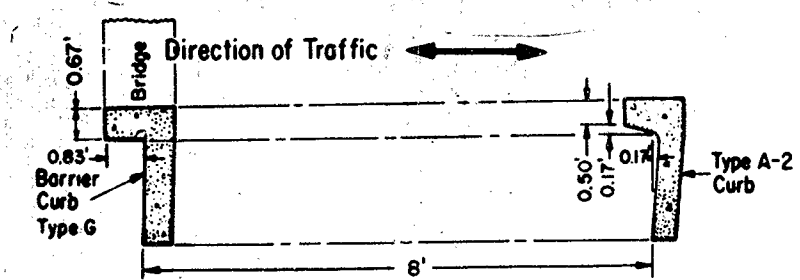


FLOW LINE TRANSITION - TYPE E AT STRUCTURE

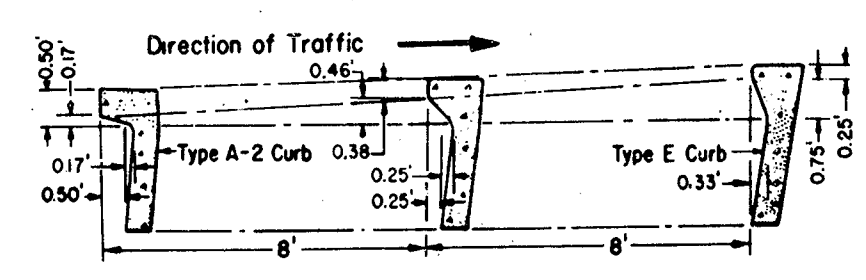


NOTES:

- Case A normally applies.
- Use Case B when ramp slopes would exceed 10% in Case A.
- Use Case C when sidewalk slope would exceed 6% in Case B. Longitudinal slope of warped area adjacent to driveway shall not vary more than 6% from the longitudinal grade line of the sidewalk.
- X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
- Sidewalk and ramp thickness "t" of driveway shall be 4" for residential and 6" for commercial.
- Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5 feet from the gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.



CURB TRANSITION - TYPE A-2 TO TYPE G



CURB TRANSITION - TYPE A-2 TO TYPE E

(See Note)

DRIVEWAYS

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

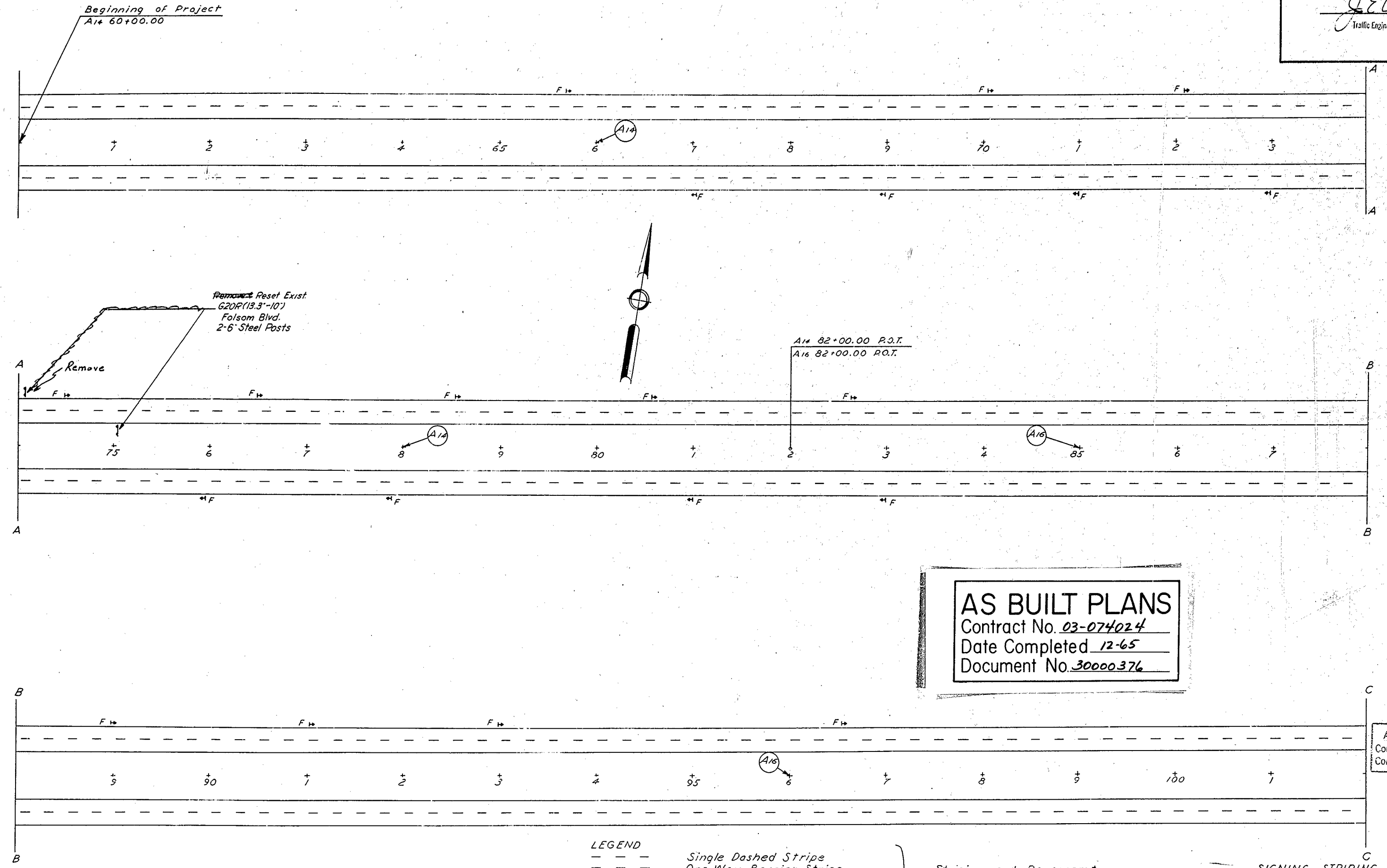
AS BUILT PLANS
 Cont. No. 03-074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD CURBS AND DRIVEWAYS

STATE	FEDERAL PROJECT NO.	PROJECT	DATE
7 CALIF.			
DIST.	COUNTY	ROUTE	SHEET
III	SAC	11	A
			77/171

Plastent
 APPROVED January 6, 1964
J.E. Wilson
 Traffic Engineer Civil Engineer License No. 6558



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

LEGEND
 - - - Single Dashed Stripe
 — One Way Barrier Stripe
 = Two Way Barrier Stripe
 O → Only Arrow (R for Lt. as Indicated)
 S STOP Pavmt. Marking
 SA STOP AHEAD Pavmt. Marking
 ← Off Ramp Pavmt. Marking

Stripping and Pavement
 Markings to be done by
 others.

**SIGNING STRIPING AND
 DELINEATION**
 SCALE 1"=50' JUNE, 1963

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

STATE	FEDERAL PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7 CALIF.			78	177

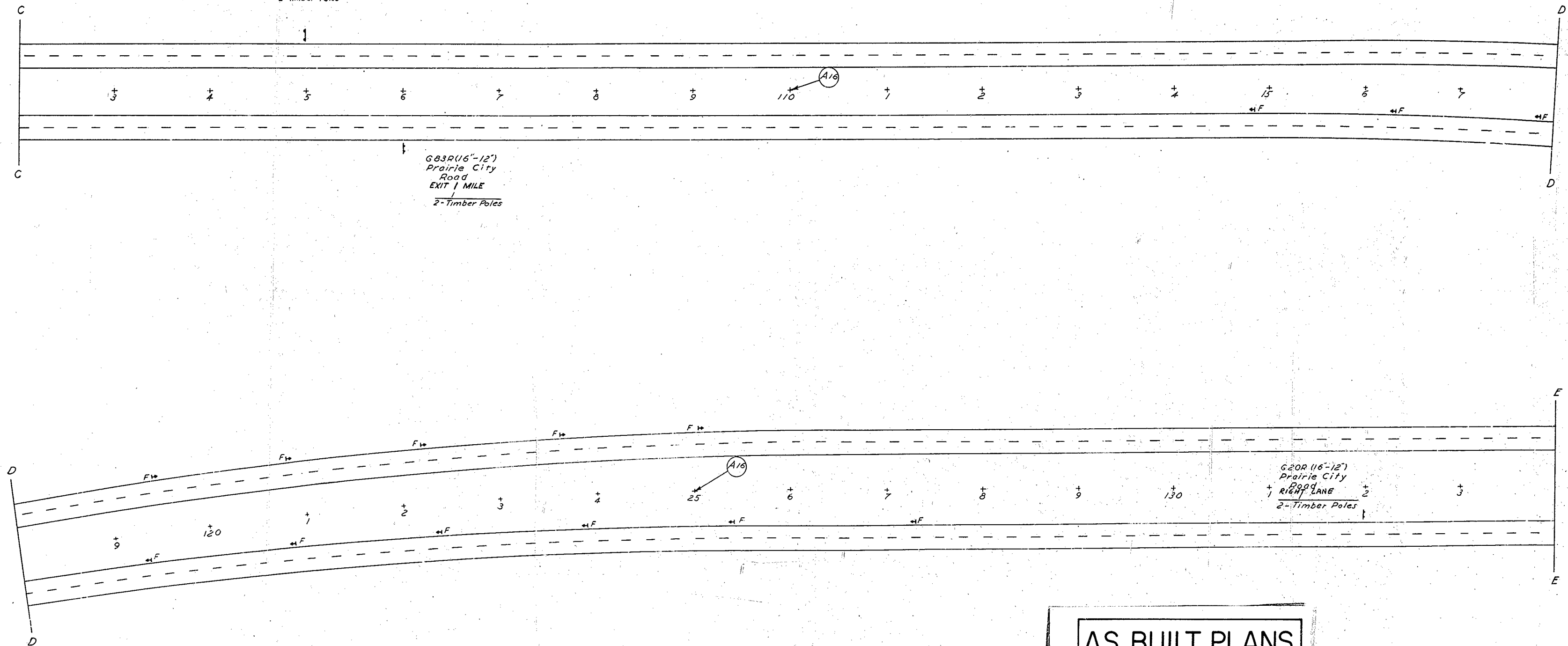
III SAC 11 A
 APPROVED: January 6, 1964
J. F. Lewis
 Traffic Engineer Civil Engineer License No. 6585



G83P (16'-12")
 Folsom Blvd
 EXIT 1 MILE
 2-Timber Poles

G83P(16'-12")
 Prairie City
 Road
 EXIT 1 MILE
 2-Timber Poles

G20R (16'-12")
 Prairie City
 ROAD
 RIGHT LANE
 2-Timber Poles



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

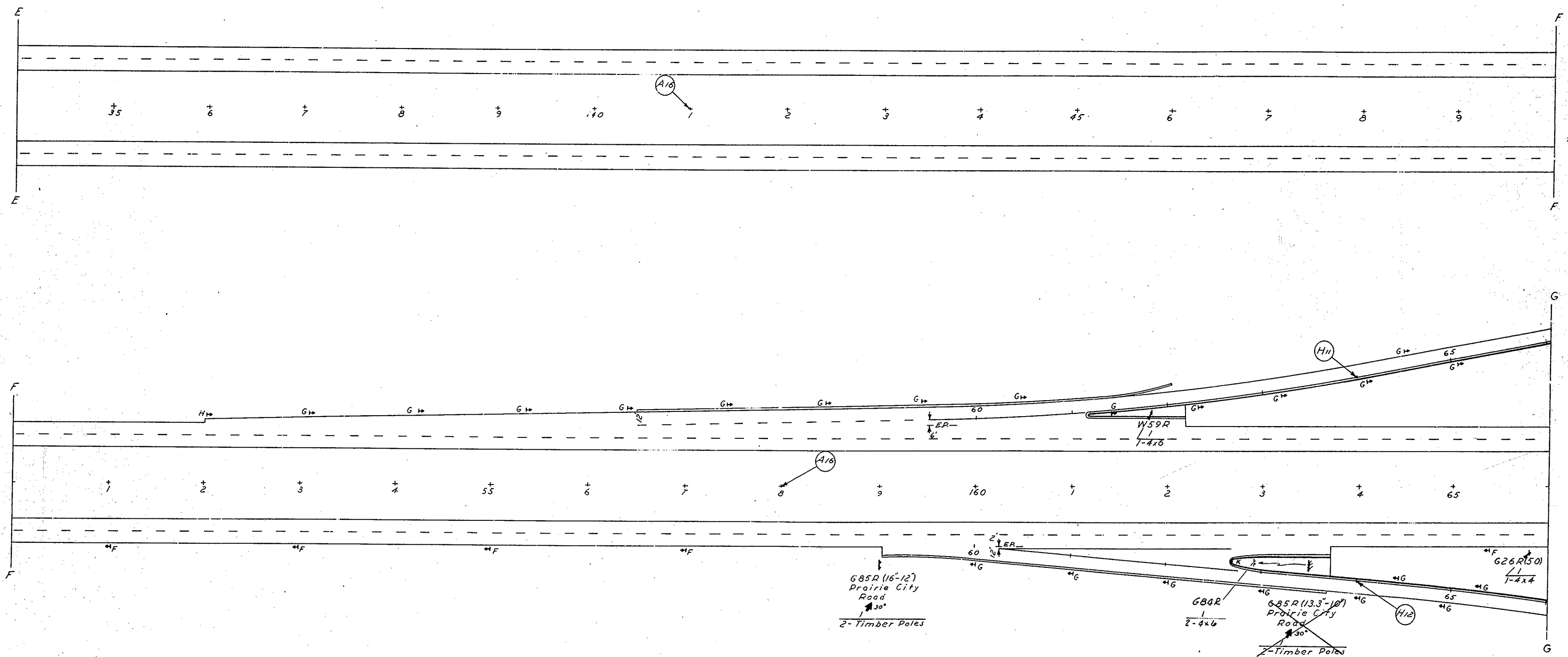
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

SSD-2

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

78

STATE	FEDERAL PROJECT NO.	SECTION	SHEET	TOTAL SHEETS
7 CALIF.		A	79	171
APPROVED: <i>[Signature]</i> January 6, 1964 <i>[Signature]</i> Traffic Engineer Civil Engineer License No. 6525				



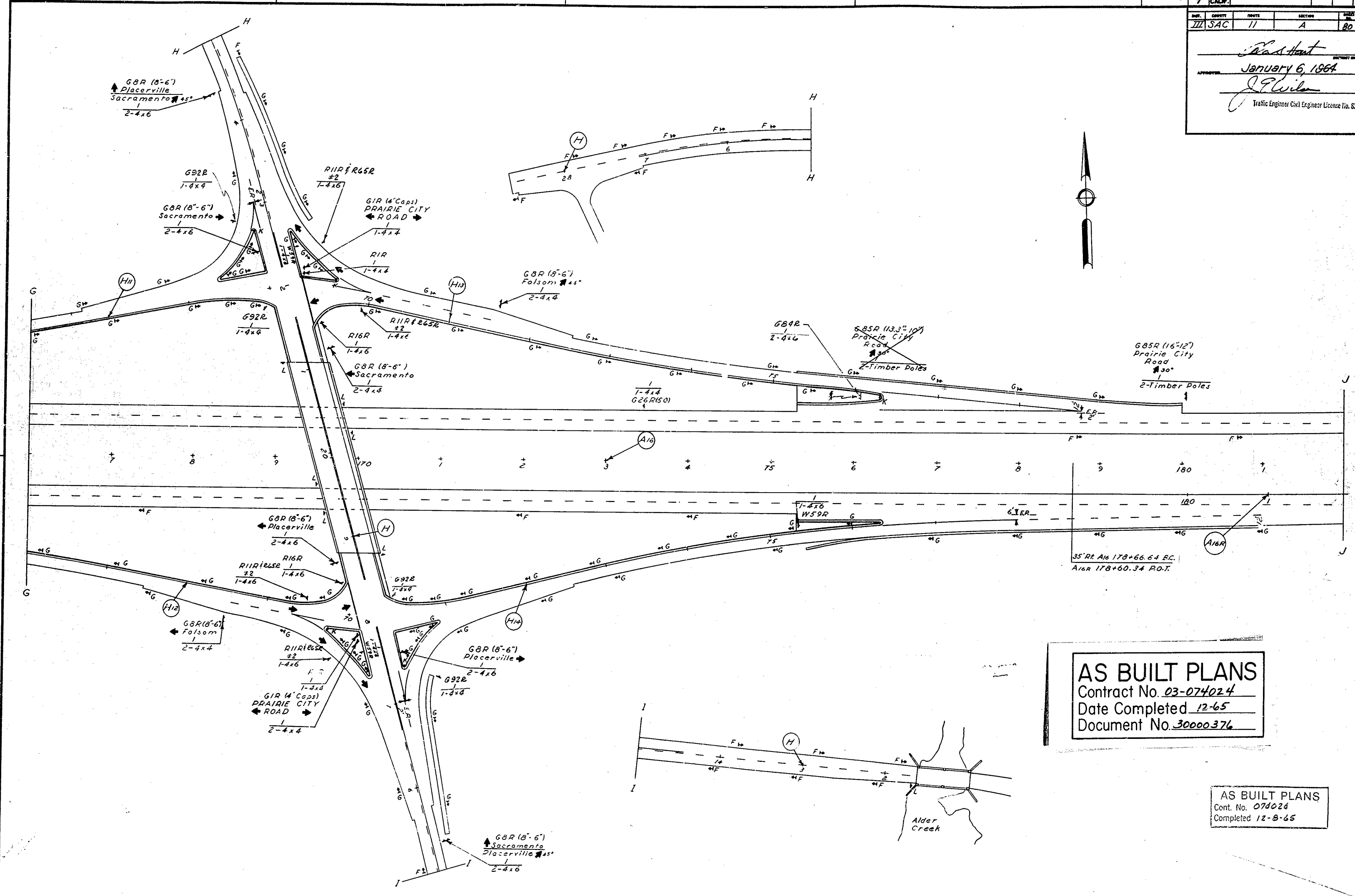
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 070024
 Completed 12-8-65

79

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

FEDERAL PROJECT NO.		7657		7657		7657	
STATE		CALIF.		SECTION		80 177	
SAC		11		A		80 177	
<i>Paul Hart</i> January 6, 1964 <i>J.P. Wiles</i> Traffic Engineer Civil Engineer License No. 8365							

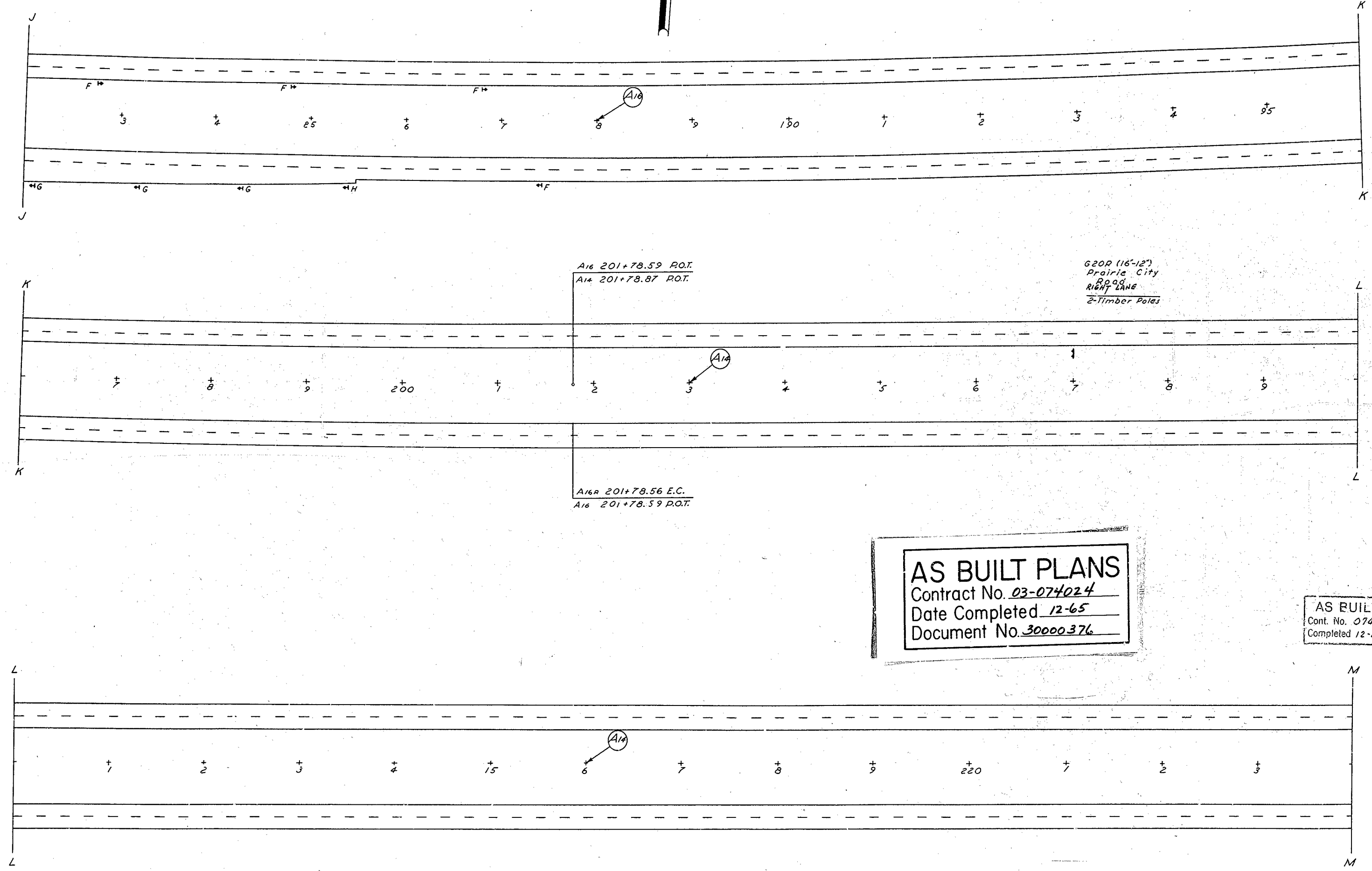


AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

STATE	FEDERAL PROJECT NO.	TITLE	SHEET NO.	TOTAL SHEETS
7 CALIF.			81	171
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.
III	SAC	11	A	81
APPROVED: <i>[Signature]</i> DATE: January 6, 1964 TRAFFIC ENGINEER: <i>[Signature]</i> License No. 6586				



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

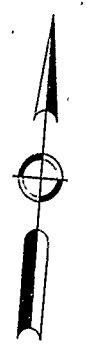
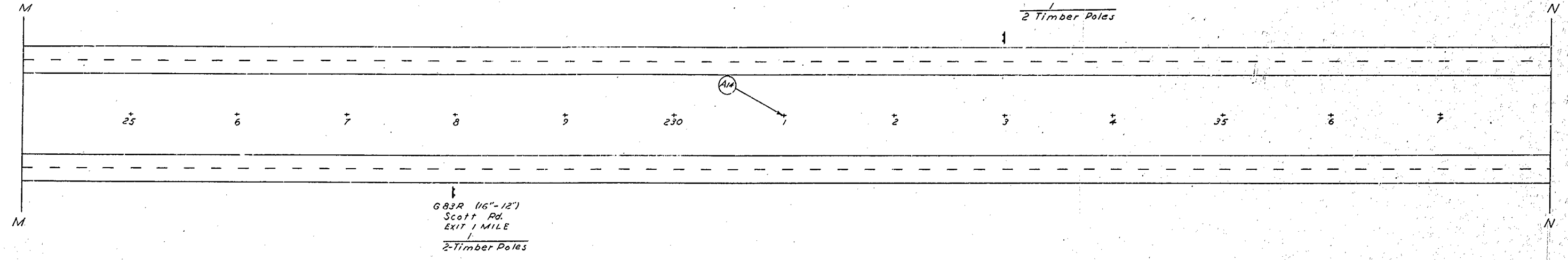
Project Engineer	Date	Design Engineer	Date	Approval Recommended by	Date

SSD-5

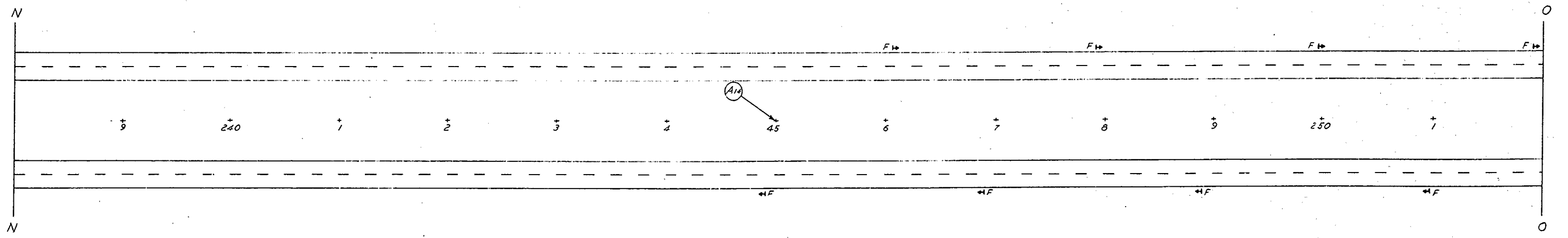
81

STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7 CALIF.			
DIST.	COUNTY	ROUTE	SECTION
III	SAC	11	A
SHEET NO.			TOTAL SHEETS
82			171
DESIGNED BY: <i>W. Hart</i> APPROVED: <i>J. Wilson</i> DATE: <u>January 6, 1964</u> Traffic Engineer Civil Engineer License No. 6522			

G83R (16"-12")
 Prairie City
 Road
 EXIT 1 MILE
 2 Timber Poles



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

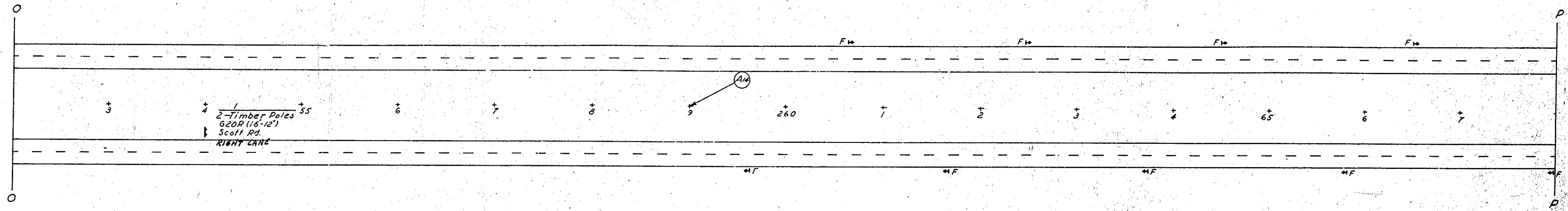


AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

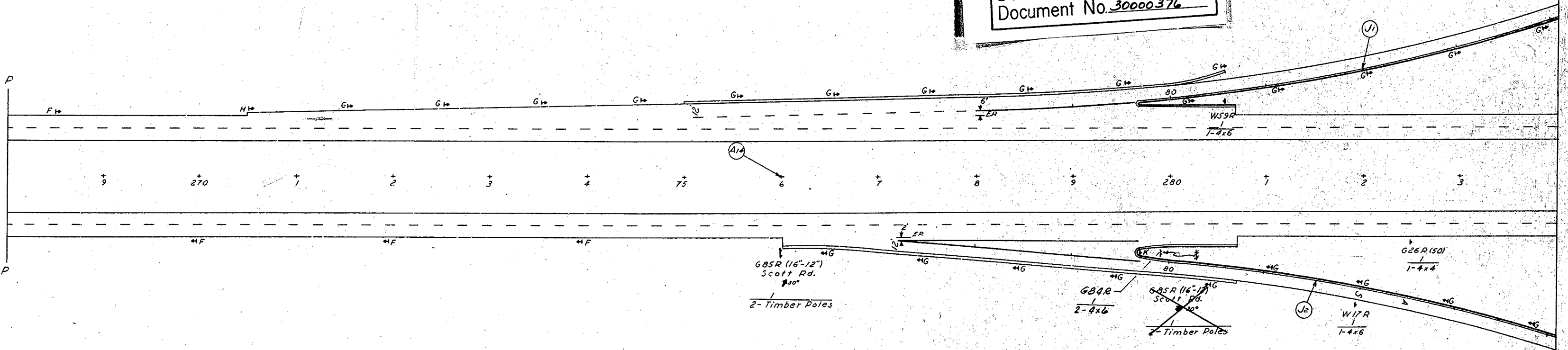
Project Engineer	Date	Design Engineer	Date	Approval Recommended by	Date

82

STATE	FEDERAL PROJECT NO.	POST	SHEET	DATE
7 CALIF.				
DIST.	COUNTY	ROUTE	SECTION	SHEET
III	SAC	11	A	89 171
<i>Ras Hunt</i> APPROVED <u>January 6, 1964</u> <i>J. E. Wilson</i> Traffic Engineer Civil Engineer License No. 8586				



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376



AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

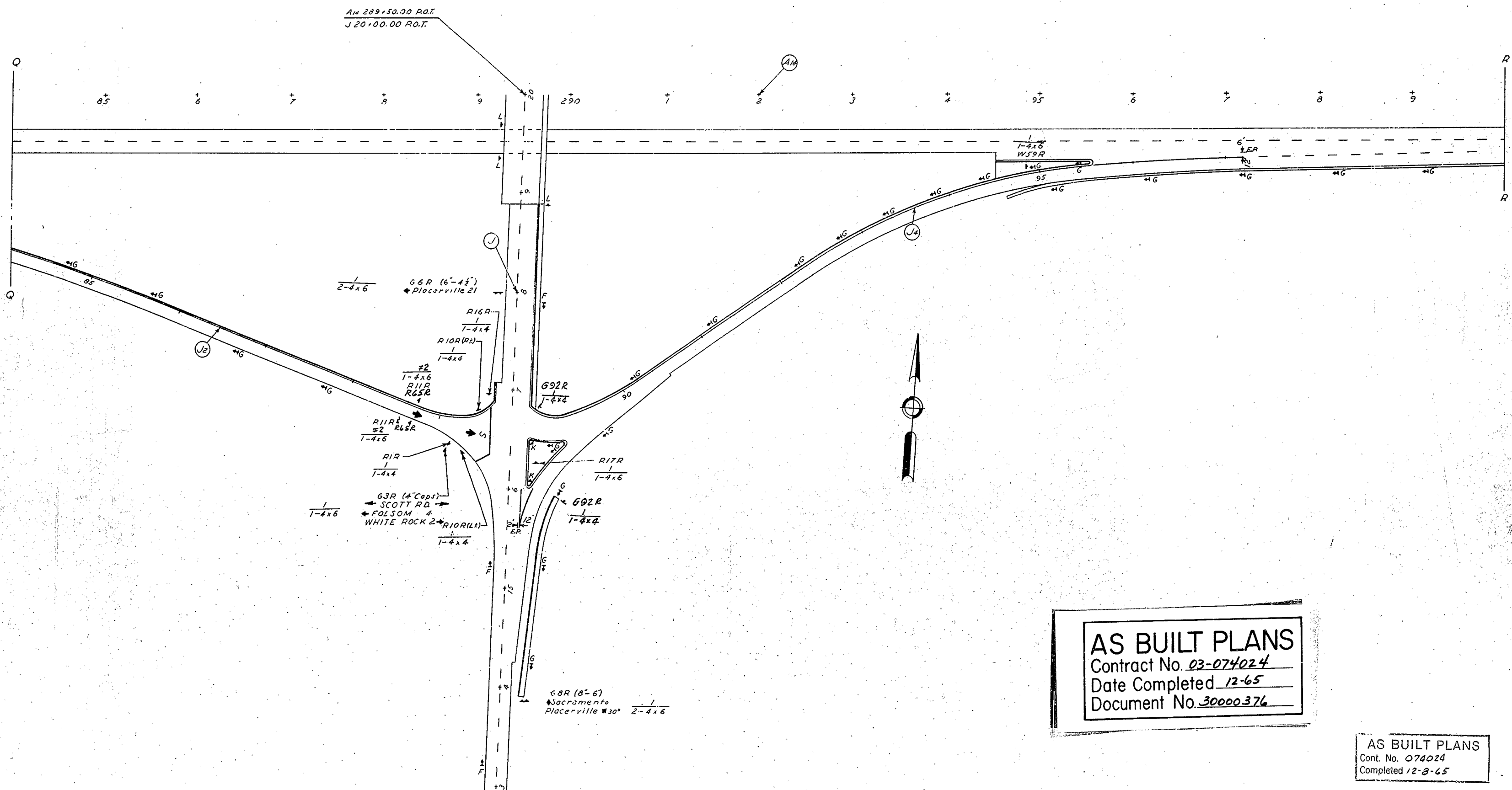
83

Project Engineer	Date	Design Engineer	Date	Approval Recommended by	Date

SSD-7

FED. DIST. NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CALIF.			84	171

APPROVED: *Plas Hat*
 January 6, 1964
J. Fluder
 Traffic Engineer Civil Engineer License No. 6586



