

W314

6.05

314

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418

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INDEX.

Survey of Hodges Spillway
After Enlargement pages 2-3
Dolzora Conduit Terminal War 4

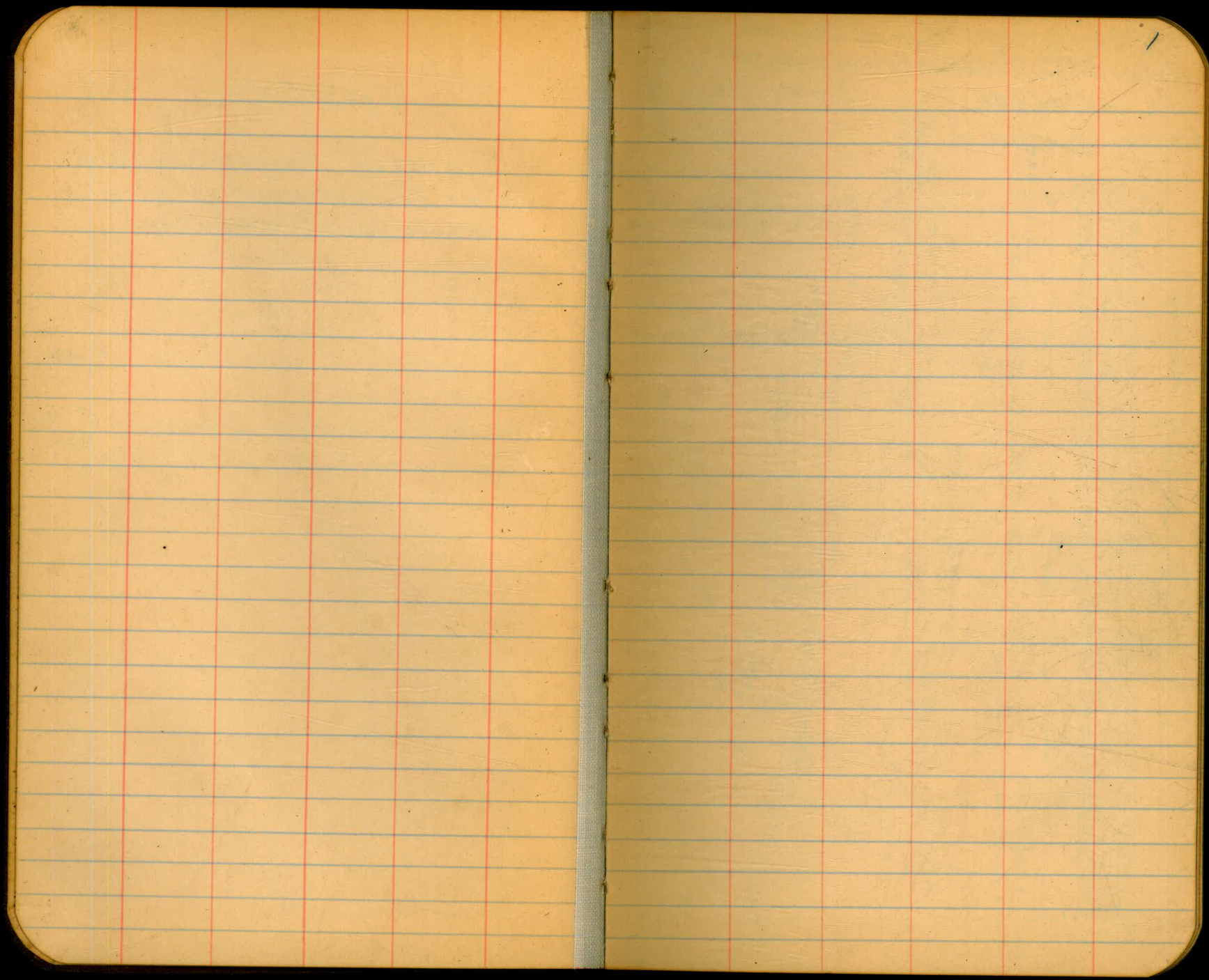
Profiles Near Buttress # 22
Hodges Dam 5-8

