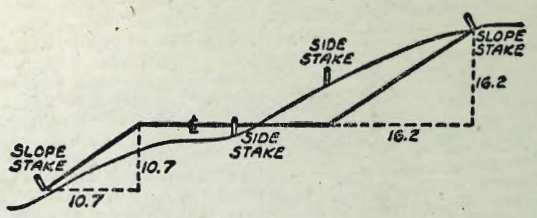


Distances from Side Stakes for Cross-Sectioning

Slope 1 to 1. Roadway of Any Width

	0	.1	.2	.3	.4	.5	.6	.7	.8	9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 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 of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

IMPROVED TABLES
AND
INFORMATION

DIRECTIONS FOR USE OF TABLES

TABLE No. XIV

Distance of slope stake from side or shoulder stake for any width roadway, slope 1½ 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 of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE No. VIII

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections. Degree of curve with a given I may be found by dividing tangent, (or external), opposite I 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.

5321
3560 Nov
17.61

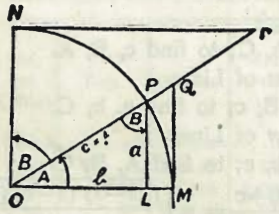


TABLE II
TRIGONOMETRIC FORMULÆ.

$\angle A = \angle MOP \qquad \angle B = \angle PON = \angle OPL$

$R = OB = c = 1$

$$\sin A = \frac{a}{c} = \frac{a}{1} = a = \text{sos } B = LP$$

$$\text{sos } A = \frac{b}{c} = \frac{b}{1} = b = \sin B = OL$$

$$\tan A = \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ$$

$$\cot A = \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT$$

$$\sec A = \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B = OQ$$

$$\csc A = \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT$$

$$\text{vers } A = \frac{LM}{OP} = LM = \text{covers } B$$

$$\text{covers } A = \frac{OP - LP}{OP} = OP - LP = \text{vers } B$$

$$\text{exsec } A = PQ = \text{coexsec } B$$

$$\text{coexsec } A = PT = \text{exsec } B$$

$$\sin \tfrac{1}{2} A = \sqrt{\frac{1 - \text{Cos } A}{2}} \qquad \cos \tfrac{1}{2} A = \sqrt{\frac{1 + \text{Cos } A}{2}}$$

$$\sin 2A = 2 \sin A \cos A \qquad \cos 2A = \cos^2 A - \sin^2 A$$

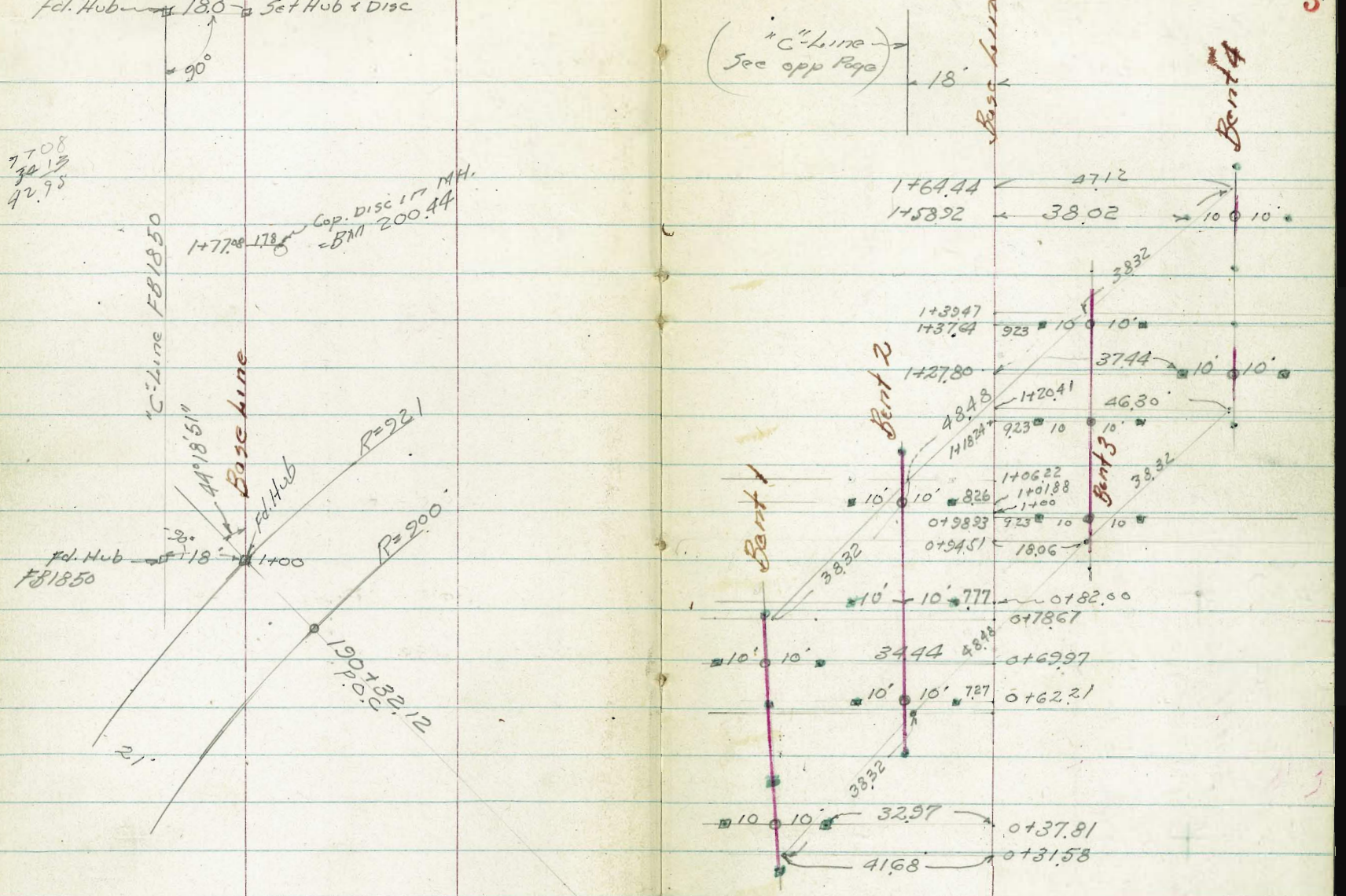
$$\text{Law of Lines} \quad \frac{\sin A}{a} = \frac{\sin B}{B} = \frac{\sin C^1}{C}$$

$$\text{Law of Cosines} \quad c^2 = a^2 + b^2 - 2ab \cos C$$

$$\text{Law of Tangents} \quad \frac{a+b}{a-b} = \frac{\tan \tfrac{1}{2}(A+B)}{\tan \tfrac{1}{2}(A-B)}$$

INDEX

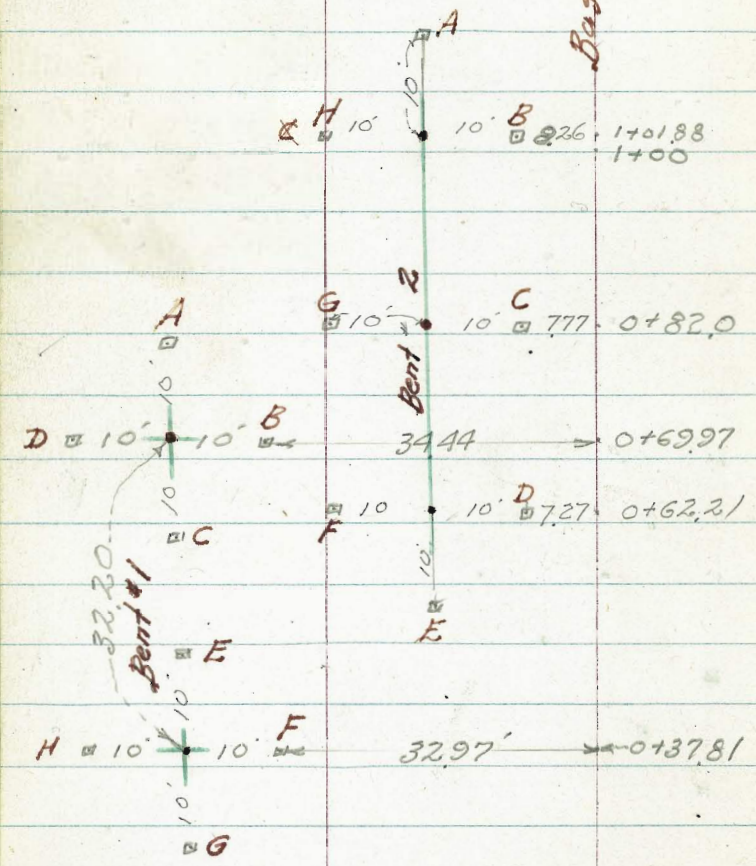
Wabash Ave - Bridge



Wabash Ave - Bridge.

Bents on Lt. of Base Line

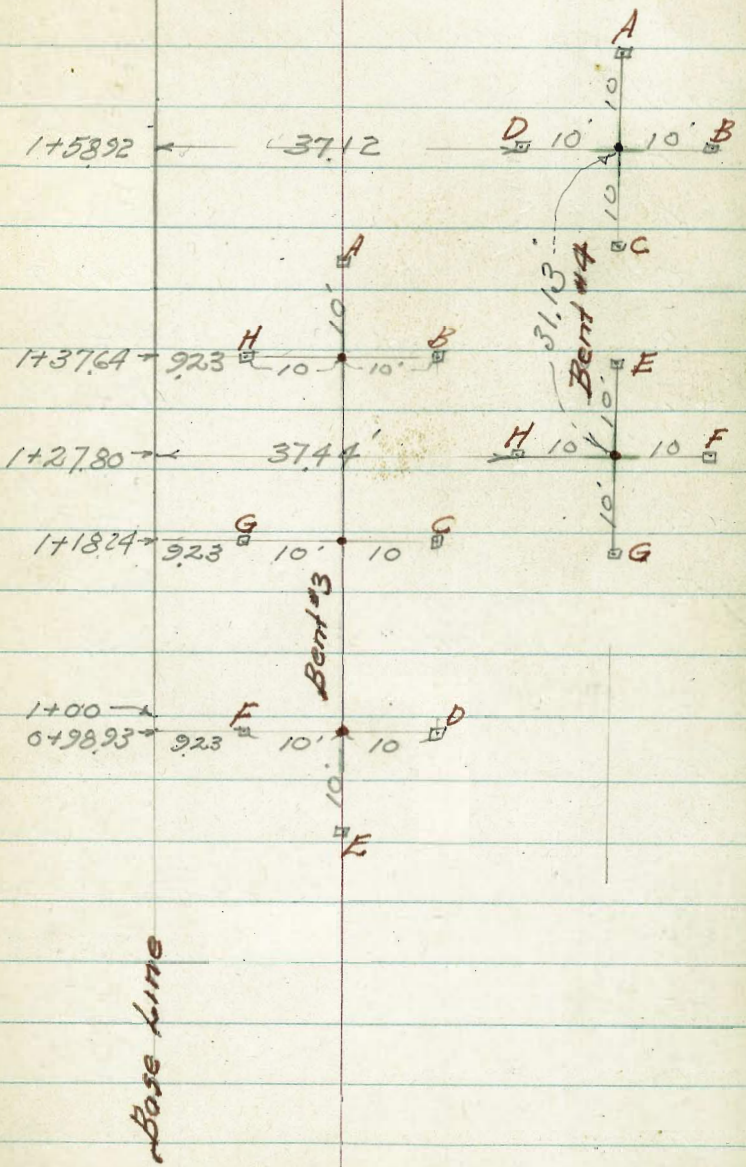
Walker
F. Gregory
G. Pope
R. Sisson
April 1950



Wabash Ave Bridge.