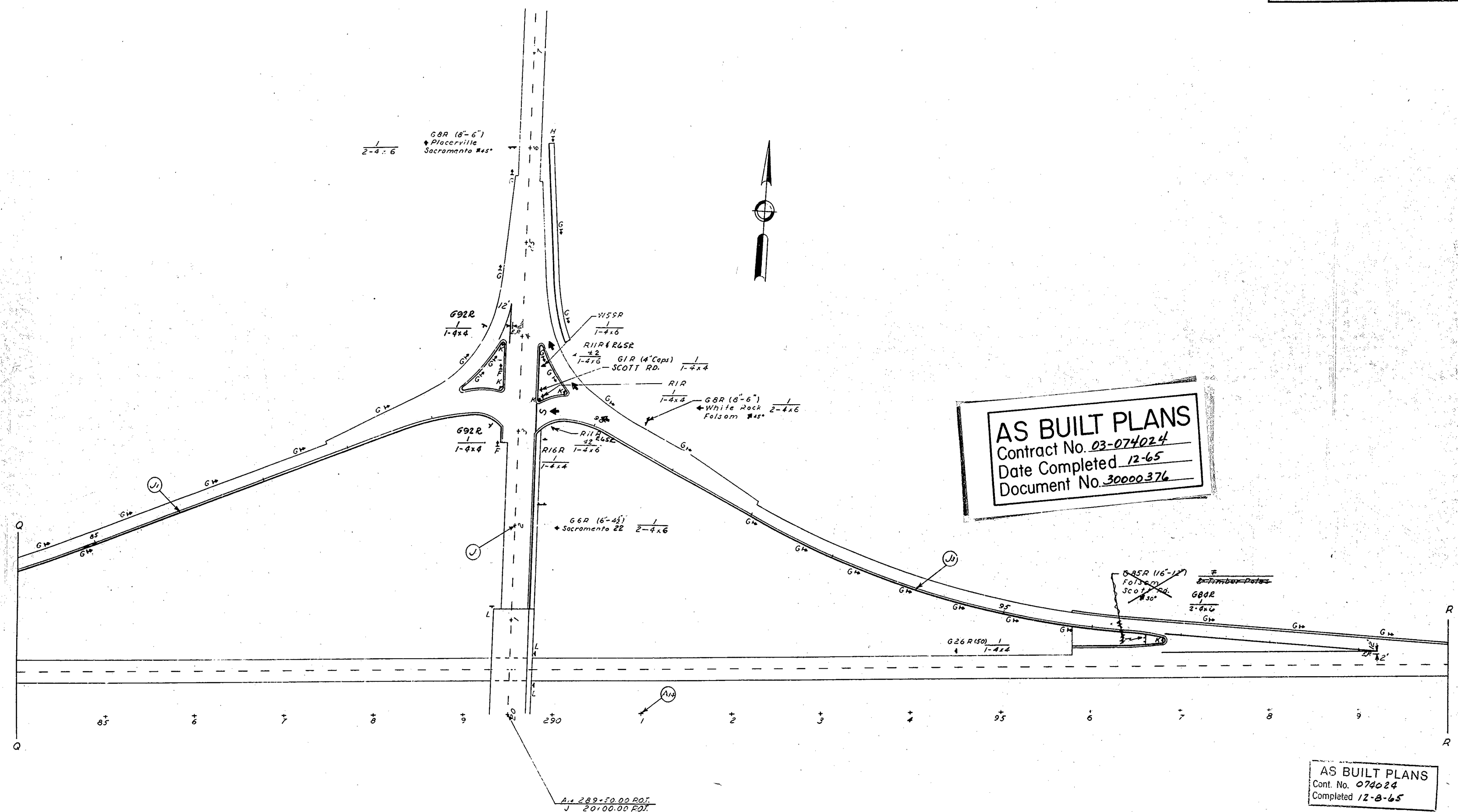
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

84

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
7 CALIF.			
DIST.	COUNTY	ROUTE	SECTION
III	SAC	11	A
DRAWN BY: <i>Chas. H. ...</i> APPROVED: <i>January 6, 1964</i> <i>J. Fluren</i> Traffic Engineer Civil Engineer License No. 8335			

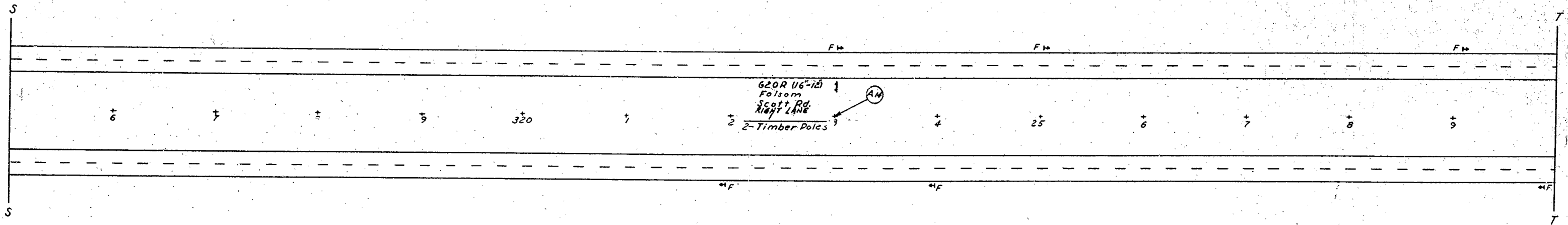
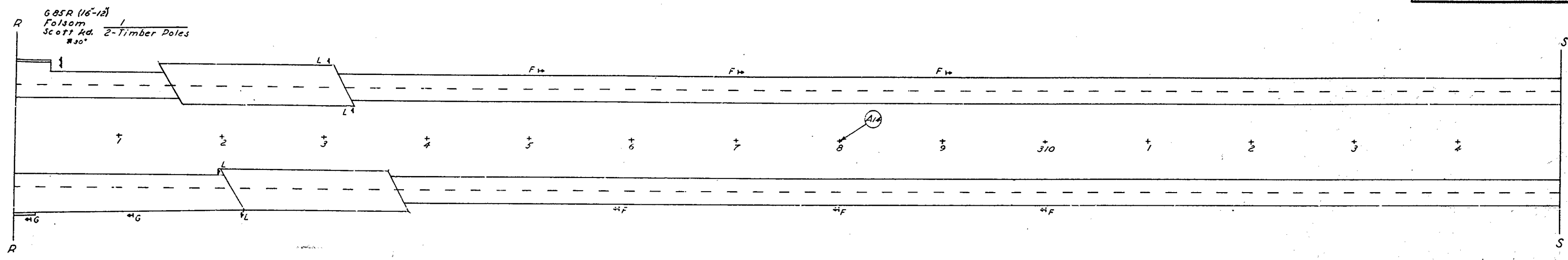


85

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

SSD-9

Dist.	STATE	FEDERAL PROJECT NO.	Sheet No.	Total Sheets
7	CALIF.		86	171
Dist.	COUNTY	ROUTE	SECTION	POST MILE
III	SAC	11	A	86
APPROVED: <i>Blas Hart</i> DATE: <u>January 6, 1964</u> Traffic Engineer Civil Engineer License No. 8586				



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

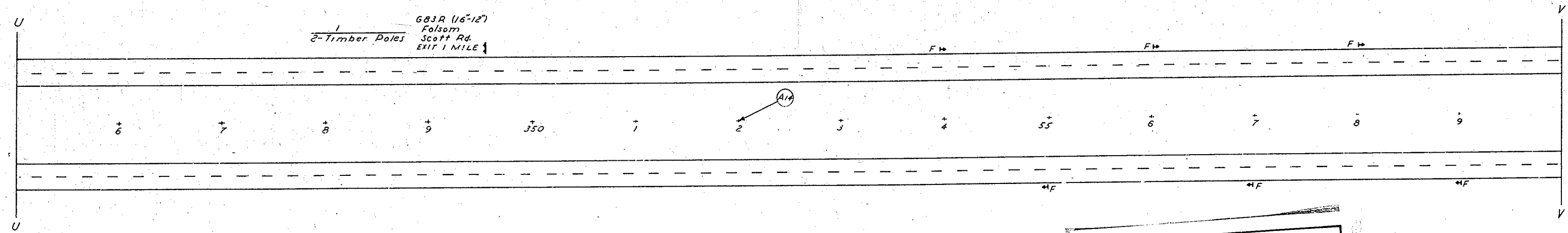
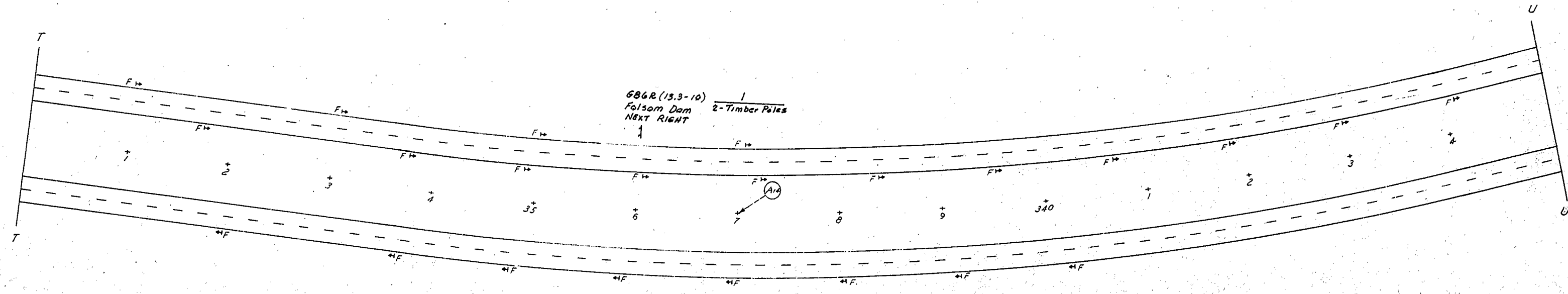
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-24

86

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

STATE	FEDERAL PROJECT NO.	FILE	PLAN	SHEET
7 CALIF.				
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.
III	SAC	11	A	87 171

DRAWN BY Blas Hart
 APPROVED January 6, 1964
J. E. Eulen
 Traffic Engineer Civil Engineer License No. 8582



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

87

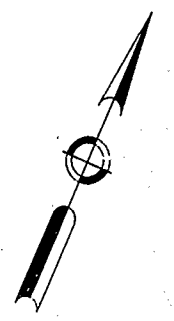
SSD-11

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

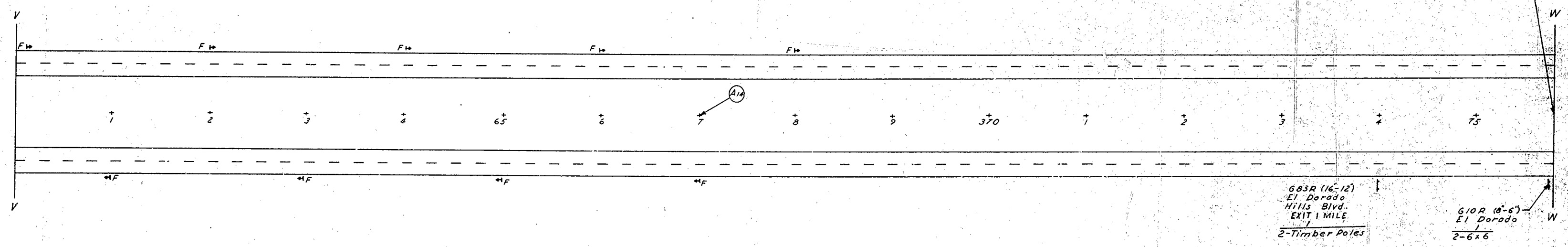
FED. DIST.	STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
III	SAC	11	A	88	171

Blas Hent
 APPROVED: January 6, 1964
J. E. Wilson
 Traffic Engineer Civil Engineer License No. 8506



E4-11-A 10+00.00 AS
 Soc-11-A 375+80.43 AS



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

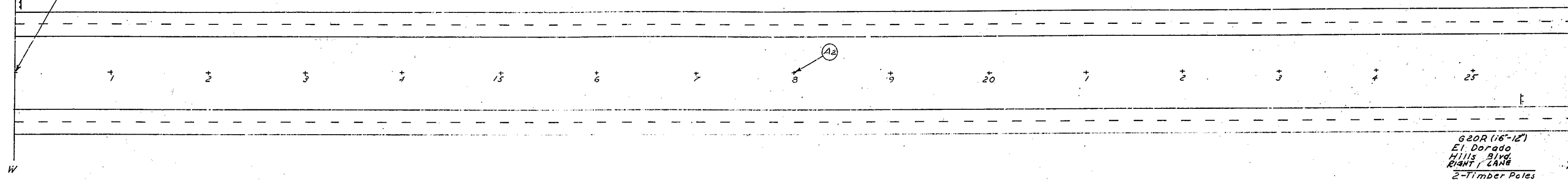
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Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

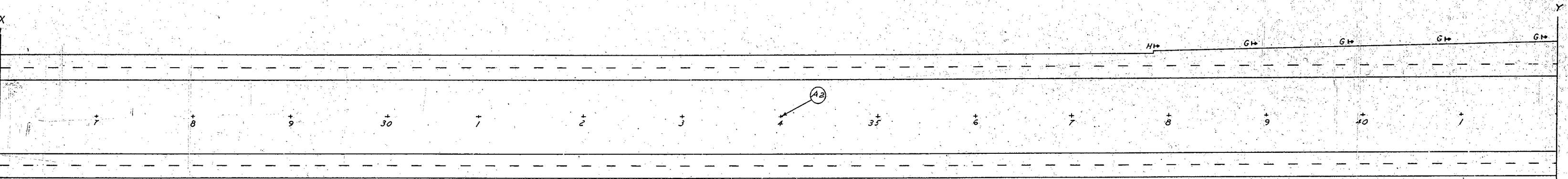
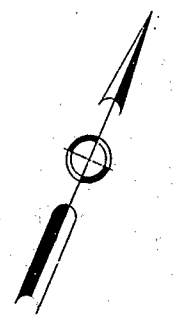
SSD-12

SHEET NO.	STATE	FEDERAL PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	CALIF.				
LINE	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
III	ED	11	A	89	171
DESIGNED BY: <i>Bladwell</i> APPROVED: <i>January 6, 1964</i> <i>R. E. Wilson</i> Traffic Engineer Civil Engineer License No. 8566					

G10R (8'-6")
Sacramento 2-6-66
 Sec-11-A 375+80.43 A.M.
 EG-11-A 10+00.00 A.Z.



G20R (16'-12")
El Dorado Hills Blvd
RIGHT LANE
2-Timber Poles



G9R (8'-6")
El Dorado Hills
2-4-66

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000-376

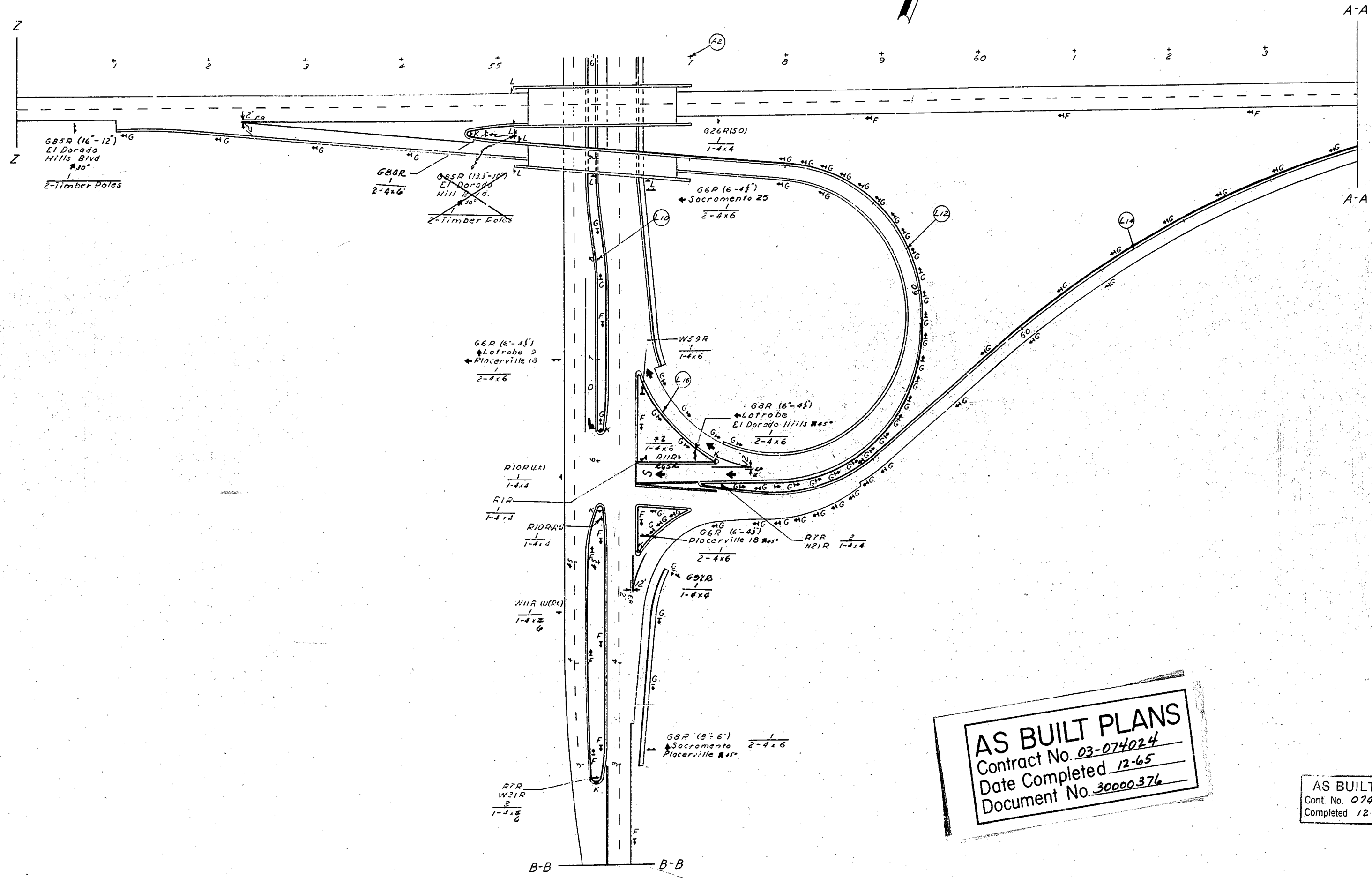
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

89

SSD-13

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7 CALIF.			
DATE	COUNTY	ROUTE	SECTION
III ED	ED	11	A
APPROVED: <i>Blas Hart</i> January 6, 1964 <i>J. Eluta</i> Traffic Engineer Civil Engineer License No. 8586			



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

SSD-15

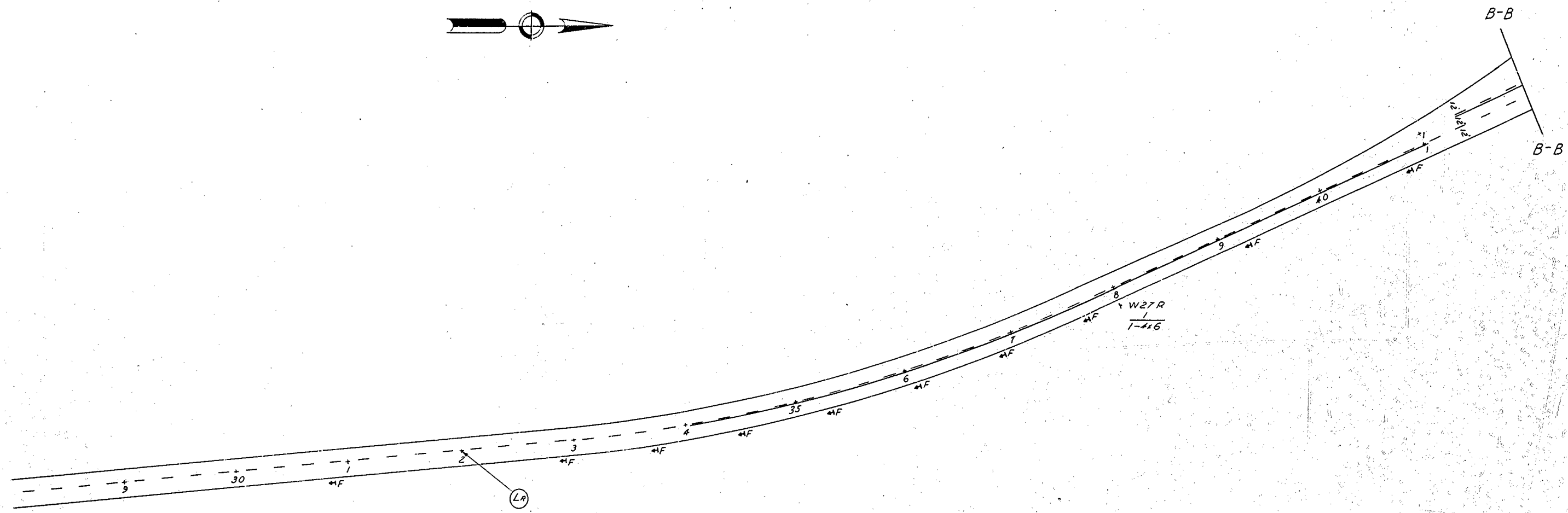
Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

91

STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7 CALIF.		92	177

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
III	ED	11	A	92	177

[Signature]
 APPROVED: January 6, 1964
 [Signature]
 Traffic Engineer: Civil Engineer License No. 6566



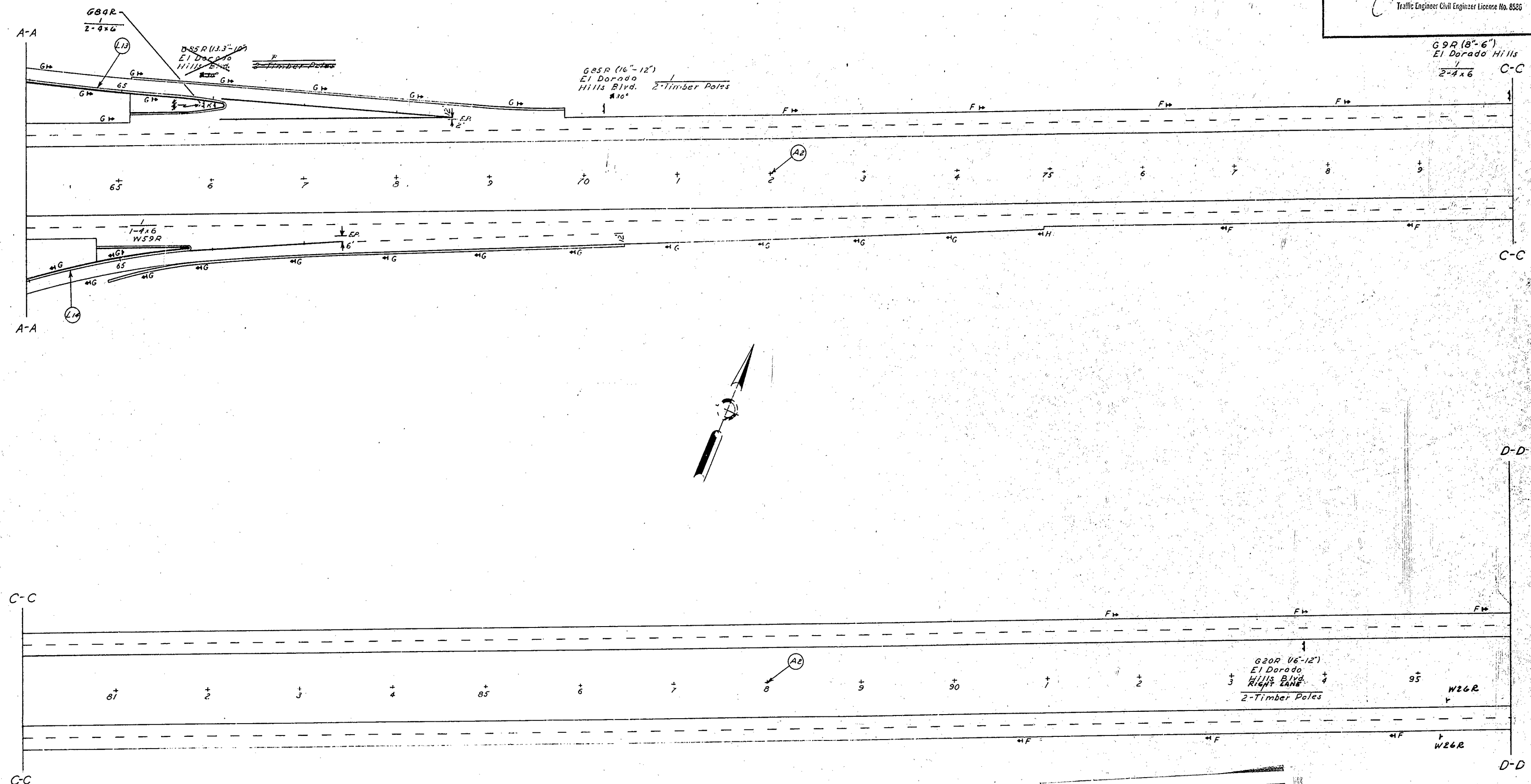
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

92

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

STATE	FEDERAL PROJECT NO.	YEAR	SHEET	TOTAL
7 CALIF.				
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.
III	ED	11	A	93 171
<i>Blas Hunt</i> APPROVED: <u>January 6, 1964</u> <i>J. E. Wils</i> Traffic Engineer Civil Engineer License No. 8586				



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

SSD - 17

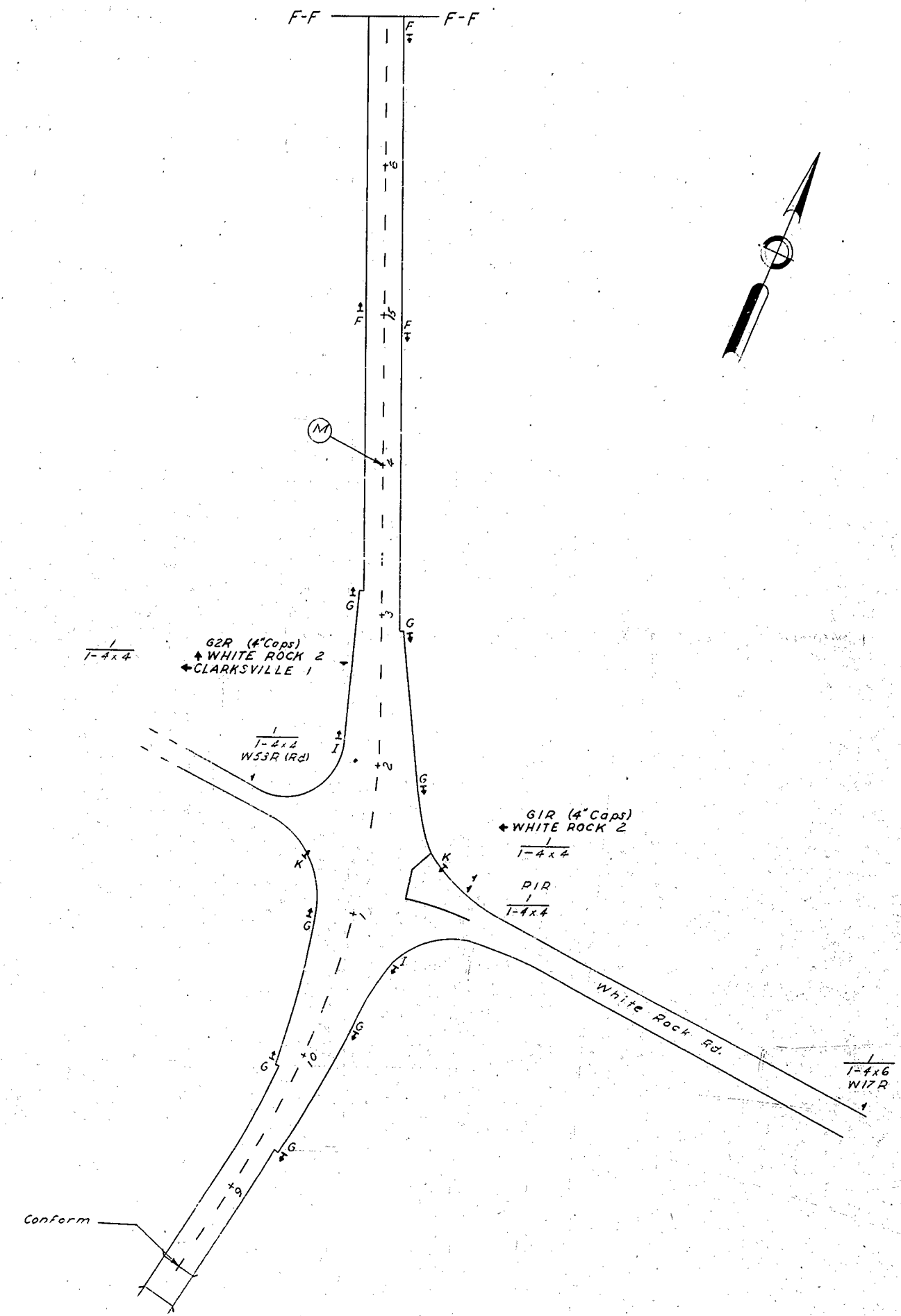
Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

93

STATE	FEDERAL PROJECT NO.	FEED	PLAN	SHEET
7 CALIF.				94

DIST.	COUNTY	ROUTE	SECTION	SHEET	TOTAL
III	ED	11	A	94	177

Plastat
 APPROVED: January 6, 1964
J. E. ...
 Traffic Engineer Civil Engineer License No. 8523



