Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
2	CAL.	S-701(1)	1950	13	#19

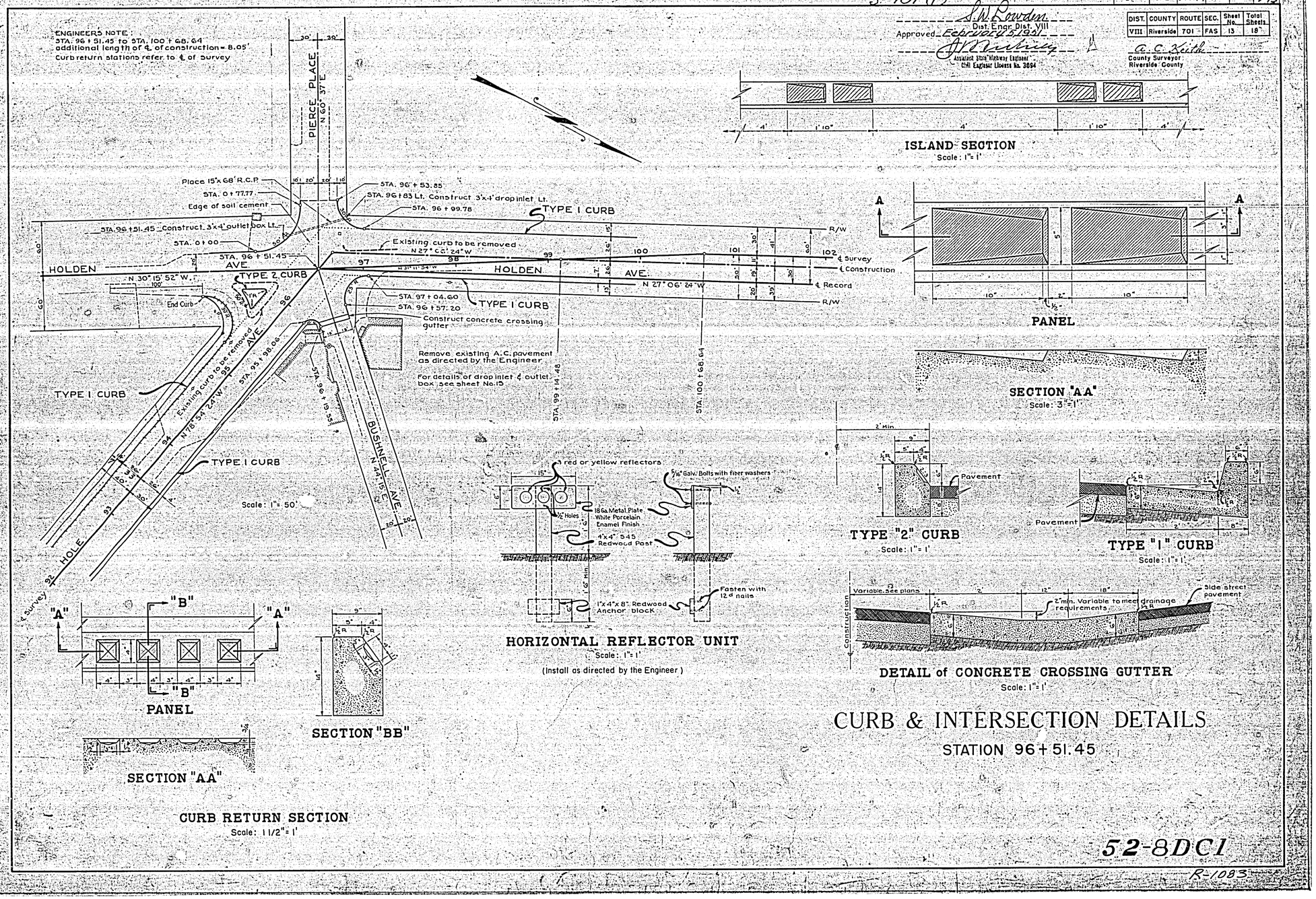
S-701 (1)

S. W. Lowden
Dist. Engr. Dist. VIII
Approved February 5, 1951
J. V. Mulvihill
Assistant State Highway Engineer
Civil Engineer License No. 3094

DIST.	COUNTY	ROUTE	SEC.	Sheet No.	Total Sheets
VIII	Riverside	701	FAS	13	18

A. C. Keith
County Surveyor
Riverside County

ENGINEERS NOTE:
STA. 96 + 51.45 to STA. 100 + 68.64
additional length of ℄ of construction = 8.05'
Curb return stations refer to ℄ of survey



CURB & INTERSECTION DETAILS

STATION 96 + 51.45

52-8DC1

R-1083

S-701(1)

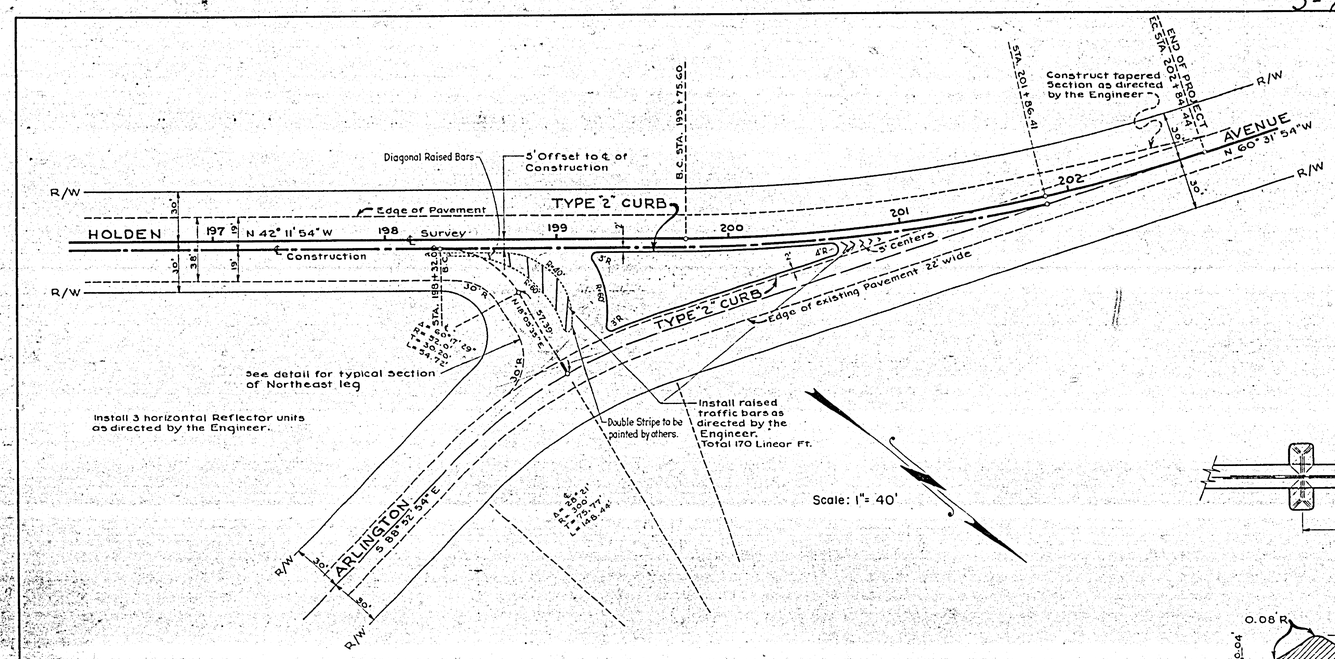
Fed Road Dist No.	State	Fed Aid Proj No	Fiscal Year	Sheet No.	Total Sheets
2	CAL.	S-701(1)	1950	14	18/9

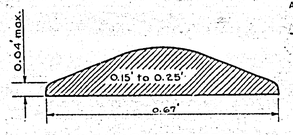
DIST.	COUNTY	ROUTE	SEC.	Sheet No.	Total Sheets
VIII	Riverside	FAS	701	14	18

S. W. Rowden
Dist. Eng. Dist. VIII

Approved February 2, 1951
J. Mulvey
Assistant State Highway Engineer
Civil Engineer License No. 8054

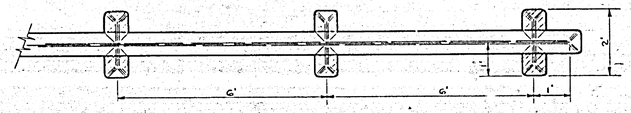
G. C. Smith
County Surveyor
Riverside County





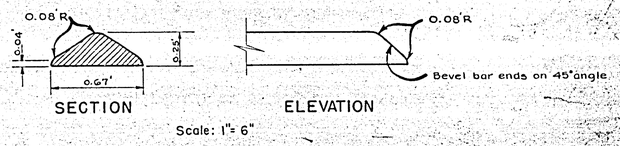
CROSS SECTION
of
RAISED BARS

Note: Bars to be spaced from 5' to 15' apart and at 45° skew to roadway as directed by the Engineer.

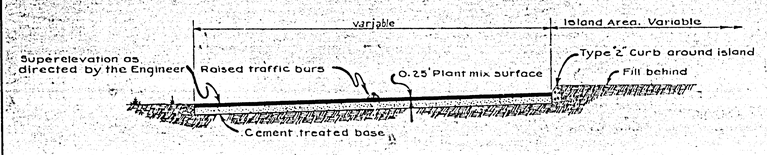


PLAN
Scale: 1" = 2'

Note: Paint all exposed surface of bars with beaded white traffic lacquer



RAISED TRAFFIC BARS
(FINS)



TYPICAL SECTION
NORTHEAST LEG

CURB & INTERSECTION DETAILS

STATION 199+75.60

52-8DC1

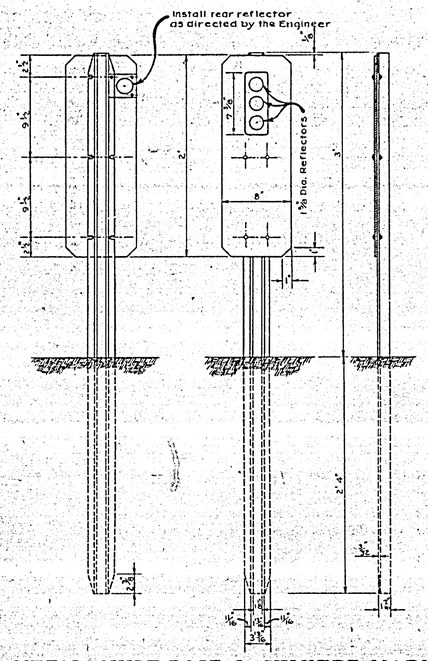
R-1083

S-701(1)

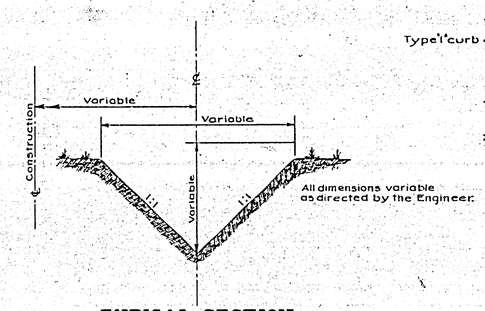
Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
2	CAL.	S-701(1)	1950	15	19

DIST.	COUNTY	ROUTE	SEC.	Sheet No.	Total Sheets
VIII	Riverside	701	FAS	15	18

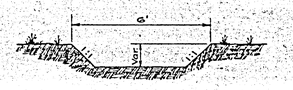
S. W. Lowden
Dist. Eng. Dist. VIII
Approved February 5, 1951
J. H. Mulvey
Assistant State Highway Engineer
Civil Engineer License No. 3094
A. C. Keith
County Surveyor
Riverside County



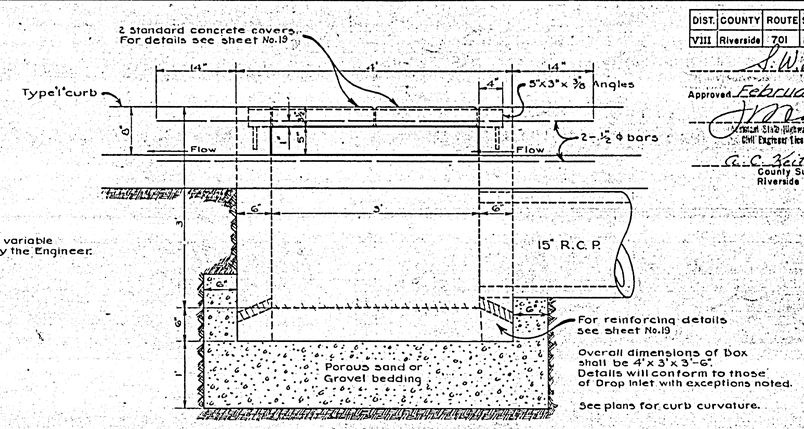
METAL GUIDE POST & CULVERT MARKER
Scale: 1 1/2" = 1'