Bents on Rt of Base Line

4



Wabash Ave - Bridge

Elevations for Bents - Sketch P4

Bent # 1

Station	Elev. Stakes
"A"	195.06
"B"	195.36
"C"	194.99
"D"	194.79
"E"	194.77
"F"	194.65
G	194.38
H	194.33

Bent # 2

"A"	196.36
"B"	196.80
"C"	196.54
"D"	196.20
"E"	195.41
F	195.35
G	195.78
H	195.93

Bent # 3

Stations	Elev. Stakes
"A"	198.35
"B"	198.45
"C"	197.91
"D"	197.57
"E"	197.11
"F"	197.06
"G"	197.31
"H"	197.73

Bent # 4

"A"	198.98
"B"	198.81
"C"	198.72
"D"	198.59
"E"	198.53
"F"	198.48
"G"	198.12
"H"	198.12

Wabash Ave Bridge

Walker
F. Gregory
G. Pope
R. Sisson
8-20-50

Bents #2 #3
Grades for Footing

Bent No 2	8.90	1935		Top of Footing
196	202.40	200.44		B.M.
Bent #3	9.19		192.50	Top of Footing
Bent #2	12.69		189.00	Bottom
125	201.69	200.44		

Wabash Ave. Bridge

Grades Bents #1 and #4

4-24-50

Bent #1	6.08	192.67	= Top Footing.
Chk D P-5	3.96	189.79	
	4.92 198.75	194.33	BM ——→ on Hub H Bent #1 P-5
Bent #4 SLY Footing		11.30 191.17	Top Footing.
Bent #4 NLY Footing.		10.80 191.67	= Top Footing.
2.03	202.47	200.44	
Bent #1 Footings	10.53	190.00	
	0.09 200.53	200.44	B.M.
Bent #4 NLY Footing	13.40	189.00	
Bent #4 SLY Footing	13.90	188.50	
1.96	202.40		
~~2.71 203.15~~		200.44	= B.M.

Set 4-25-50 am.

T.m NLH

Wabash Bridge

Elevations for Columns

Near Top = 5.17 below Gutter

Set B.M.	4.76	222.12	= Hub on bank for future reference
N Col Bent 3	5.74	221.14	= Elev. 5.17 below Gutter at Finished Deck
Center			
℄ Col Bent #3	7.41	219.47	= " " " " " " "
South Col Bent #3	9.09	217.79	= " " " " " " "
	226.88		
℄ Col Bent 3	+1621	219.33	
	453 226.88		
N Col Bent #3	+1923	222.35	
268	203.12	20044	B.M. on Rim MH

224.25
5.17
219.08

Bent #4
Wabash Ave. Bridge

Elev. Top Columns

North Colm. Bent #4	5.49	219.08 = Elev.	5.17 below Bridge Seat Top Colm. from Mr. Hammer
South Colm Bent #4	8.78	215.79 = Elev.	5.17 below Bridge Seat Top Colm. from Mr. Hammer
2.45	224.57	222.12	See Page 7
Check B.M. Pg 7.			
	0.01 224.57		
7.03	224.56	+14.57 217.53	TBM on nail top of colm
South Colm Bent 4	204.24	1.28 202.96	TBM on nail in Colm
7.15	224.57	+4.04 217.42	TBM on nail top colm.
North Colm. Bent 4		0.86 203.38	TBM on nail in colm.
3.80	204.24	200.44	B.M. on M.H.

Wabash Ave Bridge

Bent No 2

Grades for Const joints

of Columns 5.17 below Deck

Walker
Gregory
R-Sisson
5-16-50-am

Note: Inspector - Mr. Hummel says
Concrete joint will be An additional
0.08 below Grades shown to
Allow Clearence for Cap Bottom

			001 200.44=BM.	
	chk BM Rim MH	196	200.43	
C	219	202.39 - 2402	200.20	
	North Col.	9.16	220.06	
S	2 Col	5.91	218.31	
	South Col.	7.65	216.57	
	210	224.22	222.12	BM. on Ref Stake P-7

Wabash Ave Bridge

Sant No. 1

Grades for Const. Joints

5.17 below Cap Grades for Mr. Hommer

Walker
F. Gregory
R. Sissiboo
5-16-50

Note: Notation on P-9
Applies these notes.

				001
				200.49 BM
Chk. BM	Rim	MH	136	200.45
TP	2.08	201.81	23.55	199.73
North Col			6.96	216.32
South Col			10.50	212.78
	1.16	223.28		222.12

Walker
Pope
6-26-50

Wabash Blvd.
WABASH RIVER Bridge

Reference Elevations
on Columns Bent 1, 2, 3, 4.

210.00 ——→ Ref. Elevation

T.P. 207.15

200.44 B.M. MH P-3

Wabash Ave Bridge — — Sketch P-13

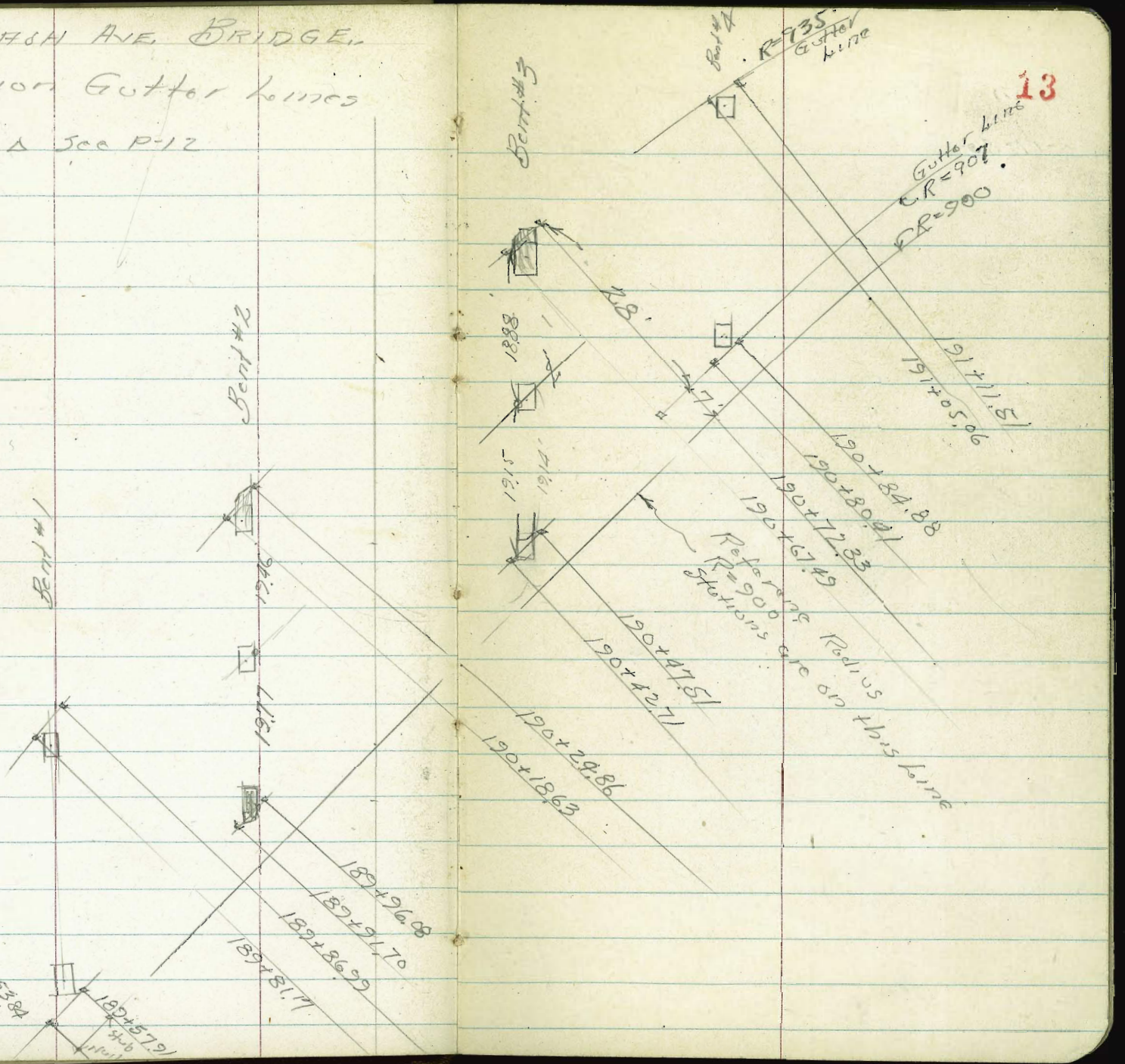
900' Rad. = Stations	Def. Δ	
191+11.51	18°55.57'	
191+05.06	18°43.25'	
190+93.51	18°21.19'	
190+84.88	18°04.71'	
190+86.41	17°56.18'	190+80.41 17°56.3'
190+72.33	17°40.75'	
190+67.51	17°31.55'	
190+67.49	17°31.52'	
190+47.51	16°53.36'	190+42.71 16°44.2'
190+24.86	16°10.10'	
190+18.63	15°58.19'	
189+96.08	15°15.15'	
189+91.70=P.C.	15°06.75=Center of Curve	
189+86.99	14°57.75'	
189+81.17	14°46.65'	189+82.72 14°48.58'
189+64.86	1495.51'	
189+57.91	14°02.25'	189+57.44 14°01.35'
189+53.84	13°54.46'	189+53.66 — 13°54.12'
189+43.84	13°35.36'	13°54.05'
185+16.92=B.C.		

Radius	Def. per ft.
900'	1.91'
907'=Gut	1.895'
935'=Gut.	1.84'
906'=℄Girder	1897'
936'℄Girder	1.836'
921'R	1.8663'

Wabash Ave. Bridge.