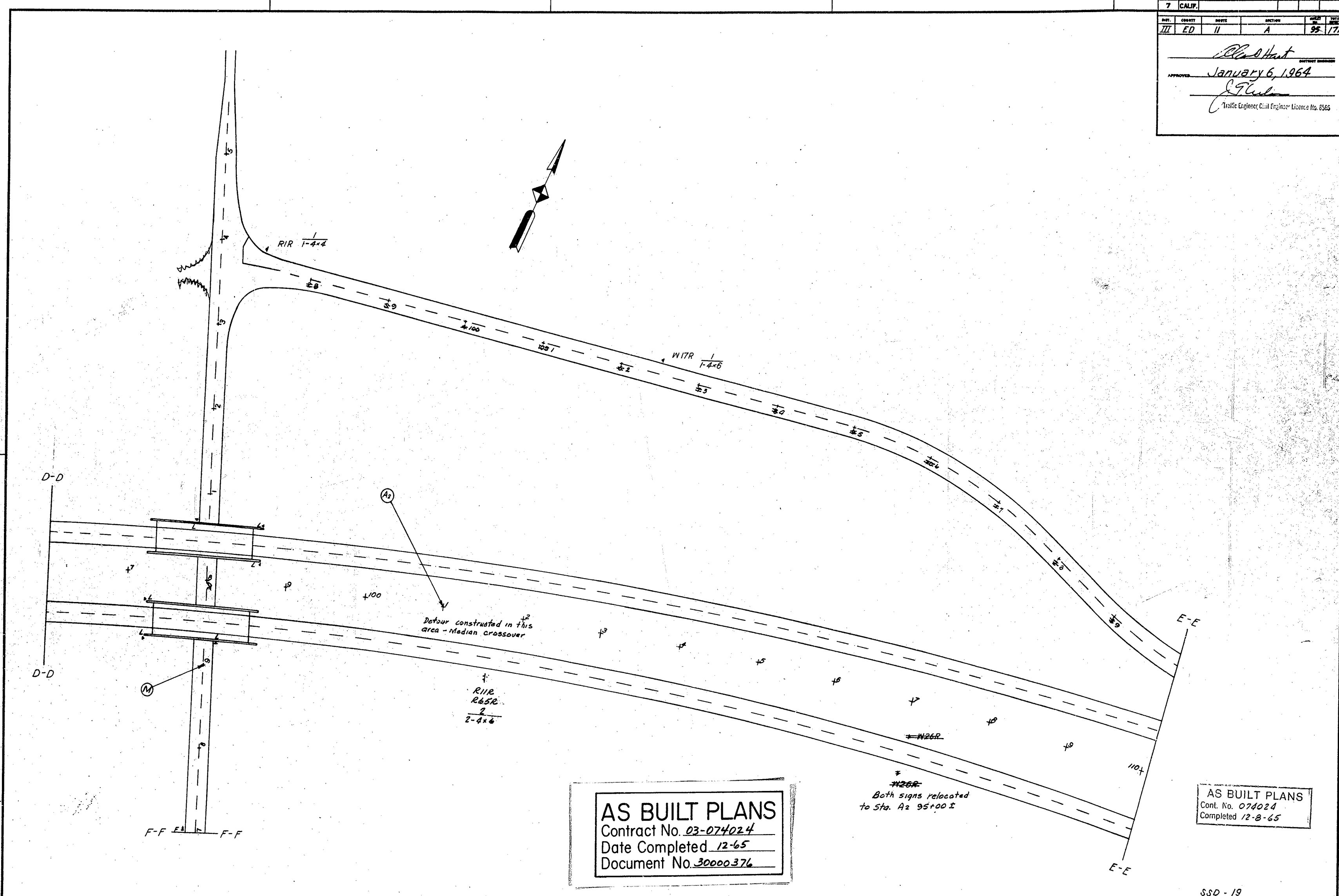
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

Project Engineer	Date	Design Engineer	Date	Approved Recommended By	Date

94

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
7 CALIF.			
NO. COUNTY	ROUTE	SECTION	SHEET NO. TOTAL SHEETS
III ED	11	A	95 177
<i>Blair Hunt</i> APPROVED January 6, 1964 <i>J. F. ...</i> Traffic Engineer, Civil Engineer License No. 8365			



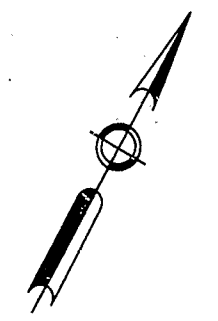
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

95

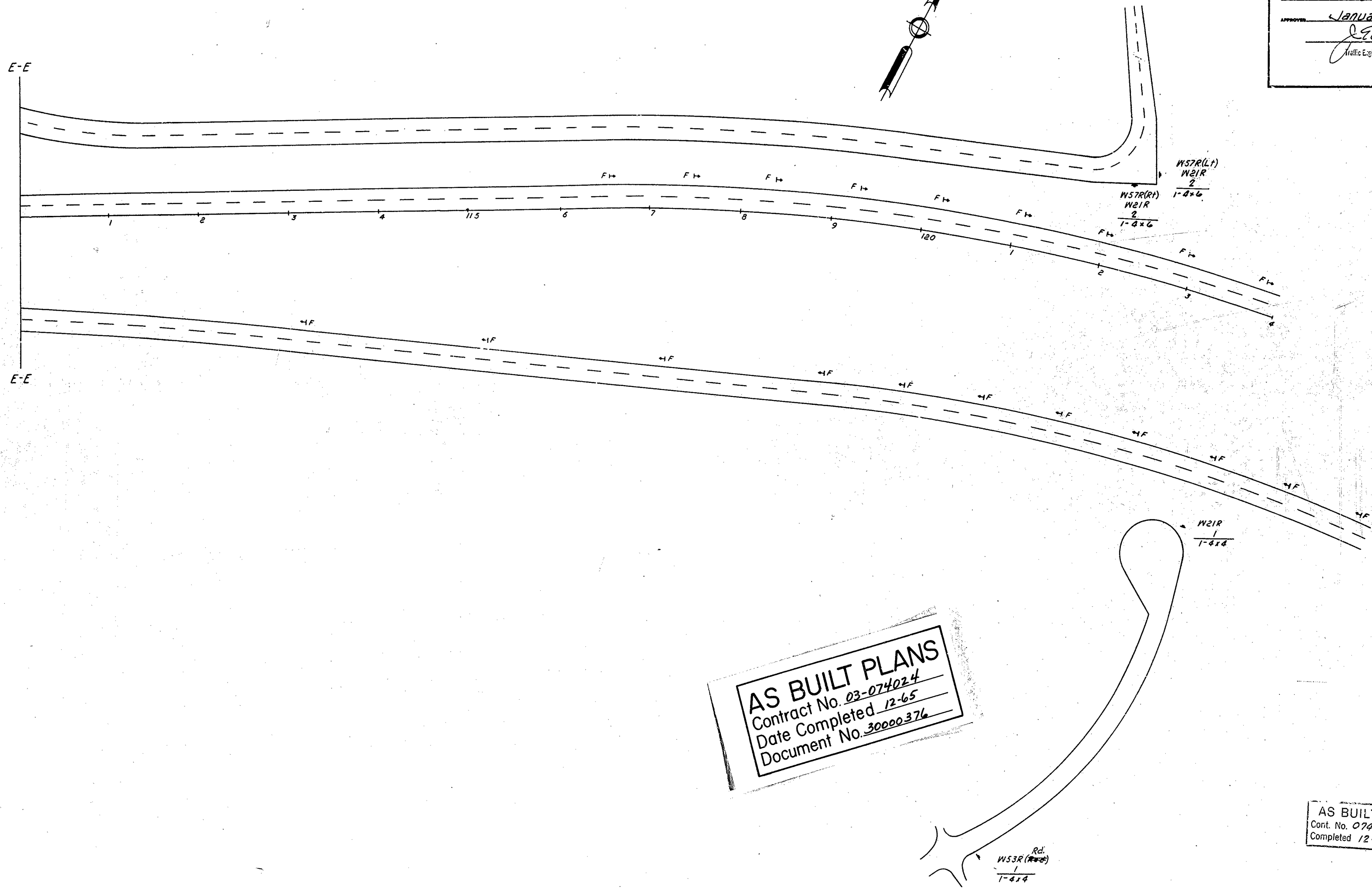
Project Engineer	Date	Design Engineer	Date	Approval Recommended by	Date

STATE	FEDERAL PROJECT NO.	POST	POST	DATE
7 CALIF.				
NO.	COUNTY	ROUTE	SECTION	SHEET NO.
III	ED	11	A	96 / 171
<i>Alaustat</i> APPROVED: <u>January 6, 1964</u> <i>J. Gluba</i> Traffic Engineer Civil Engineer License No. 8566				



E-E

E-E



W52R(L)
W21R
2
1-8x6

W52R(R)
W21R
2
1-8x6

W21R
1-4x4

Rd.
W53R (Road)
1-4x4

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

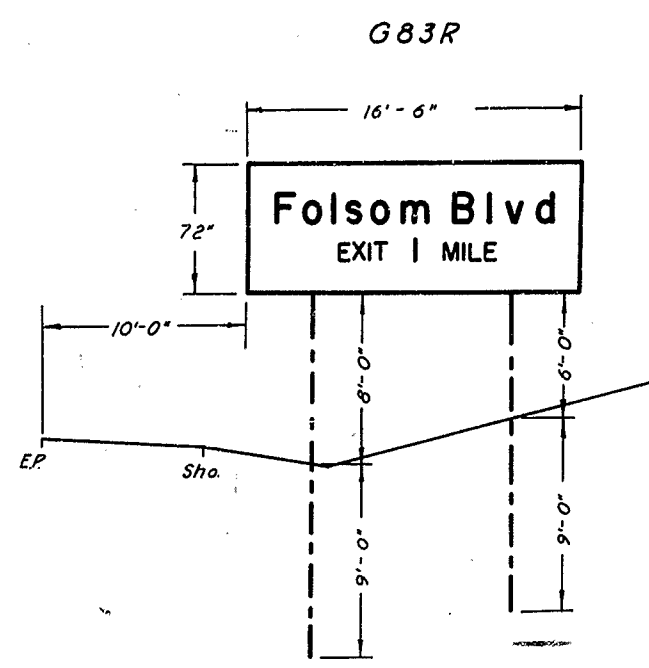
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

96

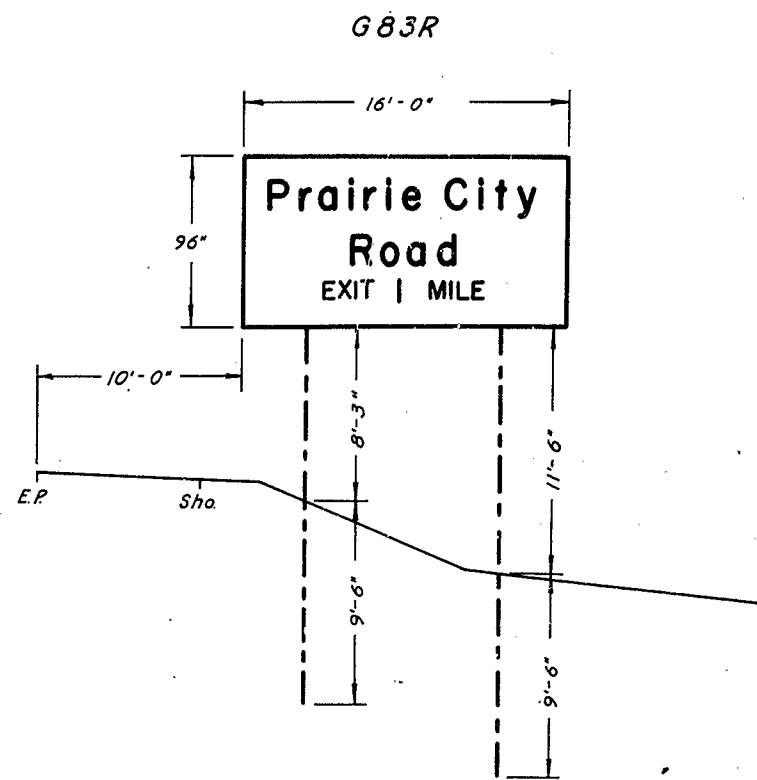
SSD-20

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

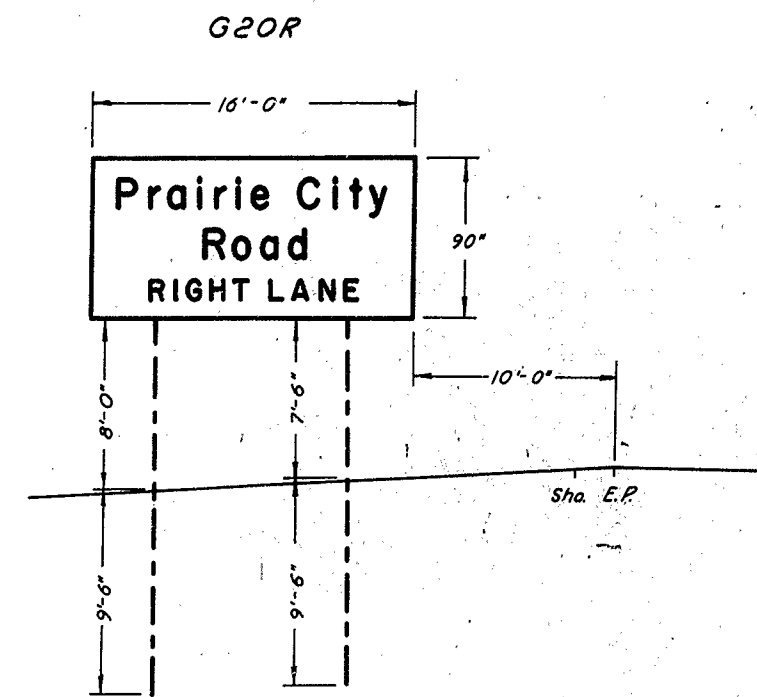
STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7 CALIF.				
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.
III	SAC	11	A	97
APPROVED: <i>Ala. H. Hart</i> January 6, 1964 <i>J. L. Luda</i> Traffic Engineer Civil Engineer License No. 8592				



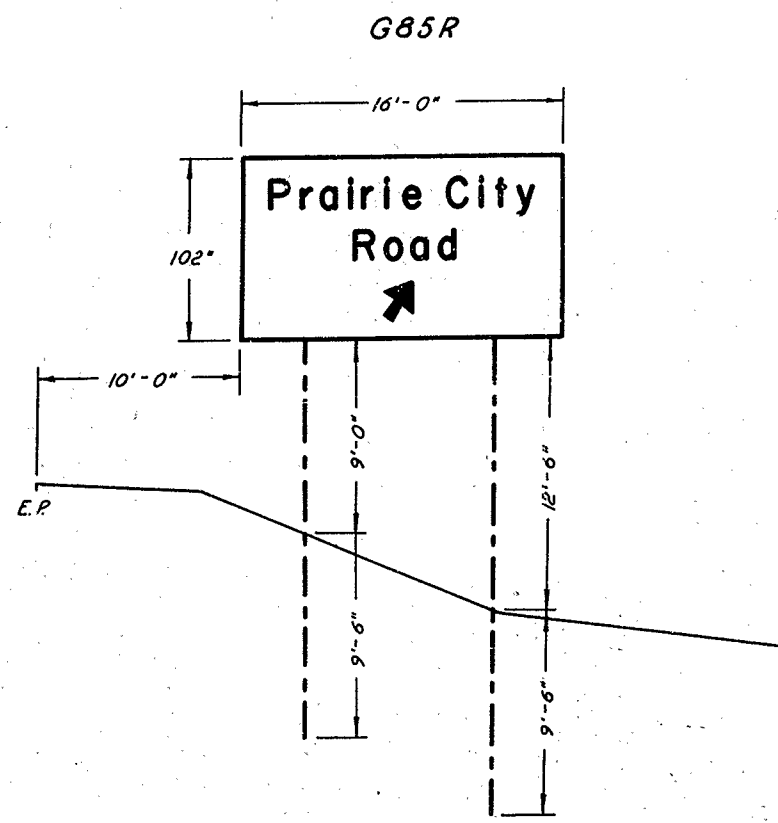
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F.W.B.T. On Sho.
@ Sta. A₁₆ 105+00



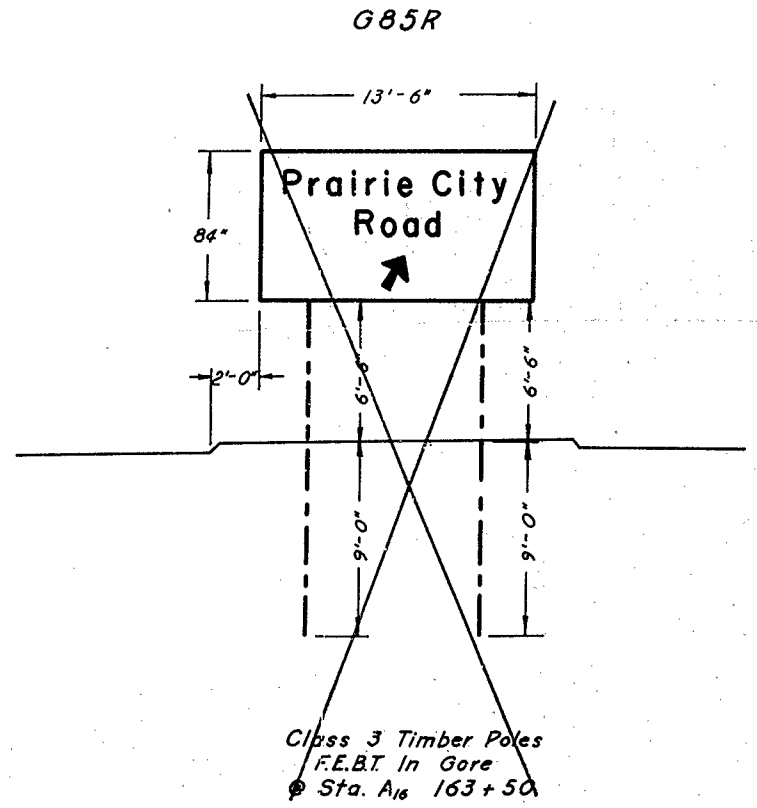
Class 2 Timber Poles
F.E.B.T. On Sho.
@ Sta. A₁₆ 106+00



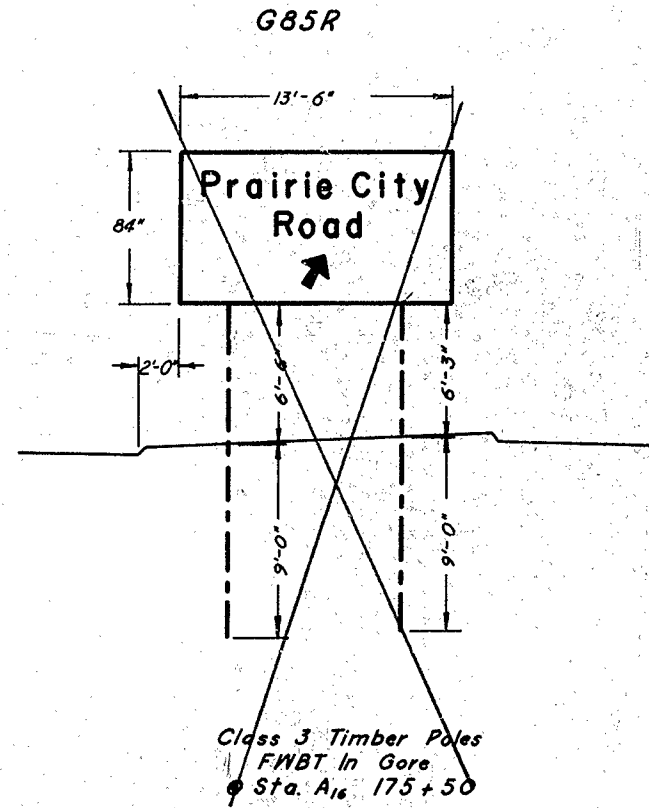
Class 2 Timber Poles
F.E.B.T. In Med.
@ STA. A₁₆ 132+00



Class 2 Timber Poles
F.E.B.T. On Sho.
@ Sta. A₁₆ 159+00



Class 3 Timber Poles
F.E.B.T. In Gore
@ Sta. A₁₆ 163+50



Class 3 Timber Poles
F.W.B.T. In Gore
@ Sta. A₁₆ 175+50

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

ROADSIDE SIGNS

FORMAT SHEET

SCALE: NONE AUG 1963

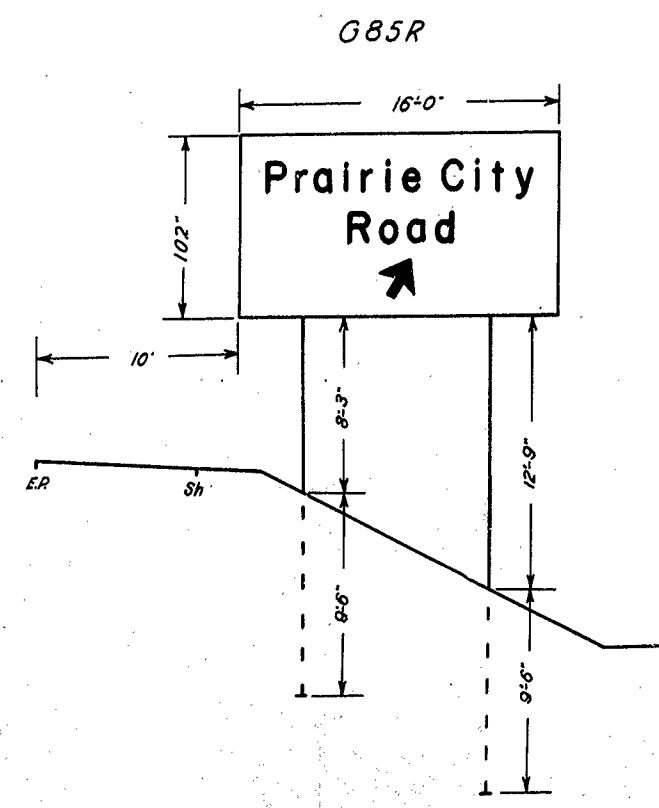
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97

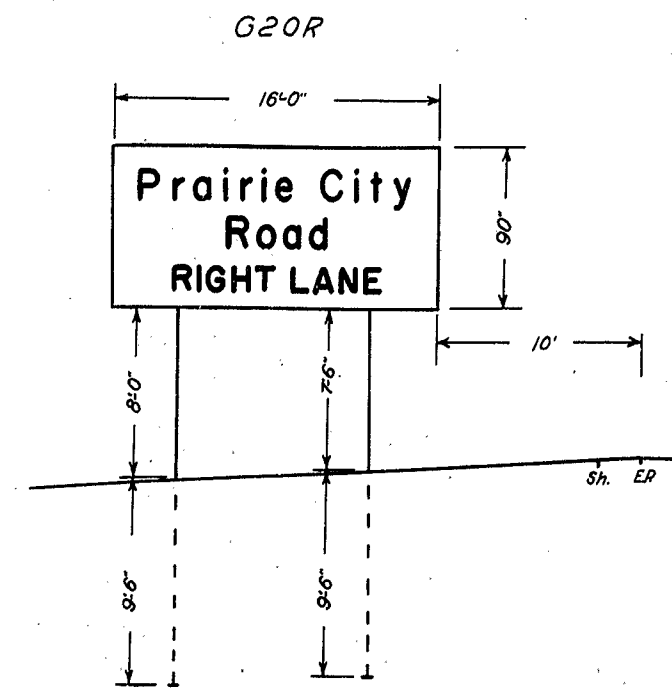
REG. NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CALIF.				

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
III	SAC	11	A	98	171

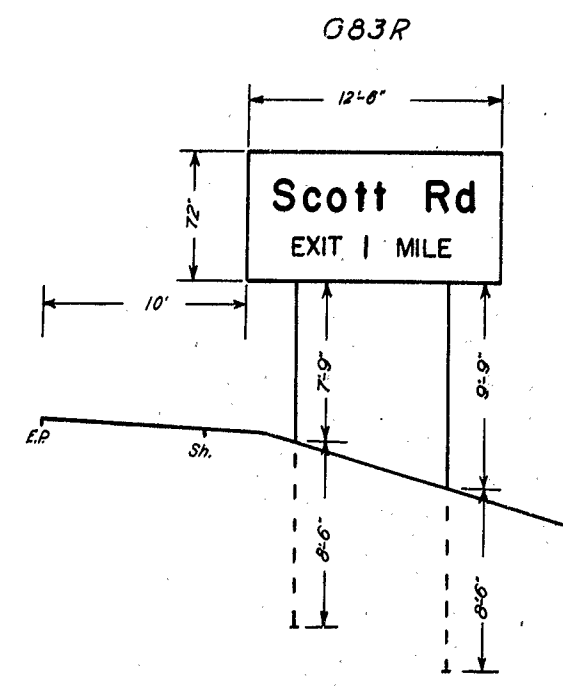
Alas Hunt
 DISTRICT ENGINEER
 APPROVED: *January 6, 1964*
J. Gluba
 Traffic Engineer Civil Engineer License No. 8585



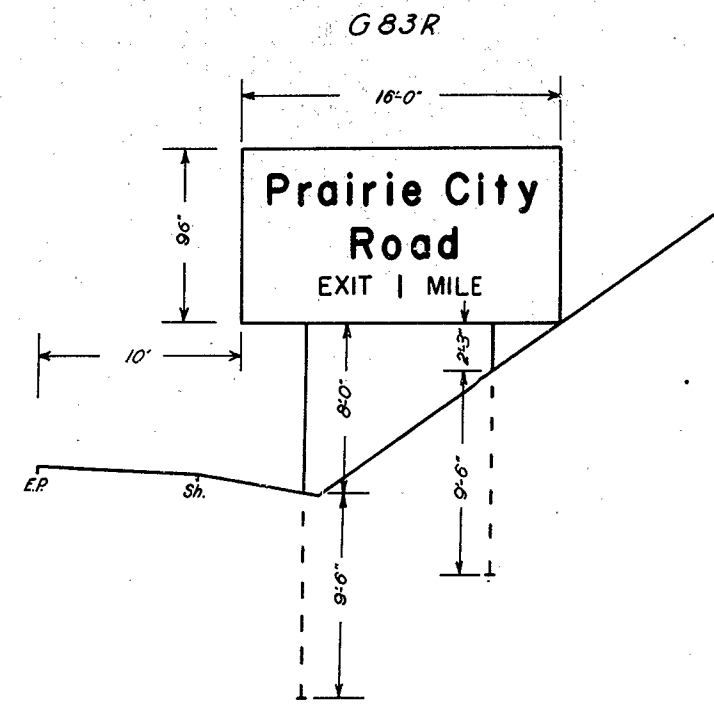
Class 2 Timber Poles
 F.W.B.T. On Sho.
 @ Sta. A₁₄ 180+00



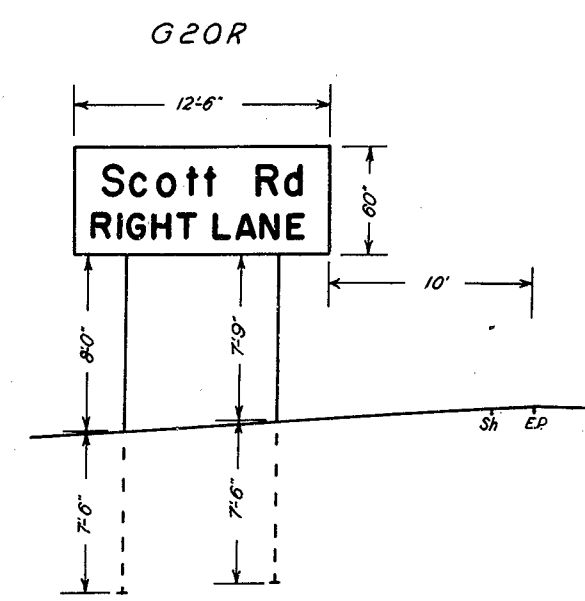
Class 2 Timber Poles
 F.W.B.T. In Med.
 @ Sta. A₁₄ 207+00



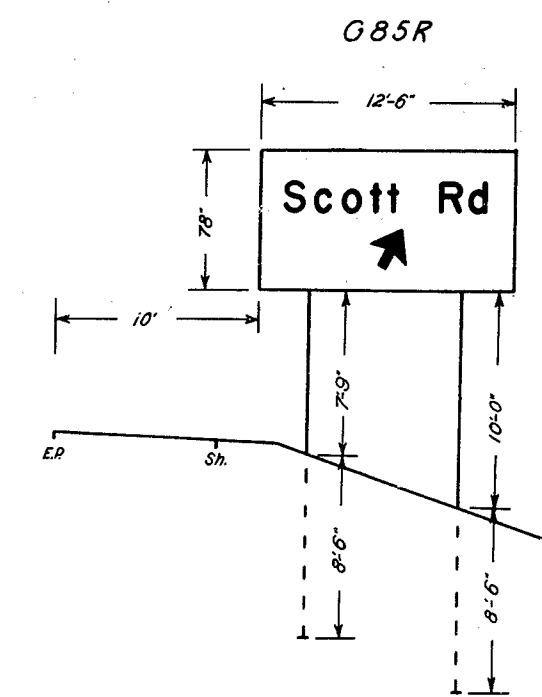
Class 4 Timber Poles
 F.E.B.T. On Sho.
 @ Sta. A₁₄ 228+00