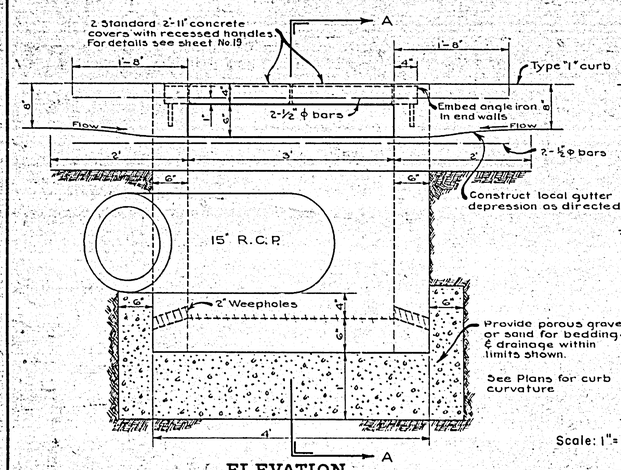
TYPICAL SECTION
of
LEAD DITCHES
No Scale



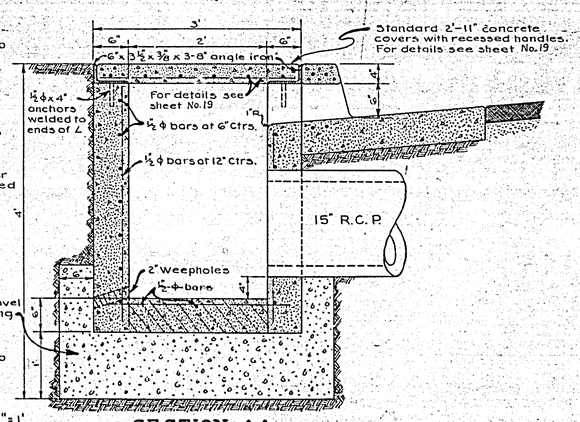
TYPICAL SECTION
of
OUTFALL DITCH
for
CULVERT STA. 160 + 00
Scale: 1" = 3'



ELEVATION of OUTLET BOX
STATION 96 + 51 LEFT
Scale: 1" = 1'



ELEVATION



Scale: 1" = 1'

SECTION AA

DETAILS of DROP INLET
STATION 96 + 83 LEFT

MISCELLANEOUS DETAILS

FAS 701 (1)

52-8DC1

R-1083

S-701(1)

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
2	CAL.	701 (1)	1950	16	18

DIST.	COUNTY	ROUTE	SEC.	SHEET No.	TOTAL SHEETS
VIII	RIV.	701	F.A.S.	16	18

S. W. Rowden
Dist. Eng. Dist. VIII

Approved February 5, 1951

J. N. Nadeau
Assistant State Highway Engineer

A. Espinosa
Civil Engineer Lic. No. 3054
County Surveyor & Road Commissioner

SUMMARY OF MISCELLANEOUS CONSTRUCTION QUANTITIES

PAVEMENT REMOVAL

LOCATION STA.	LOCATION STA.	DESCRIPTION	Square Feet	QUANITY (c.y)
43+73	44+33	EXCAV. FOR CULVERT	~~060~~	~~14.93~~
25+00	30+40	Hole Avenue	~~8640~~	~~133.3~~ 134.40
50+45	——	EXCAV. FOR CULVERT	90	1.24
34+60	40+00	Cut thru. hill	~~8640~~	~~133.3~~ 134.40
~~64+06~~	~~64+16~~			
~~66+60~~	~~66+10~~	Excav. for Culvert	~~1160~~	~~2.5~~ 2.49
83+15	83+80	EXCAV. FOR CULVERT	1040	16.18
70+00	81+00	Cut thru hill	17600	~~271.6~~ 273.78
84+50	89+50	HOLE AVE.	4800	74.67
96+51	102+13	Intersection	~~6995~~ 10384	~~138.9~~ 161.53
96+51	——	Inter. Pave. Returns	~~115.0~~ 960	~~14.3~~ 14.93
114+00	114+10	Excav. for Culvert	~~160.0~~ 100	~~2.5~~ 1.56
129+00	——	EXCAV. FO CULV.	90	1.24
159+00	160+00	Holden Avenue	1600	~~24.7~~ 24.89
162+30	164+00	Holden Avenue	2720	~~42.0~~ 42.31
196+00	198+00			
~~198+50~~	——	East Leg Curve	~~3580~~ 1600	54.3 24.80
199+29	200+59			
~~199+00~~	200+50	Island curbing	~~170~~ 130	~~2.3~~ 2.02
		Total	~~43,355~~ 59314	~~919.4~~ 925.46

CONCRETE REMOVAL

LOCATION	DESCRIPTION	QUANITY (c.y)
~~66+05~~	~~Headwalls Rt. & Lt.~~	~~0.82~~
16 + 20	Headwall Rt.	1.33
87 + 30	Sidewalk Lt.	~~0.07~~ 0.32
44 + 40	Headwall Lt.	0.23
87 + 75	Driveway Rt. Lt.	~~0.39~~ 0.36
90 + 95	Driveway Lt.	0.32
88 + 10	Sidewalk Lt.	~~0.04~~ 0.15
91 + 10	Sidewalk Lt.	0.12
88 + 30	Driveway Rt.	~~2.73~~ 3.31
91+55 – 91+80	Curb Rt.	0.08
95 + 85	Curb on Triangle Lt.	~~3.63~~ 3.34
92+26 – 92+40	Curb Rt.	0.17
97 + 00	Curbing Lt.	~~1.66~~ 1.65
114 + 25	Headwalls Rt. & Lt.	~~0.59~~ 0.61
96 + 51	Concrete Dip Lt.	1.67
146 + 60	Driveway Rt.	~~0.99~~ 1.89
121 + 20	Headwall Lt.	0.37
~~149+20~~	~~Headwall —— Lt.~~	~~0.16~~
~~168+80~~	~~Headwalls —— Lt.~~	~~0.29~~
	Total	~~11.28~~ 12.32

RAISED TRAFFIC BARS

STA. TO STA.	RT. or LT.	BARS	
20+70 – 21+25	Rt.	~~150~~ 88	
198+00	Rt.	~~90~~ 129	
198+90 – 200+30	Rt.	~~90~~ 29	

GUIDE POST & DELINEATORS

STA. TO STA.	RT. or LT.	REFLECTORS FRONT	REFLECTORS BACK	NO.
~~23+23 – 24+75~~ ~~21+60 – 23+00~~	Rt.	X		2
~~35+75~~ 30+50 – ~~35+60~~	Rt. & Lt.	X	X	~~12~~ 7
~~66+90~~ ~~66+90~~ ~~63+60 – 67+00~~	Rt.	X		~~3~~ 4
~~77+00 – 80+00~~	~~Rt. & Lt.~~	X	X	~~5~~
~~158+75 – 160+20~~ ~~160+00 – 163+00~~	Rt. & Lt.	X	X	~~6~~ 14
~~173+60~~ 171+60 – ~~172+60~~	Rt. & Lt.	X	X	~~8~~ 4
~~193+90 – 197+00~~ ~~173+50 – 198+00~~	Lt.	X		~~+3~~ 10
~~197+00 – 197+00~~ ~~198+40~~	Rt.	X		+ 9

CLASS "A" P.C.C. CURBS, GUTTERS

STA. TO STA.	LOCATION	LINEAR FT. CURBS TYPE 1	LINEAR FT. CURBS TYPE 2	LINEAR FT. CROSS GUTTER	TOTAL C.Y.
85 + 82.34 95 + 96.78 ~~86+13.90 — 96+04.31~~	Hole Ave. South Side Miner to Holden Ave	1014.44 ~~1022~~			65.43 ~~65.92~~
86 + 25.60 90 + 90.65 ~~86+54.83 — 90+69.91~~	Hole Ave North Side Doane to Wells Ave	465.05 ~~467~~			20.99 ~~30.16~~
90 + 90.65 91 + 37.42 ~~90+69.81 — 91+61.32~~	Wells Ave – Conc. crossing			75.35 ~~92~~	6.28 ~~7.66~~
91 + 37.62 96 + 16.09 ~~91+61.39 — 96+19.55~~	Hole Ave North Side Wells to Bushnell Ave	478.47 ~~477~~			30.86 ~~30.77~~
95 + 85. – Rt. Lt.	Island. Curbing		59.43 ~~65~~		1.74 ~~2.50~~
94 + 79.67 96 + 61.81 ~~96+31.46~~ – Lt.	Holden Ave – Southwest Pierce to Holden Ave	182.14 ~~153~~			11.75 ~~8.68~~
96 + 61.81 102 + 08.40 ~~96+99.78 — 102+00~~	Holden Ave – Southwest Pierce St. to end of curb	546.59			35.26 ~~35.22~~
96 + 59.85 102 + 22.36 ~~96+57.20 — 101+80.74~~	Holden Ave – Northeast Bushnell to Nebraska	562.51 ~~568~~			36.28 ~~36.63~~
96 + 19.56 – Rt.	Bushnell Ave conc. crossing			26.48 ~~30~~	2.20 ~~2.50~~
198+85 – 200+60	Island – Arlington Ave		327.50 ~~390~~		9.60 ~~8.51~~
	Total	3249.20 ~~3213~~	386.93 ~~476~~	101.83 ~~122~~	229.59 ~~228.41~~

HORZ. REFLECTORS

STA.	LOCATION	NO.
85+90	Miner Ave Lt.	1
86+40	Doane Ave Rt.	1
90+80	Wells Ave Rt.	1
91+40	Wells Ave Rt.	1
95+80	Inter. Island Lt.	3
96+51	Intersection Returns	4
101+98	Nebraska Ave Rt.	1
102+00	End Curb Lt.	1
199+50	Inter. Island Lt.	3
	Total	16

SUMMARY OF MISCELLANEOUS CONSTRUCTION QUANTITIES

FAS 701 (1)

52-8DC1

R-1083

S-701 (1)

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
2	CAL.	S-701 (1)	1950	18	~~15~~ 19