Location Gutter lines

for Def △ See P-12

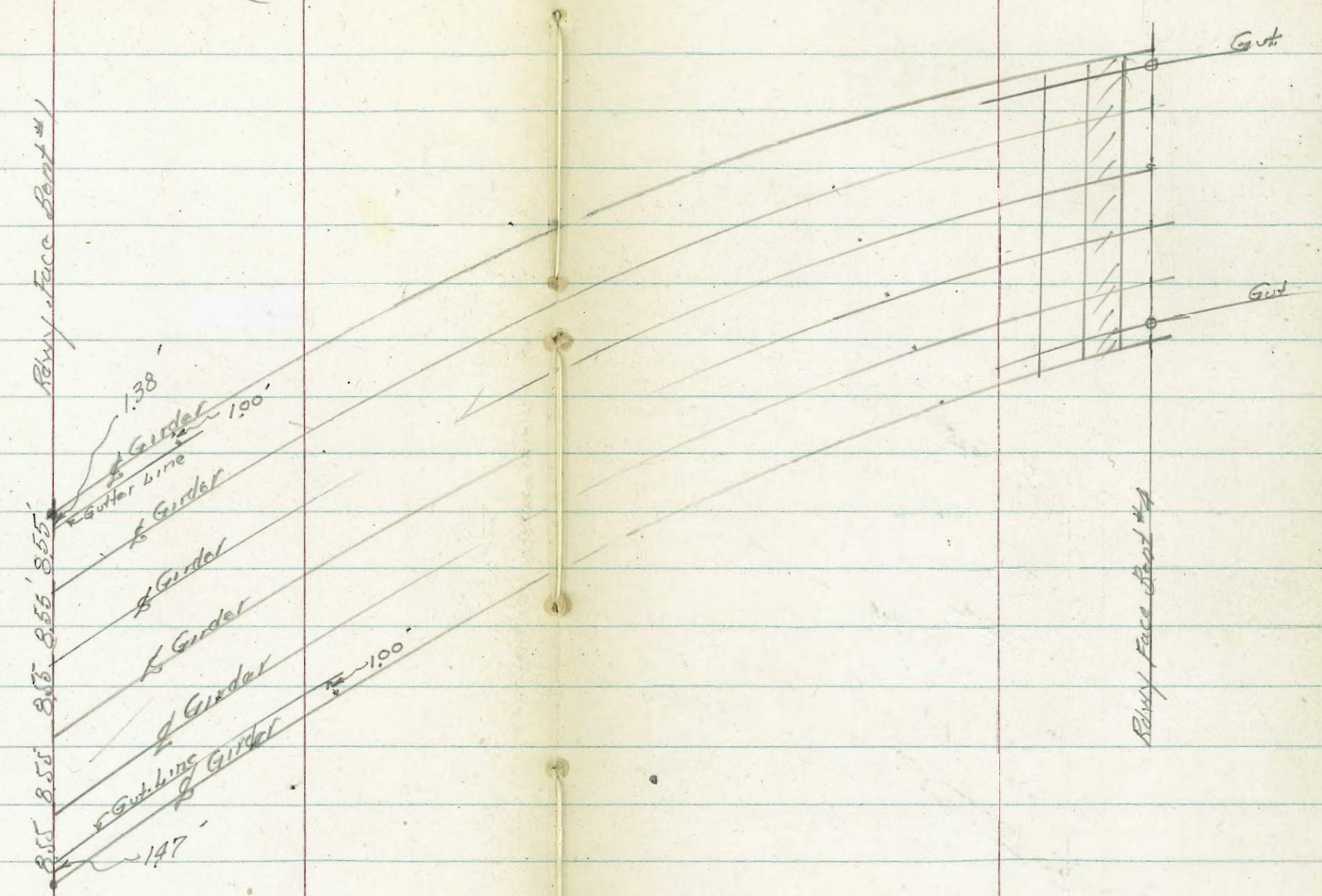


Walker
Pope
R-Sission

8-17-56

Wabash Ave Bridge

~Girders~



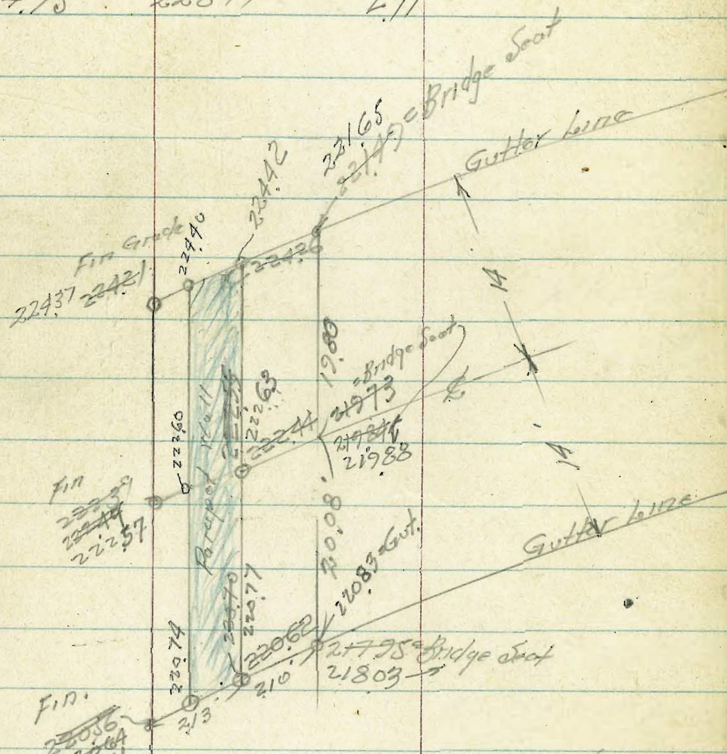
~ WABASH AVE. BRIDGE ~

Elevations: Bridge Seats

8-23-50

Walker
R. Sission
G. Pope

T.P. 4.75 228.77 2.91 224.02

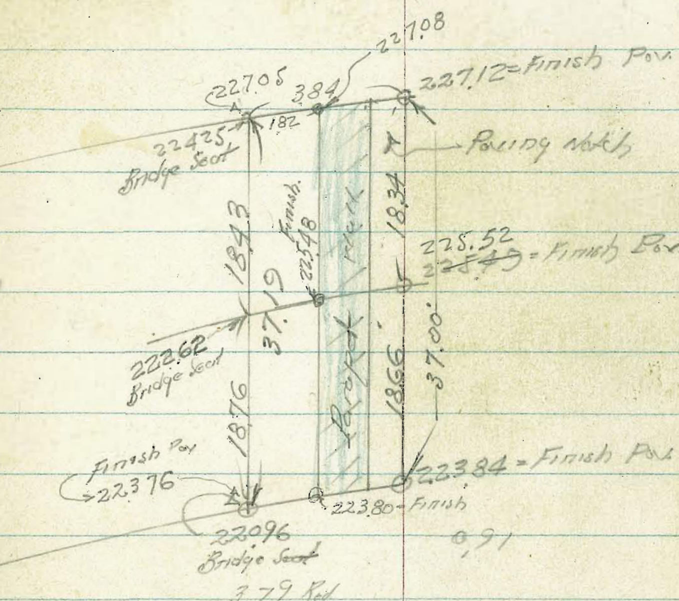


7.20 219.73 = ℄ Bridge Seat

12.43 226.93 214.50

14.75 224.75 210.00

S	℄	N
223.84	225.52	227.12
4.93✓	3.25✓	1.65✓
Bridge Seat 220.96	℄ Bridge Seat 222.62	224.25 = Bridge Seat
7.81✓	6.15✓	4.52✓



S. Finish Pav.	℄	N Finish Pav.	
220.64	222.54	224.37	Bent #1
6.29✓	4.39	2.56✓	

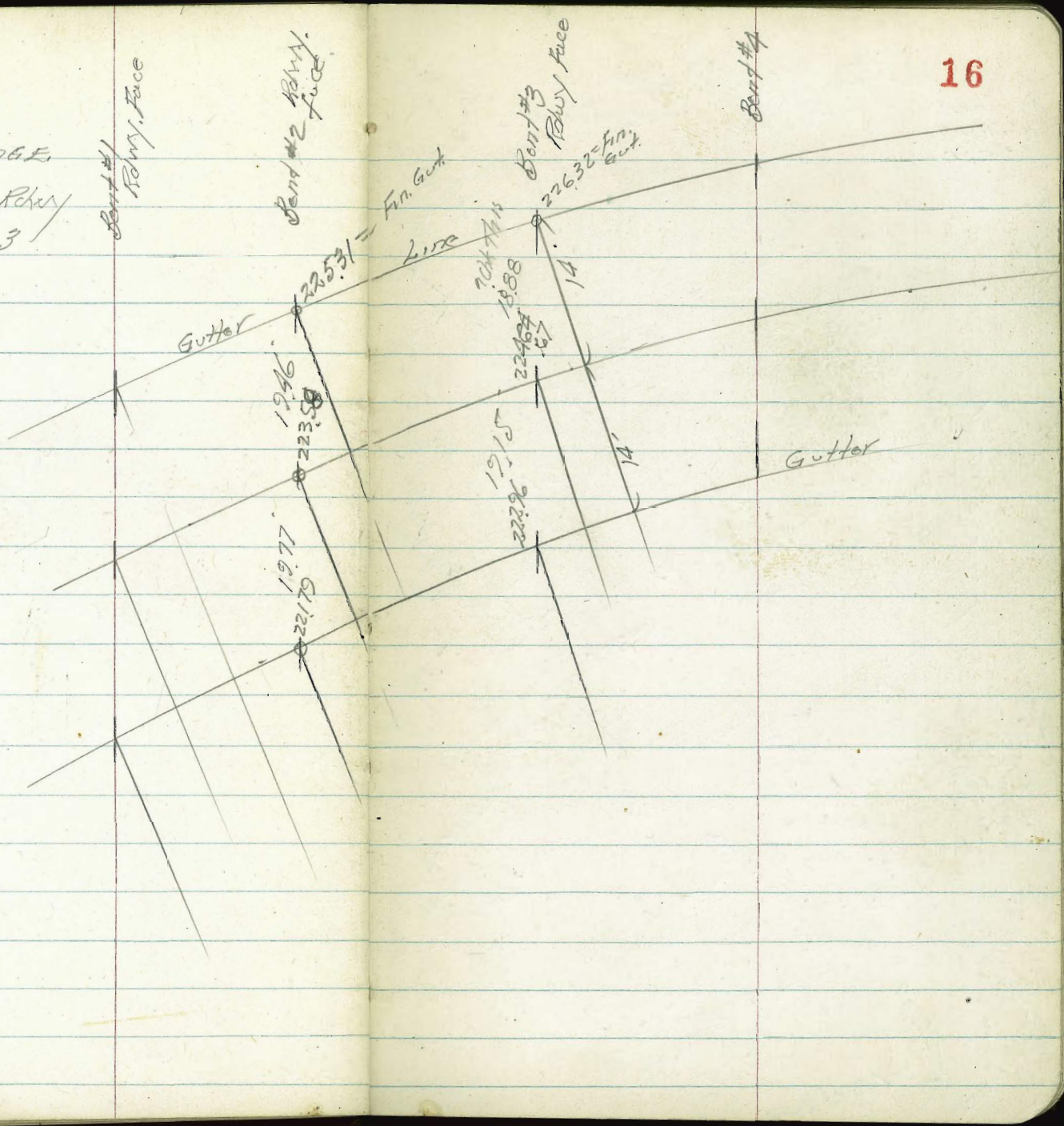
S. Bridge Seat	℄	N-Bridge Seat	
218.03	219.88	221.65	Bent #1
Rod = 8.90	7.05✓	5.28✓	

B.M. Ref Elev. on Cols.