Class 2 Timber Poles
 F.W.B.T. On Sho.
 @ Sta. A₁₄ 233+00



Class 5 Timber Poles
 F.E.B.T. In Med.
 @ Sta. A₁₄ 254+00



Class 4 Timber Poles
 F.E.B.T. On Sho.
 @ Sta. A₁₄ 276+00

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

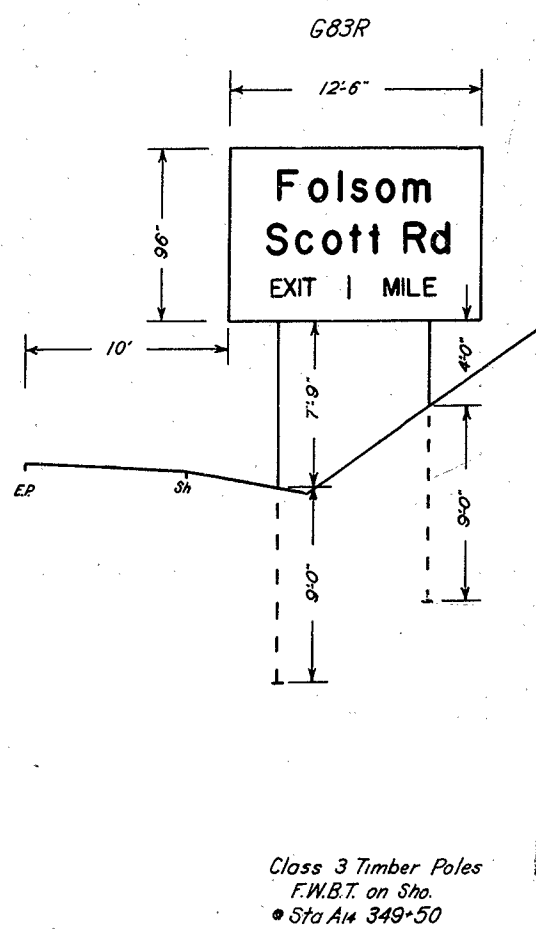
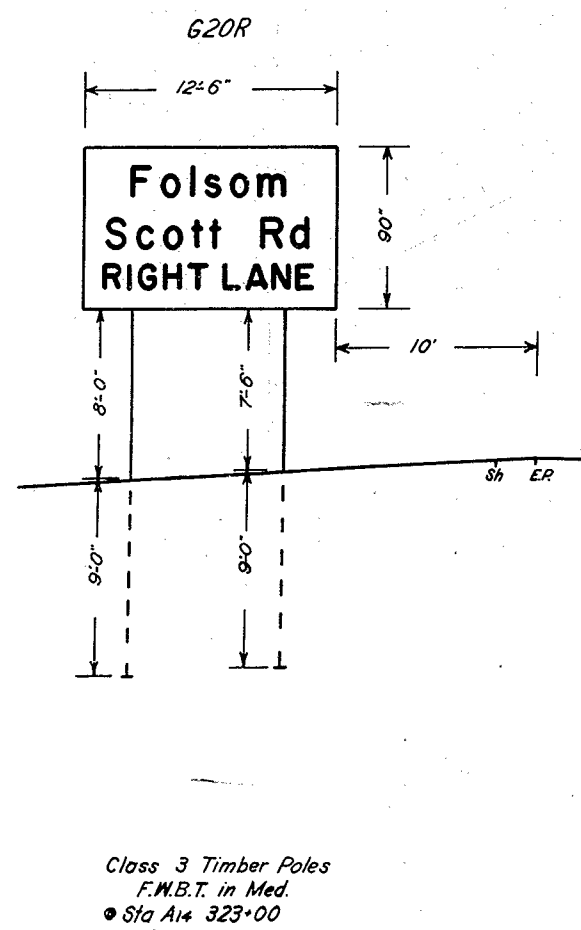
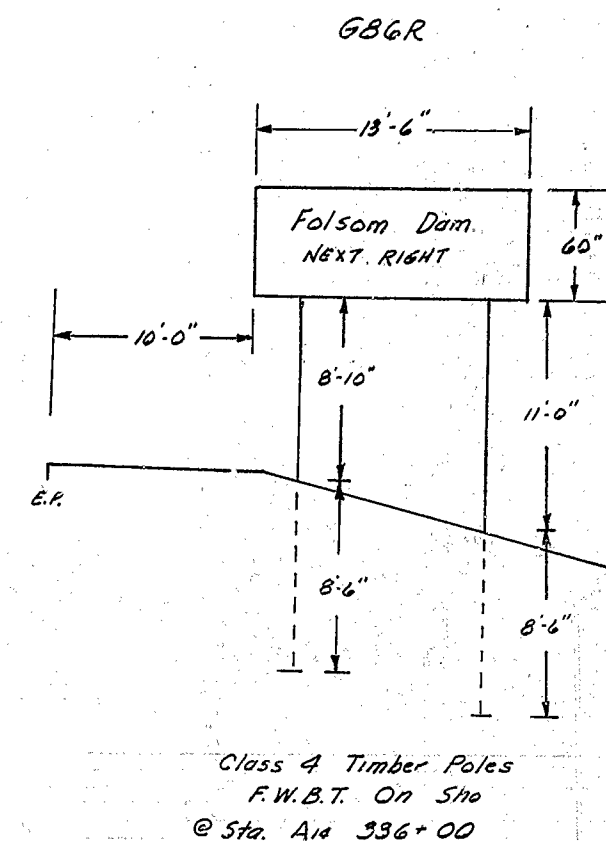
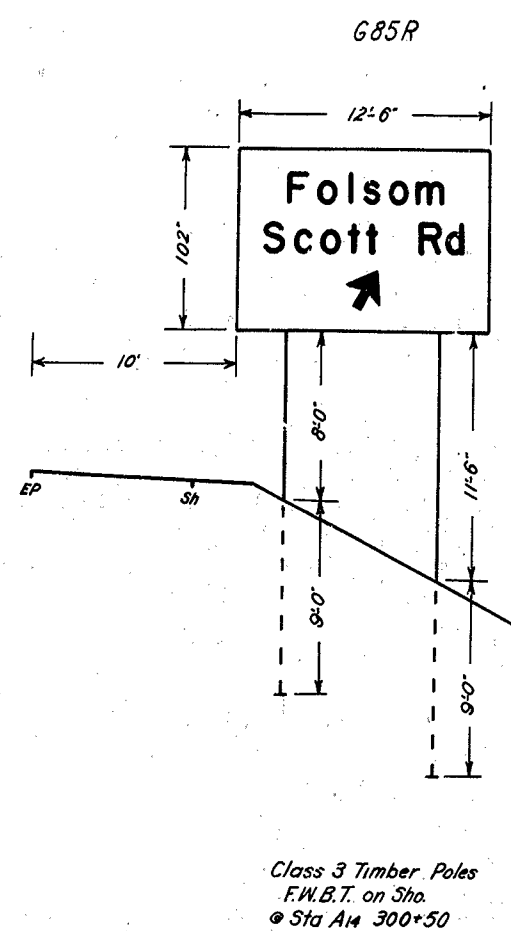
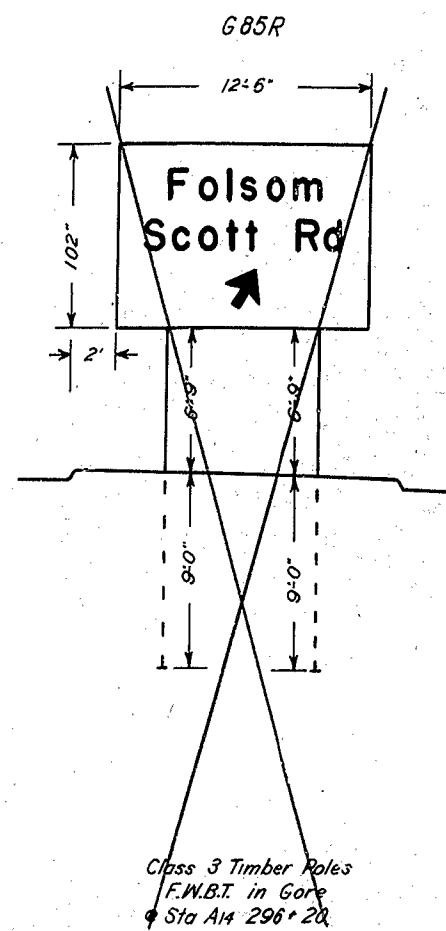
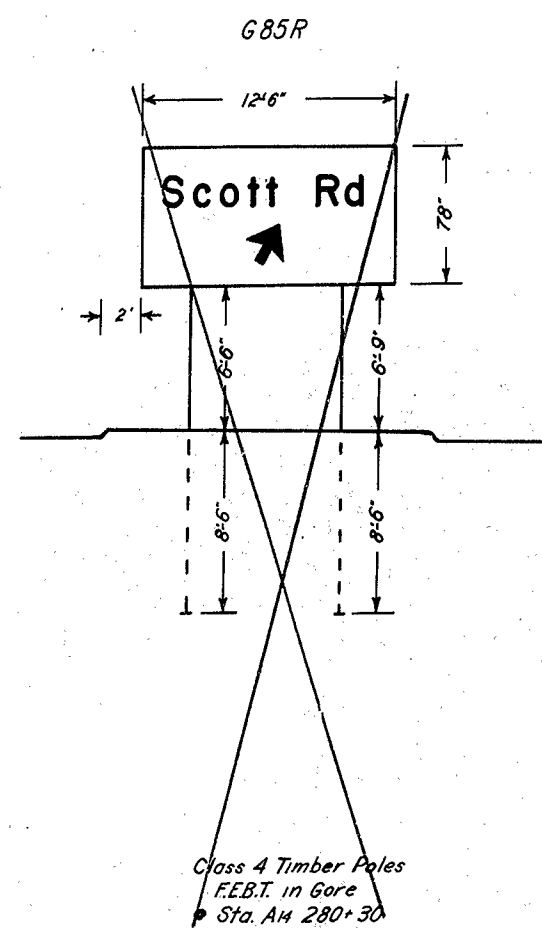
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000-376

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS
ROADSIDE SIGNS
 FORMAT SHEET
 SCALE: NONE AUG 1963

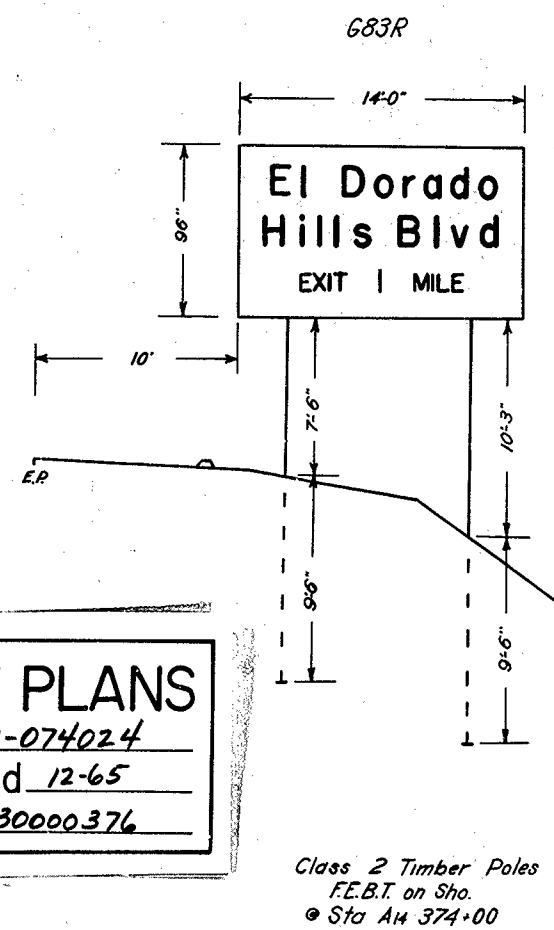
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE

98

REF. No.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CALIF.				
DIST.	COUNTY	ROUTE	SECTION	SHEET TOTAL	TOTAL SHEETS
III	SAC	11	A	98	171
<i>Alvin Hart</i> DISTRICT ENGINEER APPROVED: <u>January 6, 1964</u> <i>J. E. ...</i> LICENSE No. 6599					



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376



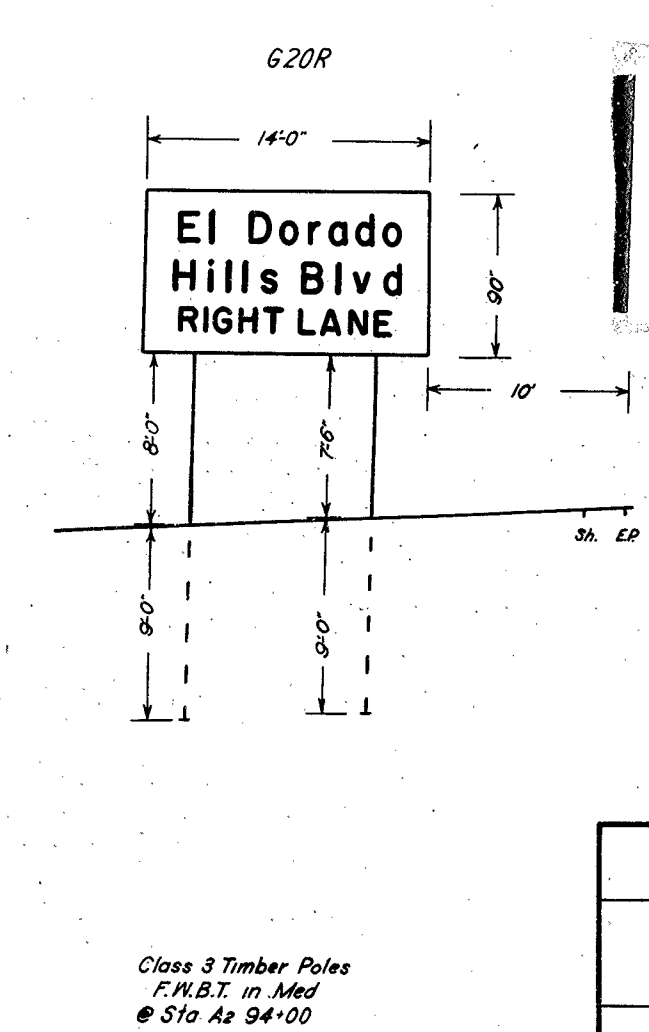
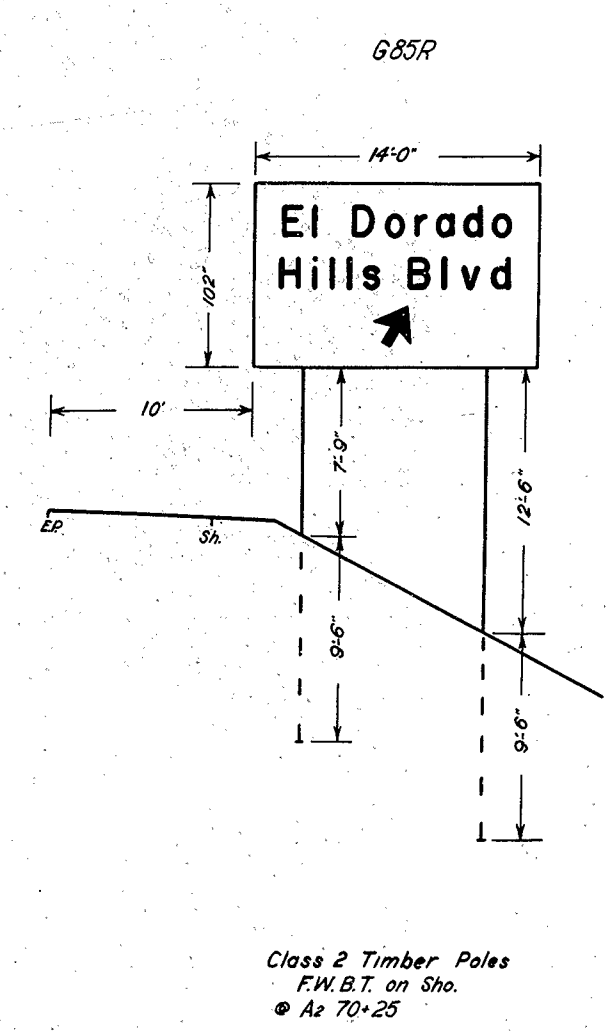
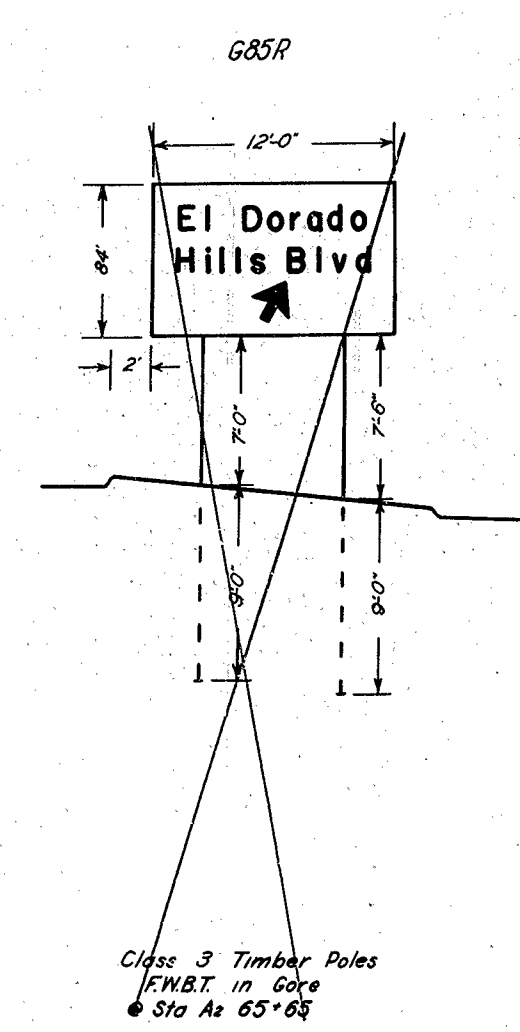
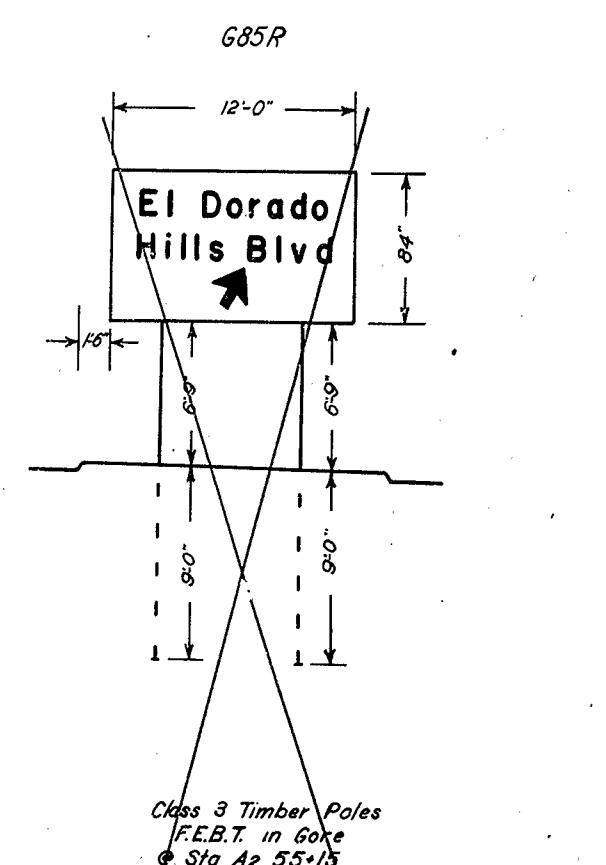
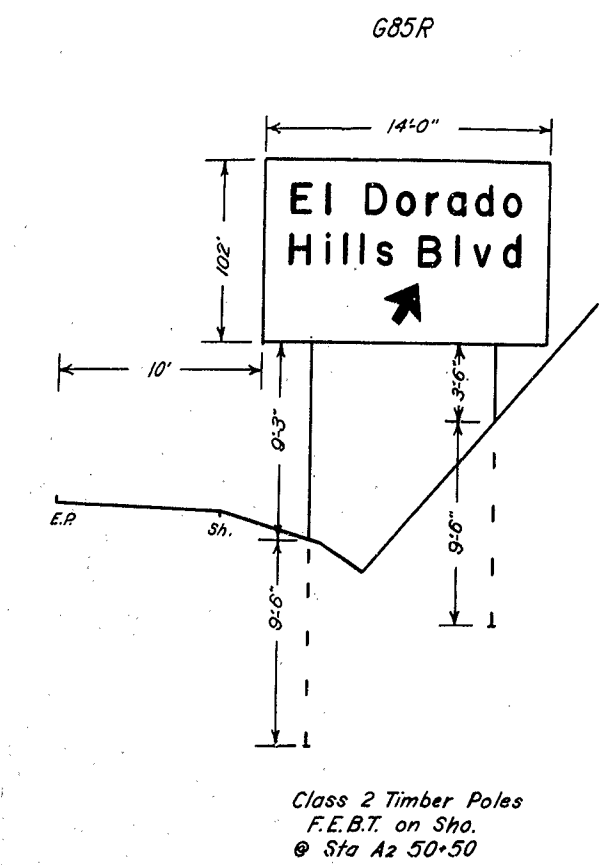
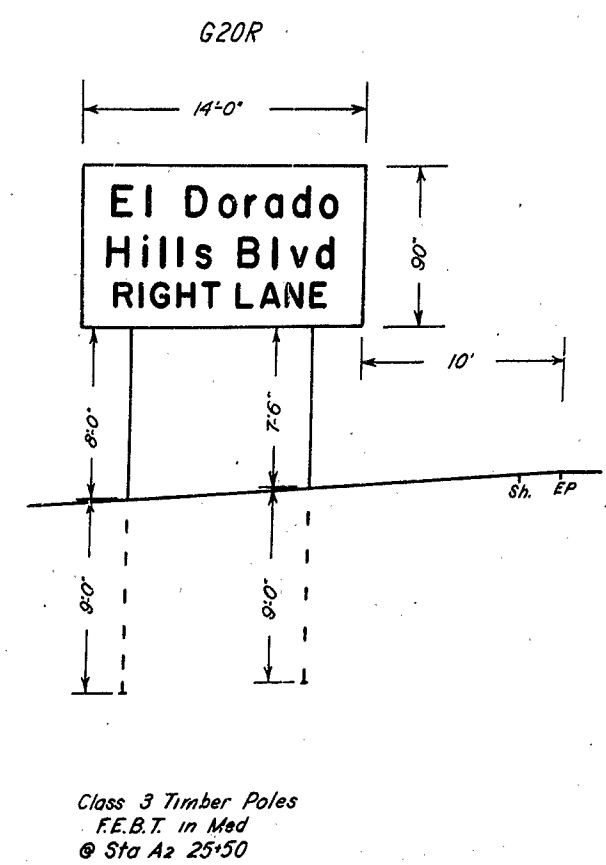
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
ROADSIDE SIGNS	
FORMAT SHEET	
SCALE: NONE	AUG 1963

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
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99

STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
CALIF.			100	171
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.
III	ED	11	A	100
District Engineer <i>Allen Hank</i> APPROVED: <u>January 6, 1964</u> <i>J. Fluh</i> District Engineer				



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-8-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

ROADSIDE SIGNS

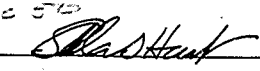
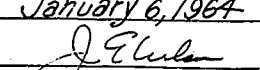
FORMAT SHEET

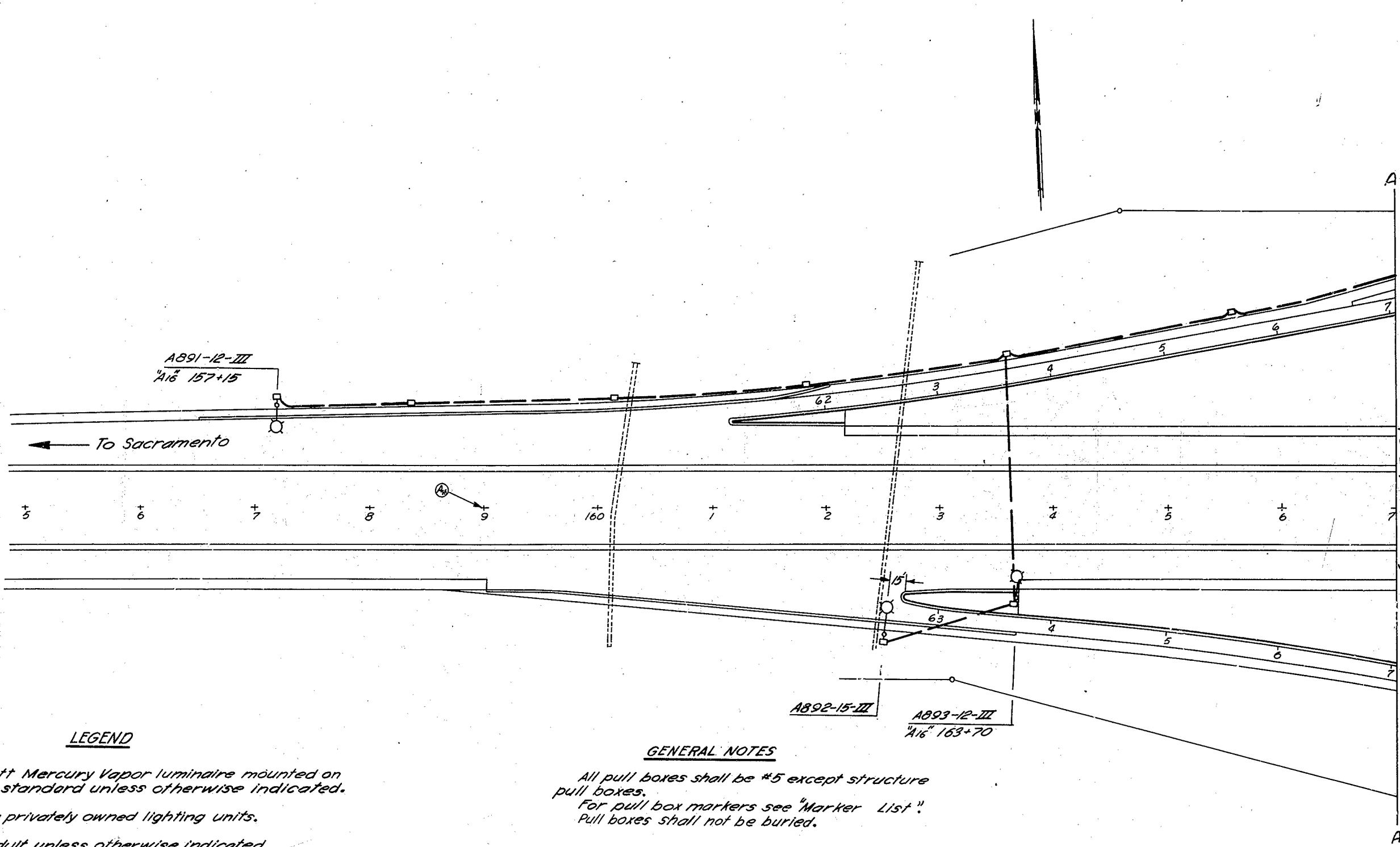
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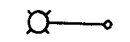
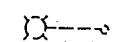
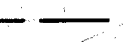
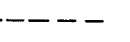

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE

100

F-014-1(A)

APP. No.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
7	CALIF.				
DIST.	COUNTY	ROUTE	SECTION	SHEET No.	TOTAL SHEETS
III	SAC	11	A	104	177
<i>See Sheet 510</i>  APPROVED: <i>January 6, 1964</i>  District Engineer - License No. 1598					



- LEGEND**
-  400 Watt Mercury Vapor luminaire mounted on Type X standard unless otherwise indicated.
 -  Existing privately owned lighting units.
 -  1/2" Conduit unless otherwise indicated.
 - A891-12-III** Electrolier numbering system.
 - A891** Denotes electrolier number.
 - 12** Denotes mast arm length in feet.
 - III** Denotes type of light distribution.
 -  Underground Power System Duct (See Sheets 30, 36 & 48 of Roadway Plans)
 -  Pull Box 3'x5'x3' (See Sheet 48 of Roadway Plans)

GENERAL NOTES

All pull boxes shall be #5 except structure pull boxes.
 For pull box markers see "Marker List".
 Pull boxes shall not be buried.

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 CONTR. NO. 074024
 COMPLETED: 12-65
 Res. ENG2:
 J. W. HUNTER.

HIGHWAY LIGHTING PLAN
 Prairie City Overcrossing
 Scale 1"=50'

104

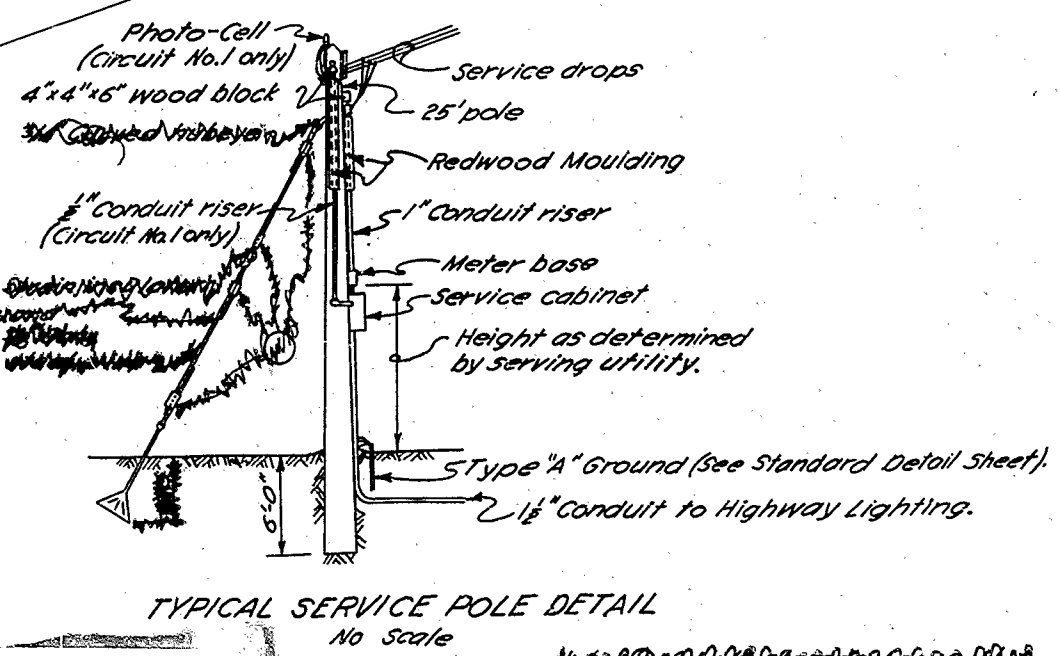
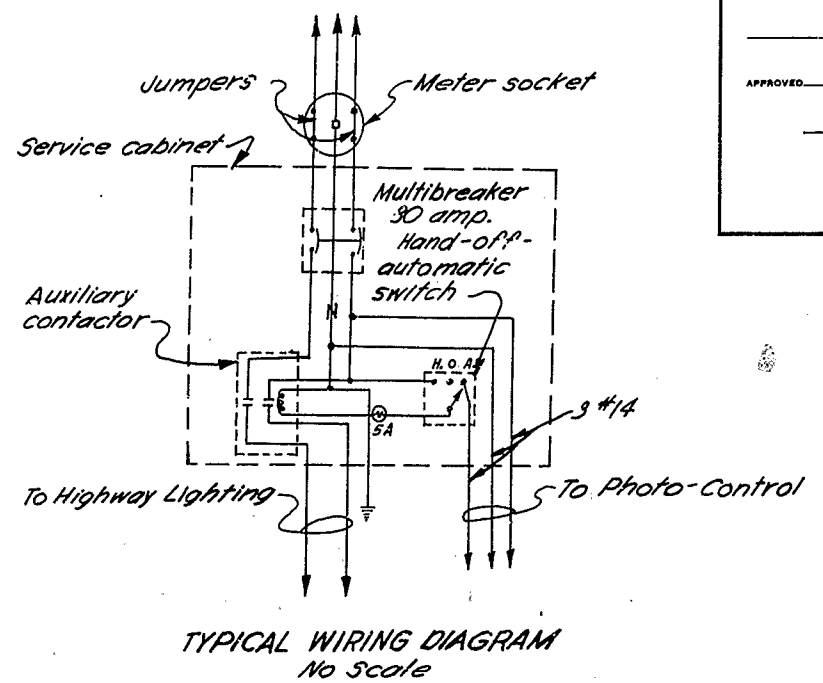
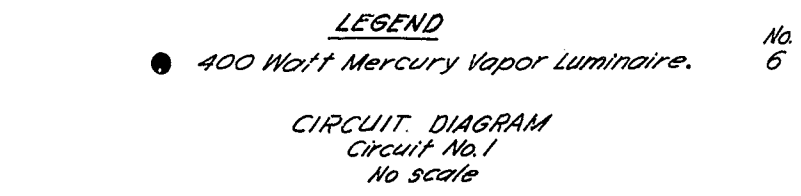
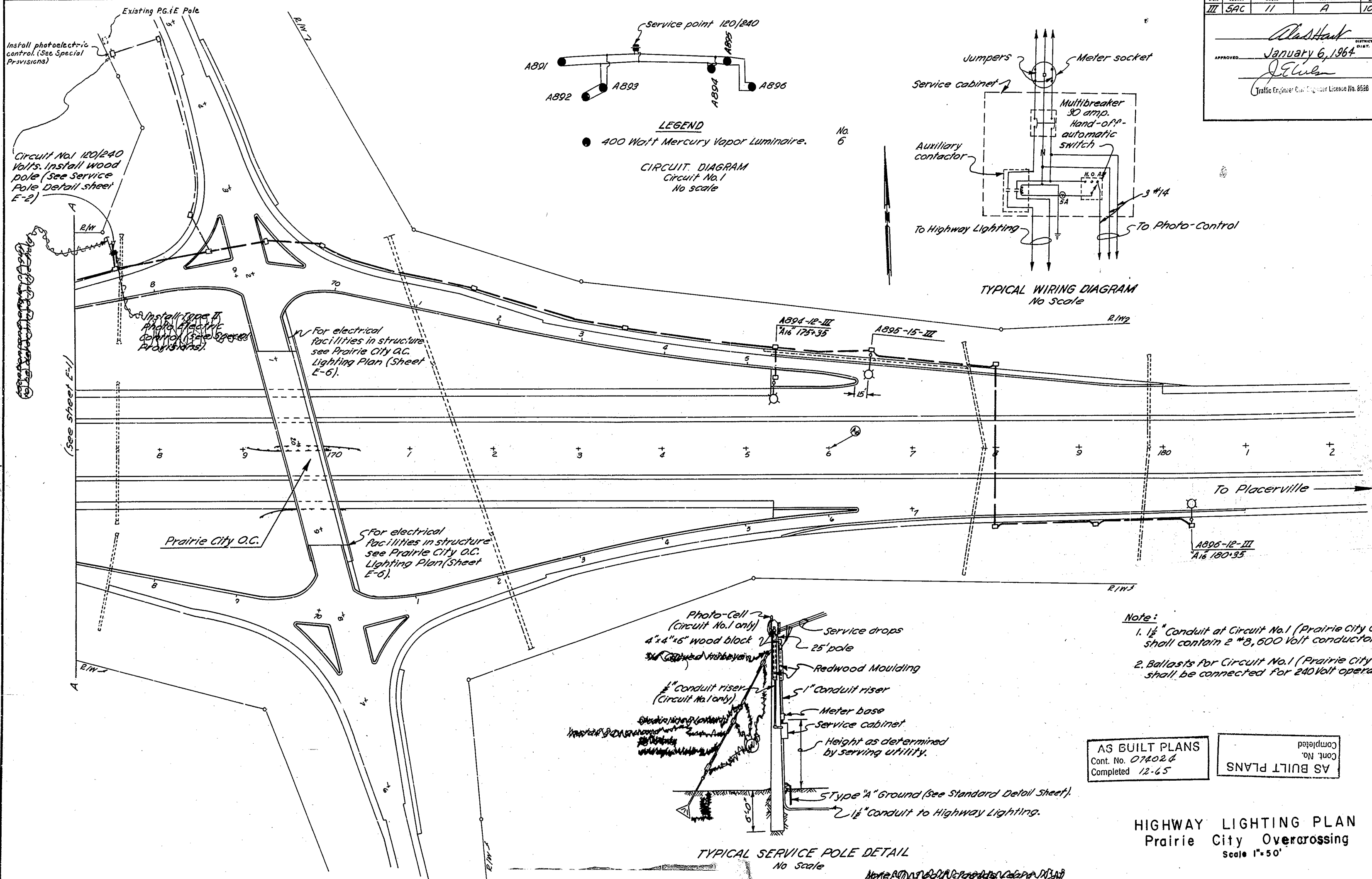
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
E. B. DAVIS	9/63	J. W. WILSON	9/63	B. GEDDES	9/63

Note: This Plan Accurate For Electrical Work Only.