DIST.	COUNTY	ROUTE	SEC.	SHEET NO.	TOTAL SHEETS
VIII	RIV.	701	FAS	17	18

S. W. Rowden
Dist. Eng. Dist. VIII

Approved February 5, 1951

J. B. Lindsley
Chief Engineer, License No. 3094

A. C. Beck
County Surveyor

STATION	IN PLACE	WORK TO BE DONE	SKEW	GA.	R.C.P. 12"	R.C.P. 15"	C.M.P. 18"	C.M.P. 24"	C.M.P. ARCH 22"x13"	C.M.P. ARCH 25"x16"	C.M.P. ARCH 25"x18"	C.M.P. ARCH 36"x22"	E&B	CULV. MRKRS.	DITCH CHANNEL EXC.	P.C.C. Cu. Yds.	BAR REINF. lbs.	REMARKS
20+50	12" R.C.P.	Extend ends 30' Constr. lead ditches			60								~~24~~ 19.65	2	~~31~~ 60.00			Side drain
~~45+08~~ 44	16" R.C.P.	Place 22"x13"x60' C.M.P. Arch-Constru. lead ditches		16					60				~~20~~ 19.59	2	~~17~~			Side drain
64+43	16" R.C.P.	Place 22"x13"x50' C.M.P. Arch-Constru. lead ditches		16					50				~~15~~ 18.36	2	~~5~~ 11.85			Side drain
~~65+90~~ 114+20	12" R.C.P.	Place 25"x16"x18' C.M.P. Arch		14						18			~~3~~ 3.40		7.11			Side drain
~~66+03~~ 64+113	2-12" R.C.P.	Place 2-25"x16"x48' C.M.P. Arch-Constru. lead ditches		14						96			~~35~~ 43.40	2	~~34~~ 5.34			x- Drain
~~78+00~~ 77+49	14" C.M.P.	Place 2-36"x22"x48' C.M.P. Arch-Constru. lead ditches		12								96	~~47~~ 53.74	2	~~40~~ 38.70			x- Drain
~~81+05~~ 43	14" R.C.P.	Place 22"x13"x44' C.M.P. Arch-Constru. lead ditches		16					44				~~10~~ 12.69	2 1	~~2~~			Side drain
96+51	—	Place 15"x68' R.C.P.-Constru-Inlet & Outlet Boxes	18°			68							~~13~~ 61.36			~~8~~ 1.73	~~500~~ 378.90	x- Drain
~~114+00~~ 113+72	16" R.C.P.	Place 25"x16"x84' C.M.P. Arch-Constru. lead ditches	40°	14						84			~~34~~ 32.05	2	~~25~~			x- Drain
~~129+75~~ 70	14" C.M.P.	Place 29"x18"x70' C.M.P. Arch-Constru. lead ditches		14							70		~~32~~ 36.16	2	~~13~~ 53.24			x- Drain
~~148+84~~ 75		Place 22"x13"x49' C.M.P. Arch-Constru. lead ditches		14					~~49~~ 38				~~14~~ 11.95	2	~~4~~			Side drain
~~160+39~~ 68	18" R.C.P.	Place 29"x18"x18' C.M.P.		14							18		4.04					Side drain
160+00		Place 36"x22"x48' C.M.P. Arch-Constru. lead ditches		12								48	~~22~~ 25.48	2	~~21~~ 28.98			x- Drain
~~161+27~~ 26	14" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 3.88					Side drain
~~162+66~~ 64	14" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 4.01					Side drain
~~164+80~~ 25	14" R.C.P.	Place 29"x18"x18' C.M.P. Arch									18		~~5~~ 4.21					Side drain
166+06	14" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 4.62					Side drain
166+75	12" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 4.25					Side drain
167+44	14" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 4.39					Side drain
~~168+04~~ 07	14" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 4.68					Side drain
168+74	14" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 4.68					Side drain
169+25	12" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 4.25					Side drain
170+06	12" R.C.P.	Place 29"x18"x18' C.M.P. Arch		14							18		~~5~~ 3.76					Side drain
171+53		Place 25"x16"x40' C.M.P. Arch-Constru. lead ditches		14						40			~~23~~ 19.48	2	~~4~~			Side drain
~~174+39~~ 42	24" R.C.P.	Place 24"x18' C.M.P.		14				18					~~5~~ 4.32					Side drain
176+32	14" R.C.P.	Place 24"x18' C.M.P.		14				18					~~5~~ 4.32					Side drain
~~184+14~~ 18		Place 24"x18' C.M.P.		14				18					~~5~~ 4.32					Side drain
188+25		Place 24"x18' C.M.P.		14				18					~~5~~ 4.32					Side drain
192+26		Place 24"x40' C.M.P. Constru. lead ditches		14				40					~~23~~ 19.65	2	~~4~~			Side drain
~~193+25~~ 26		Place 18"x18' C.M.P.		16			18						~~5~~ 3.21					Side drain
~~196+26~~ 28		Place 18"x18' C.M.P.		16			18						~~5~~ 3.21					Side drain
~~197+20~~ 15		Place 18"x18' C.M.P.		16			18						~~5~~ 3.21					Side drain
41+05		Place 22"x13"x18' C.M.P.		14						18			2.70					Side drain
48+90		Place 22"x13"x16' C.M.P.		14						18			3.17					Side drain
50+45		Place 22"x13"x60 C.M.P.		16						60			21.77	2	2.59			x-drain
62+75		Place 22"x13"x18' C.M.P.		14						18			2.89					Side drain
78+41		Place 18"x18' C.M.P.		16			18						3.19					Side drain
78+98		Place 18"x18' C.M.P.		16			18						3.10					Side drain
79+42		Place 18"x18' C.M.P.		16			18						3.25					Side drain
79+95		Place 18"x18' C.M.P.		16			18						3.34					Side drain
188+93		Place 29"x18"x18' C.M.P.		14								18	4.07					Side drain
		TOTALS			60	68	54	126	112	202	306	238	268	286	144	~~490~~ 500.89	~~24~~ 25	~~200~~ 207.81	~~81.73~~	~~500~~ 378.90

FAS 701 (1)

52-8DC1 CULVERT SHEET

R-1083

S-701 (1)

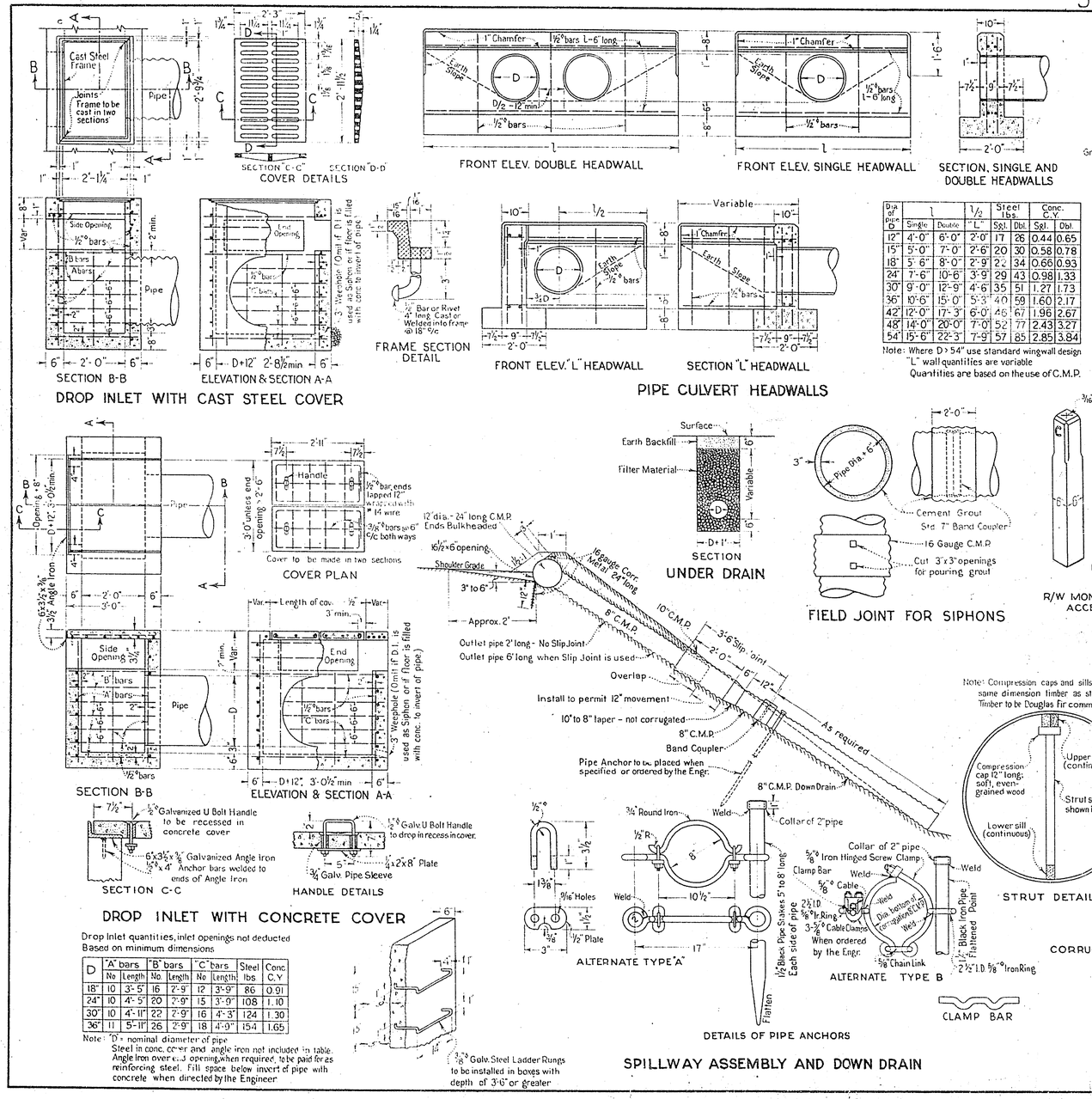
DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
VIII	RIV	701	FAS	18	18

Approval Recommended: J. L. Nunn, Assistant State Highway Engineer

Approved October 28, 1949

G. Stanton, State Highway Engineer, Civil Engineering in Charge

To accompany plans dated February 5, 1951



Dia. of Pipe D	L Single	L Double	1/2 "L"	Steel lbs. Sgl.	Steel lbs. Dbl.	Conc. C.Y. Sgl.	Conc. C.Y. Dbl.
12"	4'-0"	6'-0"	2'-0"	17	26	0.44	0.65
15"	5'-0"	7'-0"	2'-6"	20	30	0.58	0.78
18"	5'-6"	8'-0"	2'-9"	22	34	0.66	0.93
24"	7'-6"	10'-6"	3'-9"	29	43	0.98	1.33
30"	9'-0"	12'-9"	4'-6"	35	51	1.27	1.73
36"	10'-6"	15'-0"	5'-3"	40	59	1.60	2.17
42"	12'-0"	17'-3"	6'-0"	46	67	1.96	2.67
48"	14'-0"	20'-0"	7'-0"	52	77	2.43	3.27
54"	15'-6"	22'-3"	7'-9"	57	85	2.85	3.84

Note: Where D > 54" use standard wingwall design
"L" wall quantities are variable
Quantities are based on the use of C.M.P.

D	"A" bars No	"A" bars Length	"B" bars No.	"B" bars Length	"C" bars No	"C" bars Length	Steel lbs	Conc C.Y
18"	10	3'-5"	16	2'-9"	12	3'-9"	86	0.91
24"	10	4'-5"	20	2'-9"	15	3'-9"	108	1.10
30"	10	4'-11"	22	2'-9"	16	4'-3"	124	1.30
36"	11	5'-11"	26	2'-9"	18	4'-9"	154	1.65

Note: "D" = nominal diameter of pipe
Steel in cone, cover and angle iron not included in table. Angle iron over end opening when required, to be paid for as reinforcing steel. Fill space below invert of pipe with concrete when directed by the Engineer

Dia. of Pipe	0' to 15' Fill Size	0' to 15' Fill Spacing	15' to 30' Fill Size	15' to 30' Fill Spacing	30' to 40' Fill Size	30' to 40' Fill Spacing	40' to 50' Fill Size	40' to 50' Fill Spacing	50' to 60' Fill Size	50' to 60' Fill Spacing	60' to 70' Fill Size	60' to 70' Fill Spacing	70' to 80' Fill Size	70' to 80' Fill Spacing	80' to 100' Fill Size	80' to 100' Fill Spacing
CORRUGATED METAL PIPE																
48"			4x4"	6'-0"	4x4"	5'-6"	4x4"	4'-6"	4x4"	4'-0"	4x6"	5'-0"	4x6"	4'-6"	4x6"	3'-6"
54"	4x4"	6'-0"	4x4"	6'-0"	4x4"	5'-0"	4x4"	4'-0"	4x4"	3'-6"	4x6"	4'-0"	4x6"	3'-6"		
60"	4x4"	6'-0"	4x4"	6'-0"	4x4"	4'-6"										
66"	4x4"	6'-0"	4x4"	5'-6"												
72"	4x4"	6'-0"	4x4"	5'-6"												
78"	4x4"	6'-0"	4x4"	5'-0"												
84"	4x4"	6'-0"														
90"	4x4"	6'-0"														
96"	4x4"	5'-6"														
FIELD ASSEMBLED PLATE CULVERTS																
60"	4x4"	6'-0"	4x6"	6'-0"	4x6"	4'-6"	4x6"	3'-6"	6x6"	4'-6"	6x6"	4'-0"	6x6"	3'-6"	6x8"	4'-0"
75"	4x4"	6'-0"	4x6"	5'-0"	4x6"	3'-6"	6x6"	4'-6"	6x8"	5'-0"	6x8"	4'-6"	6x8"	4'-0"		
90"	4x4"	5'-0"	4x6"	4'-0"	6x6"	5'-0"	6x6"	4'-0"	6x8"	4'-6"	6x8"	4'-0"	8x8"	4'-6"		
105"	4x6"	5'-0"	6x6"	5'-6"	6x6"	4'-6"	6x8"	4'-6"	6x8"	4'-0"	8x8"	4'-6"				
120"	6x6"	6'-0"	6x6"	4'-0"	6x8"	4'-0"	6x8"	3'-6"	8x8"	4'-0"						
135"	6x6"	6'-0"	6x6"	3'-6"	6x8"	3'-6"	8x8"	4'-6"								
150"	6x6"	6'-0"	6x8"	4'-0"	8x8"	5'-0"	8x8"	4'-0"								
165"	6x6"	4'-6"	8x8"	6'-0"	8x8"	4'-6"										
180"	6x8"	4'-0"	8x8"	4'-6"	8x8"	3'-6"										

CORRUGATED METAL PIPE AND FIELD ASSEMBLED PLATE CULVERTS
STRUT DATA

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

STANDARD STRUCTURES
PIPE HEADWALLS - ETC.