WABASH AVE BRIDGE

Elev. Finish Rdwy at Bents #2 & 3

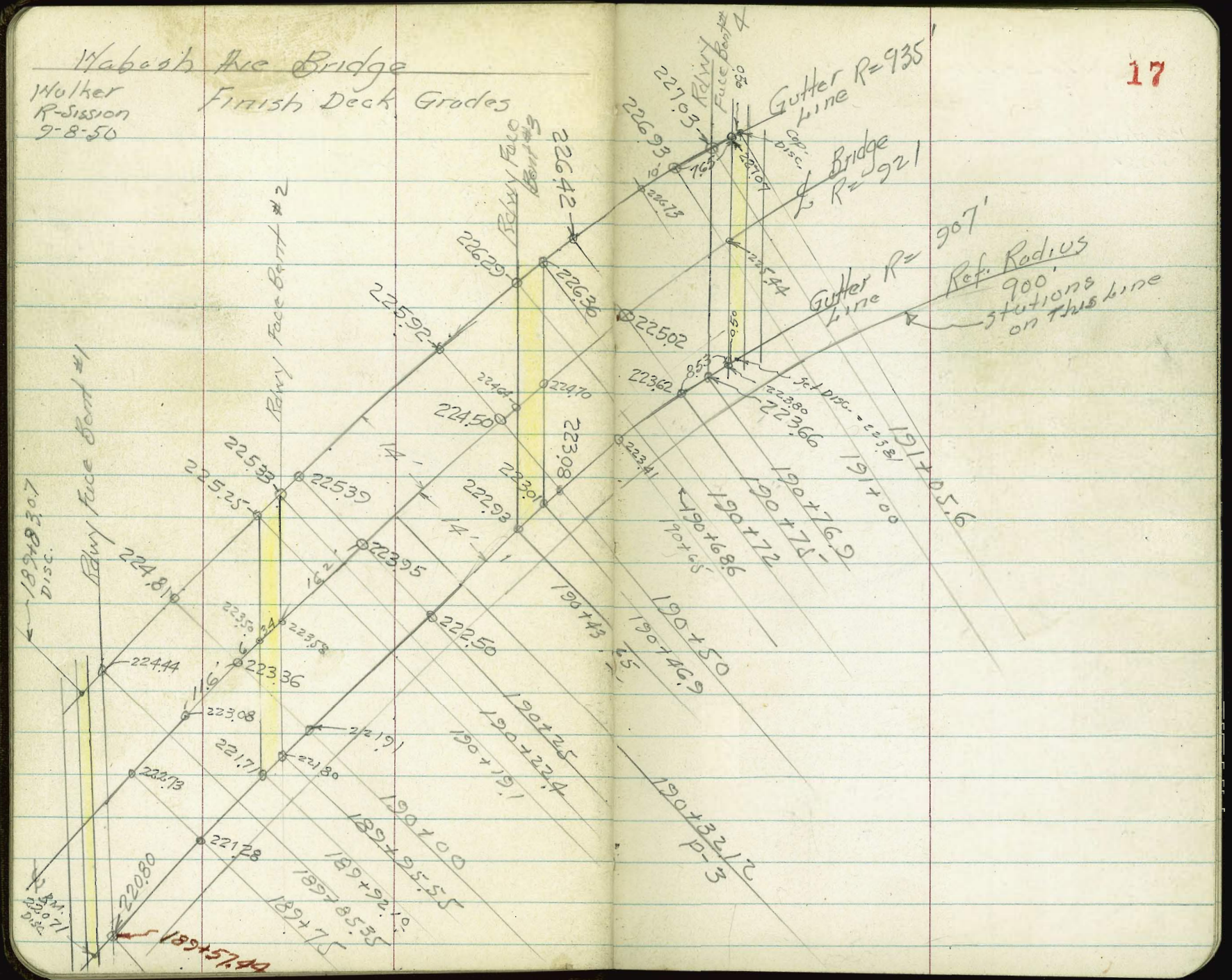
Walker
Pope
Revision
7-28-50



Wabash Ave Bridge

Finish Deck Grades

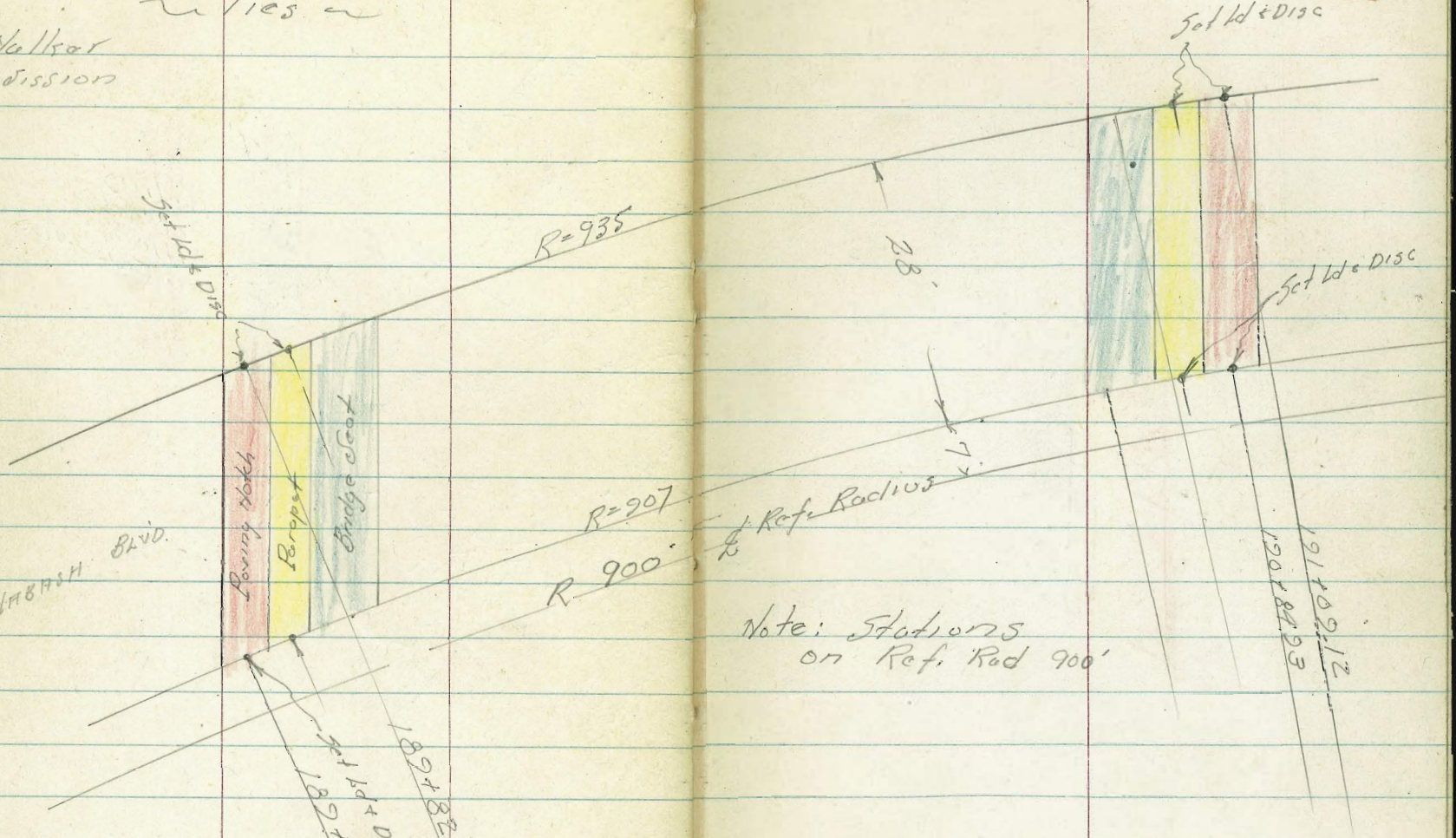
Walker
R-Sission
9-8-50



Wabash Ave Bridge

~ Ties ~

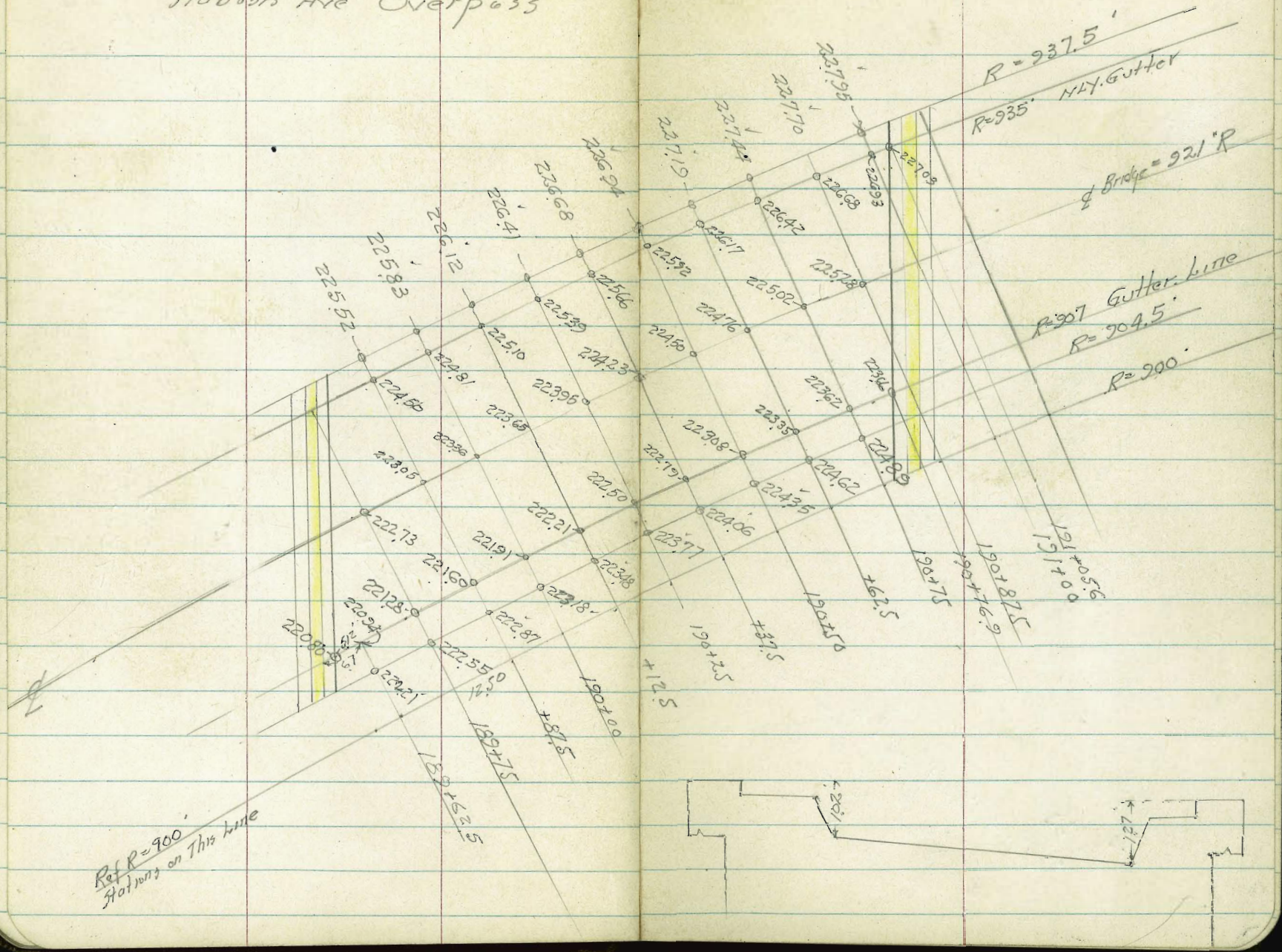
Walker
R-division



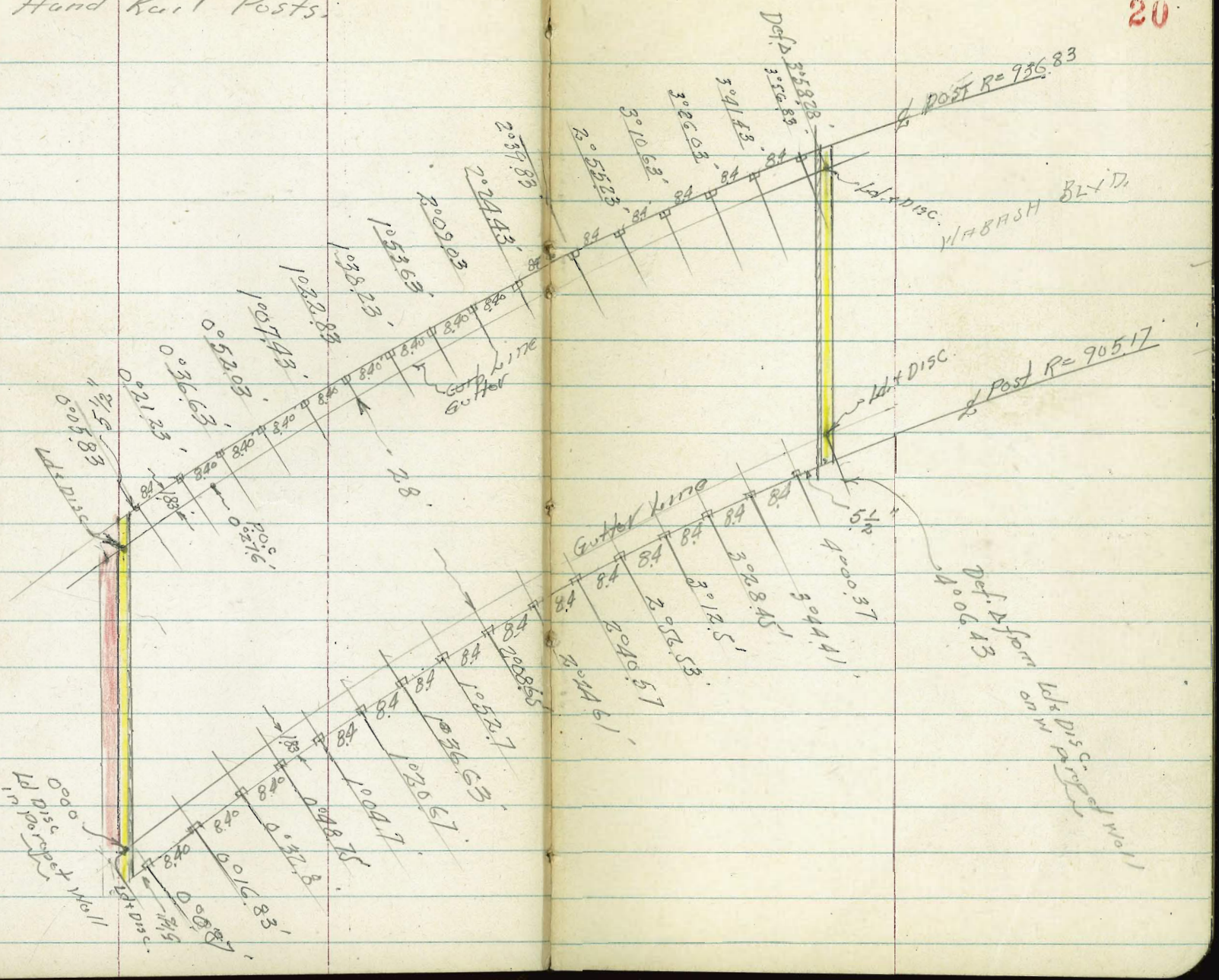