E-1

STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
CALIF.			105	171
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.
III	SAC	11	A	105

APPROVED: *Blas Hank*
 January 6, 1964
J. E. Lewis
 Traffic Engineer, Civil Engineer License No. 6526



Note:

- 1 1/2" Conduit at Circuit No. 1 (Prairie City O.C.) shall contain 2 #8, 600 Volt conductors.
- Ballasts for Circuit No. 1 (Prairie City O.C.) shall be connected for 240 Volt operation.

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

AS BUILT PLANS
Completed
Cont. No.

HIGHWAY LIGHTING PLAN
Prairie City Overcrossing
Scale 1" = 50'

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

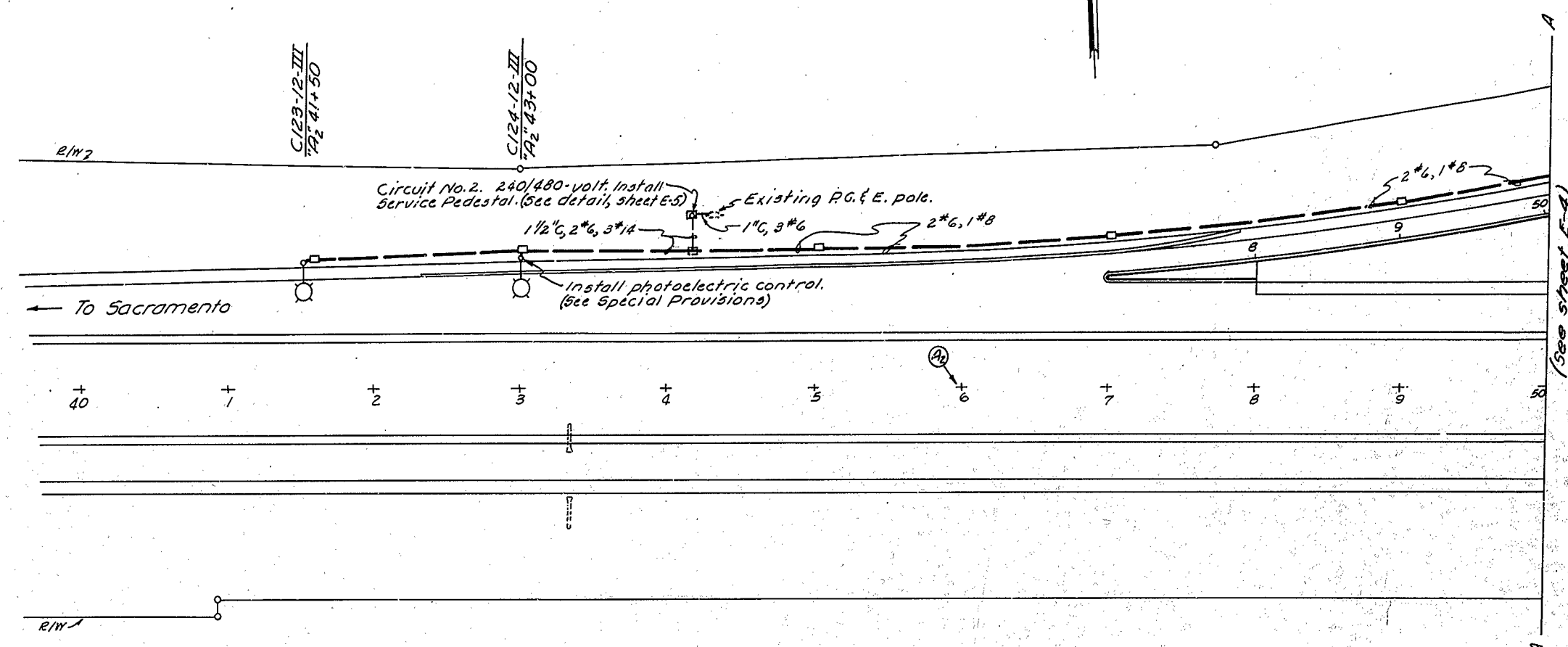
Note: This Plan Accurate For Electrical Work Only.

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
E. B. Davis	9/63	J. W. Wilson	9/63	B. Geddes	9/63

105

E-2

PROJECT NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CALIF.			106	171
DISTRICT ENGINEER					
<i>W. H. Hunt</i> DISTRICT ENGINEER DATE: <i>January 6, 1967</i> APPROVED: <i>C. E. Larson</i> (Traffic Engineer Civil Engineer License No. 2652)					



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

HIGHWAY LIGHTING PLAN
 Latrobe Road Undercrossing
 Scale 1" = 50'

Note: This Plan Accurate For Electrical Work Only.

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
<i>E. B. Davis</i>	<i>9/63</i>	<i>J. W. Wilson</i>	<i>9/63</i>	<i>B. Geddes</i>	<i>9/63</i>

106

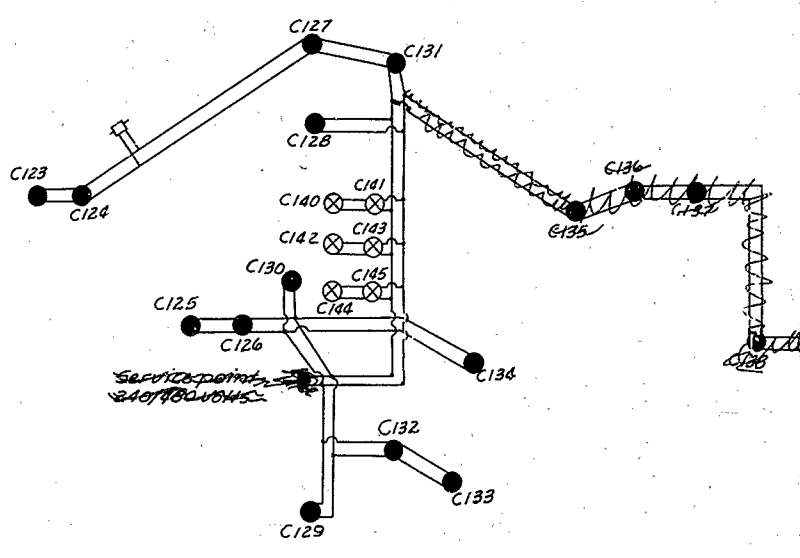
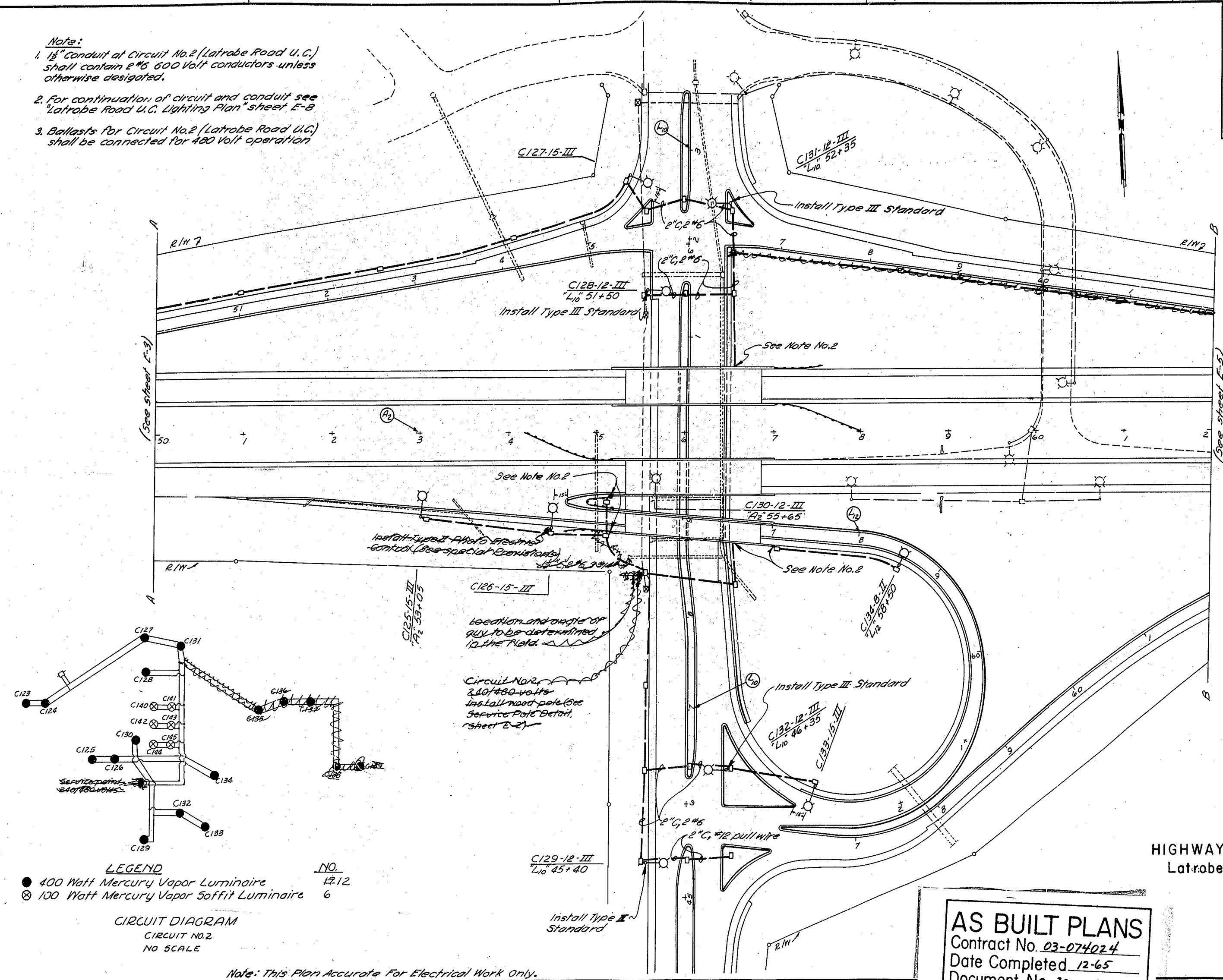
E-3

FORM NO. 22-A
EST. DATE: 1965

REG. NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CALIF.				

APPROVED: *Alastair*
 January 6, 1964
J. E. Wilson
 Traffic Engineer

- Note:**
1. 1 1/2" Conduit at Circuit No. 2 (Latrobe Road U.C.) shall contain 2 #6 600 Volt conductors unless otherwise designated.
 2. For continuation of circuit and conduit see "Latrobe Road U.C. Lighting Plan" sheet E-8
 3. Ballasts for Circuit No. 2 (Latrobe Road U.C.) shall be connected for 480 Volt operation



LEGEND

● 400 Watt Mercury Vapor Luminaire
 ⊗ 100 Watt Mercury Vapor Soffit Luminaire

CIRCUIT DIAGRAM
 CIRCUIT NO. 2
 NO SCALE

Note: This Plan Accurate For Electrical Work Only.

AS BUILT PLANS
 Cont. No. 07A024
 Completed 12-65

HIGHWAY LIGHTING PLAN
 Latrobe Road Undercrossing
 Scale 1" = 50'

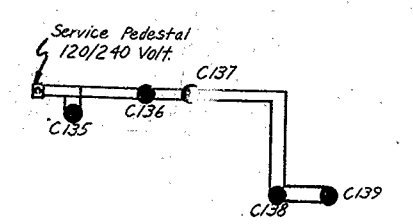
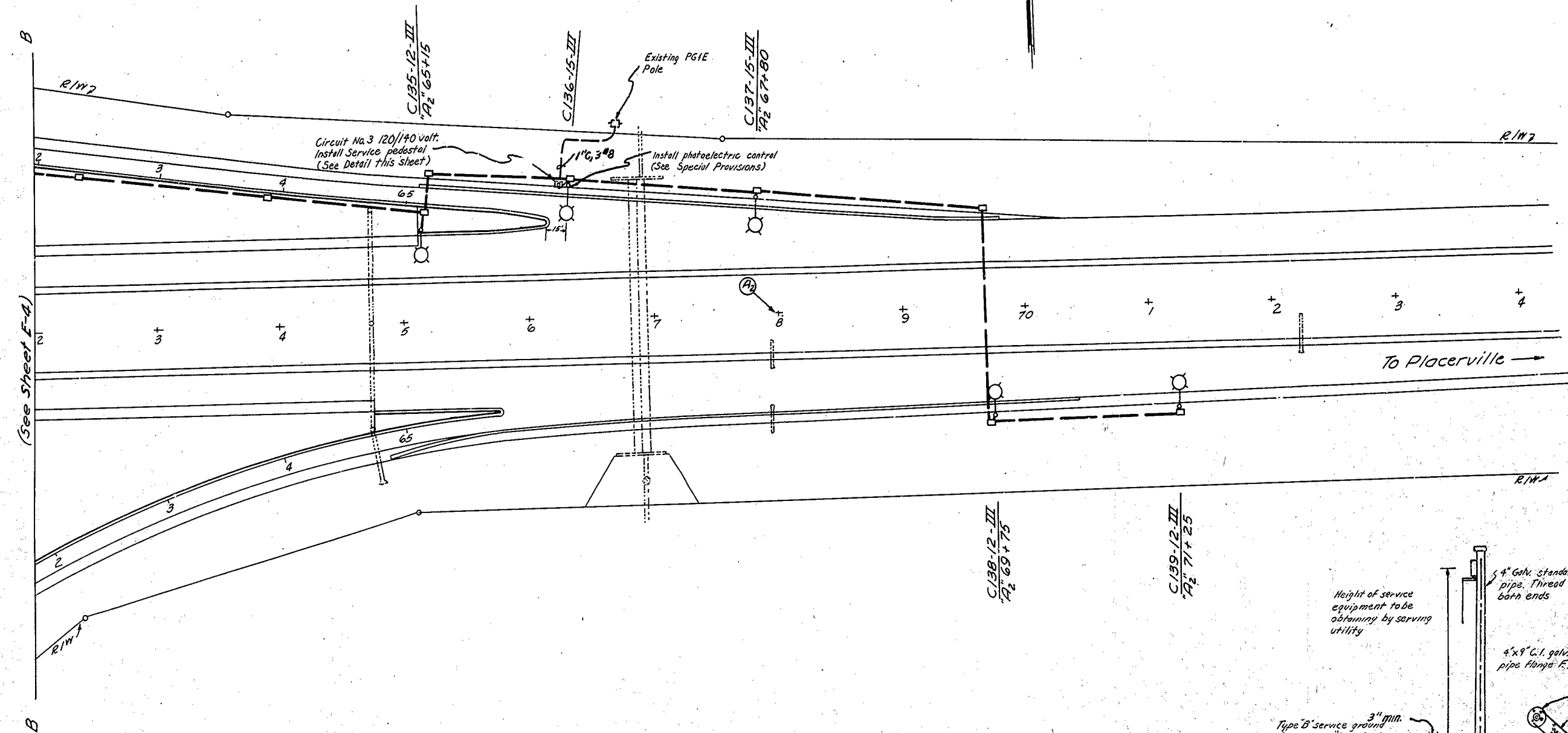
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

E-4

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
E. B. Davis	9/63	J. W. Wilson	9/63	B. Geddes	9/63

107

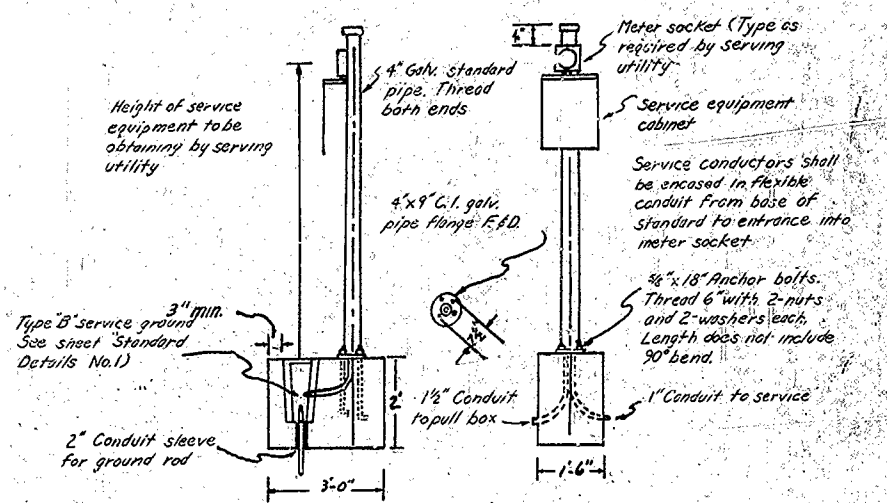
PROJECT NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CALIF.				
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
III	ED	11	A	108	171
<p style="text-align: right;"><i>Platt</i> DISTRICT ENGINEER</p> <p>APPROVED: <u>January 6, 1964</u> DIST. SEC.</p> <p style="text-align: right;"><i>J. E. Fisher</i> Traffic Engineer Civil Engineer License No. 6668</p>					



LEGEND
● 400 watt mercury vapor luminaire

CIRCUIT DIAGRAM
Circuit No. 3

- NOTES:**
- 1/2" Conduit No. 3 (Latrobe Road UC) shall contain 2# 600 volt conductors unless otherwise designated.
 - Ballasts for circuit No. 3 (Latrobe Road UC) shall be connected for 240 Volt operation.



SERVICE PEDESTAL
CIRCUIT No. 3, 213

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

HIGHWAY LIGHTING PLAN
Latrobe Road Undercrossing
Scale 1" = 50'

E-5

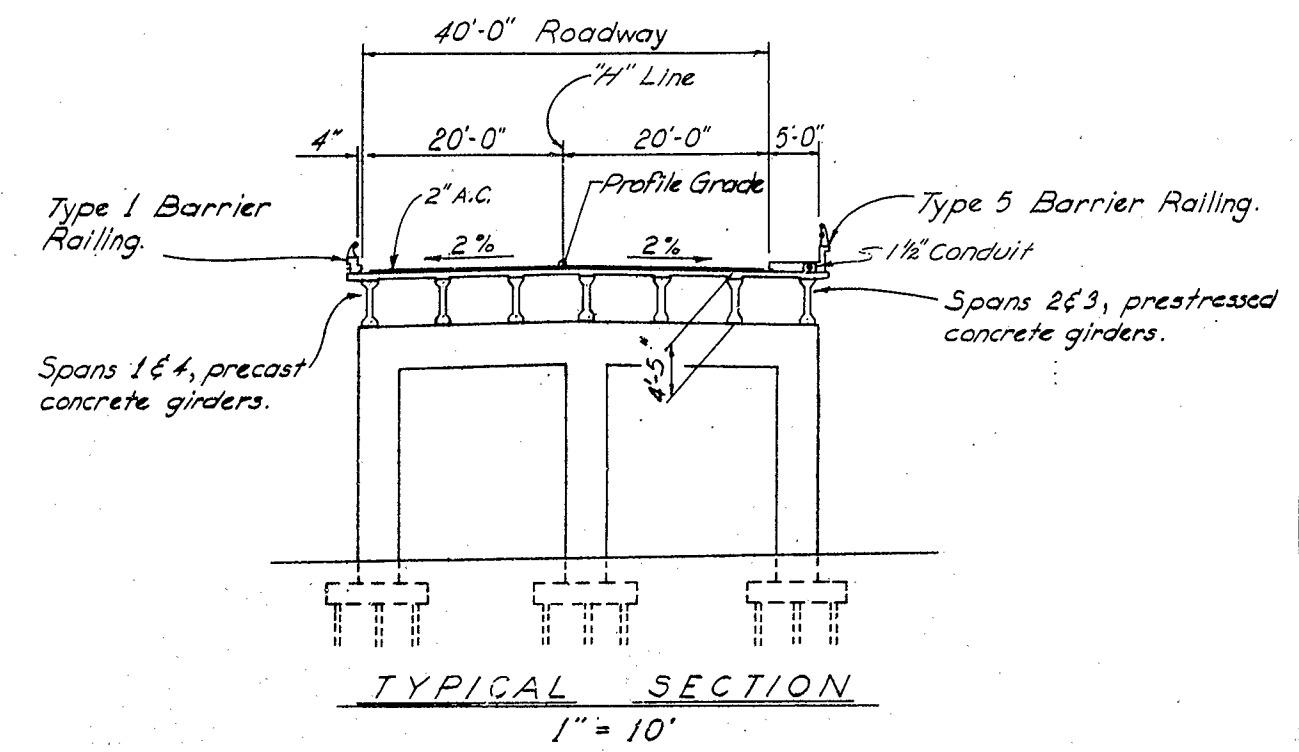
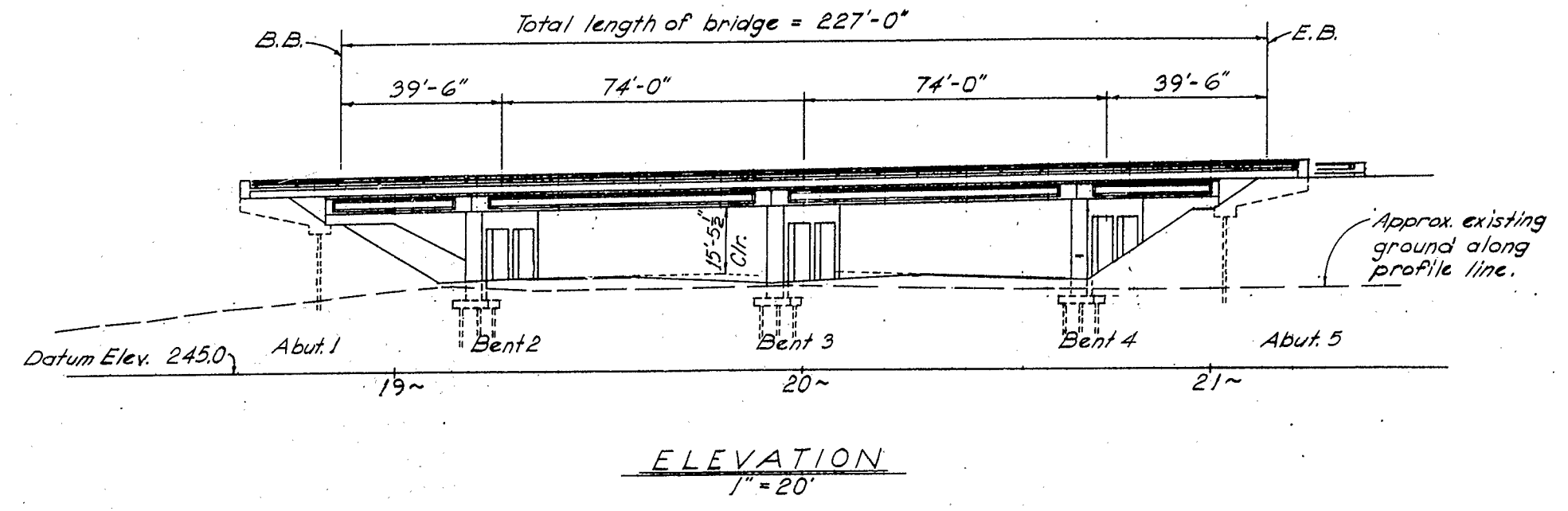
Note: This Plan Accurate For Electrical Work Only.

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE
E.B. Davis	9/63	J.M. Wilson	9/63	B. Geddes	9/63

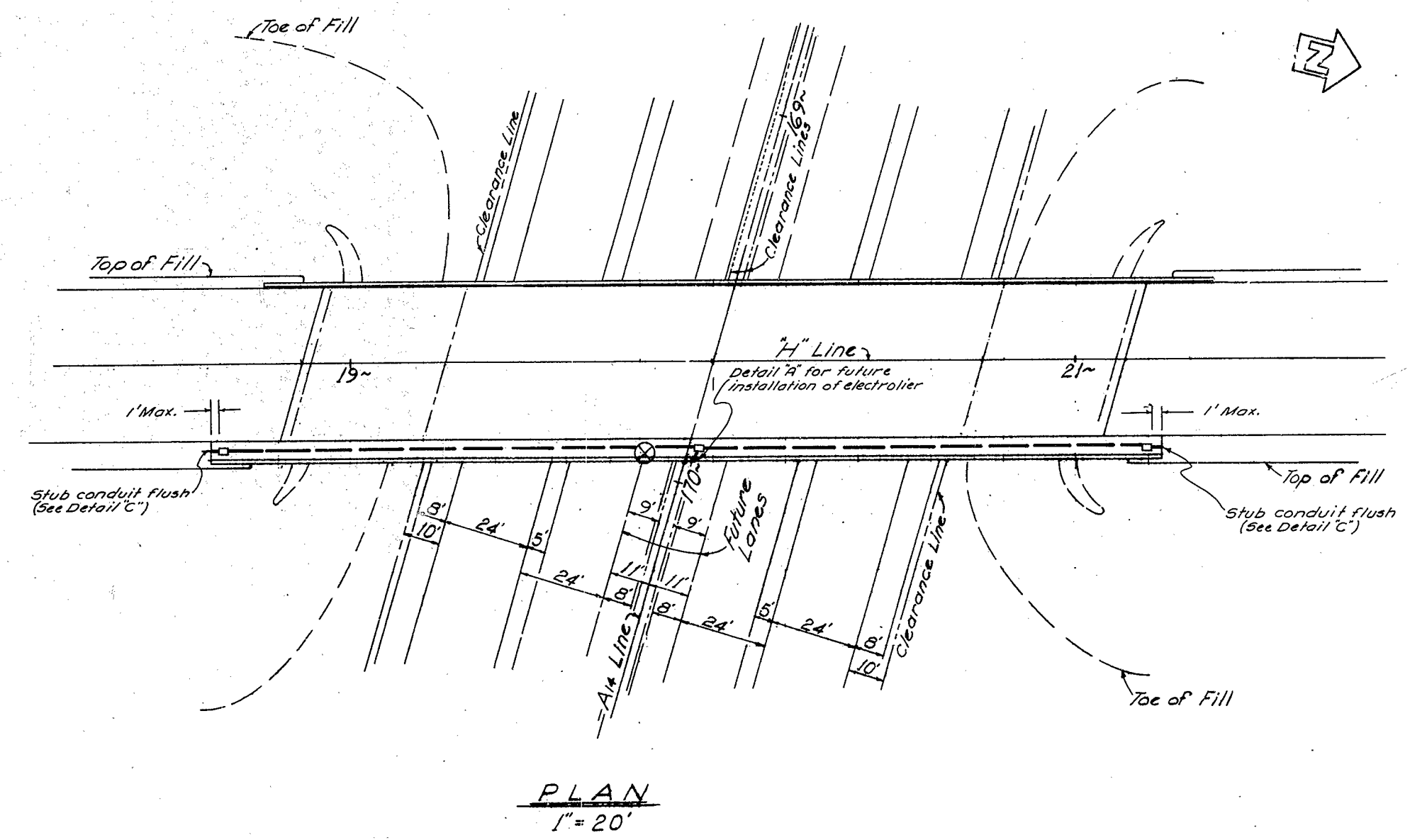
108

Plans Hart
ASSISTANT STATE HIGHWAY ENGINEER

DATE APPROVED: January 6, 1964
C. G. Wilson



LEGEND
 --- Conduit 1 1/2" unless otherwise specified.
 □ Pull box (Detail "D")



AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

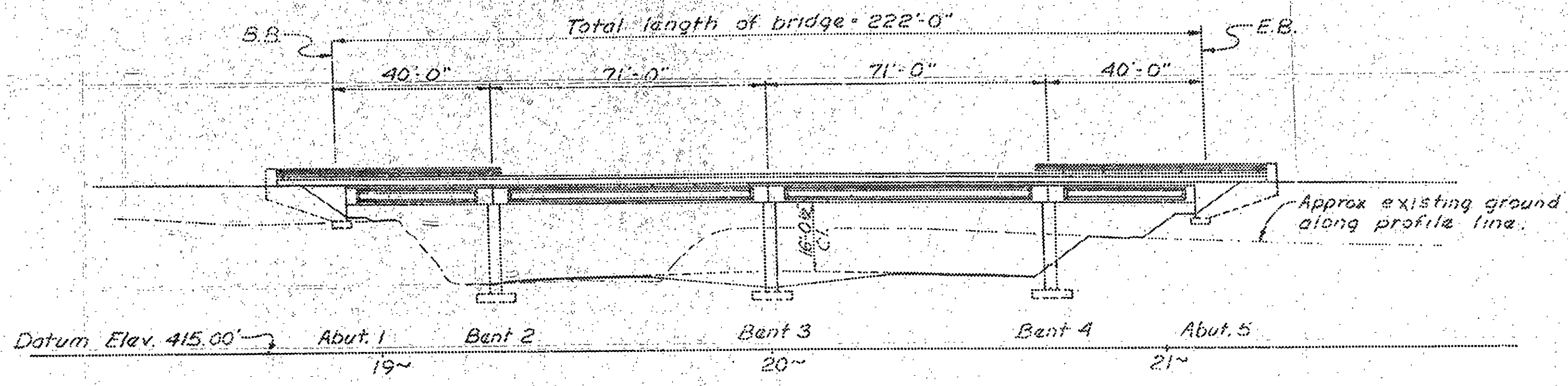
NOTE: THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

BRIDGE DEPARTMENT ... DESIGN SECTION ... 7		STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
Section Supervisor: _____ Project Designer: _____		PRAIRIE CITY OVERCROSSING LOCATED ABOUT 1.6 MILES E. OF THE E. CITY LIMIT OF SACRAMENTO & ABOUT 4 MILES W. OF THE EL DORADO COUNTY LINE IN SACRAMENTO COUNTY	
DESIGN	By: [Signature] M/62	Checked:	
DETAILS	By: [Signature] M/62	Checked:	
LAYOUT	By: _____	Checked:	
QUANTITIES	By: _____	Checked:	
SPECIFICATIONS	By: _____	Checked:	
Approved Recommended by: _____	Design Engineer: _____	PRELIMINARY DRAWING NO. P-24184-1	REVISION DATES
62-031010H 0740-1		Scale AS NOTED BRIDGE 24-1S4	FILE DRAWING E-6