52-8DC1

R-1083 A-50

Fed Road Dist. No.	State	Fed Aid Proj No.	Fiscal Year	Sheet No.	Total Sheets
2	CAL	S-701(1)	1950	2	18

DIST.	COUNTY	ROUTE	SEC	Sheet No.	Total Sheets
VIII	Riverside	701	FAS	2	18

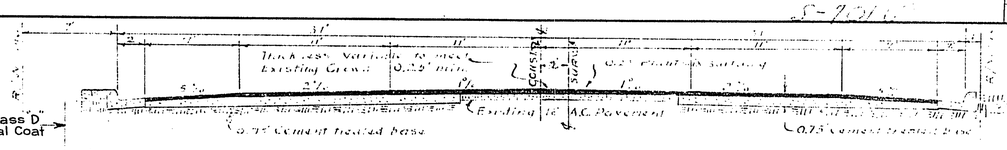
Dist. Eng. Dist. VIII

Approved February 5, 1951

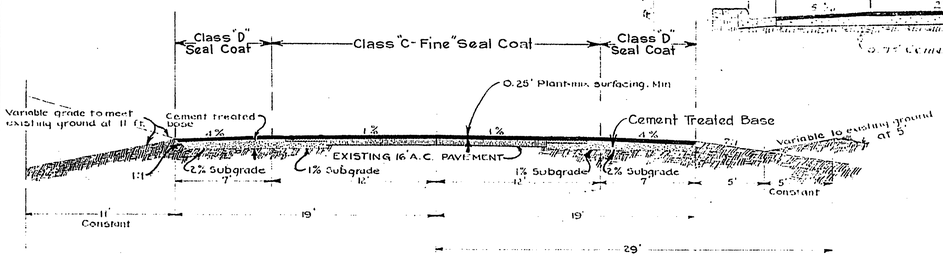
State Highway Engineer
Civil Engineer License No. 2084

County Surveyor
Riverside County

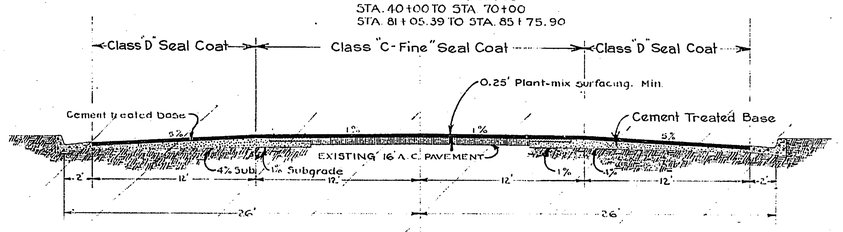
DESIGN E.W.L. 375,000 – 10 year period



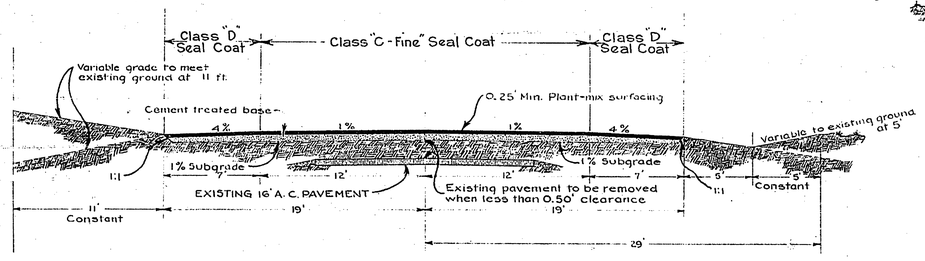
HOLE & HOLDEN AVE.
FAS 718.1; CONTRACT No.
PROPOSED TYPICAL SECTION
Sta. 85+75.90 TO Sta. 96+51.45
SCALE: 1" = 5'



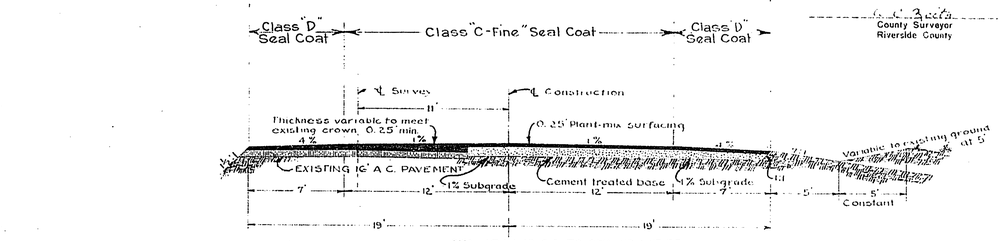
STA. 11+00 TO STA. 25+00
STA. 40+00 TO STA. 70+00
STA. 81+05.39 TO STA. 85+75.90



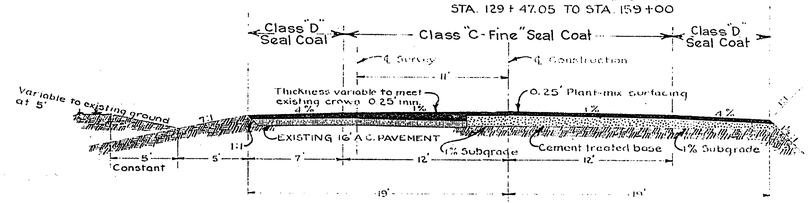
STA. 85+75.90 TO STA. 96+51.45



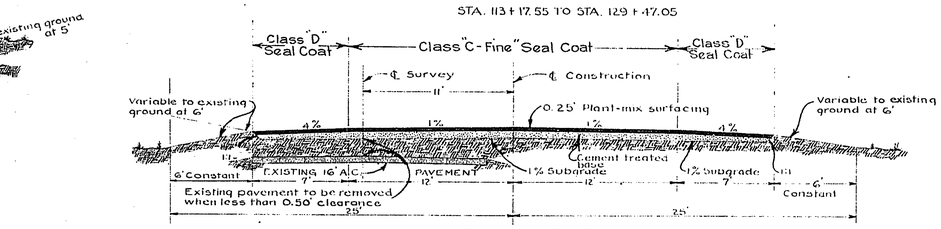
STA. 25+00 TO STA. 40+00
STA. 70+00 TO STA. 81+05.39



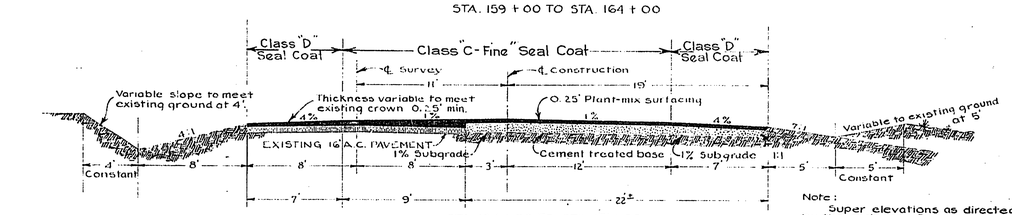
STA. 102+13.64 TO STA. 113+17.55
STA. 129+47.05 TO STA. 159+00



STA. 113+17.55 TO STA. 129+47.05



STA. 159+00 TO STA. 164+00



STA. 164+00 TO STA. 171+00

Note:
Super elevations as directed by the engineer. See Cross Sections.

LIMITS OF CEMENT TREATED BASE	
Station to Station	Minimum thickness (C.T.B.) for 12' traffic lanes
11+00 to 25+00	6"
25+00 to 96+50	9"
96+50 to 202+84.44	6"

Recommended February 2, 1951

Asst. State Highway Engineer

Asst. State Highway Engineer

TYPICAL ROADWAY SECTIONS
HOLE & HOLDEN AVENUES

Scale: 1" = 5'

52-8DC1

R-1083

S-701(1)

Fed Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year	Sheet No.	Total Sheets
2	CAL.	S-701(1)	1950	3	12/14

DIST.	COUNTY	ROUTE	SEC.	Sheet No.	Total Sheets
VIII	Riverside	FAS	701	3	12

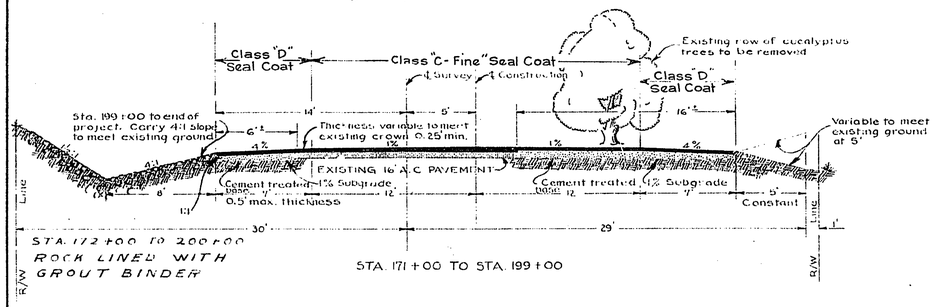
Dist. Eng. Dist. VIII

Approved February 5, 1951

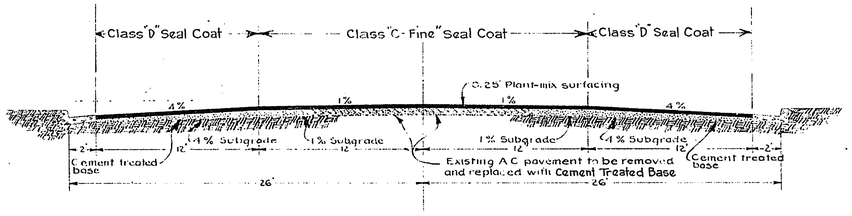
State Highway Engineer
Civil Engineer License No. 20804

County Surveyor
Riverside County

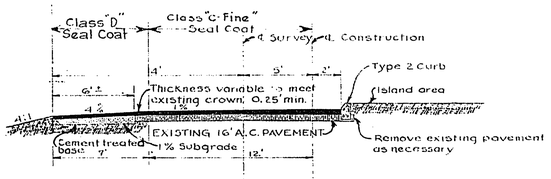
DESIGN E.W.L. 375,000 – 10 year period



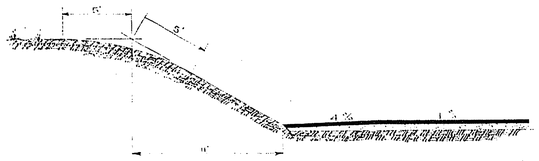
STA. 171+00 TO STA. 199+00



STA. 96+51.45 TO STA. 102+13.64

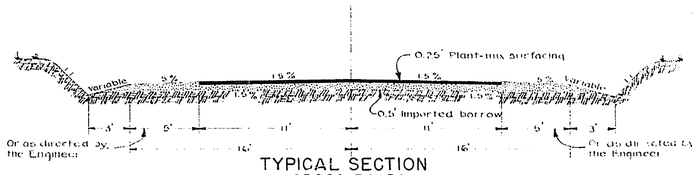


STA. 199+00 TO STA. 201+86.41

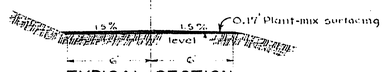


TYPICAL SECTION
of
SLOPE ROUNDING

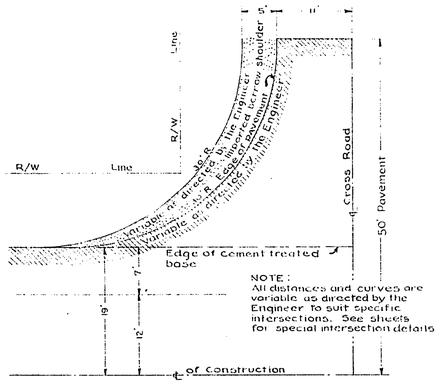
Ⓑ



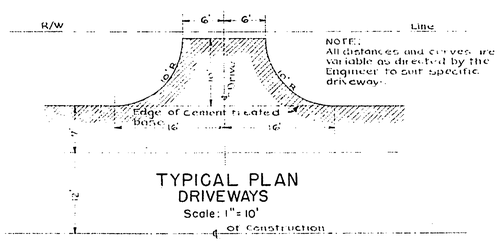
TYPICAL SECTION
CROSS ROADS



TYPICAL SECTION
DRIVEWAYS



TYPICAL PLAN
ROAD INTERSECTIONS
Scale: 1" = 10'



TYPICAL PLAN
DRIVEWAYS
Scale: 1" = 10'