Note: Stations
on Ref. Rad 900'

Finish Grades outside Top of Bridge

Wabash Ave Overpass



Wabash Ave Bridge
Hand Rail Posts



Walker
G. Pope
Revission
10-25-50

WABASH BRIDGE

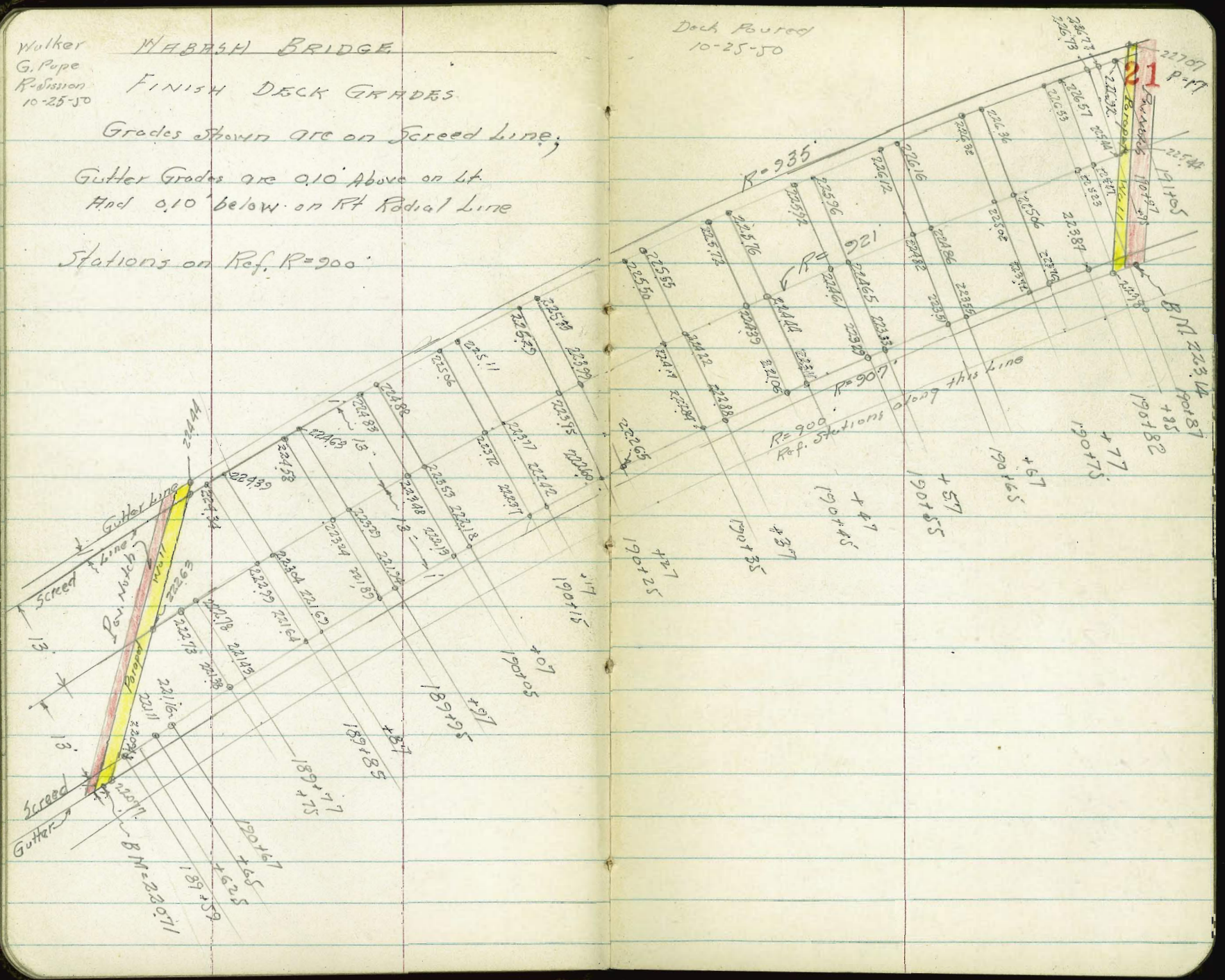
FINISH DECK GRADES

Grades shown are on Screed Line;

Gutter Grades are 0.10' Above on Lt
And 0.10' below on Rt Radial Line

Stations on Ref. R=900'