Realignment, ^{profile of footings} San Dieguito 11-16

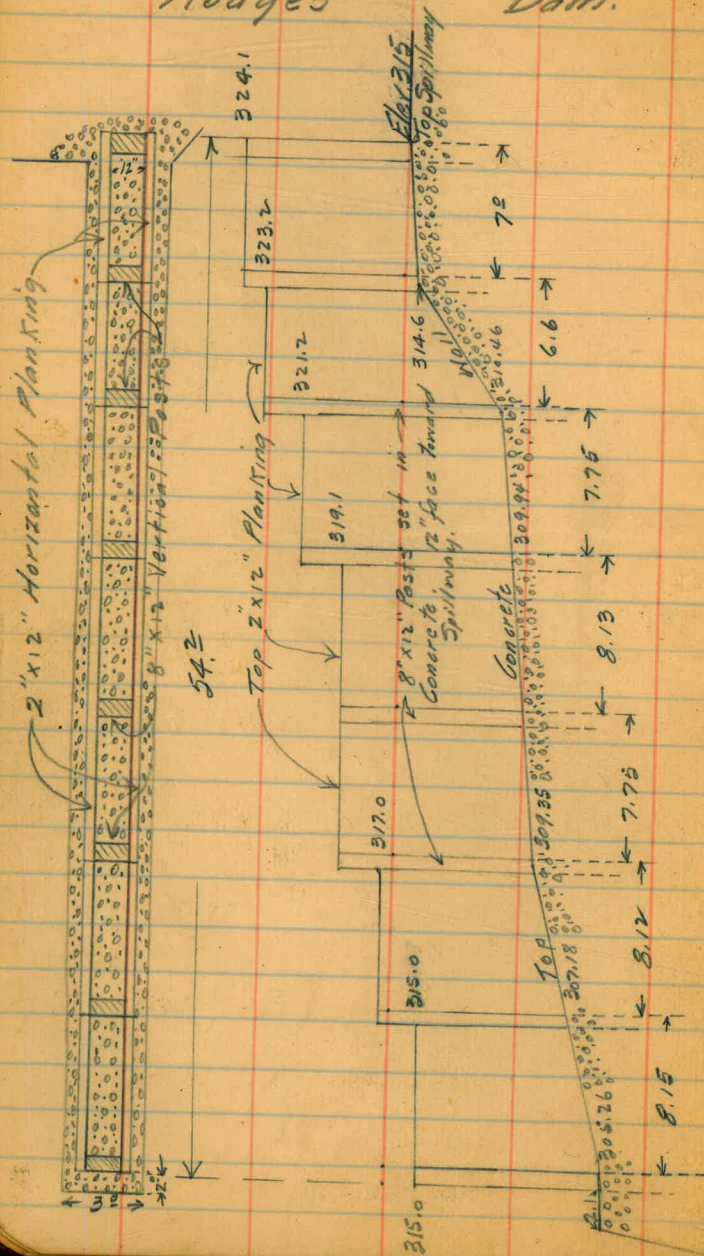
Conduit from Dam to end of
wood stave pipe ✓ ^{map}

Profile Concrete - Dam to Conduit Hodges 9, 19 ^{map}

Hodges Dam - Line & Profile on stairs in Dam 20-22 ✓ ^{alice}

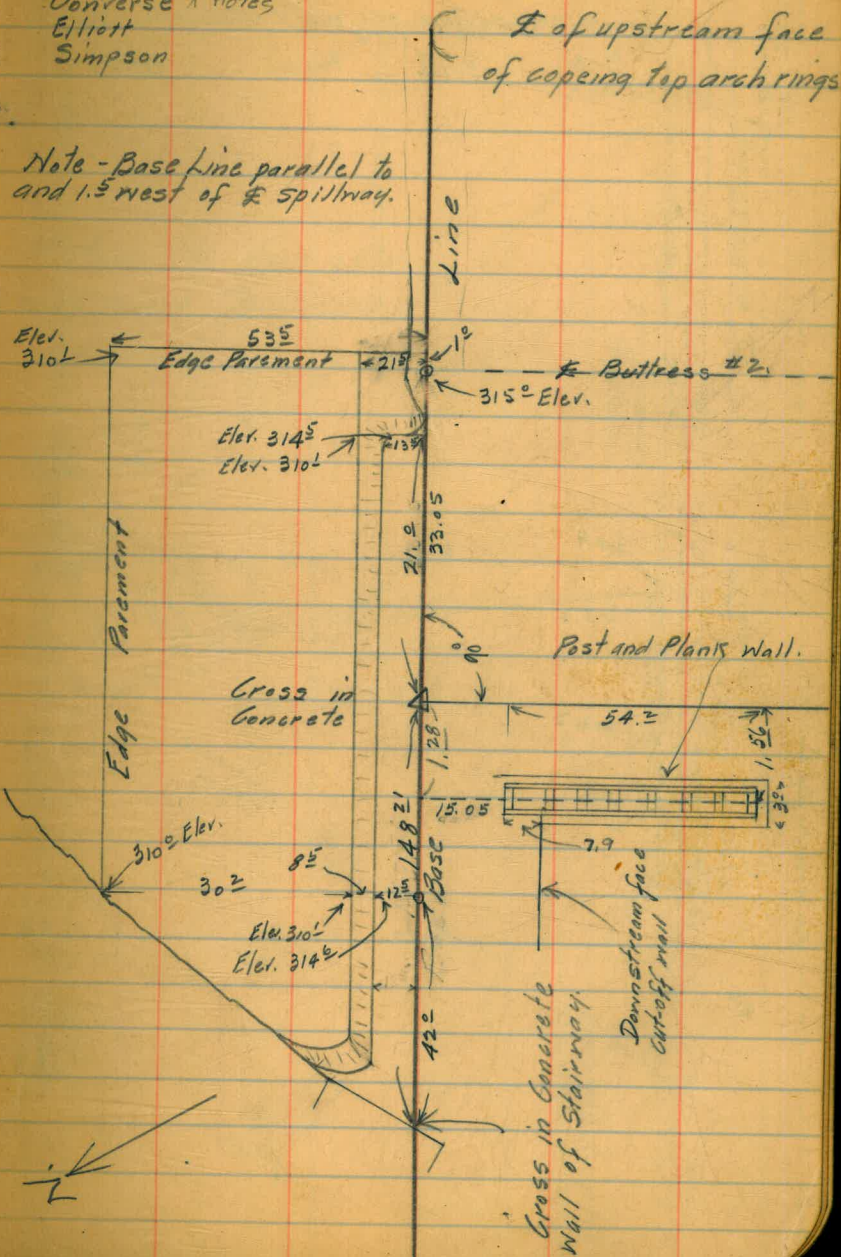


Elevation and Plan of Concrete + Plank
Protection Wall - Downstream Side Spillway
Hodges Dam.