NOTE:
Super elevations as directed by the Engineer. See cross sections

TYPICAL ROADWAY SECTIONS
HOLE & HOLDEN AVENUES

Scale: 1" = 5' Except as noted

52-8DC1

Recommended February 2, 1951

E. Withycombe
Asst. State Highway Engineer

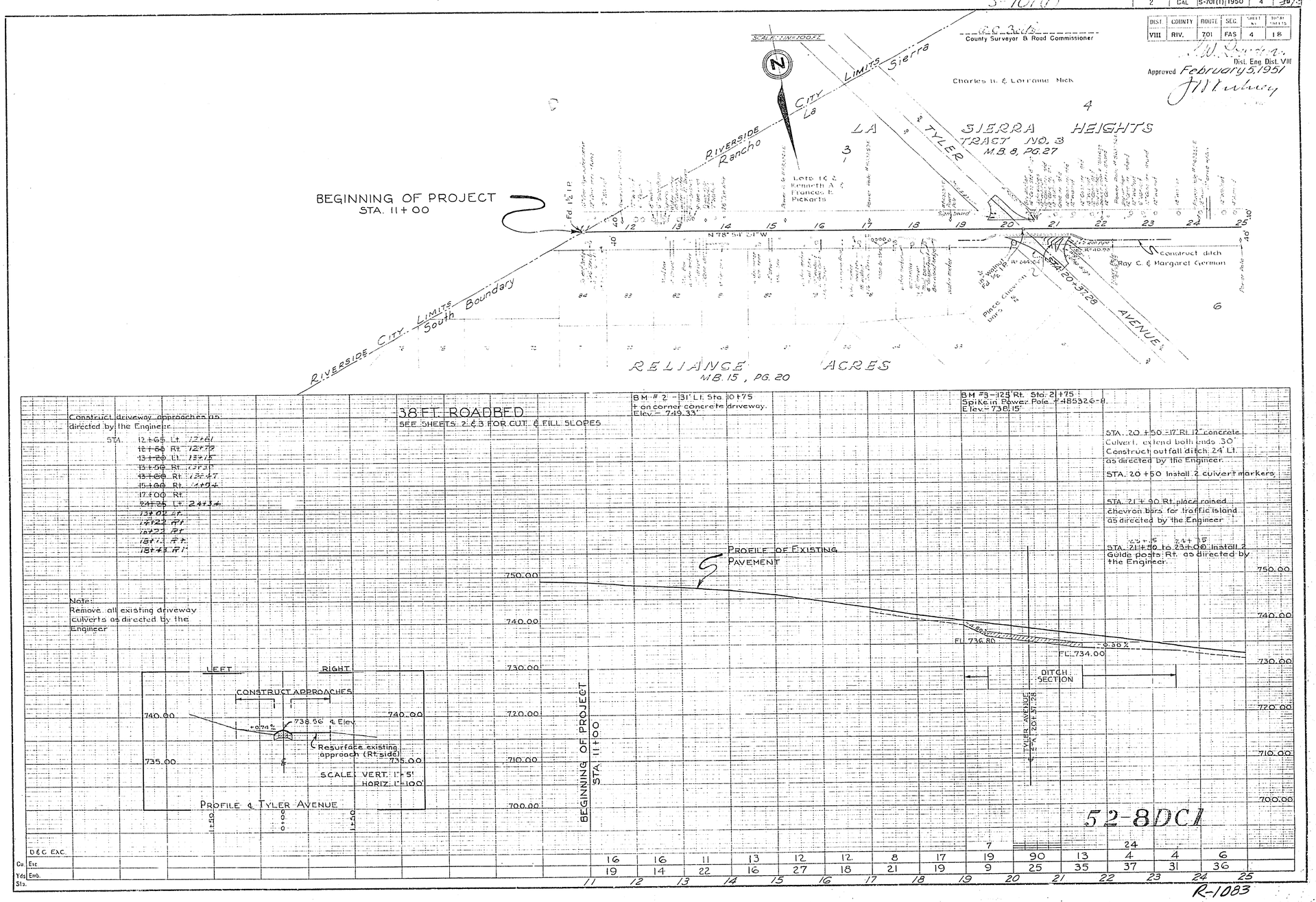
Asst. State Highway Engineer

R-1083

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2	CAL	S-701(1)	1950	4	18

DIST.	COUNTY	ROUTE	SEC.	SHEET NO.	TOTAL SHEETS
VIII	RIV.	701	FAS	4	18

Dist. Eng. Dist. VIII
Approved February 5, 1951



R-1083

S-701(1)

STATE OF CALIFORNIA

DEPARTMENT OF PUBLIC WORKS

DIVISION OF HIGHWAYS

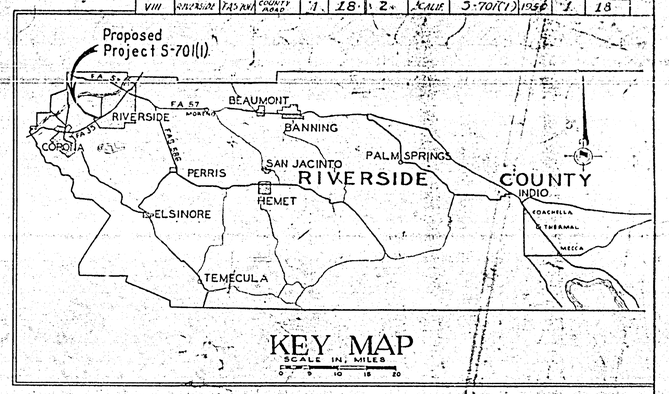
DIST	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS	FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
VIII	RIVERSIDE	FAS 701	COUNTY ROAD	1	18	2	CALIF.	S-701(1)	1950	1	18

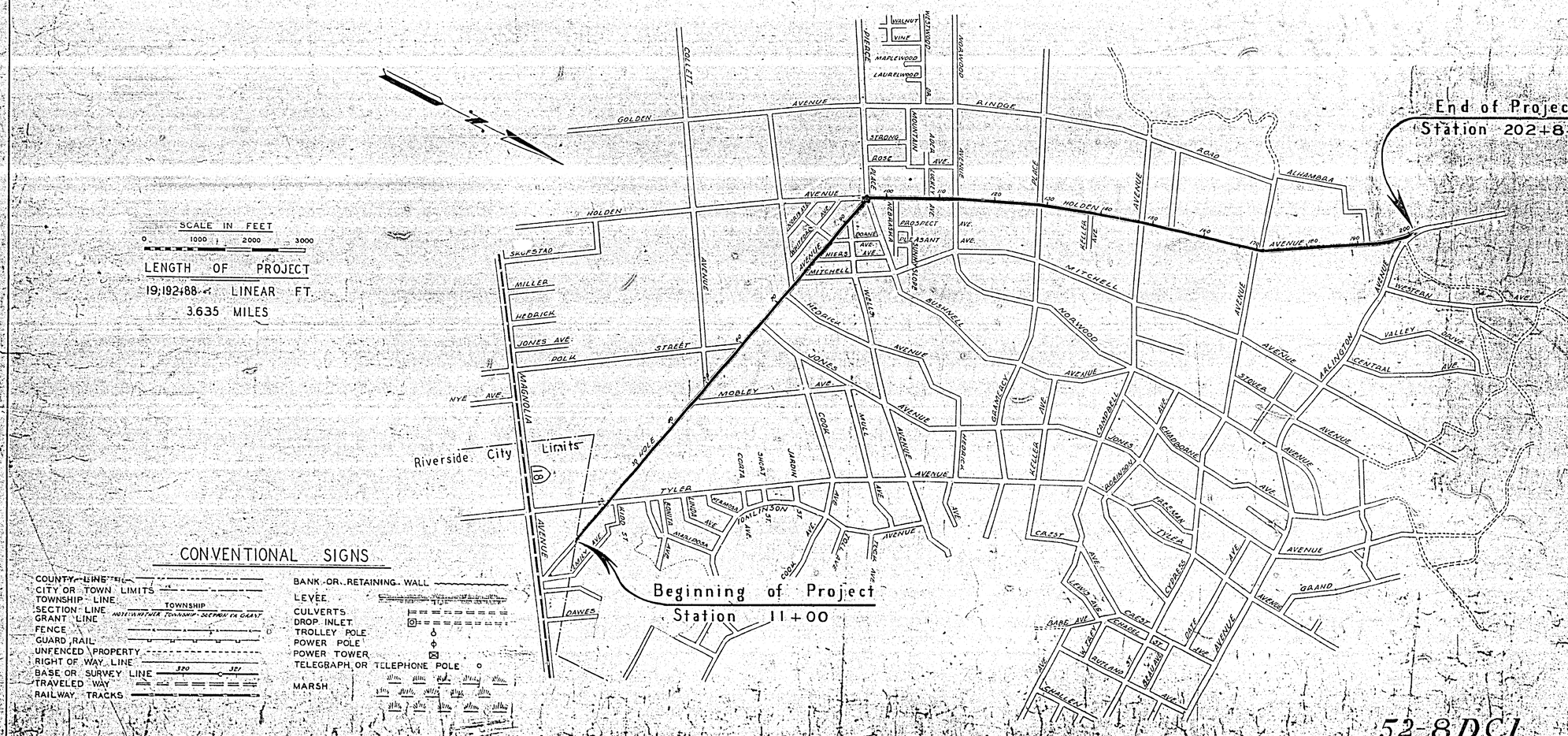
INDEX OF SHEETS

SHEET No. 1	TITLE SHEET
SHEET No. 2-3	TYPICAL SECTIONS
SHEET No. 4-12	PLAN PROFILES
SHEET No. 13-14	INTERSECTION DETAILS
SHEET No. 15-16	MISCELLANEOUS DETAILS
SHEET No. 17	CULVERT SHEET
SHEET No. 18	STANDARD STRUCTURES
SHEET No. 1-49	CROSS SECTIONS
SHEET No. 1-2	MASS DIAGRAM

COUNTY OF RIVERSIDE
PLAN AND PROFILE
FEDERAL AID SECONDARY PROJECT
NO. S-701(1)

HOLE AND HOLDEN AVENUES





SCALE IN FEET

0 1000 2000 3000

LENGTH OF PROJECT

19,192.88 LINEAR FT.

3.635 MILES

CONVENTIONAL SIGNS

COUNTY LINE	BANK OR RETAINING WALL
CITY OR TOWN LIMITS	LEVEE
TOWNSHIP LINE	CULVERTS
SECTION LINE	DROP INLET
GRANT LINE	TROLLEY POLE
FENCE	POWER POLE
GUARD RAIL	POWER TOWER
UNFENCED PROPERTY	TELEGRAPH OR TELEPHONE POLE
RIGHT OF WAY LINE	MARSH
BASE OR SURVEY LINE	
TRAVELED WAY	
RAILWAY TRACKS	

COUNTY OF RIVERSIDE

A. C. Keith
COUNTY SURVEYOR
& ROAD COMMISSIONER
CIVIL ENGINEER LICENSE NUMBER 4388

APPROVED BY THE BOARD OF SUPERVISORS
JANUARY 15, 1951

BY Thomas Hayden
CHAIRMAN

STATE OF CALIFORNIA

S. W. Lowden
DISTRICT ENGINEER, DISTRICT VIII

APPROVED February 5, 1951

G. T. Hamilton
STATE HIGHWAY ENGINEER
CIVIL ENGINEER LICENSE NUMBER 2084

DEPT. OF COMMERCE
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
DEPT. OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER
DEPT. OF COMMERCE
BUREAU OF PUBLIC ROADS

52-8DC1

R-1083

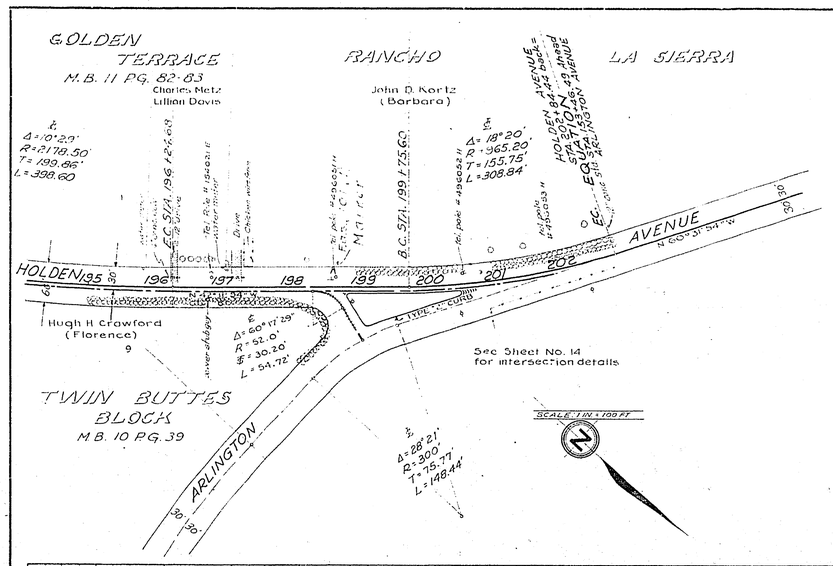
S-701(1)

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
2	CAL.	S-701(1)	1950	12	18/19

G. C. Keith
County Surveyor & Road Commissioner

DIST.	COUNTY	ROUTE	SEC.	SHEET No.	TOTAL SHEETS
VIII	RIV.	701	FAS	12	18

S. W. Lowden
Dist. Eng. Dist. VIII
Approved February 5, 1951
J. W. Rushey

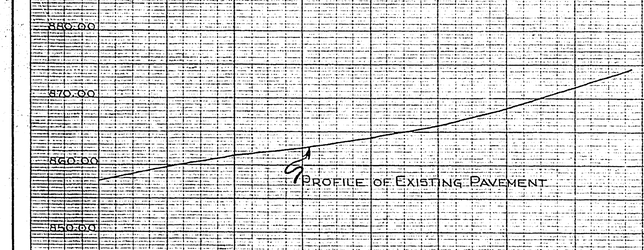


38 FT. ROADBED
SEE SHEETS 2 & 3 FOR CUT & FILL SLOPES

Construct driveway approaches Lt.
Sta. 196+ & 25 Sta. 193+25 & Sta. 197+20 - Place
18"x18" culverts.