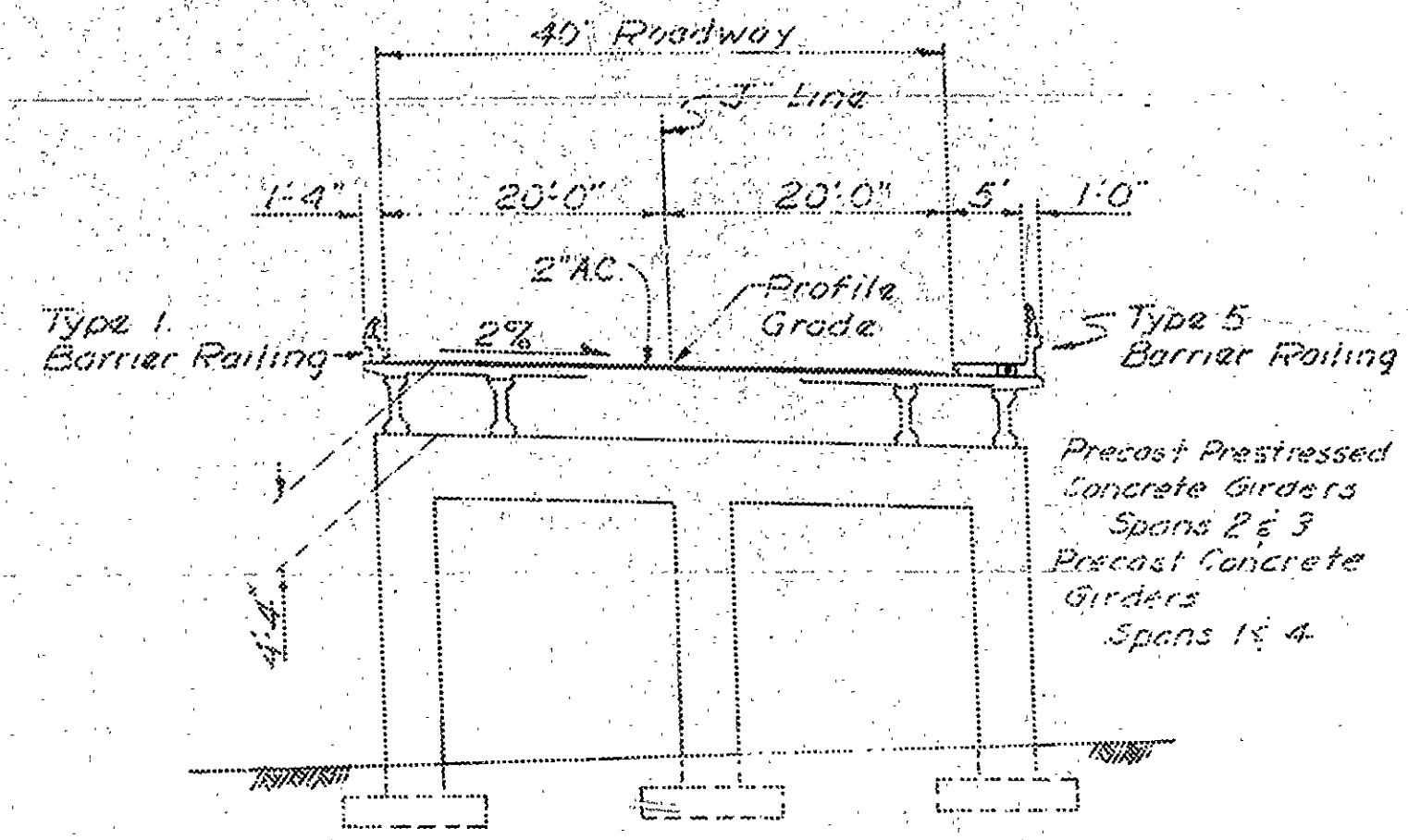
109

FED. ROAD DIST. NO.	STATE	F. A. PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DATE APPROVED: January 6, 1964
J. Elwell
 ASSISTANT STATE HIGHWAY ENGINEER

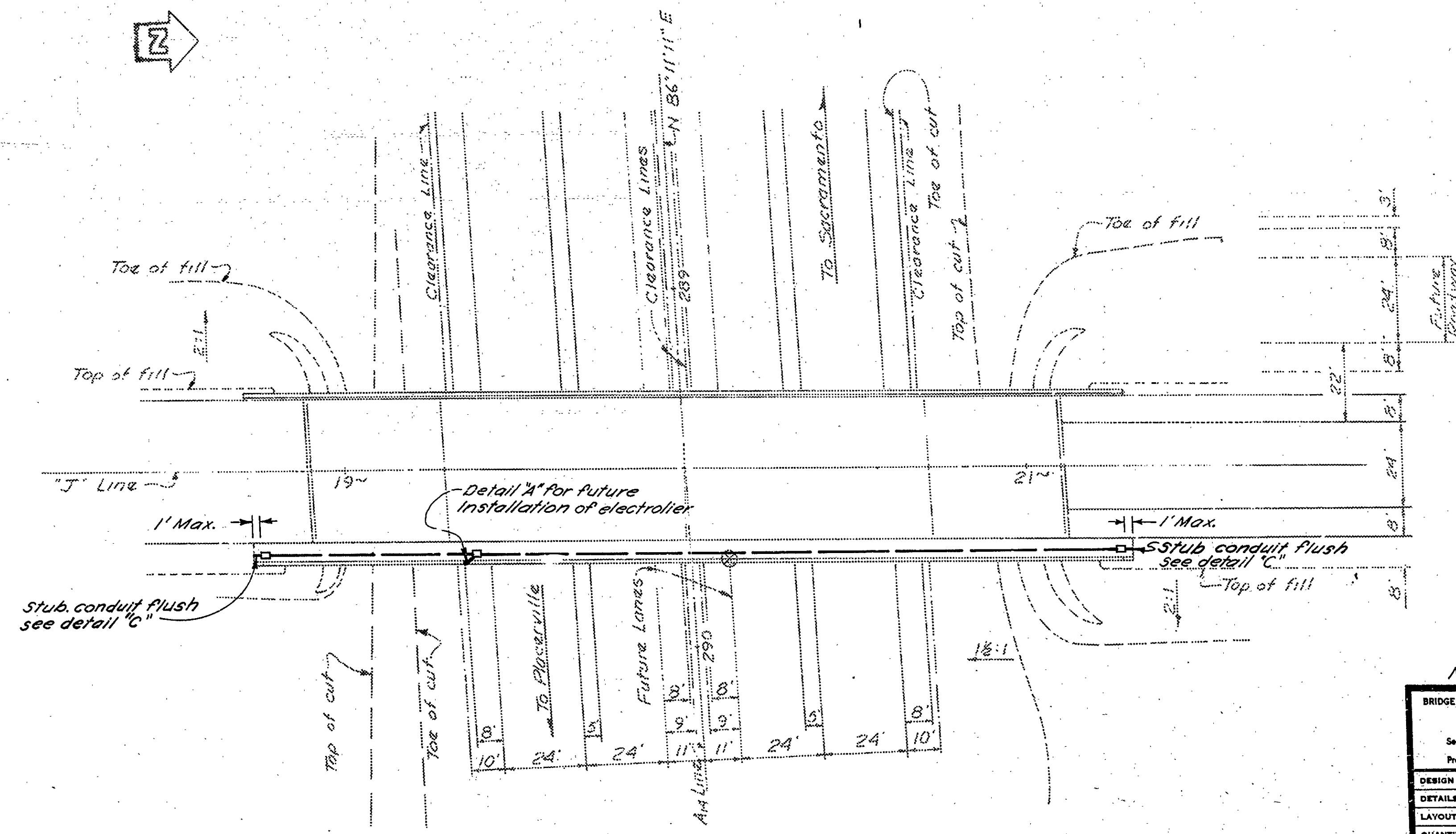


ELEVATION
 1" = 20'



TYPICAL SECTION
 1" = 10'

LEGEND
 — Conduit 1 1/2" unless otherwise specified.
 □ Pull box (Detail D).



PLAN
 1" = 20'

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

Note: This Plan Accurate For Electrical Work Only.

BRIDGE DEPARTMENT		DESIGN SECTION		7	
Section Supervisor: <i>W. H. Schmitt</i>		Project Designer: <i>W. H. Schmitt</i>			
DESIGN	by <i>W. H. Schmitt</i> 11/62	Checked			
DETAILS	by <i>R. Shannon</i> 11/62	Checked			
LAYOUT	by <i>R. Shannon</i> 11/62	Checked			
QUANTITIES	by <i>F. E. Hurns</i> 3/63	Checked	<i>T. B. Smith</i> 4/63		
SPECIFICATIONS	by	Checked			
Approved Recommended by:	Drawn by:	Checked by:	Scale:		

STATE OF CALIFORNIA		DEPARTMENT OF PUBLIC WORKS		DIVISION OF HIGHWAYS	
SCOTT ROAD OVERCROSSING					
LOCATED ABOUT 18 MILES EAST OF THE EAST CITY LIMIT OF SACRAMENTO AT 1/2 MILE ROUTE 11 IN SACRAMENTO COUNTY					
LIGHTING PLAN					
SCALE AS NOTED	BRIDGE 24-187	FILE	DRAWING	E-7	
PRELIMINARY DRAWING NO.		REVISION DATES			

62-03T10H0704.2 Discard prints bearing earlier revision dates

110

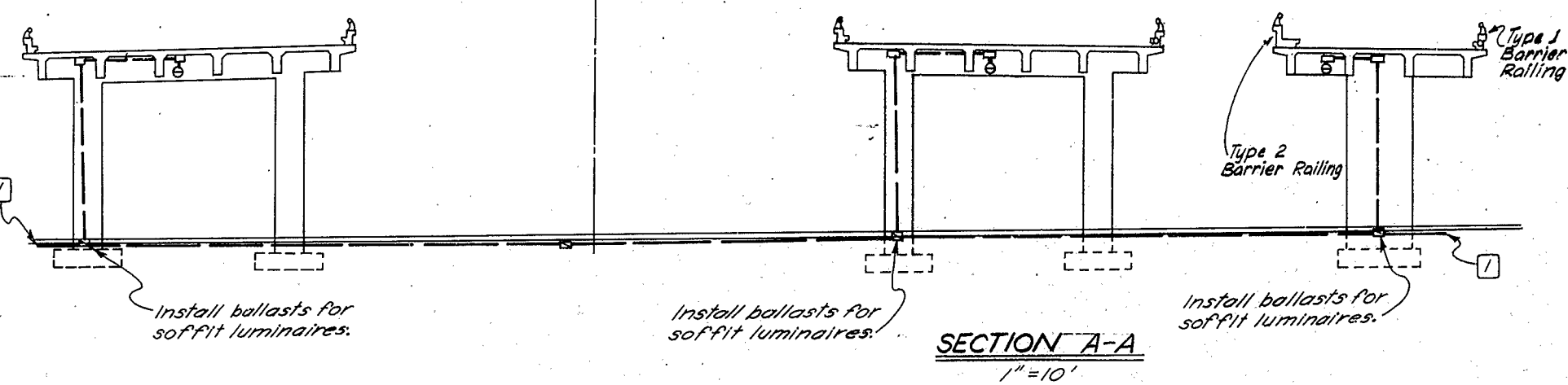
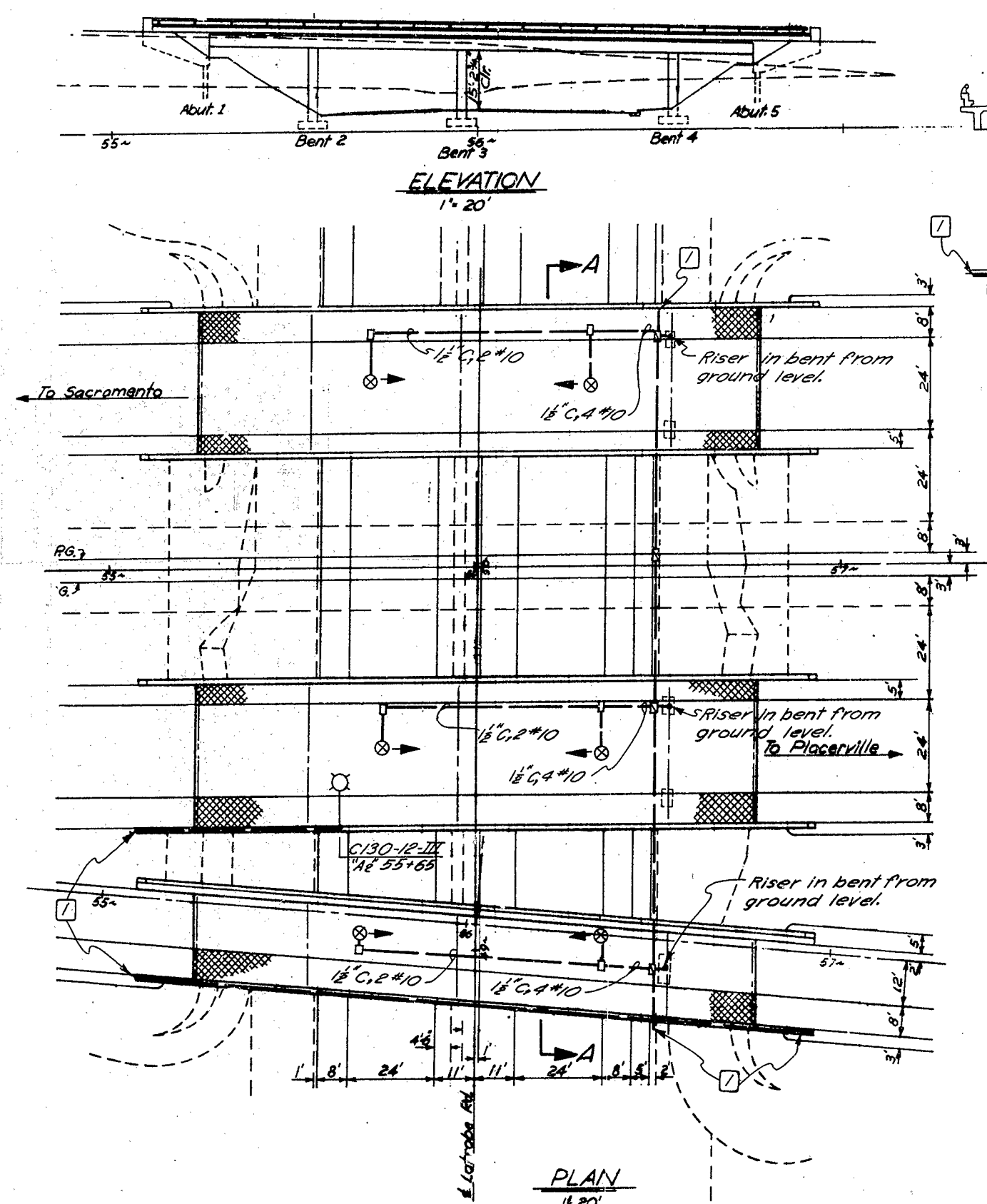
FED. ROAD DIV. No.	STATE	F. A. PROJECT No.	SHEET No.	TOTAL SHEETS
7	CALIF.			

DIST.	COUNTY	ROUTE	SECTION	SHEET No.	TOTAL SHEETS
III	ED	II	A	111	171

John H. ...
ASSISTANT STATE HIGHWAY ENGINEER

DATE APPROVED: January 6, 1964

J. F. Wilson



LEGEND

- ⊗ Soffit luminaire (Detail P) with 100 Watt mercury vapor lamp, arrow denotes "street side" of luminaire.
- ⊙ Type I standard with 400 Watt mercury vapor lamp (See Detail A).
- No. 5 Pull box mounted at ground level.
- Pull box, Detail P without provisions for soffit luminaire.
- 1/2" Conduit.
- ① For continuation of conduit and lighting circuit see Highway Lighting Plan sheet E-4.



Note:
Conduit expansion fitting shall be installed where conduit crosses structure expansion joints 1/2" or larger (Detail "X").

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

AS BUILT PLANS
Cont. No. 074024
Completed 12-65

Note: This Plan Accurate For Electrical Work Only.

BRIDGE DEPARTMENT		STATE OF CALIFORNIA	
DESIGN SECTION 7		DEPARTMENT OF PUBLIC WORKS	
Project Designer: _____		DIVISION OF HIGHWAYS	
LATROBE ROAD UNDERCROSSING			
LOCATED APPROX. 2.1 MILES EAST OF THE EAST CITY LIMIT OF SACRAMENTO ALONG EXISTING ROUTE 11 IN EL DORADO COUNTY			
LIGHTING PLAN			
Approval Recommended by: _____		SCALE AS NOTED BRIDGE 25-71 R/L FILE DRAWING E-8	
DESIGN: _____		PRELIMINARY DRAWING No. P-2571-1	
DETAILS: _____		REVISION DATES	
LAYOUT: _____			
QUANTITIES: _____			
SPECIFICATIONS: _____			

W.D. 62-03T10 H0.740.2

STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
7 CALIF.		112	177
DIST	COUNTY	ROUTE	SECTION
111	Sacramento	11	B.A. Fd 1
APPROVED: JANUARY 30, 1962			
TO ACCOMPANY PLANS DATED January 6, 1964			

PROPOSED	EXISTING	
		Ultra-sonic detector (Side fire type)
		Impact detector
		Inductive loop detector
		Non-directional pressure detector
		Non-directional magnetic detector
		Directional pressure detector
		Traffic signal with all colors lowered
		Traffic signal each arrow one-way three color (On Type I-A standard unless otherwise specified)
		Traffic signal one way three color with backplate (On Type I-A standard unless otherwise specified)
		Traffic signal one way three-color with green arrow (On Type I standard unless otherwise specified. Red and yellow lowered.)
		Walk-Don't Walk pedestrian signal (7' Type I standard unless otherwise indicated.)
		Pedestrian signal, 2 color head (On 7' Type I standard unless otherwise indicated.)
		Mast arm traffic signal with backplate (On Type II standard.)
		Electrolux, mast arm type with mast arm traffic signal with backplate (Type III standard)
		Electrolux, mast arm type (Type X standard)
		Electrolux, upright type
		Pedestrian push button
		Pedestrian push button on special push button post
		Telephone pole
		Power pole
		Flashing beacon, one-way
		Fire hydrant
		Overhead conductor
		Signal conduit
		Lighting conduit
		Pull box
		Controller
		Flush soffit luminaire, Detail "F", (arrow indicates "street" side)
		Pendant soffit luminaire, Detail "P", (arrow - "street" side)
		Wall-mounted luminaire, Detail "W"

** 7000-lumen, mercury-vapor, ballast in closest pull box.

CONDUIT

1. Unless otherwise indicated, conduit in service and detector runs shall be 1 inch and all other conduit shall be 1-1/2 inch.
2. Conduit shall be installed 18" minimum below curb grade in sidewalk areas and 24" minimum below grade or finished surface in all other areas except that conduit installed within curbed dividing strips constructed on existing pavement may be laid on and secured to the pavement.
3. Conduit runs parallel to curbs shall be placed adjacent to back of curb, except where in conflict with existing facilities.
4. Existing underground conduit to be incorporated into new systems shall be cleaned with a mandrel and blown out with compressed air.
5. Conduit terminating in standards and pedestals shall extend 2" max. above finished top of foundation and shall slope toward the handhole.
6. Conduit entering controller cabinets shall be sealed with paraffin or other approved sealing compound.
7. Service risers shall be terminated with a service head or shall be sealed to prevent the entrance of water, as approved by the serving utility.

PULL BOXES

1. Pull boxes shall be No. 5 except as noted.

CONDUCTORS AND WIRING

1. Signal neutral shall be #10 AWG conductor.
2. Conductors between ballasts or transformers and luminaires shall be #10 AWG, 600 volt.
3. Conductors between series-to-multiple transformers and sign fixture ballasts shall be #12 AWG, 600 volt.
4. Number of conductors indicated in signal system conduit includes three #4 AWG spares.
5. Conductors shall be identified with bands.
6. Underground conductors to signals shall be run without splices, except that where existing signals are being modified, signal conductors may be spliced where indicated.
7. Neutral conductors may be spliced in pull box.
8. Two feet of slack shall be provided in each conductor in each pull box.
9. A separate conductor, other than neutral, shall be run from each pressure detector to controller cabinet.
10. Connection to each terminal of a pedestrian push button shall be by a single conductor. Splices shall be made in nearest pull box.
11. Color coding for wiring to pedestrian signals shall be as specified for corresponding vehicular green and red indications.
12. One side of secondary circuit of series-to-multiple and step-down transformers shall be grounded. On structures the grounding electrode shall be the conduit system. Off structures, it shall be 1/2" x 8' ground rod installed through bottom of pull box.

SIGNAL EQUIPMENT

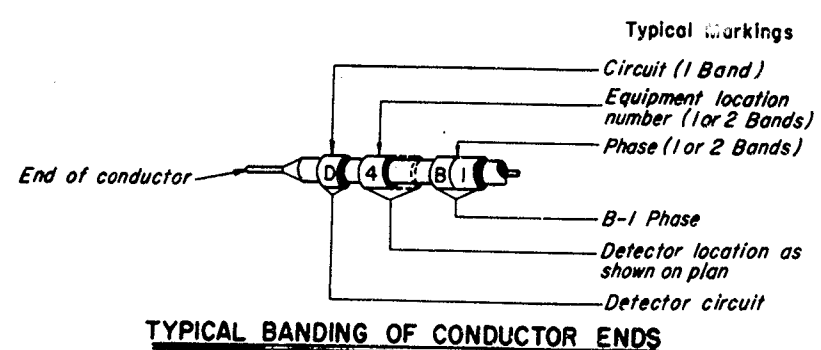
1. Vehicular and pedestrian signal mountings shall be oriented so as to provide maximum horizontal clearance to adjacent roadway.

ELECTROLIERS

1. A mercury-vapor lamp ballast shall be installed in a pull box adjacent to each electrolux, unless integral ballast type luminaires are used.

FOUNDATIONS

1. Top of foundations for standards shall be level with top of curb in curbed areas or 6 inches above surrounding grade in other areas.
2. Except as indicated, standards shall be installed with 2 foot clearance to face of curb, edge of shoulder, back of dikes, and back of ditches.



AS BUILT PLANS
Cont. No. 074024
Completed 12-65

AS BUILT PLANS
Contract No. 03-074024
Date Completed 12-65
Document No. 30000376

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

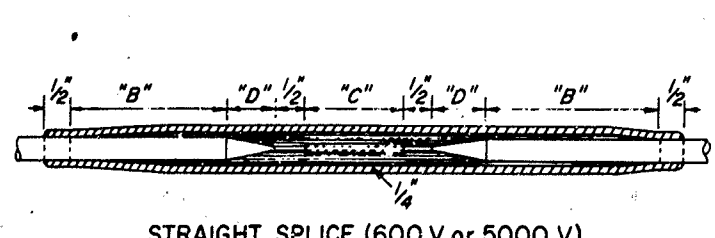
STANDARD DETAILS NO. 4
TRAFFIC SIGNAL AND
HIGHWAY LIGHTING
INSTALLATIONS

SCALE AS NOTED
Revised Aug. 1963 J.L.A.

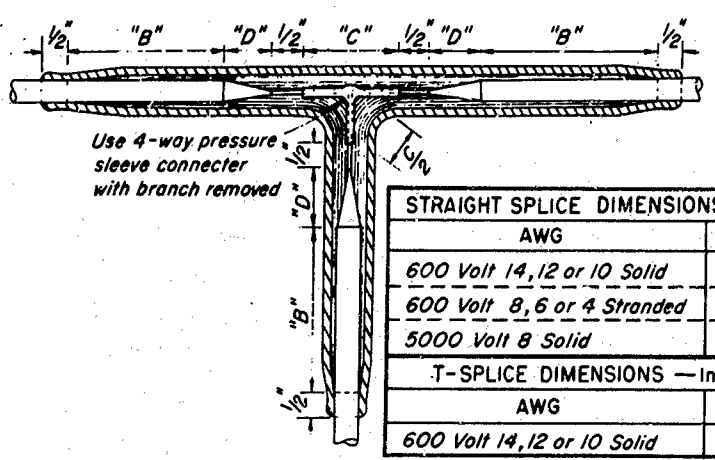
DRAWING NO. E-9

112

PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL RECOMMENDED BY	DATE



STRAIGHT SPLICE (600 V or 5000 V)

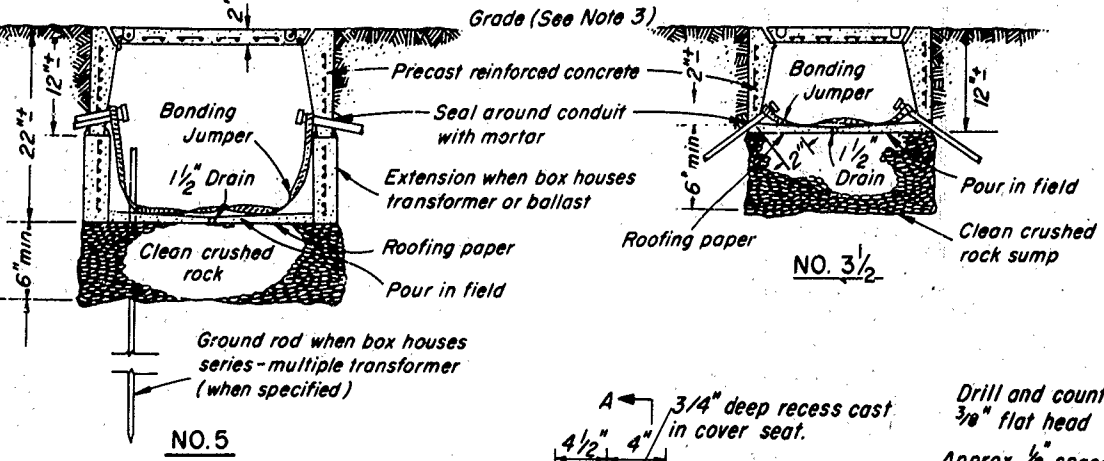
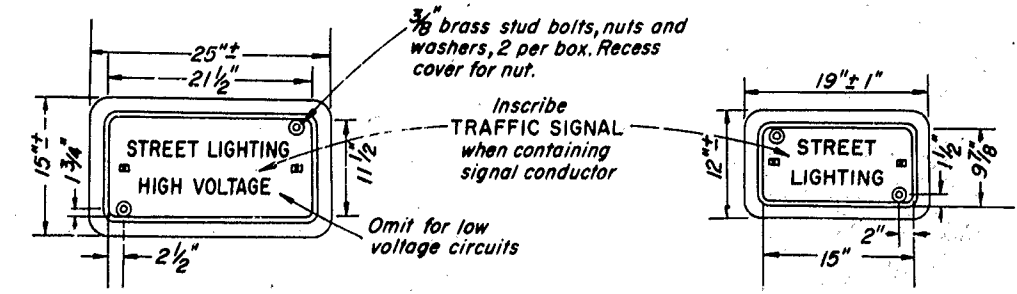


600 VOLT "T" SPLICE

STRAIGHT SPLICE DIMENSIONS - Inches			
AWG	"B"	"D"	"C"
600 Volt 14, 12 or 10 Solid	2"	1 1/2"	1 1/2"
600 Volt 8, 6 or 4 Stranded	2 1/2"	1 1/2"	1 1/2"
5000 Volt 8 Solid	3 1/4"	1"	1"

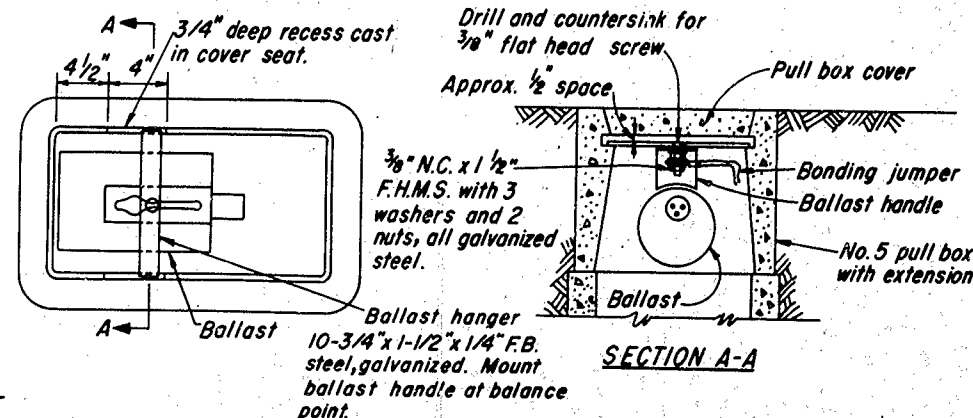
T-SPLICE DIMENSIONS - Inches			
AWG	"B"	"D"	"C"
600 Volt 14, 12 or 10 Solid	2"	1 1/2"	1 1/2"

"C" = Connector length



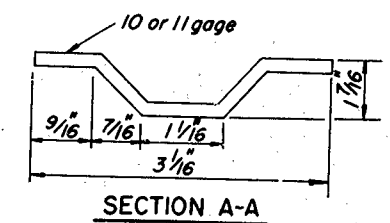
NO. 5

NOTE
 Top of pull boxes shall be flush with surrounding grade or top of adjacent curb, except that in unpaved areas where pull box is not immediately adjacent to and protected by a concrete foundation, pole or other protective construction, the box shall be buried 12 inches below grade and shall be marked by a pull box marker placed adjacent to the pull box. Where practicable, pull boxes shown in the vicinity of curbs shall be placed adjacent to the back of curb, and pull boxes shown adjacent to standards shall be placed along back side of foundation, unless otherwise noted.

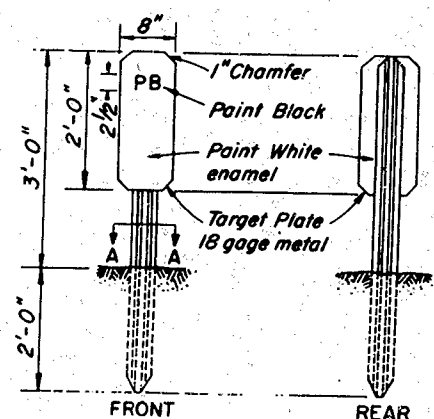


BALLAST INSTALLATION IN ROADWAY PULL BOX

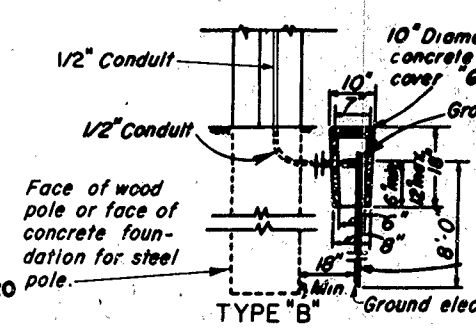
PULL BOXES



SECTION A-A



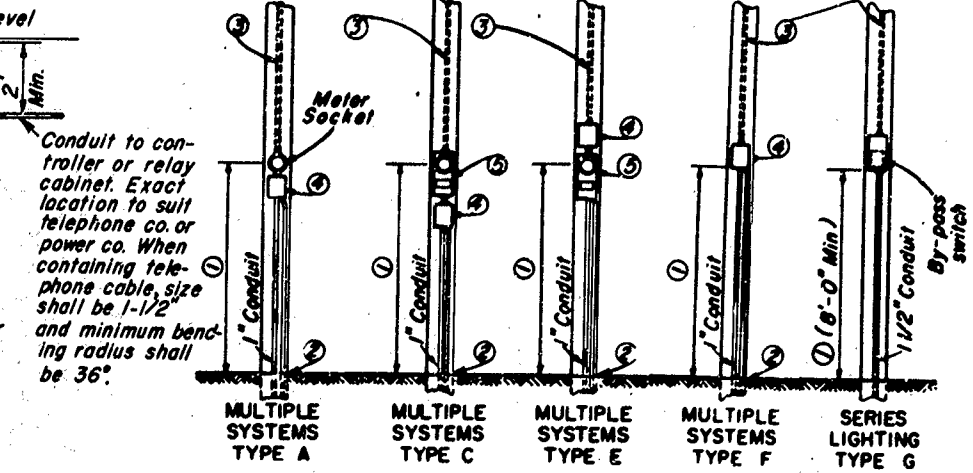
(Type A Guide Marker-No Reflectors)
PULL BOX MARKER



(Install in sidewalk or paved areas)

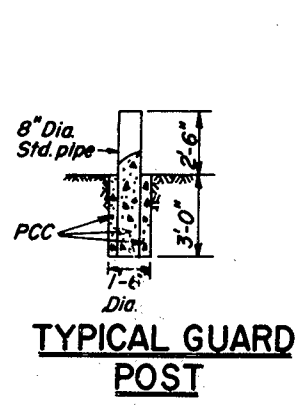
NOTES:
 When water pipe is used for ground, wire shall be enclosed in galvanized rigid conduit, or equivalent mechanical protection.
 Rod or pipe electrodes shall be driven to a depth of at least 8 ft. below surrounding grade.

SERVICE GROUNDING
 NO SCALE

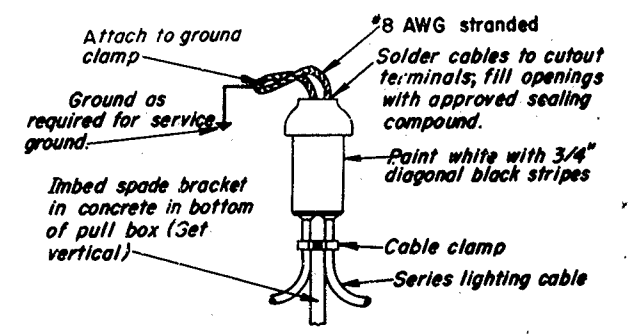


- NOTES**
- Position of service equipment to be determined by serving utility.
 - See "Service Grounding" detail.
 - If service pole is utility owned, service riser shall be furnished by Contractor and installed by serving utility. On State owned poles the service riser shall be furnished and installed by the Contractor. Service riser conduit shall be terminated with a service head or shall be sealed to prevent the entrance of water, as approved by serving utility.
 - Service switch.
 - Meter socket box with either manual circuit closing device or space for test block as specified.