Nov. 5, 1930. Plan and elevations of 1930 2
Clear + Cool. new work - Hodges Spillway.
Parker
Converse & notes
Elliott
Simpson

Note - Base line parallel to
and 1.5' west of \mathcal{L} spillway.



Sulzura Conduit Terminal Weir

Levels on corner stakes

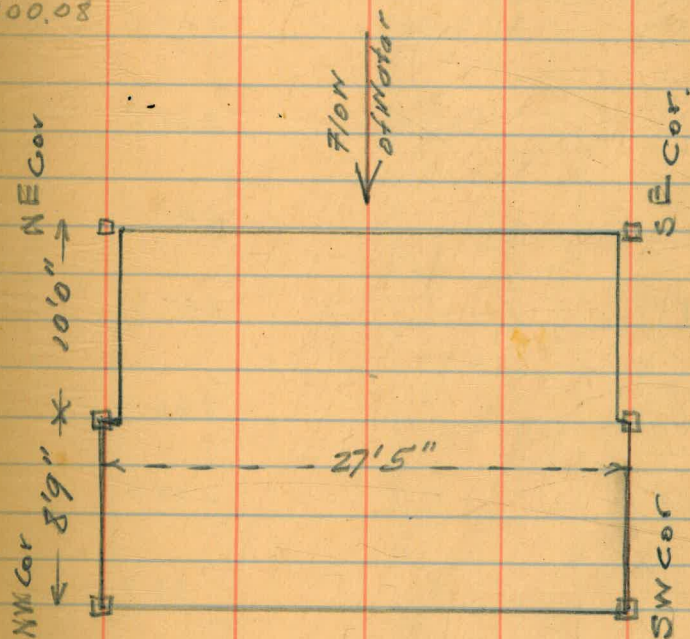
120	?
321 108.21	105.00
NW Cor	4.07
N end Weir axis	3.63
NE Cor	4.05
SE Cor	8.90
S end Weir axis	3.51
SW Cor	3.50
Old Weir lip	8.13

5/2/31
R.G. Wogsto
L.E. Rexor

Floor of bridge over conduit

Assumed elev 2x2 hub set by Symons

104.14	103.00	- 1.14	- 1 - 13/4
104.58	103.00	- 1.58	- 1 - 7
104.16	103.00	- 1.16	- 1 - 2
99.31	103.00	+ 3.69	+ 3 - 84
104.70	103.00	- 1.70	- 1 - 8 3/8
104.71	103.00	- 1.71	- 1 - 8 1/2
100.08			



Profile of ground Midway betwn.
Buttress RR # 23 Hodges Dam. 715-44
UP Stream from AXIS

BYLER
King
Ottien
Stephens

5

Down stream from AXIS

B.M. Top of Walk	El. 330		
	-59.35	270.65	
0+00 = AXIS		270.5	0+00 270.5
+9		269.0	+07 273.5
+12.5		267.1	+19 269.5
+22.7		267.5	+25 267.4
+25		268.8	+31 264.5
+32		269.5	
+43		267.6	
+51		266.1	
+58		265.5	
+63		56.3	
+67 Int. of grade & Arch		56.3	

Profile of ground E. Side of
Buttress 22
UPstream from AXIS.

B.M.	Top of Walk	EI. 330
		-68.41
0+00	= AXIS of Dam	260.4
+08.5		261.0
+20		255.0
+24	Foot of Conc. Arch strut	255.0
+25	Top of Conc. Arch strut	264.5
+26.5	Foot of Conc. Arch strut	258.0
+29		260.0
+37		265.7
+41		265.3
+48		263.0
+63		258.2
+73	Int. of ground & Arch	252.0

Down stream from AXIS

0+00	260.9
+08	263.6
+16	262.8
+24	258.0
+34	260.2
+40	255.9

Profile of ground W. side of
Buttress 22
Up stream from Axis.

B.M. Top of walk 330.0
- 78.0

0+00 Approx. on down stream
face of Diaphragm 252.0

0+02 Up stream face of
Diaphragm 250.2

+18 251.4

+23 248.6

+26² Down stream face of
Diaphragm 246.0

+28² Up stream face of
Diaphragm 246.2

+34 247.2

+45 243.2

+49² Down stream face
of Diaphragm 240.9

+51² Up stream face of
Diaphragm 240.2

+71² Estimated dis.
to Arch.

Note - Area from Diaphragm
to Arch full of water
to E. 245.1

7

Down stream from Axis.

0+00 252.0

+02 252.0

+07 253.1

+14 256.7

+31 255.5

+44 252.1

+46 246.1

Profile of ground Midway Btwn.
Buttress 21022
UPstream from AXIS

B	B.M. Top of walk	330.0
		-81.9
0	0+00 = AXIS in opening of Diaphragm	247.7
	+23	296.7
	+26 ² down stream of Diaphragm	243.8
+	+26 ² in opening in Diaphragm	247.1
+	+28 ² in opening in Diaphragm	247.1
+	+28 ²	244.2
+	+34	246.4
+	+44	246.1
+	+49 ²	241.1
+	+49 ² in opening of Diaphragm	245.1
+	+51 ² in opening of Diaphragm	245.1
	+51 ² upstream side of Diaphragm	240.7

8

The area from Diaphragm to Arch is

+59	Full of water to El. 245.1	243.8
+75	Estimated distance to arch.	?