191+00 to 197+00
Sta. 198+40 Rt.
Place guide post.

BM #22 - 90' Rt. Sta. 200+00
+ on E. end gas island - Shell
Station. Elev. - 868.27



NOTE:
Remove all existing driveway culverts
as directed by the Engineer.

Cu. Exc.	118	90	105	97	23	0	0	
Yds. Emb.	39 55	17 33	6 22	+8 34	20 36	+4 31	+17	
Sta.	195	196	197	198	199	200	201	202 203

52-8DC1

R-1083

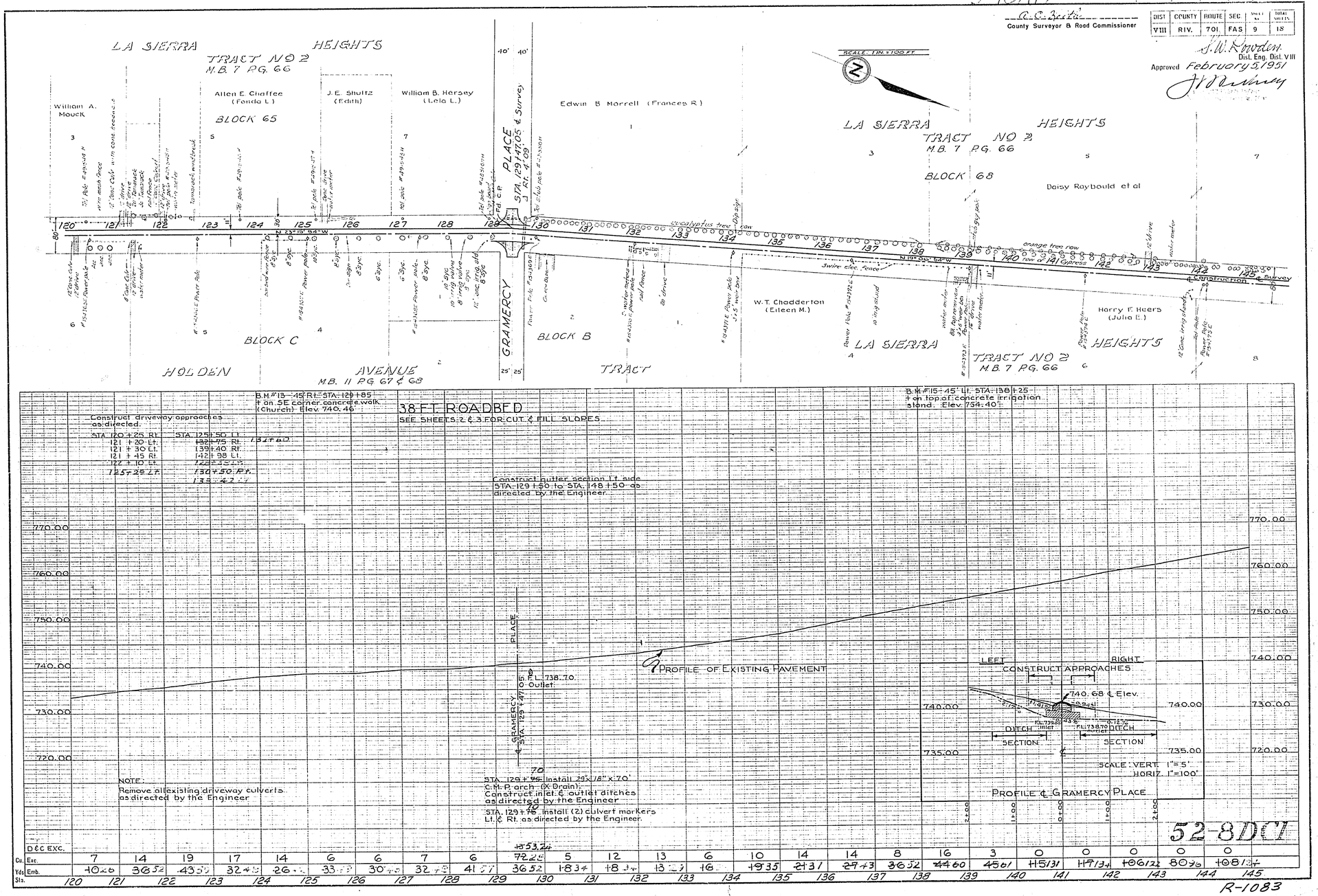
S-701(1)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2	CAL	S-701(1)	1950	9	18

DIST	COUNTY	ROUTE	SEC.	SHEET NO.	TOTAL SHEETS
VIII	RIV.	701	FAS	9	18

A. C. Smith
County Surveyor & Road Commissioner

S. W. Rowden
Dist. Eng. Dist. VIII
Approved February 5, 1951
J. H. Mahoney



52-8DCI

R-1083

S-701(1)

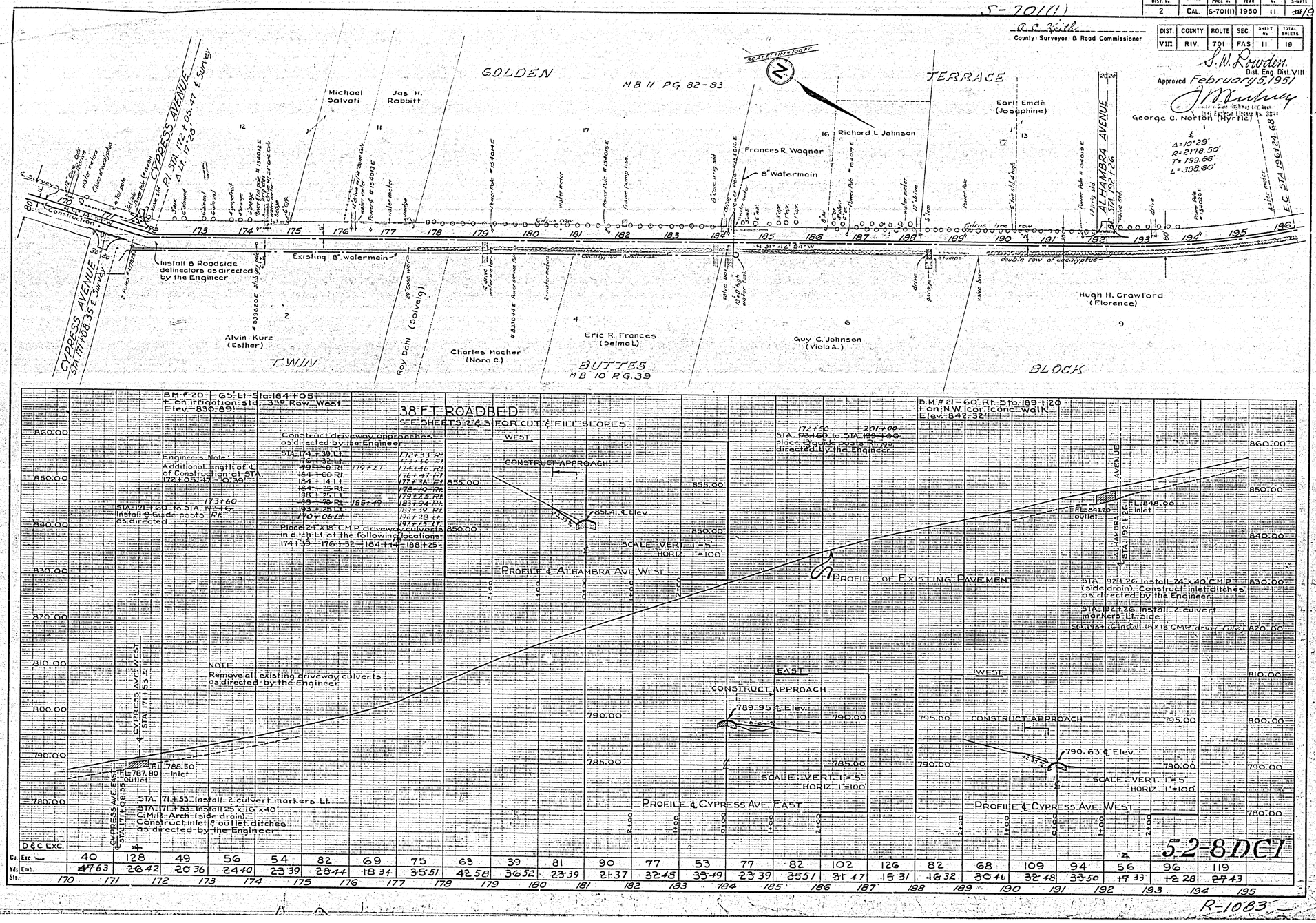
FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
2	CAL.	S-701(1)	1950	11	18/19

R. S. Wills
County Surveyor & Road Commissioner

DIST.	COUNTY	ROUTE	SEC.	SHEET No.	TOTAL SHEETS
VIII	RIV.	701	FAS	11	18

S. W. Rowden
Dist. Eng. Dist. VIII

Approved February 5, 1951
J. P. Kinney
Dist. Engr. District No. 8 State Highway Lib. Dept.
Acting for Director of Public Works
George C. Norton, Director



BM #20 - 65' Lt. Sta. 184+05 ± on irrigation std., 3rd Row West. Elev. - 830.89'

38 FT ROADBED

SEE SHEET 5, 2 & 3 FOR CUT & FILL SLOPES

Construct driveway approaches as directed by the Engineer
STA. 174+39 Lt.
176+39 Lt.
179+27 Rt.
184+00 Rt.
184+14 ±
184+25 Rt.
188+25 Lt.
189+70 Rt.
193+25 Lt.
170+06 Lt.

Engineers Note:
Additional length of ℄ of Construction at STA. 172+05.47 = 0.39'

STA. 171+60 to STA. 173+60 Install 8 Guide posts Rt. as directed

Place 24" x 18' C.M.P. driveway culverts in ditch Lt. at the following locations:
174+39 176+39 184+14 188+25

172+50 — 201+00
STA. 173+50 to STA. 189+00 place 18 guide posts Rt. as directed by the Engineer.

B.M. #21 - 60' Rt. Sta. 189+20 ± on N.W. Cor. conc. walk. Elev. 842.32'

CONSTRUCT APPROACH
WEST
851.41 ℄ Elev.
SCALE: VERT. 1" = 5'
HORIZ. 1" = 100'
PROFILE ℄ ALHAMBRA AVE. WEST
PROFILE OF EXISTING PAVEMENT

STA. 192+26 Install 24" x 40' C.M.P. (side drain). Construct inlet ditches as directed by the Engineer.
STA. 192+26 Install 2 culvert markers Lt. side.
STA. 193+76 Install 18" x 16' C.M.P. driveway culvert

NOTE
Remove all existing driveway culverts as directed by the Engineer

EAST
CONSTRUCT APPROACH
789.95 ℄ Elev.
SCALE: VERT. 1" = 5'
HORIZ. 1" = 100'
PROFILE ℄ CYPRESS AVE. EAST

WEST
CONSTRUCT APPROACH
790.63 ℄ Elev.
SCALE: VERT. 1" = 5'
HORIZ. 1" = 100'
PROFILE ℄ CYPRESS AVE. WEST

℄ CYPRESS AVE. EAST STA. 171+08.35
℄ CYPRESS AVE. WEST STA. 171+53 ±
Flow line 788.50 Inlet
Flow line 787.80 Outlet

STA. 171+53 Install 2 culvert markers Lt.
STA. 171+53 Install 25" x 16' x 40' C.M.P. Arch (side drain). Construct inlet & outlet ditches as directed by the Engineer.