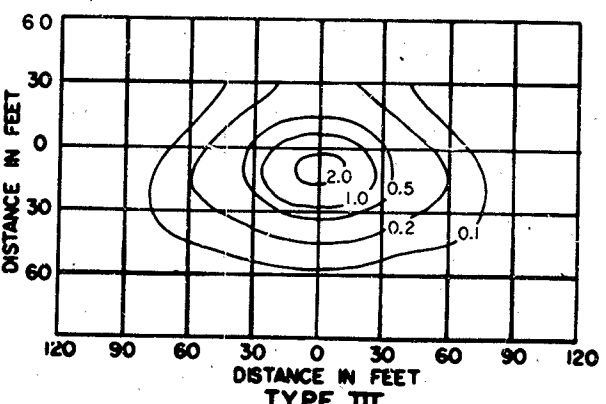
ELECTRICAL AND TELEPHONE SERVICE DETAILS



TYPICAL GUARD POST



GROUNDING CUTOUT



Shielded Highway Lighting Luminaire 30' Mounting Height, 20,000 Lumen Mercury Vapor Lamp
ISOLUX LINES OF MINIMUM HORIZONTAL FOOT CANDLES

AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000.376

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS
STANDARD DETAILS NO. 5
 HIGHWAY LIGHTING
 INSTALLATIONS
 NO SCALE
 Revised 9-14-62
 DRAWING NO. E-10
 ES-5-6

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

- PROCEDURE**
- Remove insulation from each conductor to distance 1/2 C + 1/2 and pencil to dimension D. Roughen penciling.
 - Train conductors and place connector, centering over butted cable ends.
 - Crimp connector. If crimping tool is not ratchet type, solder crimp connection.
 - Insulate. Use method "A" on high voltage circuits unless otherwise specified.

INSULATING METHODS

- Low Voltage Circuits (0-600 volts) Method "A"**
- Apply one coat of rubber cement and allow to dry.
 - Apply low voltage tape to a thickness equal to original insulation, painting final layer with electrical insulating coating if P.V.C. tape is used.
- High Voltage Circuits (601-5000 volts) Method "A"**
- Apply one coat of rubber cement and allow to dry.
 - Apply high voltage tape to a thickness equal to original insulation
 - Apply two layers of low voltage tape, half lapped.
- High Voltage or Low Voltage Circuits - Method "B"**
- Apply two layers, half lapped, of synthetic, oil resistant, self fusing rubber tape.
 - Apply .007" thick P.V.C. tape to a thickness equal to original insulation.
 - Apply two layers of asphalt impregnated, open meshed fabric tape and fuse in
- GENERAL NOTES**
- All dimensions are nominal.
 - Rubber tapes shall be rolled after application.
 - If P.V.C. low voltage tape is used as a final layer, paint finished splice with electrical insulating coating.

SPLICING

December 1962
 APPROVED
 Assistant State Highway Engineer C.E. Lic. No. 5989
 January 6, 1964
 TO ACCOMPANY PLANS DATED

POLE TYPE	POLE HEIGHT & GAUGE	POLE BASE DIAMETER "c"	BASE PLATE DIMENSIONS			BASE PLATE SLOT SIZE "a" x "b"	ANCHOR BOLTS DIMENSIONS		BOLT CIRCLE DIAMETER
			"a"	"b"	"d"		"a"	"b"	
II	20' x 10 ga.	6 5/8"	11 1/2"	9 1/2"	11 1/2"	1 1/4"	1" x 36"	9 1/2"	
II-a	25' x 10 ga.	7 5/16"	11 1/2"	9 1/2"	11 1/2"	1 1/4"	1" x 36"	10"	
III	30' x 7 ga.	8"	11 1/2"	9 1/2"	11 1/2"	1 1/4"	1 1/2" x 40"	11"	
III-a	35' x 7 ga.	8 11/16"	13 1/2"	11"	12 1/2"	1 1/4"	1 1/2" x 44"	11 1/2"	
X	30' x 10 ga.	8"	11 1/2"	9 1/2"	11 1/2"	1 1/4"	1" x 36"	11"	
X-a	35' x 10 ga.	8 11/16"	13 1/2"	11"	12 1/2"	1 1/4"	1" x 36"	11 1/2"	
XIV	20' x .188" thick	7"	11"	9 1/2"	11 1/2"	1 1/4"	**	10"	

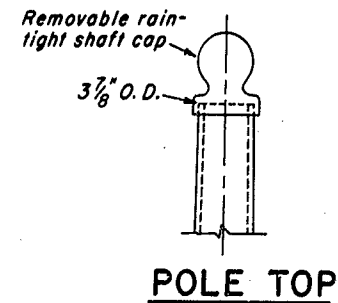
BASE AND ANCHOR BOLT SCHEDULE

NOTE

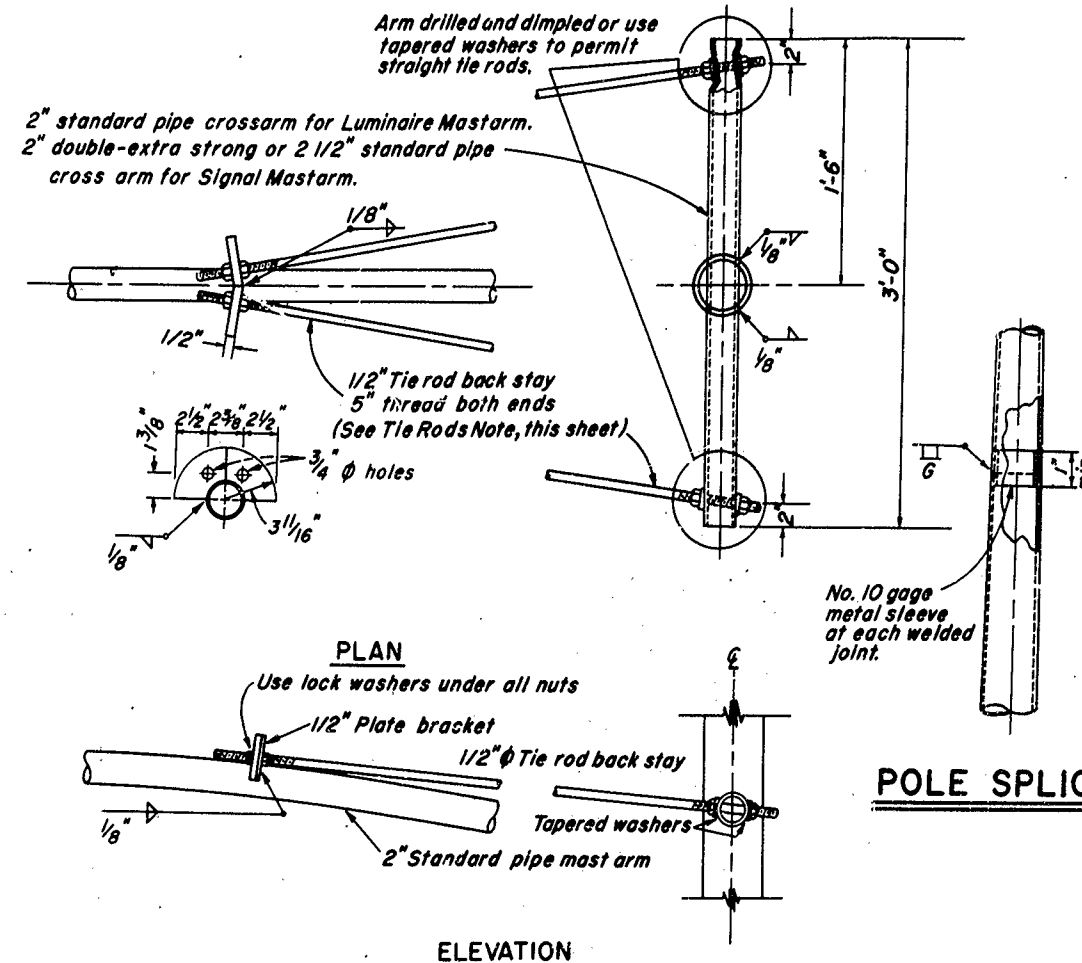
- * 11 gage acceptable if fabricated from sheet steel of 40,000 psi minimum yield.
- ** Length indicated does not include required 4"-90° bend. See Standard Electrical Details-Bridge (ES-7) for structure mounted standard.

TIE RODS

- All tie rods for mast arms 8'-0" to less than 12'-0" in length shall be as shown.
- All traffic signal mast arms and mast arms 12' and longer for luminaires with integral ballasts shall be equipped with standard pipe tie rods with welded 5/8" round bolt tips on each end, threaded 5". Weld shall be coated with zinc-oxide paint or galvanized.
- Pipe tie rods shall be 3/4" for 12'-0" to 15'-0" mast arms and 1" for mast arms longer than 15'-0".

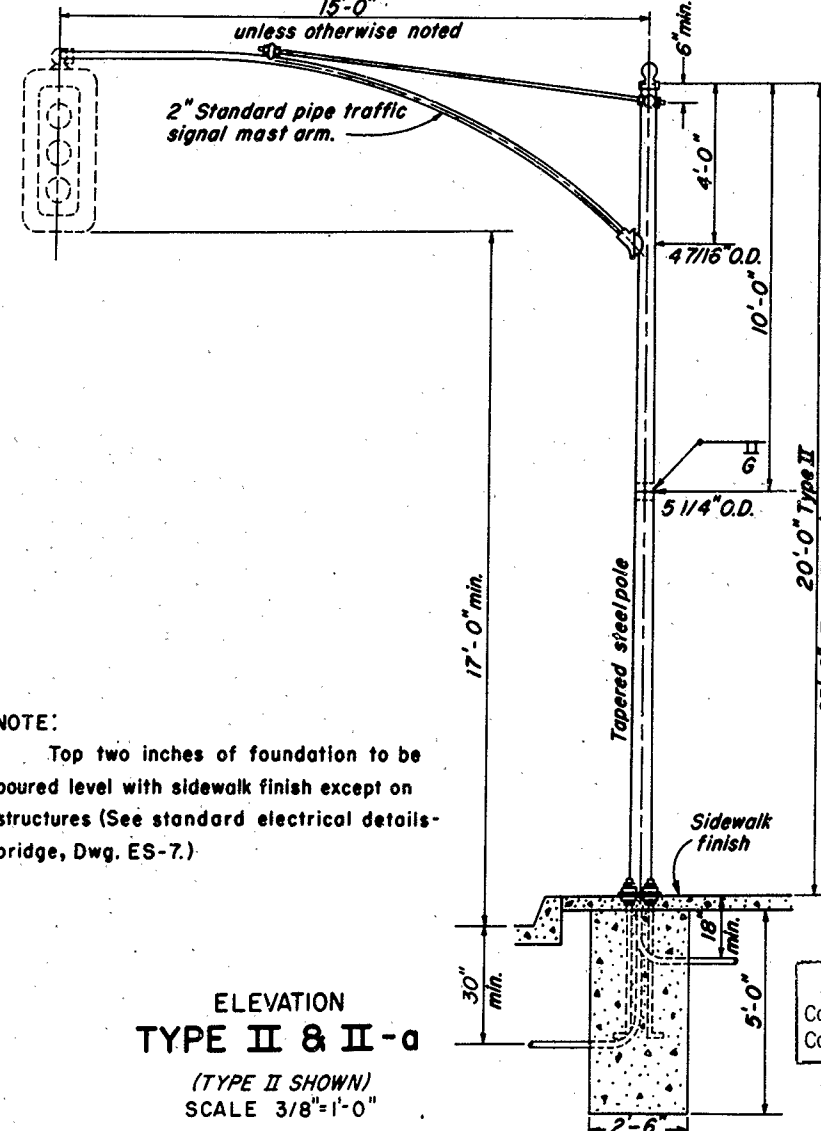


POLE TOP



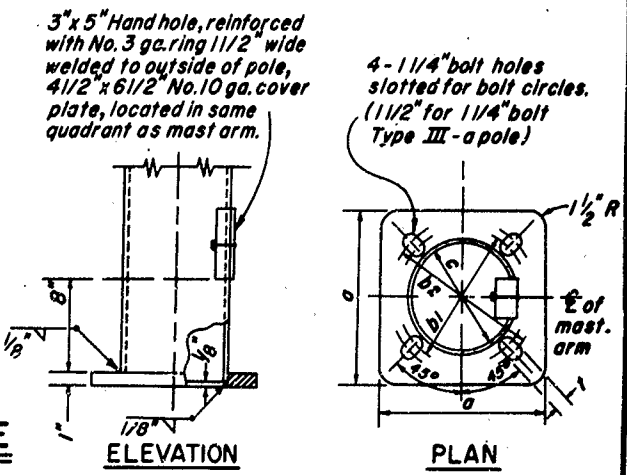
MAST ARM TIE RODS AND CROSS ARM

(Use for mast arms in excess of 8' in length)



NOTE:
 Top two inches of foundation to be poured level with sidewalk finish except on structures (See standard electrical details-bridge, Dwg. ES-7.)

ELEVATION TYPE II & II-a
 (TYPE II SHOWN)
 SCALE 3/8" = 1'-0"



POLE BASE

CALIF - TYPE STANDARDS

GENERAL AND INSTALLATION NOTES

- All steel shafts and mast arms shall be galvanized. Bolts, screws, nuts, washers and tie rods shall be galvanized.
 - The lower 5' length of a 35' Type III-a pole shall consist of a 5"-#7 gage tapered section (8" O.D. to 8 11/16" O.D.) butt welded to the lower end of a 30' Type III pole.
 - The lower 5' length of a 35' Type X-a pole shall consist of a 5"-#10 gage tapered section (8" O.D. to 8 11/16" O.D.) butt welded to the lower end of a 30' Type X pole.
 - The lower 5' length of a 25' Type II-a pole shall consist of a 5"-#10 gage tapered section (6 5/8" to 7 5/16" O.D.) butt welded to the lower end of a 20' Type II pole.
 - For standards to be installed on structures, see Drwg. ES-7.
- STEEL MAST ARMS**
- Luminaire mast arms shall be so curved that when mast arm is fastened to pole the luminaire end shall not be below top of pole or more than 1'-6" above.
 - The last 3' of the mast arm shall be straight and shall be horizontal with luminaire or traffic signal attached.
 - Connection between mast arm and pole shall be made by means of a raintight socket of a design permitting simple removal of the mast arm and providing a chased outlet for electrical conductors.

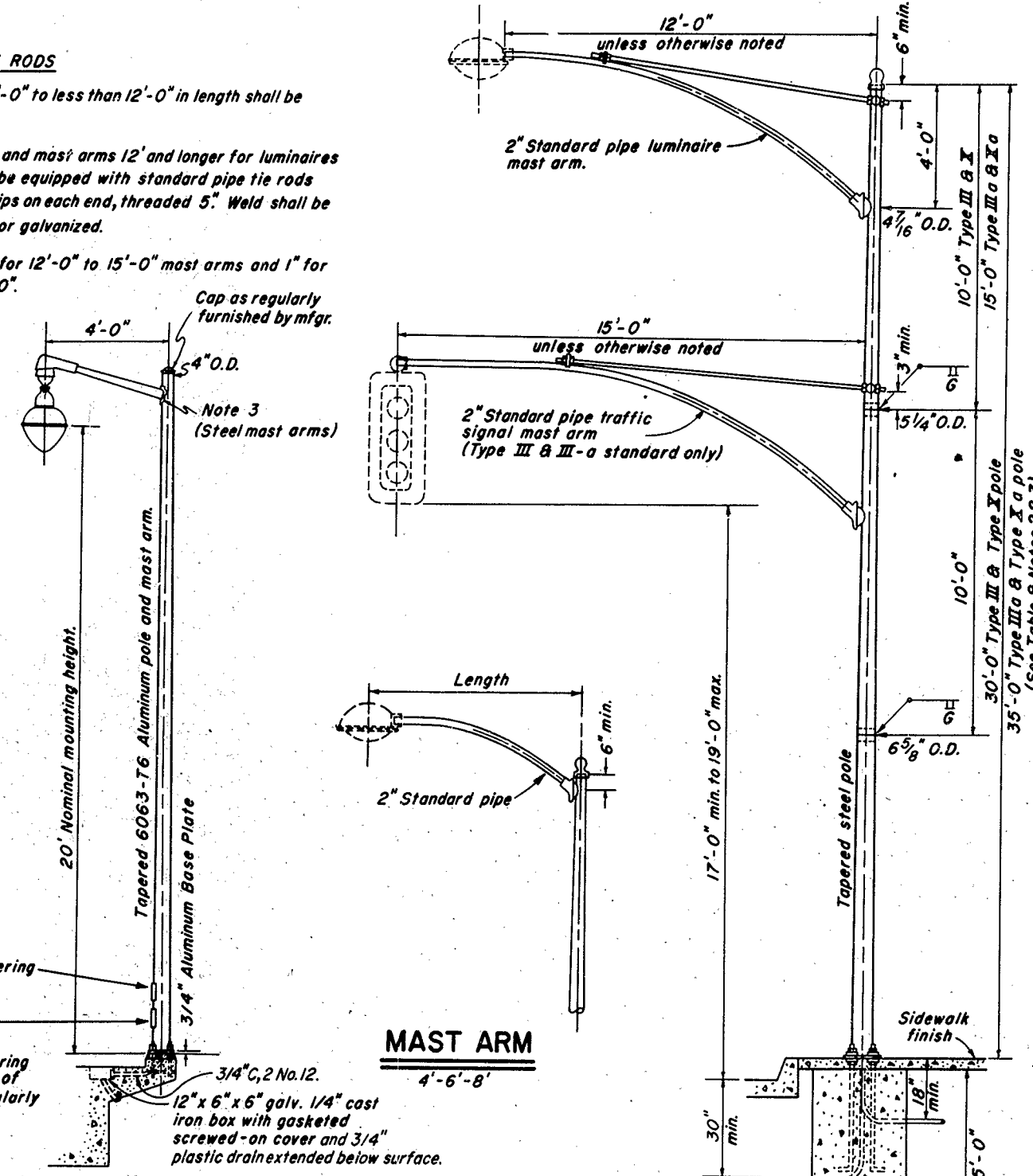
ANCHOR BOLTS

- Each standard shall be supplied with 4 anchor bolts.
- Each anchor bolt shall be provided with 6" of thread and an 4"-90° bend and shall be furnished with two nuts and two washers. Washers shall be 1 1/8" x 2 1/2" min.
- Threads may be cut or rolled. Bolts shall be galvanized or plated after threads are formed.
- One anchor bolt shall be bonded to conduit.

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

STANDARD DETAILS NO. 6
 CALIFORNIA TYPE STANDARDS
 20 ft., 25 ft., 30 ft., 35 ft., Pole Heights

SCALE AS NOTED
 REV. DATE: 11/62
 DRAWING E-II



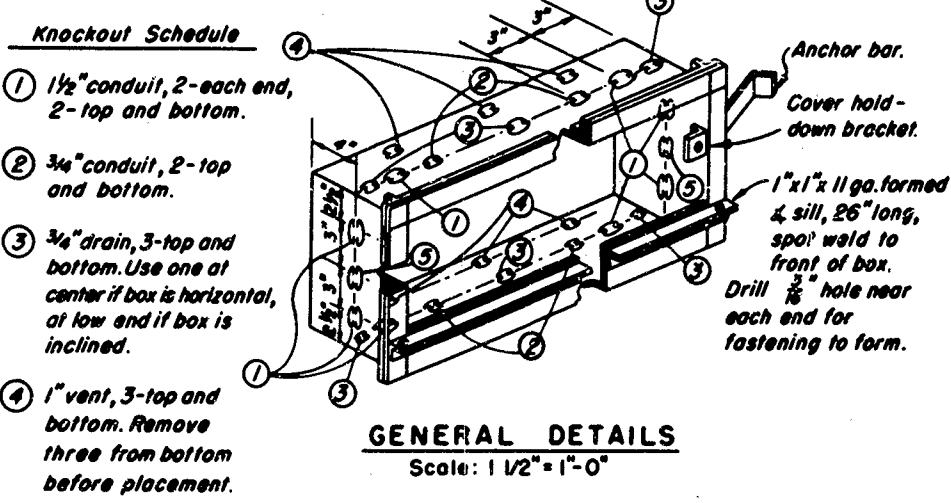
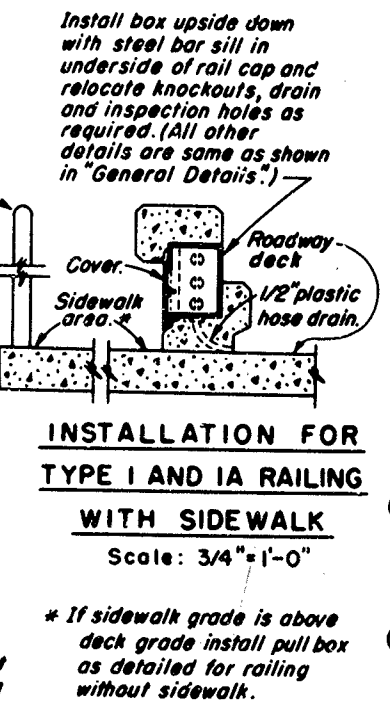
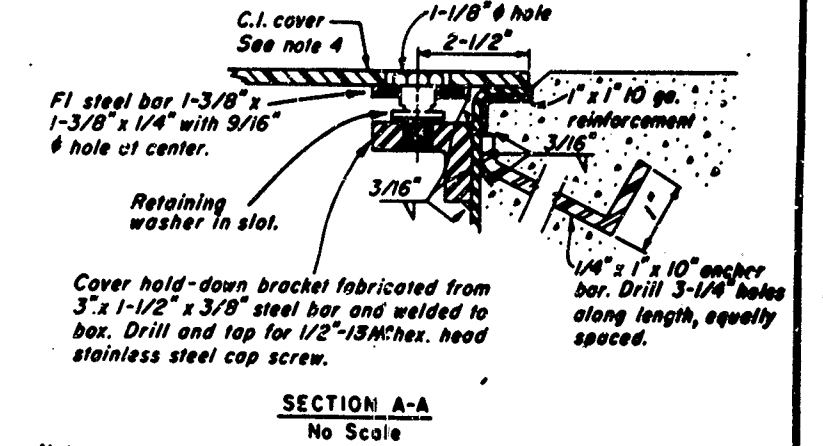
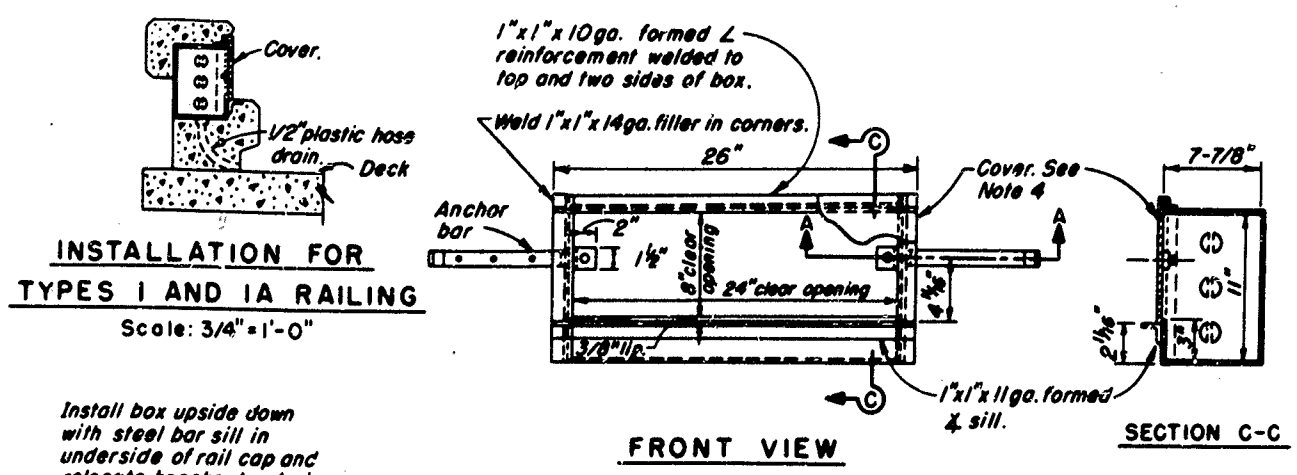
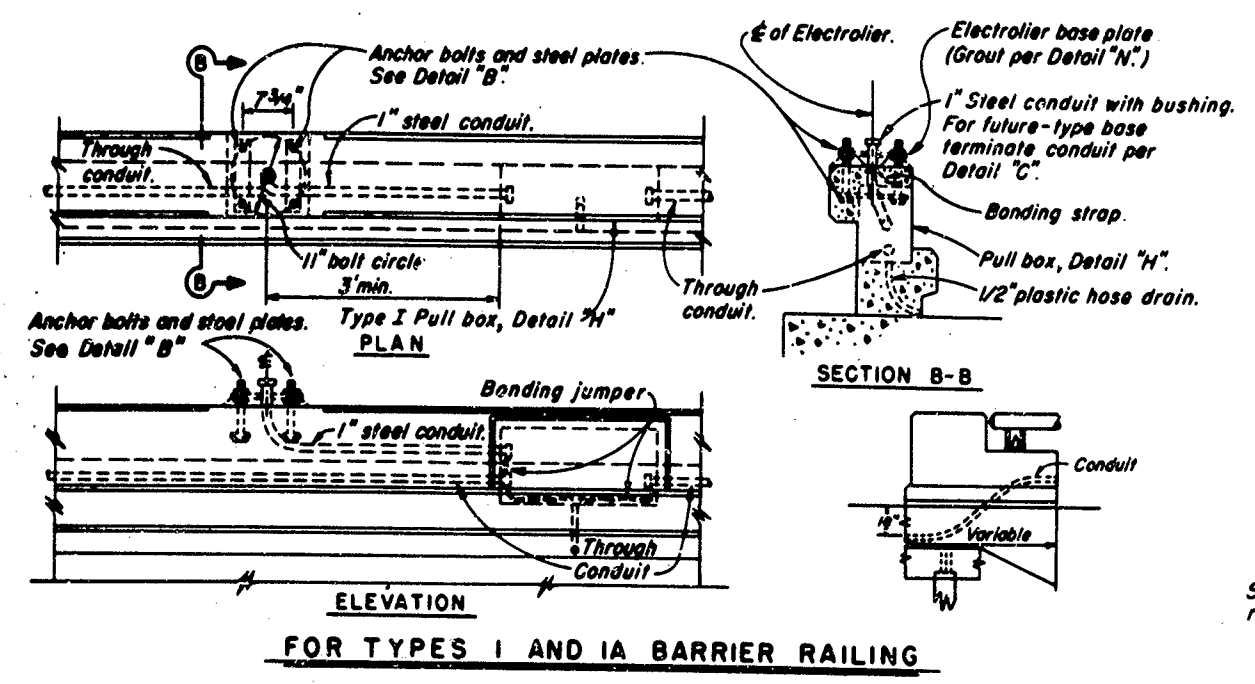
ELEVATION TYPE III & III-a OR TYPE X & X-a
 (TYPE III SHOWN)
 SCALE 3/8" = 1'-0"

TYPE XIV
 (P.O.C. Electrician)
 SCALE 3/8" = 1'-0"

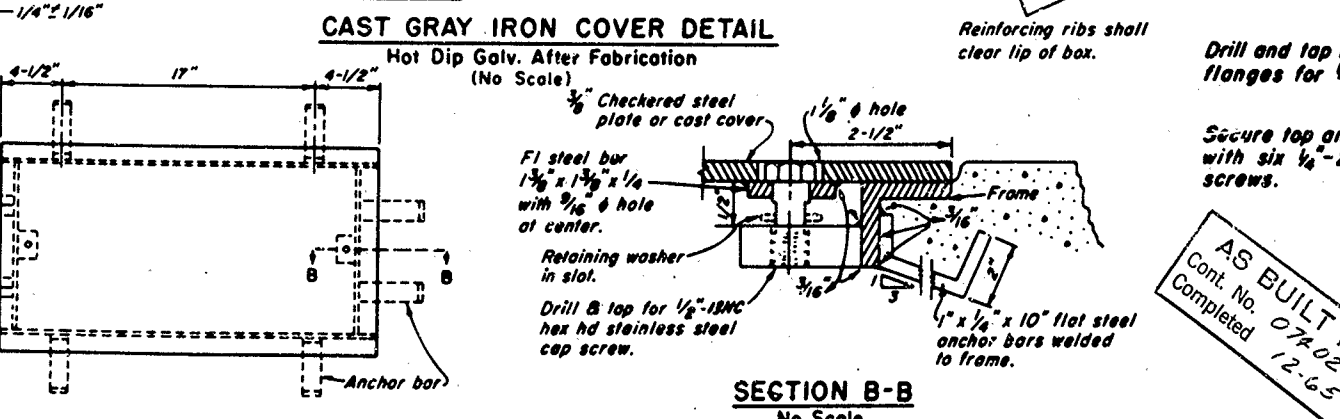
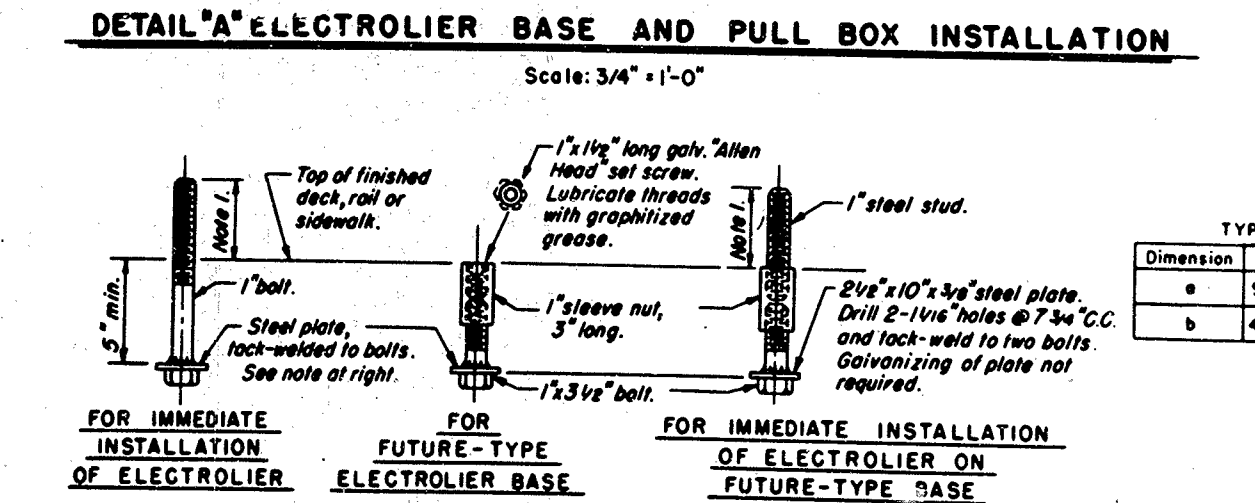
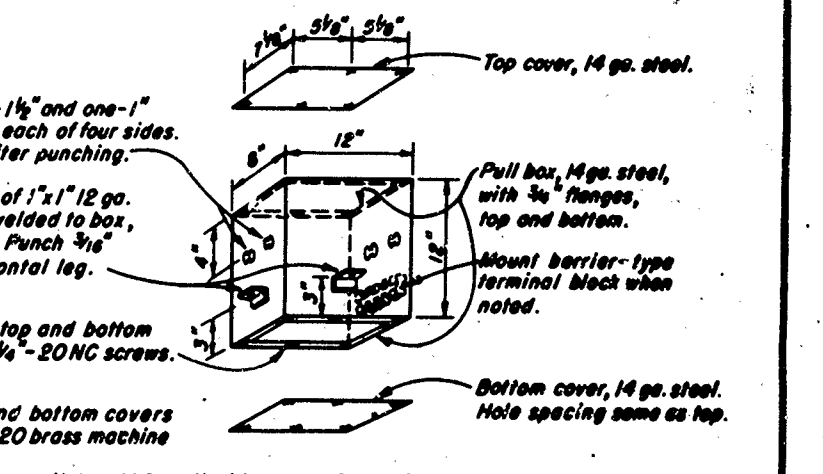
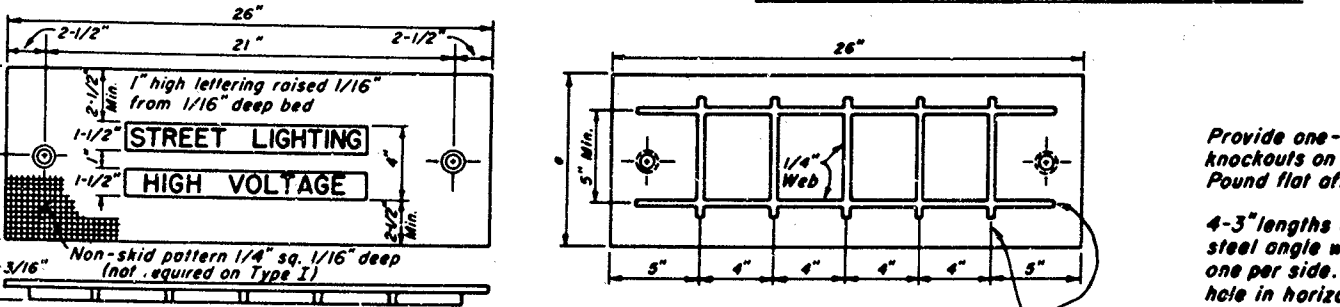
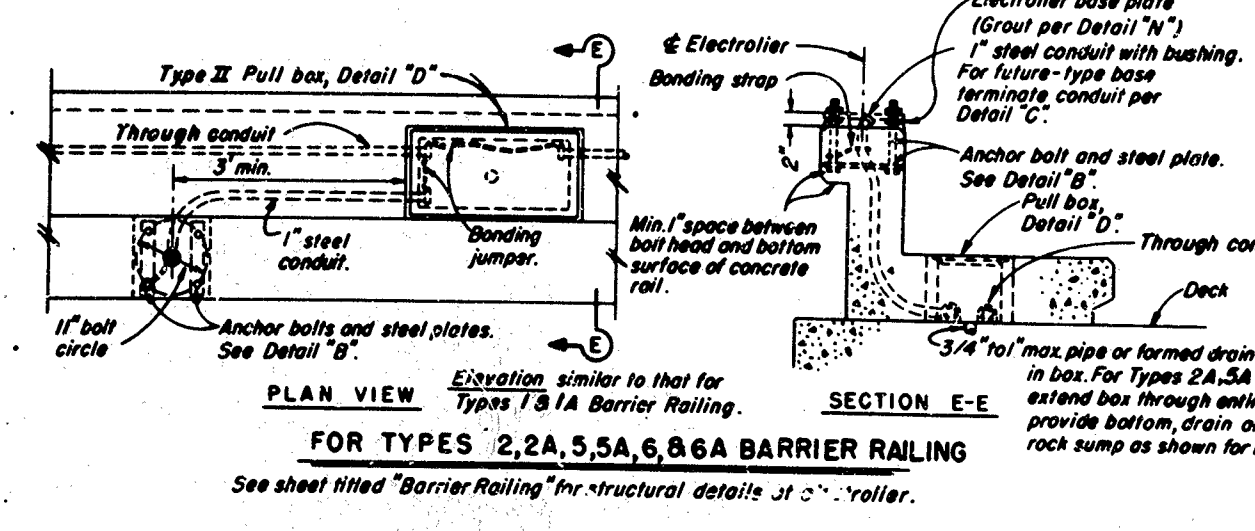
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000374