Downstream from AXIS

0+00	247.7
+14	249.9
+28	249.4
+38	246.2
+40	237.2

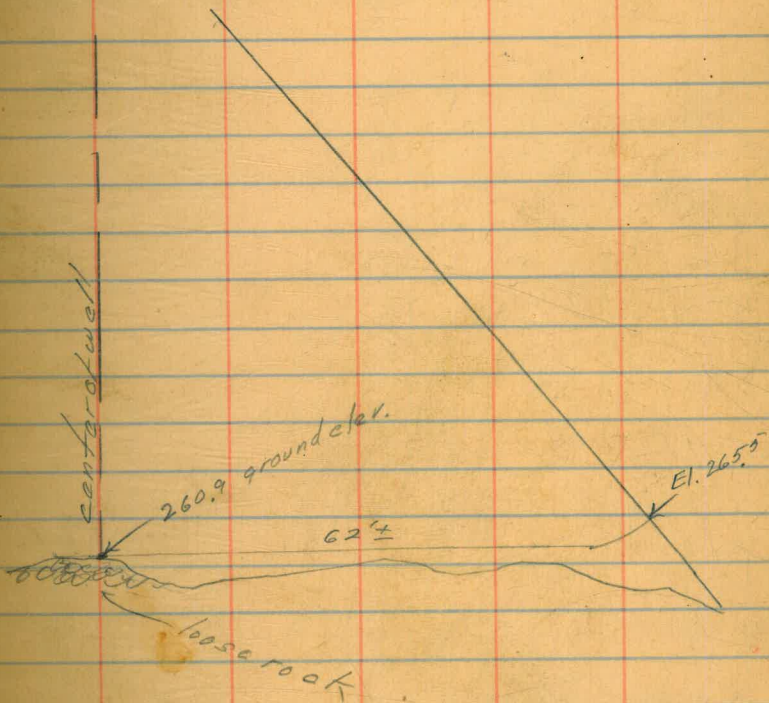
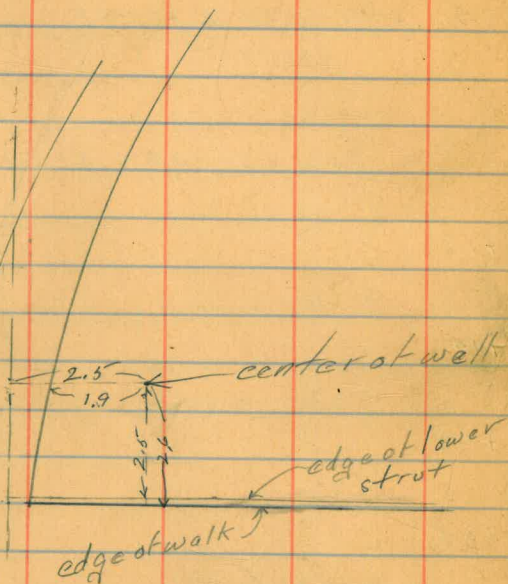
Loc. of Stilling Well at

Hodges

11/2/44

9

Hill
King
O'Brien
Stephens.