Deck Poured
10-25-50

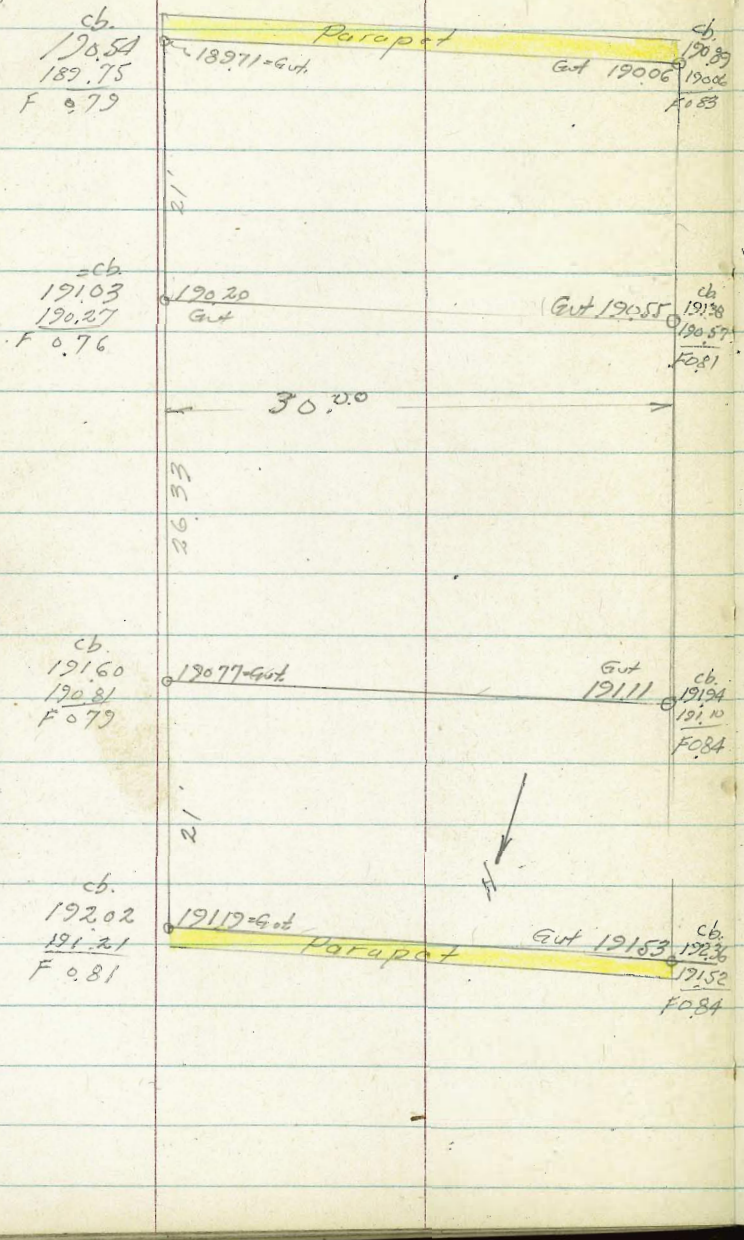


	Left Side El. Cb.	Elev. Dk	Fills	El. Forms.
	227.86			
191+08.15 = Disc	227.81	227.09	F 0.72	327.86
191+07.5 = Wall on Lt.	~~227.81~~	~~227.09~~		
+06	~~227.03~~	227.03		
191+03	~~226.97~~	226.97		
	227.75 .67			
191+00	227.~~68~~	226.87	F 0.80	327.67
	.50			
+87.5	227.~~75~~	226.66	F 0.79	327.42
+84.03 = Disc. Rt				
	21.35			
+75	227.17	226.41	F 0.80	327.16
	227.00 .75			
+62.5	226.~~92~~	226.18	F 0.77	326.95
	226.72 .70			
+50	226.67	225.88	F 0.82	326.69
	.42			
+37.5	226.~~41~~	225.66	F 0.76	326.42
	226.18 .75			
+25	226.~~14~~	225.38	F 0.77	326.13
	225.87			
+12.5	225.85	225.14	F 0.73	325.88
	225.62 .59			
190+00	225.~~56~~	224.87	F 0.72	325.62
	225.31 .28			
+87.5	225.~~25~~	224.53	F 0.75	325.31
189 +82.7 = Wall on Lt	225.21	224.43	F 0.78	325.21
+75	~~225.~~			
189+62.5				
75				
189+55 = Disc on Rt				

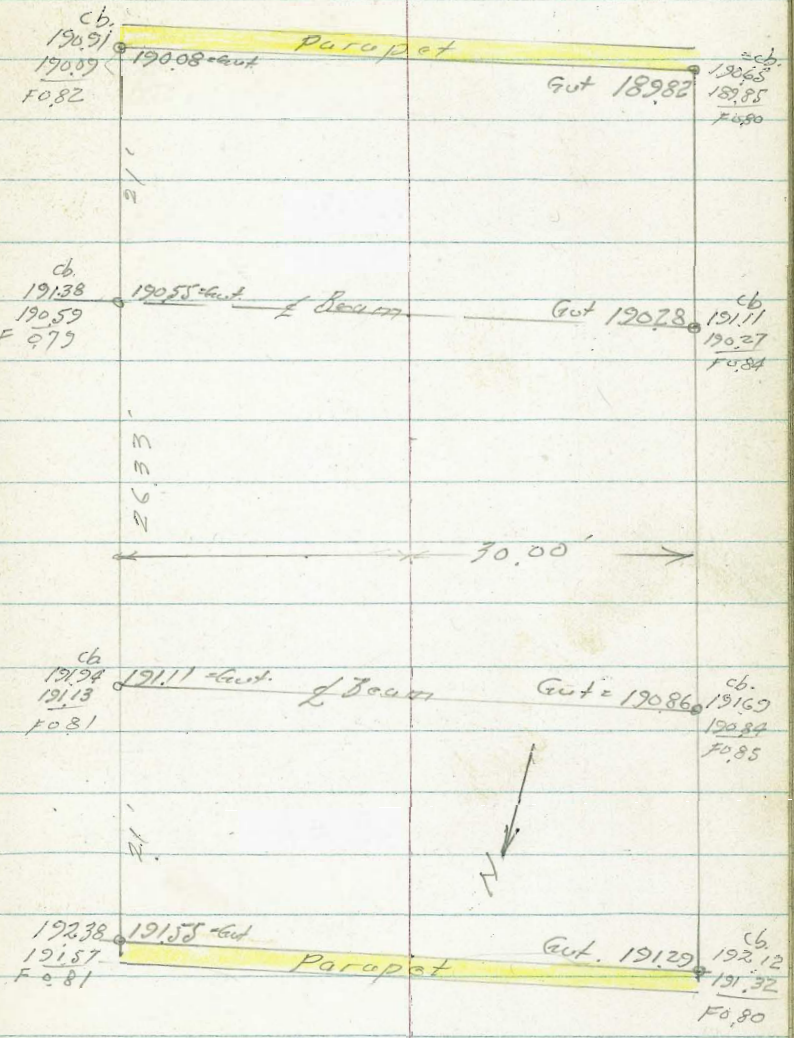
Right Side El. Cb.	El. Dk	Fills.
Disc. in Parapet		
224.80	223.81	F 0.99
		F 0.92
~~224.76~~	~~223.84~~	~~189+82 = W. edge Parapet on Par.~~
224.62	223.68	F 0.94
224.37	223.47	F 0.90
224.11	223.20	F 0.91
223.84	222.94	F 0.90
223.54	222.62	F 0.92
223.24	222.28	F 0.94
222.93	221.96	F 0.97
222.62	221.69	F 0.93
222.27	221.33	F 0.94
221.92	221.04	F 0.88
221.71	220.71	F 1.00

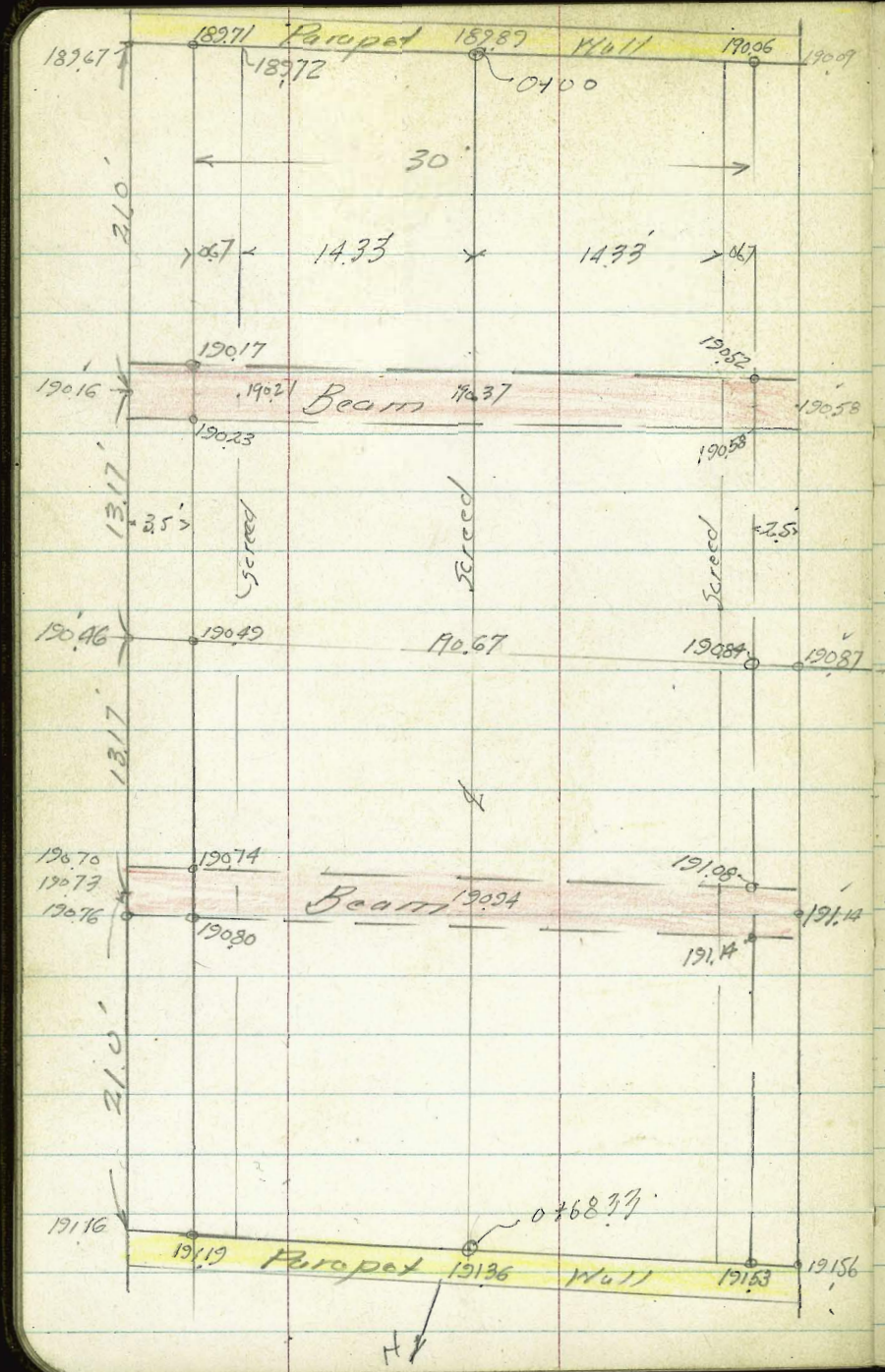
Nile St. Bridge — East Span —

Walker
Pope
R-Sissions
10-19-50



Nile St. Bridge — West Span —





Walker
Pope
R. Sisson
10-2-50

Note: Top of Screed set 0.29 Above Fin. Deck - Grades Shown Below.