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

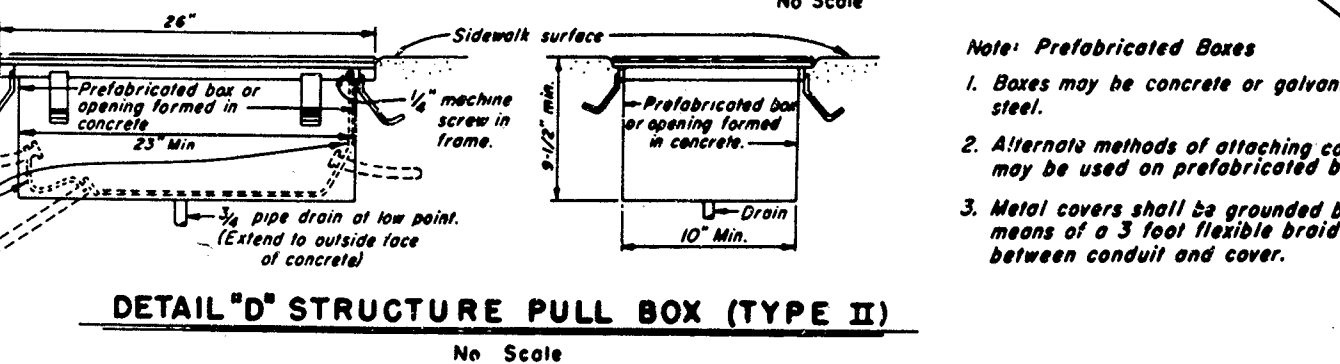
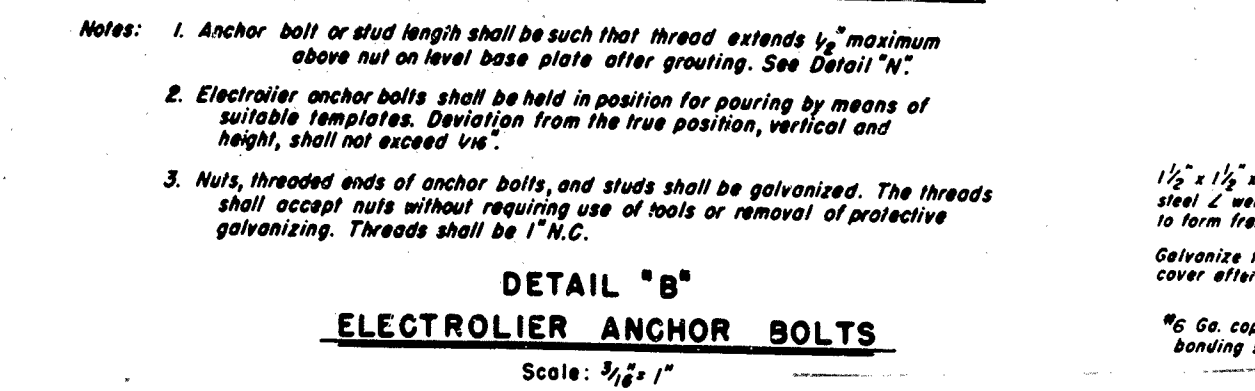
PROJECT ENGINEER	DATE	DESIGN ENGINEER	DATE	APPROVAL/RECOMMENDED BY	DATE



- Notes:
- Pull box shall be fabricated from 14 ga. steel.
 - Provide knockouts per schedule. Pound flat after punching.
 - Pull box shall be hot dipped galvanized after fabrication.
 - Cast iron cover shall be as shown below.
 - Close box during pouring with 1/4" plywood of sufficient size to provide 1:1 chamfer on 3 sides of cover.
 - Rear of box shall be flush with railing wall surface; box sill shall be flush with and parallel to curb grade.
 - Dimple bottom of box at drain. Drain shall be 1/2" plastic hose extended through bottom of box. Trim off hose flush with bottom of drain after railing is poured.



- Notes:
- Install with bottom flange flush with concrete.
 - Galvanize after fabrication.
 - Both covers shall be on box during pouring.

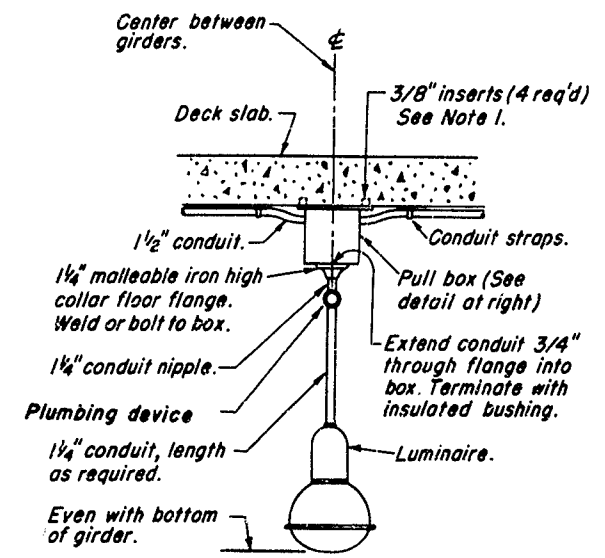


- Notes: Prefabricated Boxes
- Boxes may be concrete or galvanized steel.
 - Alternate methods of attaching covers may be used on prefabricated boxes.
 - Metal covers shall be grounded by means of a 3 foot flexible braid between conduit and cover.

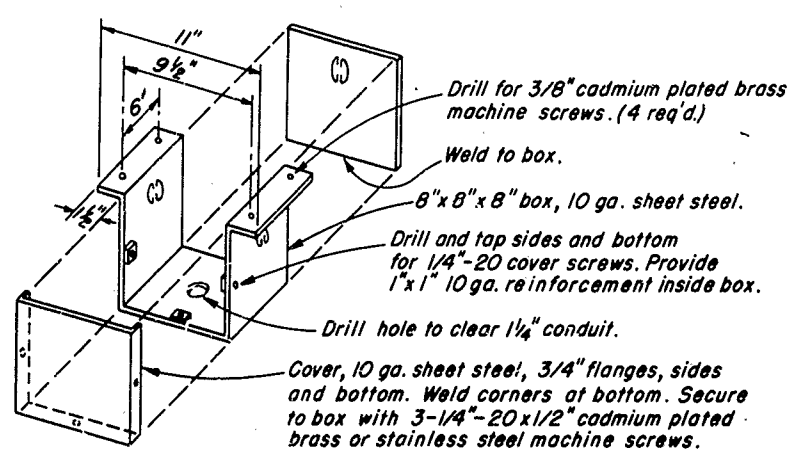
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

STATE	FEDERAL PROJECT NO.	FILE	SHEET	TOTAL SHEETS
CALIF.			116	171

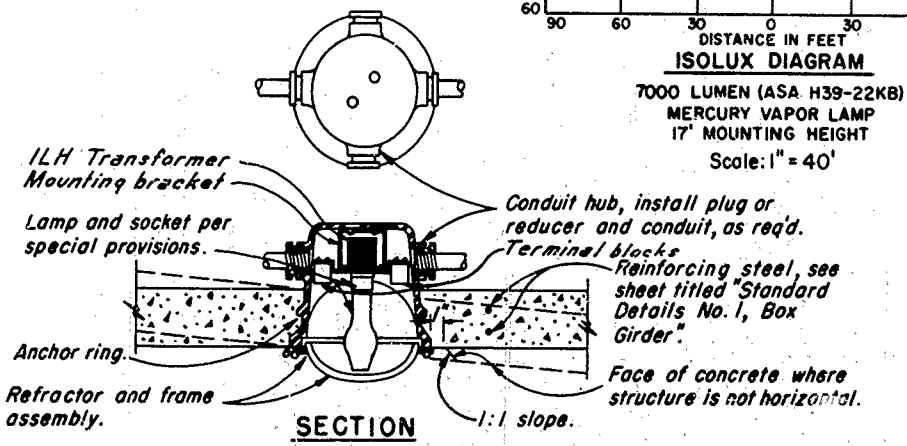
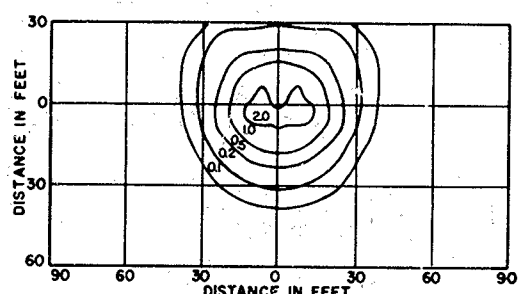
APPROVED MARCH 16, 1962
 TO ACCOMPANY PLANS DATED January 6, 1964



- Notes:**
1. Cast-in-place malleable iron wedge inserts or self-drilling expansion steel anchor.
 2. Galvanize box and cover after fabrication.
 3. Provide one 1/4" knock-out 6" up on each side and back. Pound flat after punching.
 4. For future installation, omit suspension conduit and luminaire, closed flange with galv. plug.
 5. See note 4, Detail "F" below.

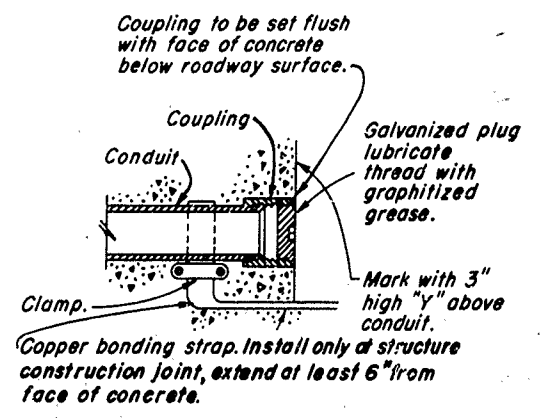


DETAIL "P"
PENDANT SOFFIT LUMINAIRE
 Scale: 1" = 1'-0"

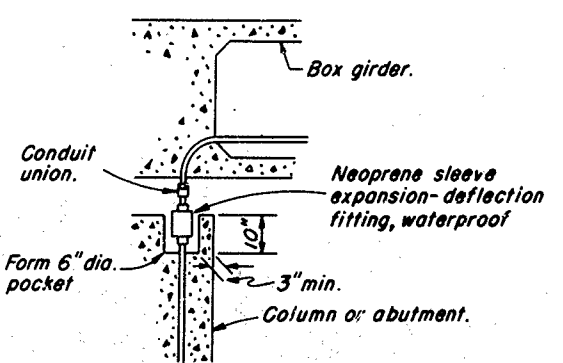


- Notes:**
1. Place 1/4" plywood disk in body opening during pouring.
 2. Install luminaire with axis vertical and "street side" of refractor oriented as indicated on lighting layout.
 3. Luminaire shall be located so as to provide minimum clearance of 2 ft. from inside surface of girders and 1 ft. from near face of diaphragm.
 4. Locate luminaire at station noted and directly above curb line or edge of pavement unless otherwise shown.

DETAIL "F"
FLUSH SOFFIT LUMINAIRE
 Scale: 3/32" = 1"

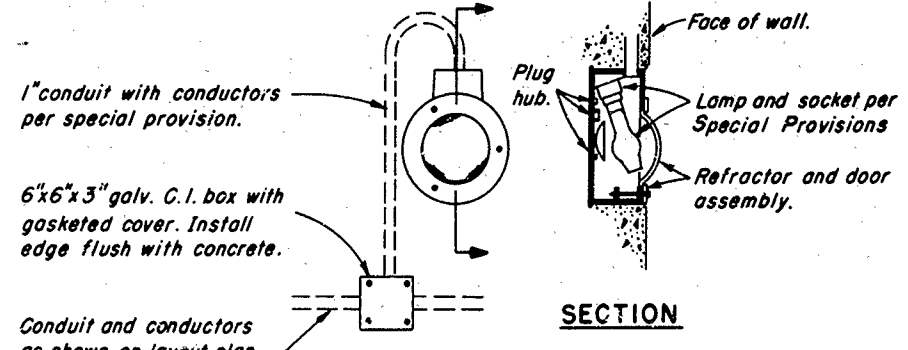
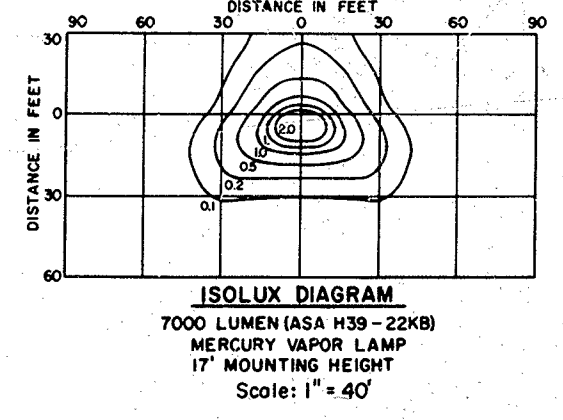


DETAIL "C"
CONDUIT TERMINATION
 No Scale

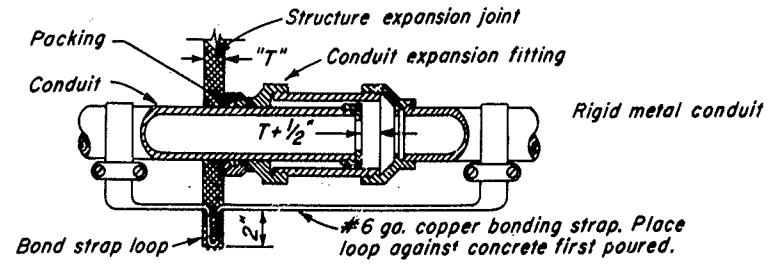


- Notes:**
1. Fitting and pocket required only where movement can occur between girder and column or abutment.
 2. Fill pocket around fitting with resilient waterproof compound.

CONDUIT RISER CONNECTION AT COLUMN OR ABUTMENT
 No Scale

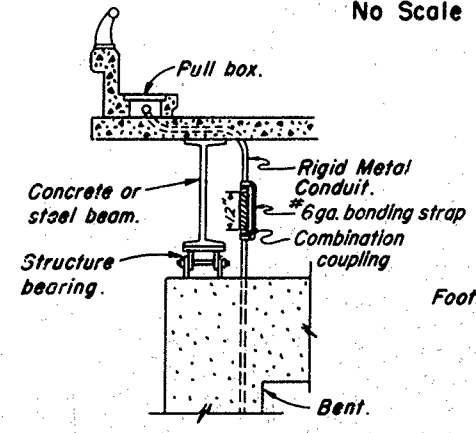


DETAIL "W"
FLUSH WALL LUMINAIRE
 Not to Scale

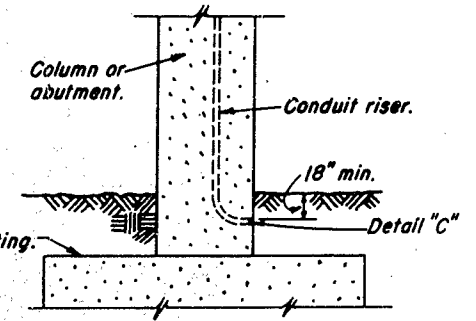


- NOTES**
1. Except for sidewalk joints, a conduit expansion fitting shall be installed at each 1/2-inch or greater structure joint, hinge or abutment.
 2. Expansion fitting shall be installed parallel to superstructure girder.
 3. Where lateral movement greater than 1/4-inch may occur, install neoprene sleeve expansion-deflection fitting straddling joint.

DETAIL "X"
CONDUIT EXPANSION JOINT
 No Scale



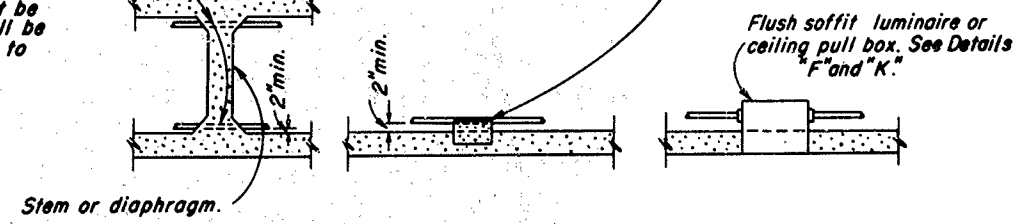
CONDUIT RISER CONNECTION
 No Scale



LOWER END OF CONDUIT RISER AT COLUMN OR ABUTMENT
 No Scale

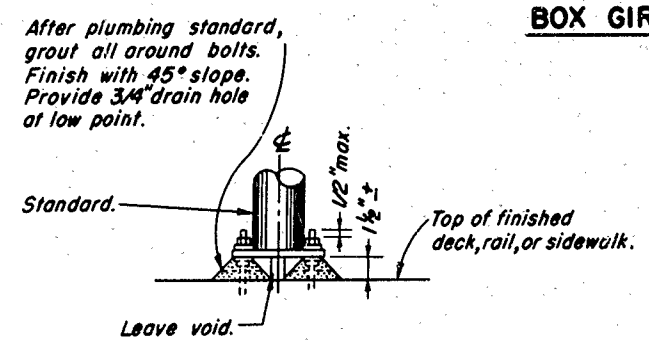
Conduit passing through girder or diaphragm of box girder section shall be either cast into concrete or passed through opening. Opening shall not be drainage opening and shall be only as large as required to install conduit.

Conduit support, notched precast concrete block set in lower slab. Place at intervals of 6" maximum.



CONDUIT INSTALLATION IN BOX GIRDER SECTIONS
 No Scale

NOTE
 Conduit up to 1-inch size may be placed in 5-inch minimum thick slab, conduit up to 1 1/2-inch size may be placed in 6-inch minimum thick slab. Conduit shall be placed in slab parallel only to the main reinforcing steel bars; transverse runs shall be run above bottom slab.
 See Dwg. ES-4 for symbols and installation notes.



DETAIL "N"
GROUTING AT ELECTROLIER
 No Scale

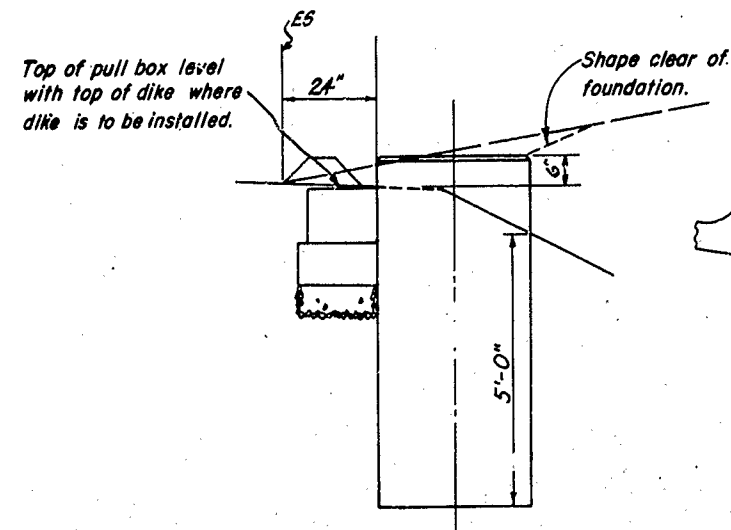
AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
STANDARD ELECTRICAL DETAILS - BRIDGE SHEET 2	
SCALES AS NOTED	REV. DATE DRAWING NO. E-13

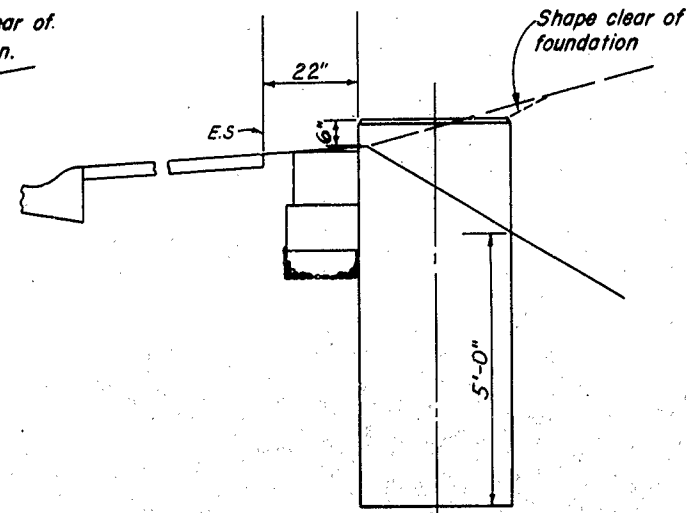
116

DIST.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
111	CALIF.			117	177
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
111	San. E.D.	11	B.A. Fol	117	177

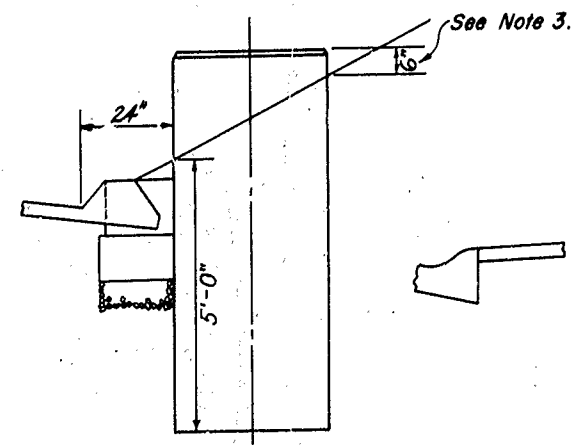
APPROVED: *L.M. Madsen*
 TRAFFIC ENGINEER, CIVIL ENGINEER LICENSE NO. 9489
 TO ACCOMPANY PLANS DATED January 6, 1964



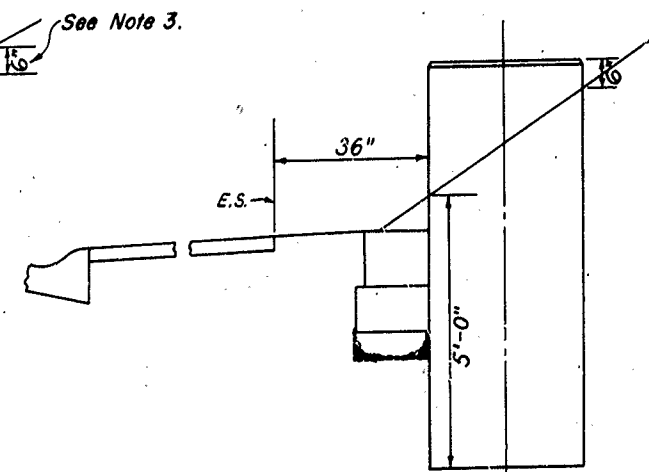
SHOULDER
(CUT SLOPES 6:1 AND FLATTER)*



TYPE E CURB
WITH 5 FOOT SHOULDER
(CUT SLOPES 4:1 AND FLATTER)*



SHOULDER OR DITCH WITH DIKE
(SLOPES STEEPER THAN 6:1)

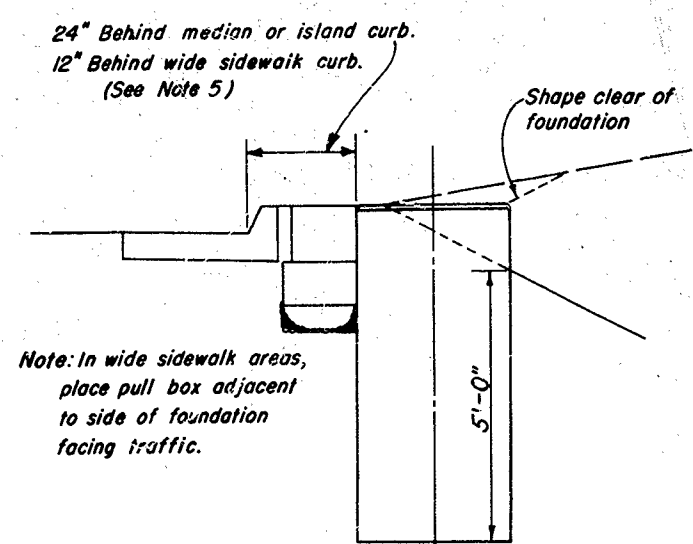


TYPE E CURB
(SLOPES STEEPER THAN 4:1)

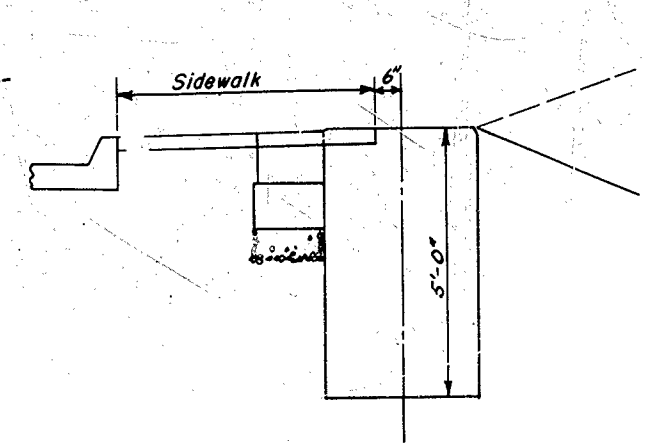
AS BUILT PLANS
 Contract No. 03-074024
 Date Completed 12-65
 Document No. 30000376

NOTES

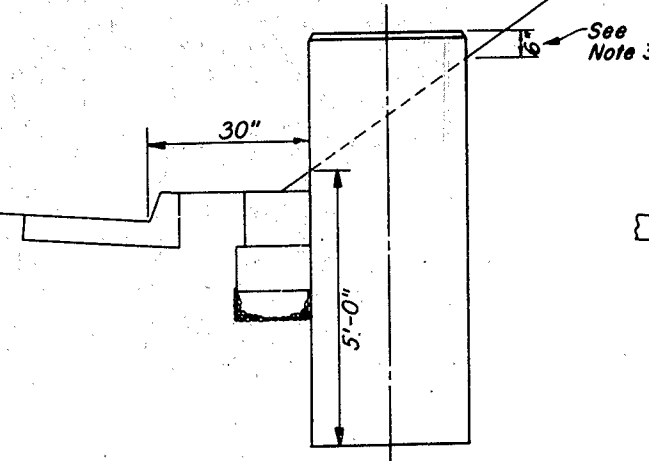
- Where all, or a portion, of the foundation is above grade, the top edges shall have a 1" chamfer and the exposed faces of foundation shall be finished with mortar to provide a uniform appearance.
- Pull boxes shall be centered in front of foundation.
- For slopes flatter than 4:1 this dimension may be approximately 1".
- Conduit in foundation shall be 1 1/2" size (2" size if signals are mounted on electroliner) and shall extend 2" above top of foundation.
- Narrow sidewalk: less than 8 feet wide.
Wide sidewalk: 8 feet wide and greater.
- See Drawing ES-6 for details of anchor bolt installation.



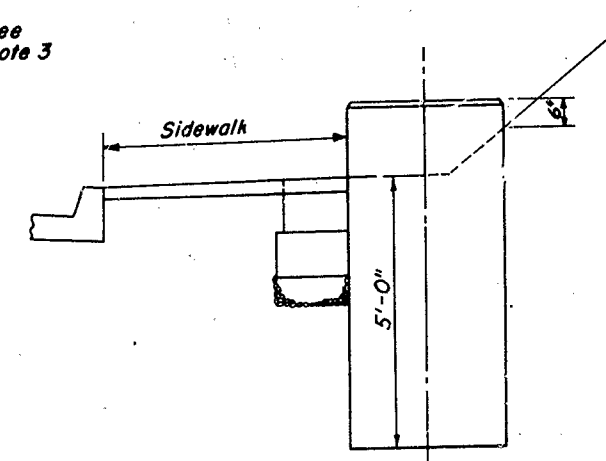
BARRIER CURB
(CUT SLOPES 6:1 AND FLATTER)*



BARRIER CURB
WITH NARROW SIDEWALK
(CUT SLOPES 3:1 AND FLATTER)*
See Note 5



BARRIER CURB
(SLOPES STEEPER THAN 6:1)



BARRIER CURB
WITH NARROW SIDEWALK
(SLOPES STEEPER THAN 3:1)
See Note 5

CUT SLOPES AS INDICATED

AS BUILT PLANS
 Cont. No. 074024
 Completed 12-65

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS
STANDARD DETAILS NO. 11
 TYPICAL ELECTROLIER FOUNDATION
 Not To Scale
 REV. DATE OCT. 1962 JLA
 Drawing No. E-14

***ALL FILL SLOPES, LEVEL AREAS AND
CUT SLOPES AS INDICATED**

ES-11

DEPT.	INITIAL	DATE

117

Project Engineer	Date	Design Engineer	Date	Approval Recommended By	Date

FORM WPL-53A
 EST. 1961