3.60 318.60

315 -

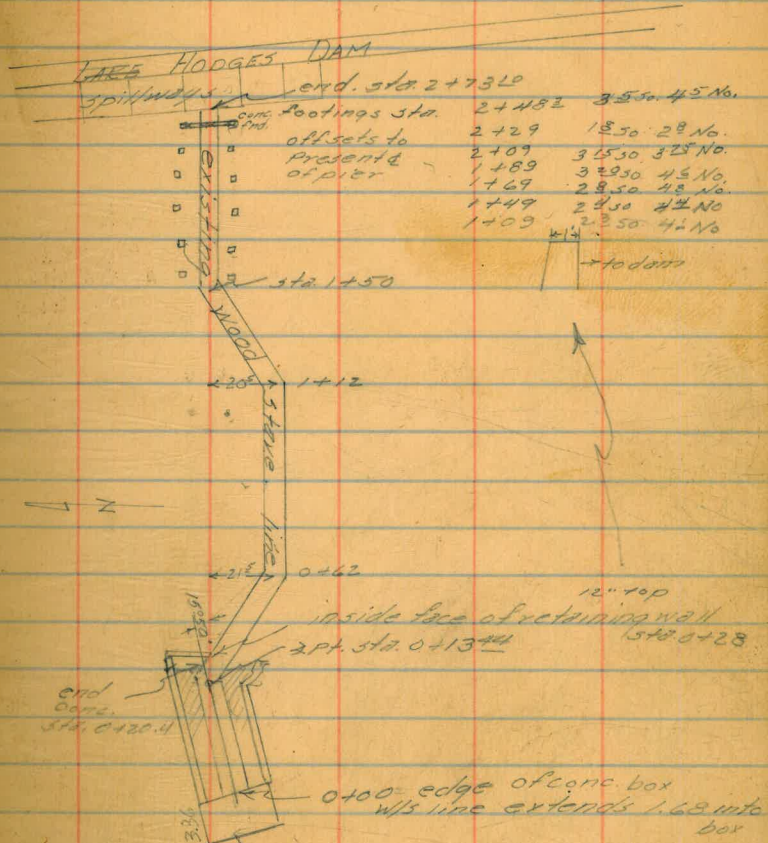
10

Alignment Steel Pipe To replace
Wood stave between Hodges Dam & Conduit

R. King 7-21-49
King
Shipman

11

Note existing steel bands
badly corroded & rusted



Profile Over Realignmant
for steel Pipe between Hodges Dam to Conduit

King Shipman 7-22-49

13

B.M.	1.65	265.65		264.00	ON Wall inside Abt #1
T.B.M.	7.51	261.32	11.84	253.81	Small Keel'd Rock 1' above end Wood Stake
T.B.M.			1.69	259.63	N.E. Cor. Conc. Wier by Meter House
0+00			3.92	257.50	Top Conc. Block
0+00			4.30	257.02	" Wood Stake
0+00			7.4	253.9	Ground - Concrete Floor
A 0+13.44			4.4	256.9	Top Wood Stake
0+13.44			7.5	253.8	Ground - Conc. Floor
0+20.4			7.6	253.7	" " " " Ends
0+20.6			8.6	252.7	Nat. "
0+28			9.05	252.27	Top Hdwl.
0+28			12.3	249.0	Ground - bottom Hdwl.
T.P.	1.12	249.42	13.02	248.30	
0+37			9.9	239.5	Rock Solid
0+50			13.0	236.4	
T.P.			12.98	236.44	
	4.82	241.86			
0+67			8.0	233.26	
0+69			10.5	230.8	Conc. pipe

241.86

0+85⁸⁹ d 9.2 232.1
 0+85⁸⁹ 6' No. 8.4 232.9
 0+85⁸⁹ 12' 50. 5.9 235.4
 0+85⁸⁹ 16' 550. 6.5 234.8

0+90 6.6 234.7

1+00 5.6 235.7

1+05 5.3 236.0

1+05 2.6 238.7

1+09 2.5 238.8

1+05 1.13 240.13

1+05 1.10 240.16

1+12 2.3 239.0

FP 0.48 240.88

8.02 248.80

1+15⁴ 5.9 242.9

Firm Rock

"

"

Loose Rock

conc. Apron

2.3 30.

4.1 No

} existing bent footings

end conc.

start loose rock

248.80

1720		7.7	241.1
1732		7.0	241.8
1735		4.3	244.5
1749	2.4 50.	8.30	240.50
1749	4.4 No.	5.84	242.96
1750		8.4	240.4
1769		12.5	236.3
1769		10.1	238.7
1769	2.8 50.	10.60	238.20
1769	4.8 No.	7.12	241.69
1789	¢	11.5	237.3
1789	3.2 50	12.90	235.9
1789	4.6 No	9.95	238.85
2409		8.8	240.0
2409	3.15 50	10.28	238.52
2409	3.75 No	7.28	241.52

end loose rock

} existing footings

} existing footings

} existing footings

} existing footings

⁸
248.60

2+19 5.2 243.6

2+29 6 6.7 242.1

2+29 1.8.50 3.61 245.19

2+29 2.8 No. 3.64 245.16

} existing footings

2+49 3.5.00 12.9 235.9

2+49 3.5 South 12.88 235.92

2+49 4.5 North 12.89 235.91

} existing footing

2+71.5 1.30 247.50

2+71.5 1.30 247.50

} existing foundation

TP 1.49 247.31
248.11

12.22 ⁵259.83

Top of wood stave pipe 6.50 253.03

cb to 5.67 ^{5 8}253.86

T.B.M. on Dam

6.89
Footings sta. 2+09 248.41 241.52

sta. 2+23 5'N 3.50 244.91

5'S 6.51 241.90

247.00
245.00 up 2.09
247.00 up 2.09
245.00 up 5.10

253.81

3.56 257.37 250.0

Footings sta. 1+69 238.20

6.74 244.94 240.00

sta. 1+81.5 6'S 12.09 232.85 242.5

9.65
up 7.15
up 1.86
242.5

6'N 4.30 240.64

N footings
sta. sta. 1+49 1.96 242.98

N footings sta. 1+49 242.96

3.92 245.88 246.25
247.25

sta. 1+40 5'N 2.70 245.18

up 2.07

5'S 4.33 241.55

up 5.70

sta. 0+86 6'N 13.58 232.30

240.00 up 7.70

6'S 10.81 235.07

up 4.93

1+09 N 5.73 240.15 240.16

259.63

0.51 260.14 253.67

0+28.5 3'W 9.12 251.02

up 2.45

3'E 11.78 248.36

up 5.31

3.31 262.94

259.63

#1		9.19
#2	So	9.50
	No	9.32
#3	So	9.61
	No	9.59
#4	So	9.76
	No	9.79
#5	No	10.08
	So	9.99
#6	No	10.30
	So	10.34
#7	No	10.49
	So	10.49
#8	No	10.80
	So	10.72
#9	No	10.85
	So	10.87
#10	No	11.08
	So	11.09
#11	No	11.28
	So	11.29
#12	No	11.46
	So	11.46