26

Nile St. Bridge

East Span

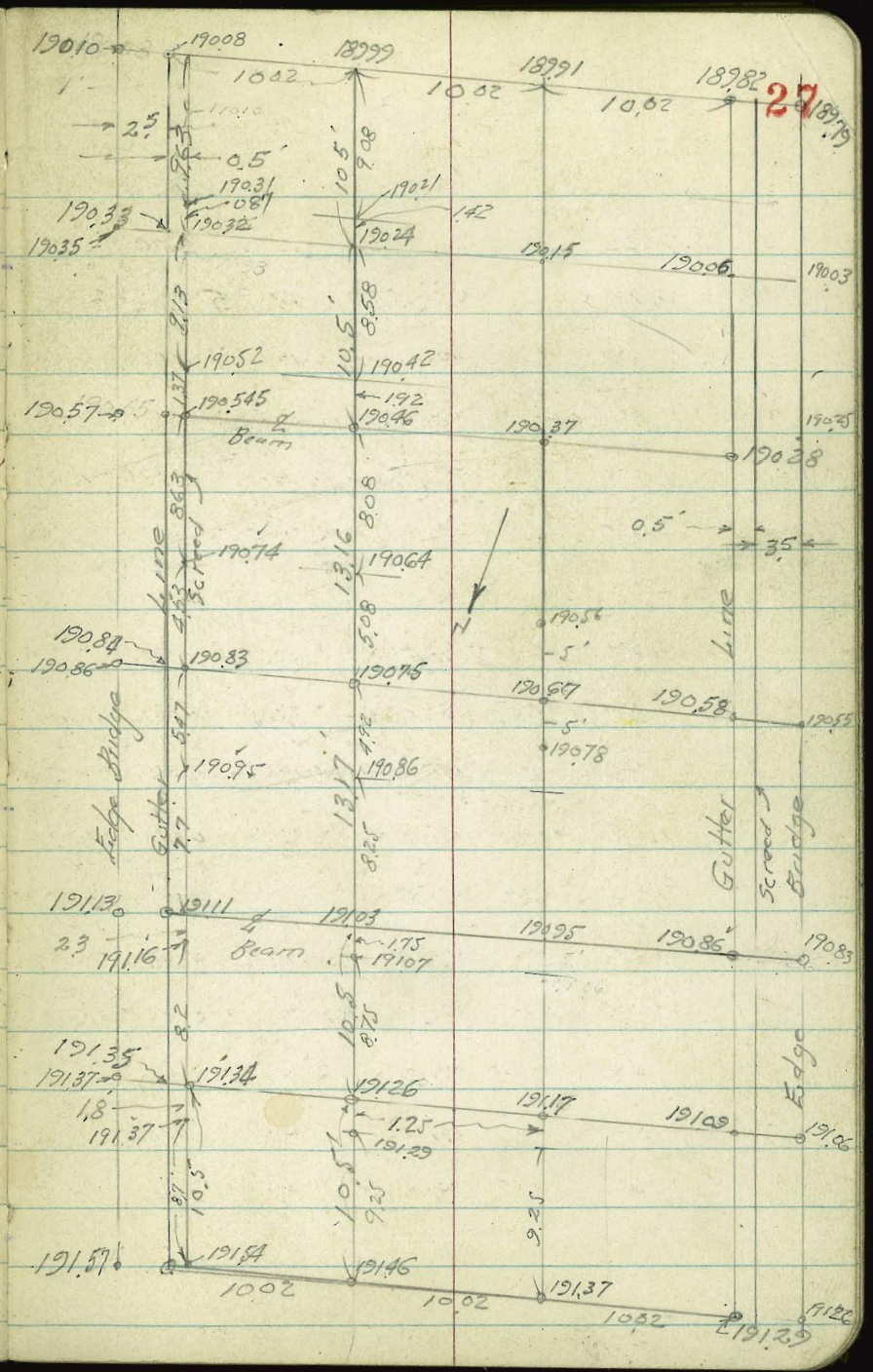
Station	14.33' East of ℄ Elev. Fin. Deck		℄		14.33' West of ℄ Screed	
0+00	189.72	0+00	189.89	0+00	190.05	
	90.86		90.23		.39	
+02	189.77	0+02	189.94	+02	190.10	
	90.24		.39		.56	
+09.6	189.95	0+09	190.10	+09.5	190.27	
	90.27		.43		.64	
+11	189.98	0+11	190.14	+11	190.31	
	.46		.61		.77	
+19	190.17	0+19	190.32	+18.5	190.48	
Beam	.50	℄ Beam	.66	℄ 0+21		
℄ 21	190.21	0+21	190.37	Beam	190.54	
	.55		.71		.89	
+23	190.26	0+23	190.42	+23.5	190.60	
	.68		.85		91.02	
+29	190.39	0+29	190.56	+29.5	190.73	
	.73		.86		91.05	
0+31.2	190.44	0+30	190.57	0+31	190.76	
℄ Bridge	.79	℄ Bridge	.96	℄ Bridge	91.12	
0+34.17	190.50	0+34.17	190.67	0+34.17	190.83	
	.90		91.06		91.22	
0+39	190.61	0+39.2	190.77	+39	190.93	
	.92		91.08		91.24	
0+40	190.63	0+40.3	190.79	+40	190.95	
℄ Beam		℄ Beam		℄ Beam		
0+47.33	190.78	0+47.33	190.94	+47.33	191.10	
	91.10		91.27		.43	
+49	190.81	0+49	190.98	+49	191.14	
	91.12		.30		.45	
+50	190.83	0+50.2	191.01	+50	191.16	
	.30		.48		.63	
+59	191.01	0+59	191.19	+59	191.34	
	.32		.51		.65	
+60	191.03	0+60.5	191.22	+60	191.36	
	.38		.63		.78	
+66	191.16	0+66.3	191.34	+66.4	191.49	
+68.33	191.20	0+68.33	191.36	+68.33	191.52	

Mile St. Bridge ~ West Bridge Fin. Deck Grades

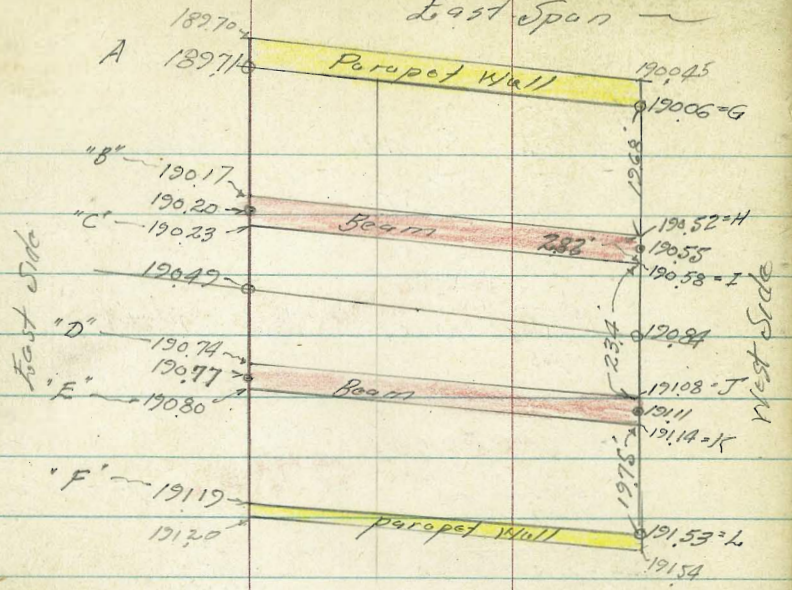
S. Bridge Scott Station	Elev. Fin. Dk.	East Screed		East 1/4		W 1/4		West Screed	
0+00	190.08	0+00	189.99	0+00	189.91	0+00	189.82		
0+01.8	190.12	0+02	190.04	0+02	189.95	0+02	189.86		
0+08 →	190.26								
0+10.9	190.33	0+08	190.17	0+08	190.08	0+08.2	190.00		
0+18.5	190.50	0+17.6	190.38	0+10	190.12	0+09.5	190.03		
0+20	190.53	0+19.6	190.43	0+17.7	190.29	0+17.7	190.21		
0+21 ℄ Beam	190.55	℄ Beam 0+21	190.46	0+19.4	190.33	0+19.3	190.24		
0+29	190.72	0+28.8	190.63	℄ Beam 0+24		℄ Beam 0+21			
0+30.3	190.75	0+29.7	190.65	0+28.7	190.54	0+27.7	190.43		
0+39.2	190.94	0+38.7	190.85	0+29.7	190.56	0+29.7	190.48		
						0+36.8 =	190.65		
1+40.8	190.98	0+41	190.90	0+38.7	190.76	0+38	190.66		
℄ Beam		℄ Beam 0+42.8	190.92						
0+47.33	191.11	0+47.33	191.03	0+39.8	190.79	0+40	190.70		
				0+47.77		℄ Beam			
0+48.9	191.14	0+48.8	191.06	℄ Beam 0+46.83	190.9	0+47.33	190.86		
0+50.3	191.17	0+49.9	191.08	0+48.8	190.98	0+48.6	190.89		
0+59	191.35	0+59.1	191.27	0+49.7	191.00	0+49.7	190.93		
0+60.6	191.38	0+60.4	191.30	0+58.4	191.17	0+58.2	191.10		
0+66.6	191.51	0+66.5	191.42	0+60.3	191.21	0+60.2	191.14		
N. Bkd. 0+68.33	191.54	0+68.3	191.46	0+68.3	191.37	0+68.3	191.29		

Walker
G. Pope
R. Wilson

10-2-50 = Poured Deck on West Span



East Span



	"A"	"B"	"C"	"D"	"E"	"F"
East Side	189.71	190.17	190.23	190.74	190.80	191.19
		188.44	188.44	189.02	189.02	
		F 1.78	F 1.79	F 1.72	1.78	

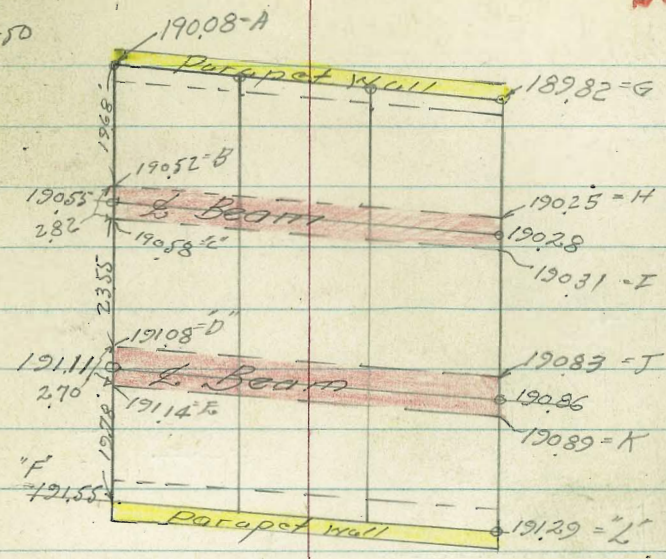
West Side	"G"	"H"	"I"	"J"	"K"	"L"
	190.06	190.52	190.58	191.08	191.14	191.53
	189.06	188.71	188.73	189.24	189.25	
	F 1.00	F 1.81	F 1.85	F 1.84	F 1.89	

Nile St. Bridge - Deck Grades.