DEC EXC.																										
Cu. Yds. Exc.	40	128	49	56	54	82	69	75	63	39	81	90	77	53	77	82	102	126	82	68	109	94	56	96	119	
Cu. Yds. Emb.	~~47.63~~	26.42	20.36	24.40	23.39	28.44	18.34	35.51	42.58	36.52	23.39	21.37	32.48	33.49	23.39	35.51	31.47	15.31	16.32	30.46	32.48	33.50	19.33	12.28	27.43	
Sta.	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195

52-8DC7

R-1083

DIST.	STATE	FISCAL YEAR	TOTAL SHEETS	SHEET NO.
2	CAL.	S-70(11) 1950	10	18

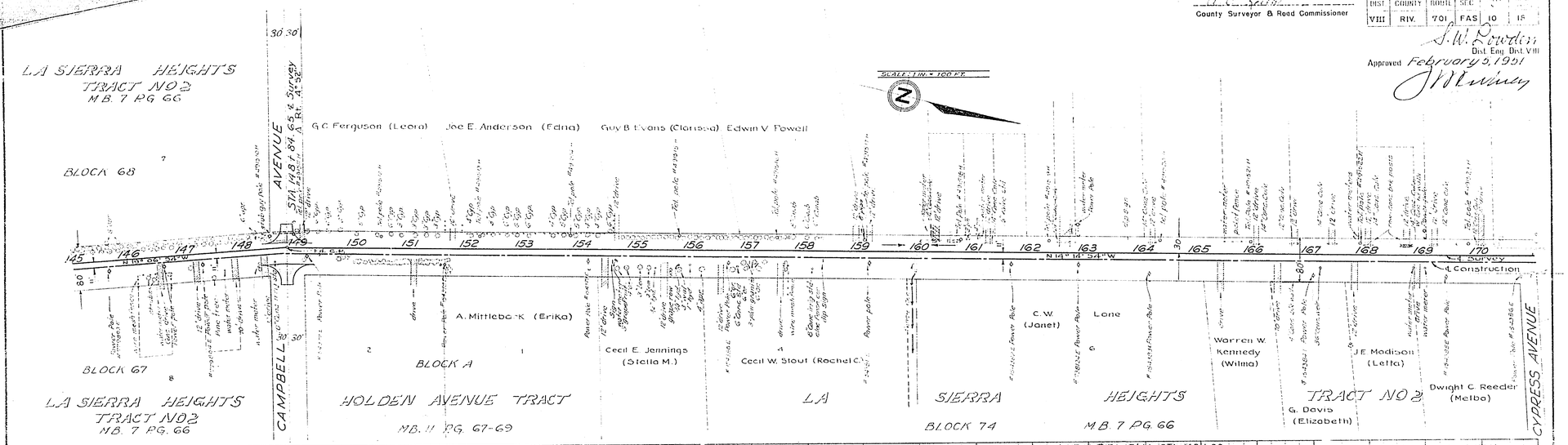
S-70(11)

DIST	COUNTY	ROUTE	SEC.		
VIII	RIV.	70	FAS	10	15

L. C. Betts
County Surveyor & Road Commissioner

S. W. Lowden
Dist. Eng. Dist. VIII

Approved February 5, 1951
J. H. Linney



B.M. #16 - 75' Rt. STA. 148+60
Bolt head on dover 5.5'x6' conc. weirbox. Elev. 772.19

38 FT. ROADBED
SEE SHEETS 2 & 3 FOR CUT & FILL SLOPES

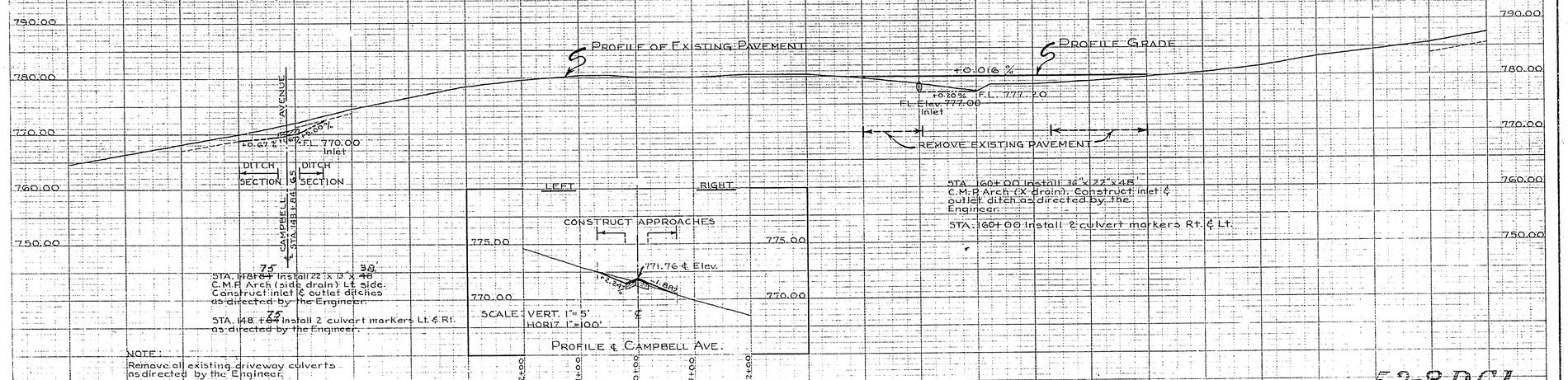
B.M. #17 - 45' Lt. STA. 162+90
Spike in power pole #73B125-E
Elev. 779.89

30
Construct ~~29~~ driveway approaches as directed by the Engineer.

Place 29"x18" x18' driveway culverts in ditch Lt. at the following locations:

STA.		STA.	
160 + 56		167 + 14	
161 + ~~27~~ 26		168 + ~~04~~ 05	
162 + ~~68~~ 04		168 + 74	
164 + ~~00~~ 25		169 + 25	
166 + 06		170 + 06	
166 + 75			

158+75 - 165+50
STA. ~~160+00~~ to 165+00 - ~~F.R.~~ L.R.
Install 6 guide posts as directed by the Engineer.



STA. 160+00 Install 36"x22"x48' C.M.P. Arch (X drain). Construct inlet & outlet ditch as directed by the Engineer.

STA. 160+00 Install 2 culvert markers Rt. & Lt.

~~75~~ 39'
STA. 148+84 Install 22" x 13' x ~~48~~ C.M.P. Arch (side drain) Lt. side. Construct inlet & outlet ditches as directed by the Engineer.

~~73~~ 64
STA. 148 + ~~84~~ Install 2 culvert markers Lt. & Rt. as directed by the Engineer.

NOTE:
Remove all existing driveway culverts as directed by the Engineer.

528DCI

Sta.	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170
D & C EXC.				4													2+28.98									
Cu. Yds. Exc.	0	0	0	74	0	0	0	10	11	0	0	0	0	0	0	0	0	0	0	35	34	38	39	48	51	
Cu. Yds. Emb.	152.1	84.00	78.3	97.93	64.80	53.4	55.71	57.73	44.60	75.9	63.3	93.14	92.10	71.2	144.60	264.28	279.27	235.25	190.20	119.35	89.05	94.90	68.94	52.68	66.8	

R-1083

S-701(1)

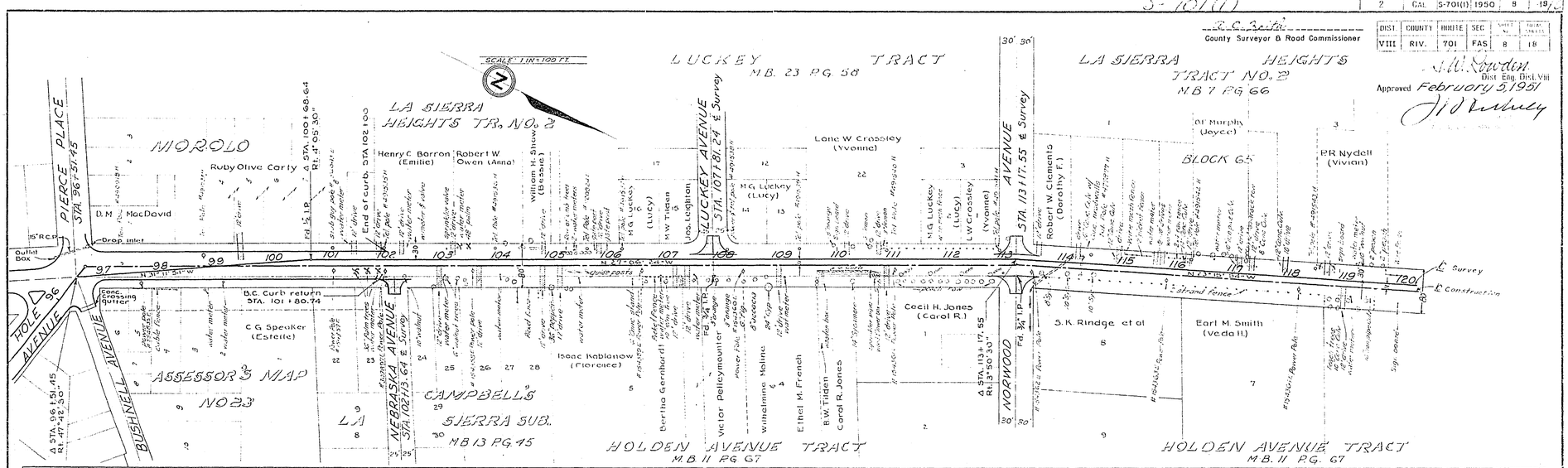
FED. AID PROJ. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2	CAL.	S-701(1)	1950	8	18

County Surveyor & Road Commissioner

DIST.	COUNTY	ROUTE	SEC	SHEET NO.	TOTAL SHEETS
VIII	RIV.	701	FAS	8	18

J.W. Sowden
Dist. Eng. Dist. VIII

Approved February 5, 1951
J.D. Lukey



D&C Exc.																									
Cu. Yds. Exc.	+19.09	55	35	24	30	18	3	0	0	0	0	0	1	1	1	4	3	+17.46	12	19	13	27	22	6	
Yds. Emb.	+0.5	32	45	25	46	66	65.61	67.8	46.0	42.5	55.71	63.79	53.82	52.0	46.0	38.54	44.60	31.4	40.0	26.2	24.5	29.5	33.5	33.8	
Sta.	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120

R-1083

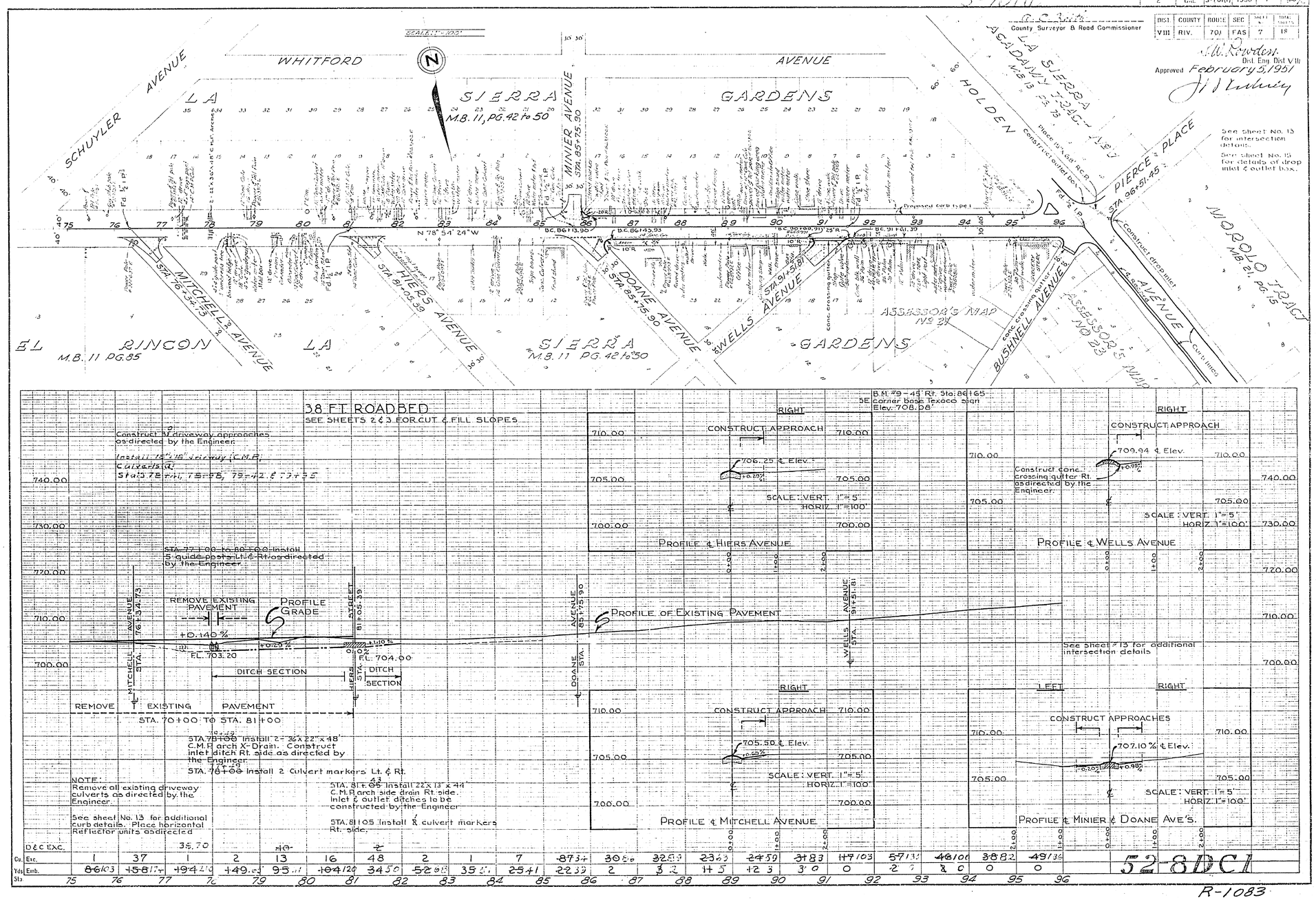
FED. ROAD DIST. No.	STATE	PROJECT No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
2	CAL.	S-701(1)	1950	7	18