Top & Conc. Saddle

Top steel trestle

TOP CONC. PIERS FOR STEEL PIPE
BETWEEN HODGES DAM & CONDUIT

King
Shipman
West 11-28-49

B.M. 3.31 262.94 259.63

9.19 253.75

T.P. 0.08 549.90 13.04 249.90

0486 10.05 239.93

1+40 2.75 242.23

14815 7.47 242.51

2+23 2.90 247.08

check to H&I No. side 9.35 240.62 240.69

Top CONC. Saddle ON OLD HDWELL



Top CONC. Pier

Hodges Dam
Levels on stairs in dam

KING
WEST
Williams

7-25-51

21

B.M.	4.63	305.50		300.87		
0+00			4.72	300.78	CONC.	
0+00			8.5	297.0	ground	
0+04			8.4	297.1	"	
Δ 0+08 ⁸⁰			13.0	292.5	292.5	ground & walk
T.P.	0.58	293.05	13.03	292.47		
0+24			0.6	292.45	292.45	Top wood walk
"			1.9	291.2		gr.
Abt. #5			5.30	287.8		CONC.
			5.30	287.8		"
			7.3	285.8		ground
0+41			11.1	282.0		"
T.P.	0.54	280.91	12.68	280.37		
Abt. #6			5.79	275.12		CONC.
			5.79	275.12		"
			6.9	274.0		gr.
0+65.4			9.3	271.6		wood step
"			10.0	270.9		gr.
T.P.	1.00	269.36	12.55	268.36		
Abt. #7			5.24	264.12		CONC.
			5.24	264.12		CONC.
			5.2	264.2		"
			4.05	265.31	265.31	Top wood Ramp - Edge of 2 steps
			4.05	265.31	265.31	" " "
"			5.2	264.2		CONC.
0+97 ⁷⁷			4.3	255.06	265.1	"

Hodges Dam
(Stems) contd.

269.36

	0 + 97.92		11.4	258.0
	1 + 03.08		9.3	260.1
	"		9.7	259.7
Δ	1 + 06.23		9.3	260.1
	"		11.3	258.1
	T.P.	4.89	261.06	13.19 256.17
	1 + 15		8.3	252.8
	1 + 19.38		10.46	250.60
	"		10.3	250.8
	T.P.	0.44	251.50	10.00 251.06
	1 + 21.98		0.94	250.56
	"		3.0	248.5
	1 + 31		8.04	243.46
	1 + 31		9.4	242.1
	1 + 36.2		12.2	239.3
	"		13.8	237.7
	T.P.	3.54	242.08	12.96 238.54
	1 + 44.23		9.0	233.1
	T.P.	1.68	236.09	7.67 234.41
	1 + 44.23		4.00	232.1
c K.B.M.			+ 1.93	238.0 238.0

King West Williams 7-25-51

22

Lt.

Rt.

gr.				
Wood Ramp - Parallel to G.V. etc				
gr.				
Wood				
gr.	259.4	258.5		
	10.6	10.9		
	6.8	4.3		
		252.6		
		8.5		
		4		
gr.				
conc.				
ground				
conc.				
gr.				
wood				
gr.				
wood				
gr.				
gr. at wall				
conc. - End				