DIST.	COUNTY	ROUTE	SEC	SHEET No.	TOTAL SHEETS
VIII	RIV.	701	FAS	7	18

County Surveyor & Road Commissioner

Dist. Eng. Dist. VIII

Approved February 5, 1951



52-8DC1

R-1083

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2	CAL.	S-701(1)	1950	6	19

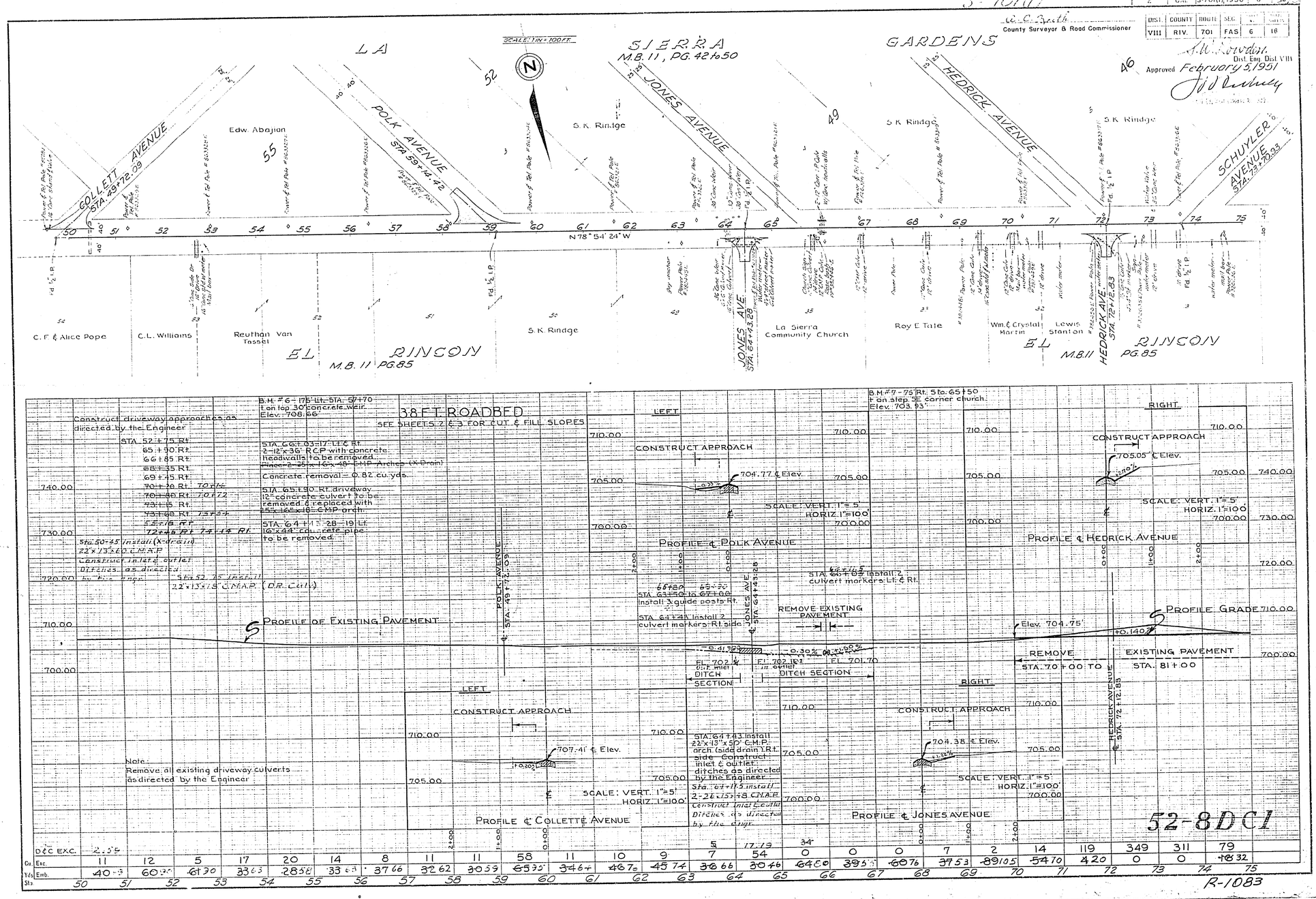
S-701(1)

County Surveyor & Road Commissioner

DIST.	COUNTY	ROUTE	SEC.	SHEET NO.	TOTAL SHEETS
VIII	RIV.	701	FAS	6	18

Dist. Eng. Dist VIII

Approved February 5, 1951



D&C EXC.	2.59													5	17.19	34									
Cu. Exc.	11	12	5	17	20	14	8	11	11	58	11	10	9	7	54	0	0	0	7	2	14	119	349	311	79
Yds. Emb.	40.[illegible]	60.[illegible]	61.70	33.63	28.58	33.63	37.66	32.62	30.59	65.95	34.64	46.70	45.74	36.66	30.46	64.80	39.55	60.76	37.53	89.105	54.70	4.20	0	0	18.32
Sta.	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75

R-1083

S-701(1)

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
2	CAL.	S-701(1)	1950	5	19

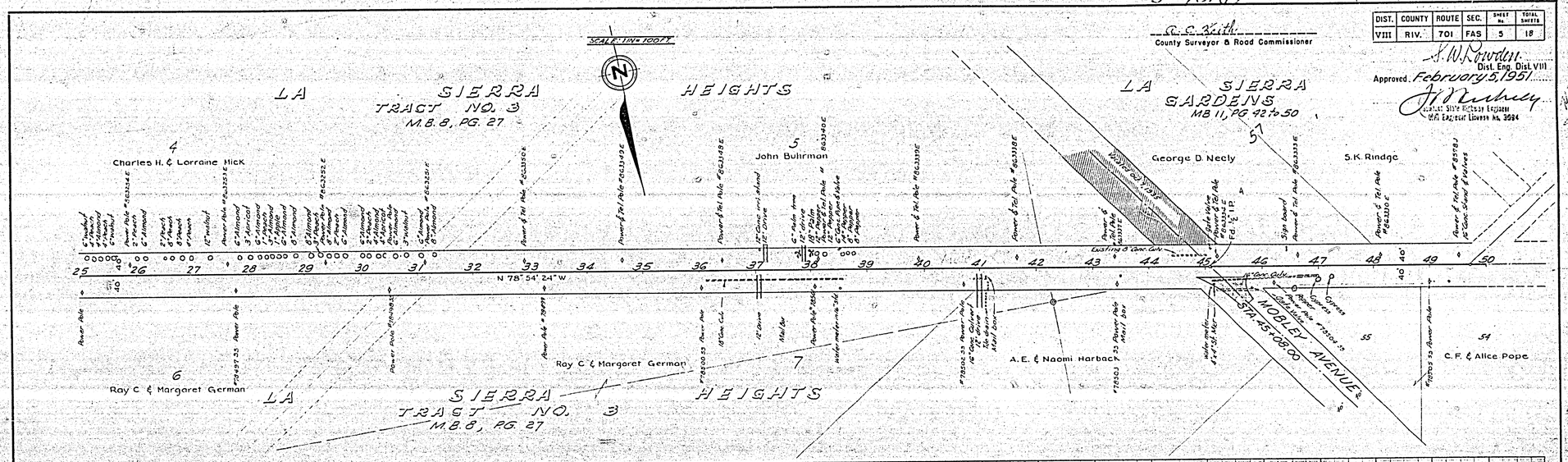
DIST.	COUNTY	ROUTE	SEC.	SHEET No.	TOTAL SHEETS
VIII	RIV.	701	FAS	5	18

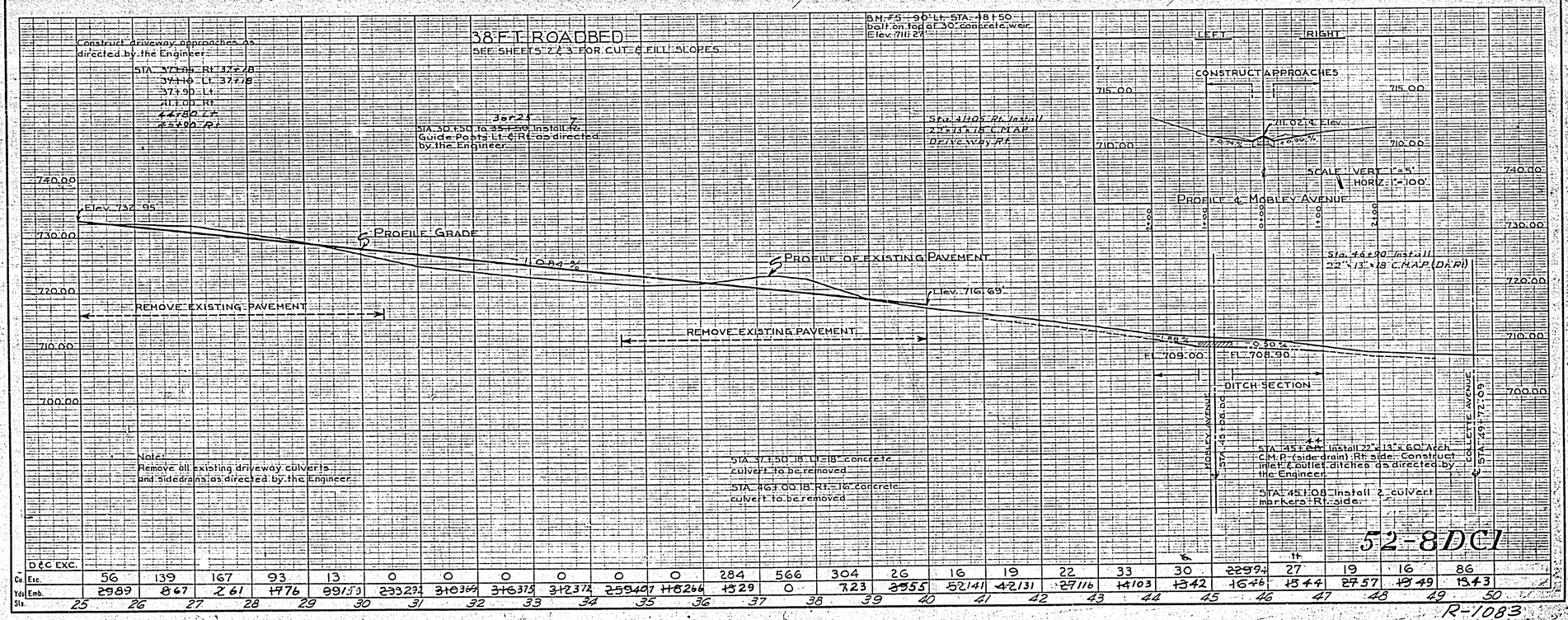
R. C. Keith
County Surveyor & Road Commissioner

S. W. Rowley
Dist. Eng. Dist. VIII

Approved February 5, 1951

J. P. Kelley
Assistant State Highway Engineer
Civil Engineer License No. 3094





Sta.	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
D&C EXC. Cu. Yds. Etc.	56	139	167	93	13	0	0	0	0	0	0	284	566	304	26	16	19	22	33	30	22	27	19	16	86	
Emb.	2989	867	261	1776	9915	23323	31039	31637	31237	25940	18266	1329	0	723	2955	5214	4213	2716	1410	1342	1646	1544	2757	1849	1843	