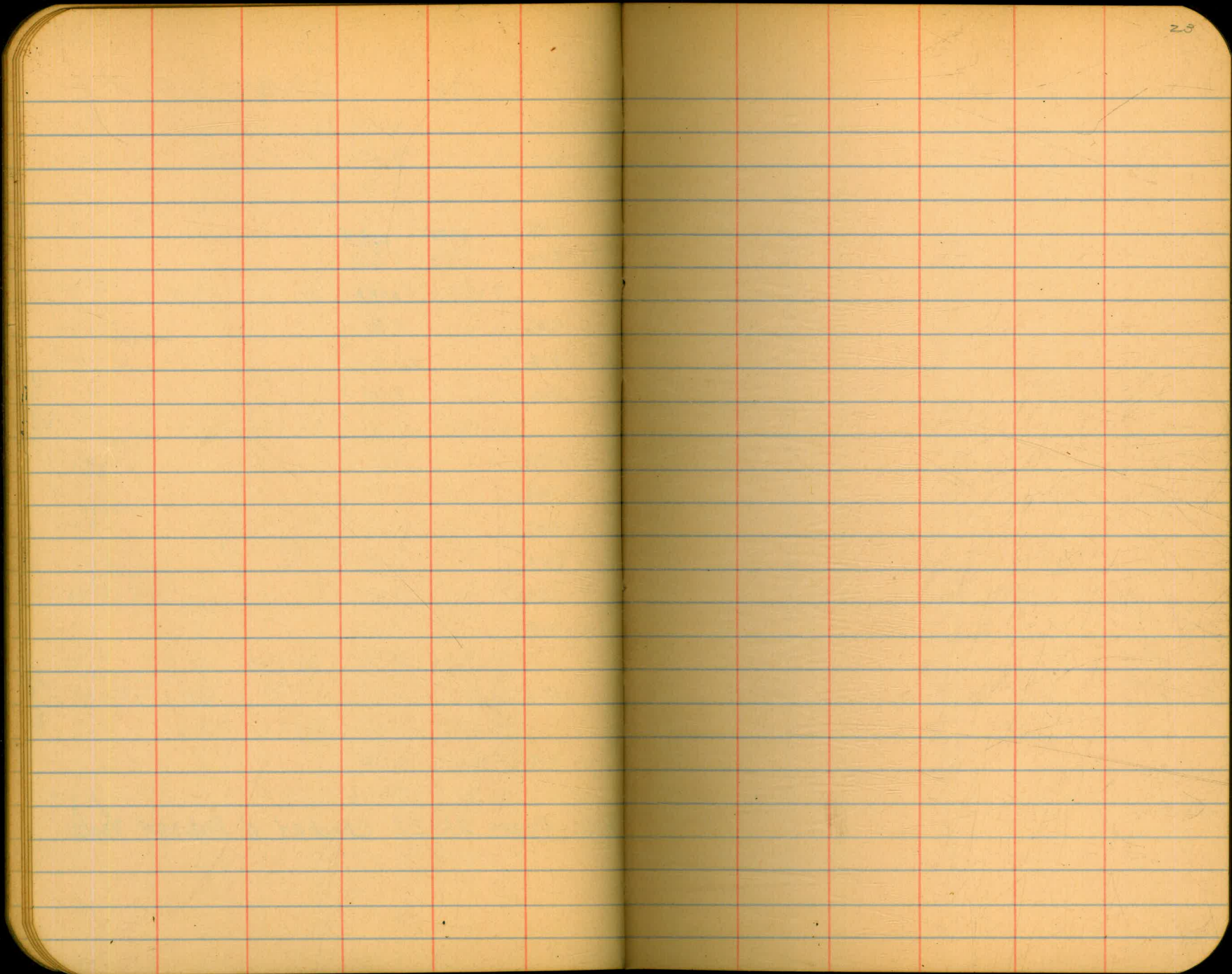
Live - West edge

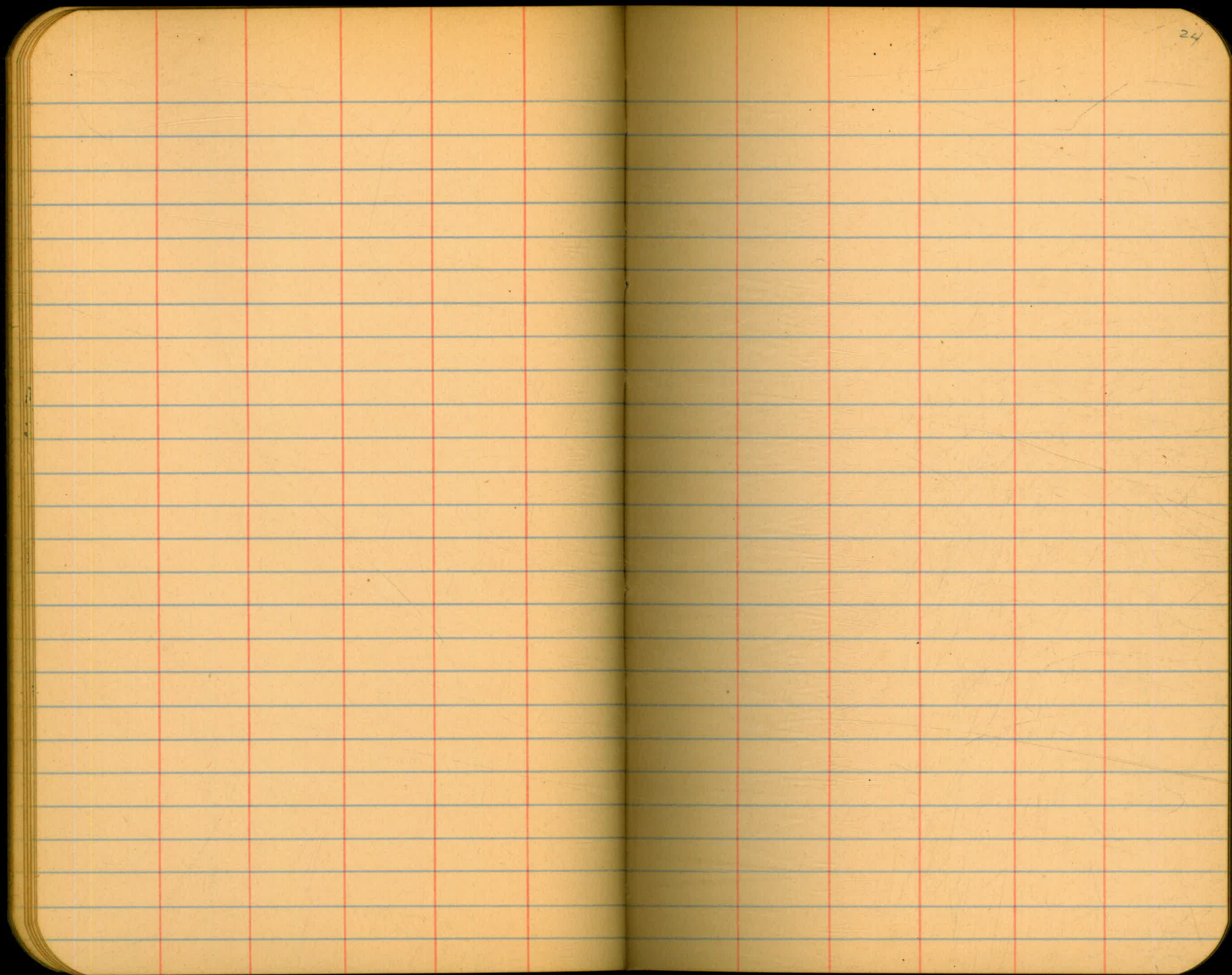
Base

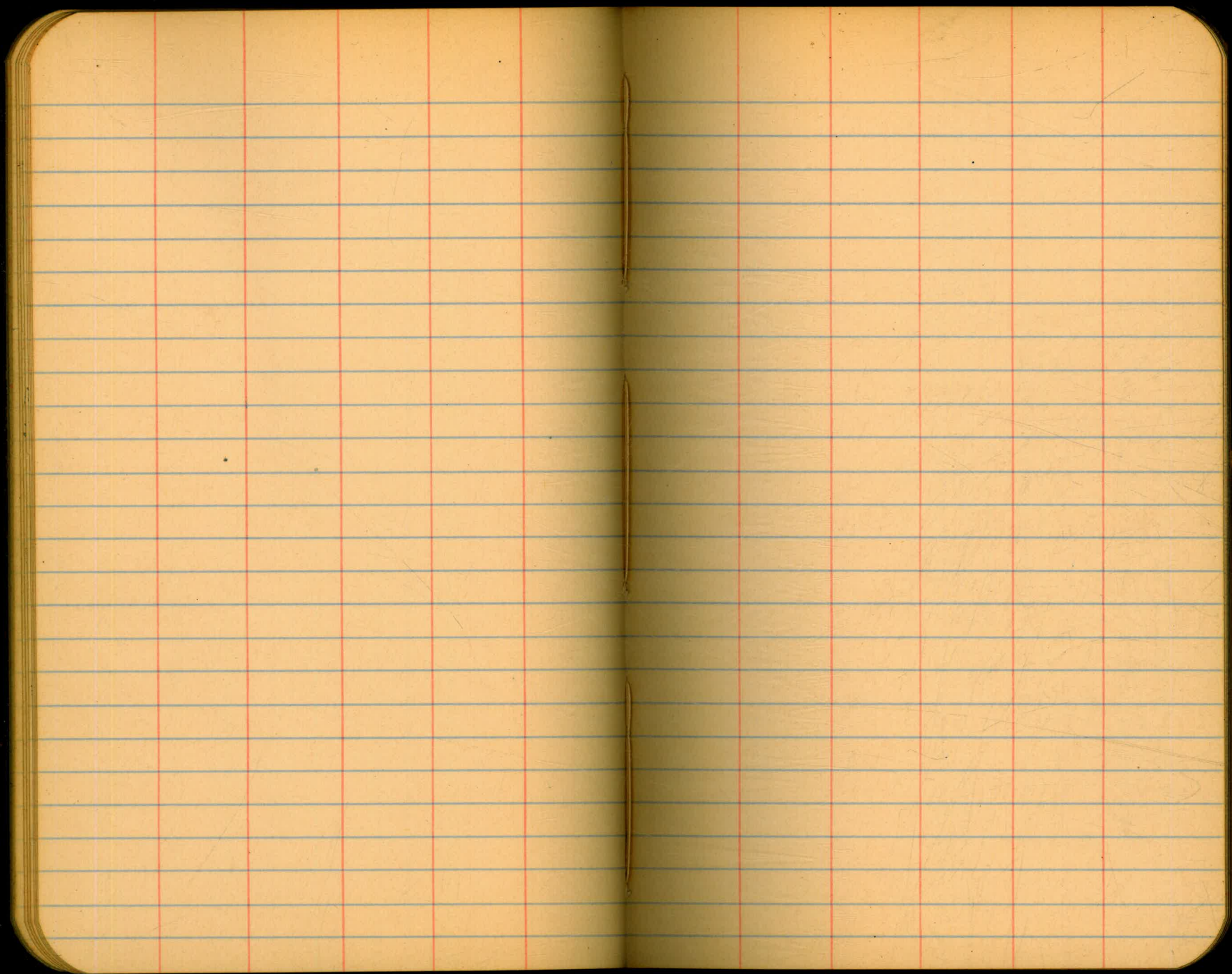
$\frac{8.9}{2} = 4.3$
 $\frac{11.5}{2} = 5.75$

$\frac{6.1}{2} = 3.05$
 $\frac{3.7}{4.5} = 0.82$
 $\frac{2.1}{7.5} = 0.28$

RAM. Pages 21-22 Checked & Reduced 7/30/51







DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side of shoulder
stake for any width roadway, slope 1 1/2 to 1.
If ground is nearly level, the cut or fill at side
stake is located by the double entry method in
left column and top row. The number in body

IMPROVED TABLES

AND

INFORMATION

TABLE No. 2.

To find Tangent and External for curve of
any other degree, divide by degree of curve and
add correction found in column of correction.
Degree of curve with a given L may be found
by dividing tangent (or external) opposite L by
given tangent (or external).
The distance from a point on the tangent to
the curve is very nearly the square of the tangent
length divided by twice the radius.

784
289
495

1078
82
996

260.9 ground at bot. of riser

$$\begin{array}{r} 238.00 \\ 236.09 \\ \hline 1.91 \\ 20.02 \\ \hline 277.12 \end{array}$$

 1.0 to bot. $\frac{3300}{64.8}$
 265.2
 64.0

$$\begin{array}{r} 250.70 \\ 248.17 \\ \hline 2.53 \\ 241.14 \end{array}$$

$$\begin{array}{r} 249.90 \\ 247.50 \\ \hline 2.40 \\ 240.42 \end{array}$$

 9.27
 1.64
 11.84

$$\begin{array}{r} 249.90 \\ 247.50 \\ \hline 2.40 \\ 240.42 \end{array}$$

7.0
 6.6
 7.9
 8.1 1/2
 7.7
 7.00
 6.60
 7.75
 8.13
 7.75
 8.12
 8.15
 53.20
 54.2

54.1

0.80 263.74 13.04 249.96

$$\begin{array}{r} 89.14 \\ 23 \\ \hline 88.84 \end{array}$$