West Span

Walker
R. Sission
G. Pope
9-26-50

28

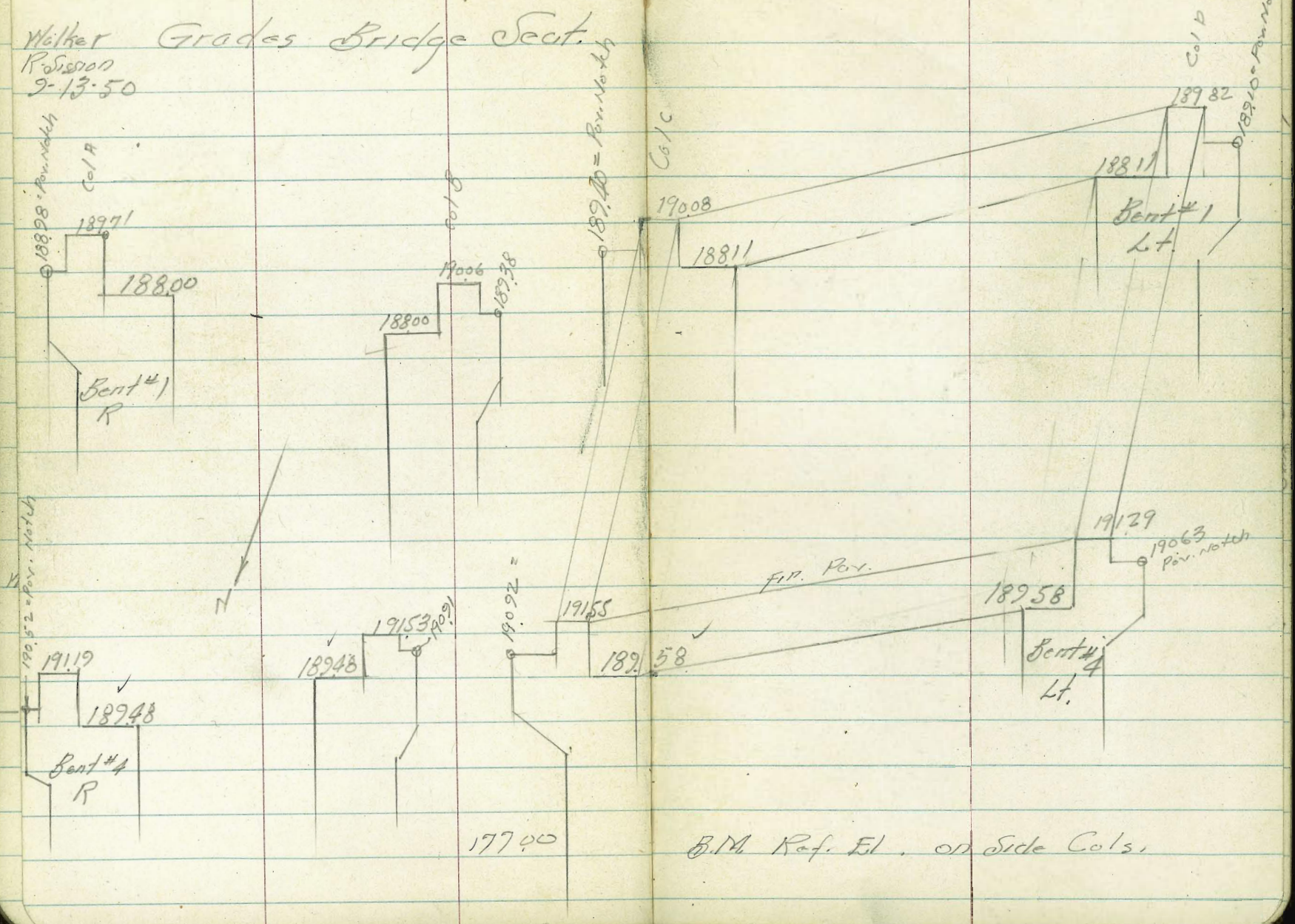


A	B	C	D	E	F
190.08	190.52	190.58	191.08	191.14	191.55
189.08	188.74	188.77	189.30	189.32	190.55
F 1.00	F 1.78	F 1.81	F 1.78	F 1.82	F 1.00

G	H	"I"	J	K	"L"
189.82	190.25	190.31	190.83	190.89	191.29
188.82	188.51	188.52	189.10	189.13	190.29
F 1.00	F 1.74	F 1.79	F 1.73	F 1.76	F 1.00

Nile Street Bridge

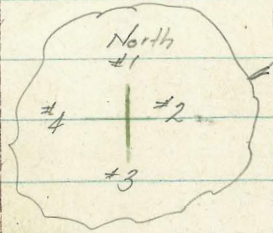
Walker Grades Bridge Sect.
R. Sisson
9-13-50



B.M. Ref. El. on Side Cols.

Wabash Blvd.
Mile St. Undercrossing
Plan 482-D

Walker
F. Gregory
G. Pond
R-Session
4-28-50



Order of Numbering Stakes

Fd. Chiseled Mark in Top of Sewer MH

Line Stake
R.P.

R.P. Line Stake

S. 73°12' 18" W. Mile Shed

Fd. Iron Plg = East Side Sewer MH

BM 19067
2161
172.83 ↑
12.72 –
180 11 TP
0 15 +
180.26
20.56
16970 chk BM Rim MH
16968 P-31
0.02

Wabash Blvd
N 20°17'12" W

Line Post Stake

P.O.T. Temp. BM 190.67

86°00'30"

176+21.72

Col-D Col.C Col.B Col.A

R.P.

BENT #4

BENT #3

BENT #2 RP# 6.91

BENT #1

10' 10' 7' 10' 90' 90' 10' 7' 10' 10'

10' 10' 8' 10' 85' 85' 10' 8' 10' 10'

104.20'

2633

175+19.18

7897

2079

1757.5381

30' Line

RP 30' in Back of Stake

WABASH BLVD-
Nile St. Bridge-
Grades for Footings

Bent No 1

	Stake Number			Elev. Bottom Footing	Top Footing. Cuts	
Columns "A"						
	1	6.36	173.37	168.75	4.62	= 4-7 3/8"
	2					
	3	1.20	178.53	168.75	9.78	= 9-9 3/8"
	4					
Colum "B"						
	1	9.67	170.06	161.00	9.06	= 9'00 3/4" ✓
	2					
	3	7.90	171.83		10.83	= 10'-10" ✓
	4					
Col "C"						
	1	11.26	168.47	160.00	8.47	= 8-5 5/8" ✓
	2					
	3	9.51	170.22		10.22	= 10'-2 5/8" ✓
	4					
	100	179.73		169.68	B.M. Chisled Cross on Rim MH	100 Ft. 176.00 Plans.

Hile St. Bridge

Footing Elev.

Cont. from P-31

	Stake No:			El. Bottom Footing	Cuts		
Col D		Bent #1					
	1	9.87	169.96	159.50	10.46	= 10' 5 1/2"	
	2						
	3	9.76	162.97		10.47	= ~~10' 5 5/8"~~	Reset (Line only)
	4						
		Bent #2					
Col "A"	1	5.92	173.81	168.75	5.06	= 5' 0 3/4"	
	2						
	3	6.35	170.38		4.63	= 4' 7 5/8"	
	4						
Col "B"	1	11.08	168.65	161.00	7.65	= 7' 7 3/4"	
	2						
	3	10.09	169.64		8.64	= 8' 7 5/8"	
	4						
Col "C"	1	11.30	168.43	159.50	8.93	= 8' 11 1/8"	
	2						
	3	11.20	168.53		9.03	= 9' 0 3/8"	
	4						

WEBASH BLVD.

Nile St. Bridge

Bent #2 Cont. from P. 32

Col. "D"	Stake No.		Elev. Stakes.	Elev. Bottom Footing.		F.L.
D	1	10.46	169.27	159.50	2.77	2-9 1/4"
	2					
	3	9.88	169.85		10.35	10-4 1/4"
	4					
	Bent No 3					
Col. "A"	1	5.31	174.42	168.75	5.67	5-8"
	2					
	3	5.69	174.04		5.29	5-3 1/2"
	4					
Col "B"	1	8.94	170.79	162.00	8.79	8-9 1/2"
	2					
	3	11.14	168.69		6.69	6-8 1/4"
	4					
Col "C"	1	10.12	169.61	160.00	9.61	9-7 3/8"
	2					
	3	11.58	168.15		8.15	8-1 3/4"
	4					

Top Footing 162.5

WABASH BLVD.

Mile N. Bridge - Footings

Bent #3 Contd from P33

			Elev. Stake	Elev. Bottom Footing			
Col. D	Stake No						
	1	9.51	170.22	160.00	10.22	10-2 5/8"	Top Footing 162.5
	2						
	3	10.48	169.25		9.25	9'-3"	
	4	This Elev	169.62		9.62	9-7 3/8"	
	Bent #4						
Col "A"	1	4.46	175.27	168.75	6.52	6-6 1/4"	171.25
	2						
	3	5.48	174.25		5.50	5'-6"	
	4						
Col "B"	1	5.68	174.05	167.50	6.55	6-6 5/8"	170.00
	2						
	3	8.91	170.82		3.32	3'-3 7/8"	
	4						
Col "C"	1	6.44	173.29	162.00	11.29	11-3 1/2"	164.5
	2						
	3	9.80	169.93		7.93	7-11 7/8"	
	4						

WABASH BLVD.

Nile St. Bridge Footings.

Cont. from P-34

Bent #4 Cont.

Col "D"	Stake No.		El. Stake	Elev. Bottom Footing.			Top. Footing.
	1	6.83	172.90	160.00	12.90	12-10 3/4"	162.5
	2						
	3	2.50	170.23		10.23	10-2 3/4"	
	4						

Walker
F. Gregory
G. Pope
R. Sission
5-4-50 am.

17.10
9.42
16.968

Wabash Ave
Nile St. Bridge
Stakes for Bottom Footings

		Elev. Bottom Footings
Bent #4 Col A	5.35'	168.75
" "A" "B"	6.60	167.50
" #4 "C"	12.10	162.00
" "4 "D"	14.10	160.00
Bent #3 Col "A"	5.35'	168.75
" " "B"	12.10	162.00
" " "C"	14.10'	160.00
" " "D"		160.00
Bent #2 "A"	5.35'	168.75
"		
Bent #1 "A"	5.35	168.75
4.42	174.10	169.68

Mila St - Bridge

Grades for Bottom of Footings

Bent #1	Col. "B"	12.47	161.00
Bent #1	" "C"	13.47	160.00
Bent #1	" "D"	13.97	159.50
Bent #3	" "D"	13.47	160.00
Bent #4	" "D"	13.47	160.00

3.79 173.47 169.68

Dike #1 Bridge

Grades - Col.s Const. Joints

Walker
F. Gregory
G. Pope
R. Sisson
5-19-50 am.

		Elev. Const. Joint
Bent No 1		
Col A		183.82'
Col B		183.82
Col C		
Col D		
Bent No 2		
Col A		184.50'
Col B		184.50
Bent No 3		
Col A		185.07'
Col B		185.07
Bent No 4		
Col A		185.30
Col B		185.30
Bent #1 chk Mark Col B	7.10	184.64
T.P. 6.45	191.74 +8.61	185.29
	+7.96	184.64
7.00	176.68	169.68

π 500 Rt Page for Check

191.74 π opp Page
12.80 –
178.94 = TP
+0.14
179.08 π
9.40 –
169.68 chk BM Rim MH

Bent #1 Col "A"
Bent #1 " "B" Mark
BM. Rim M.H. P. 31

Nile St Bridge

Walker
F. Gregory
G. Pope
R. Grissom
5-24-50

Grades cols. Const. Joints

	Elev. Const. Joint	Elev. Top Footing	from Footing to Const. Joint diff
Bent #1			
Col C	183.93	162.00	21.93
" D	183.93	162.00	
Bent #2			
Col C	184.60	162.00	22.60
" D	184.60	162.00	22.60
Bent 3			
Col C	185.18	162.50	22.68
" D	185.18	162.50	22.68
Bent 4			
Col "C"	185.46	164.50	20.96
" D	185.46	162.50	22.96

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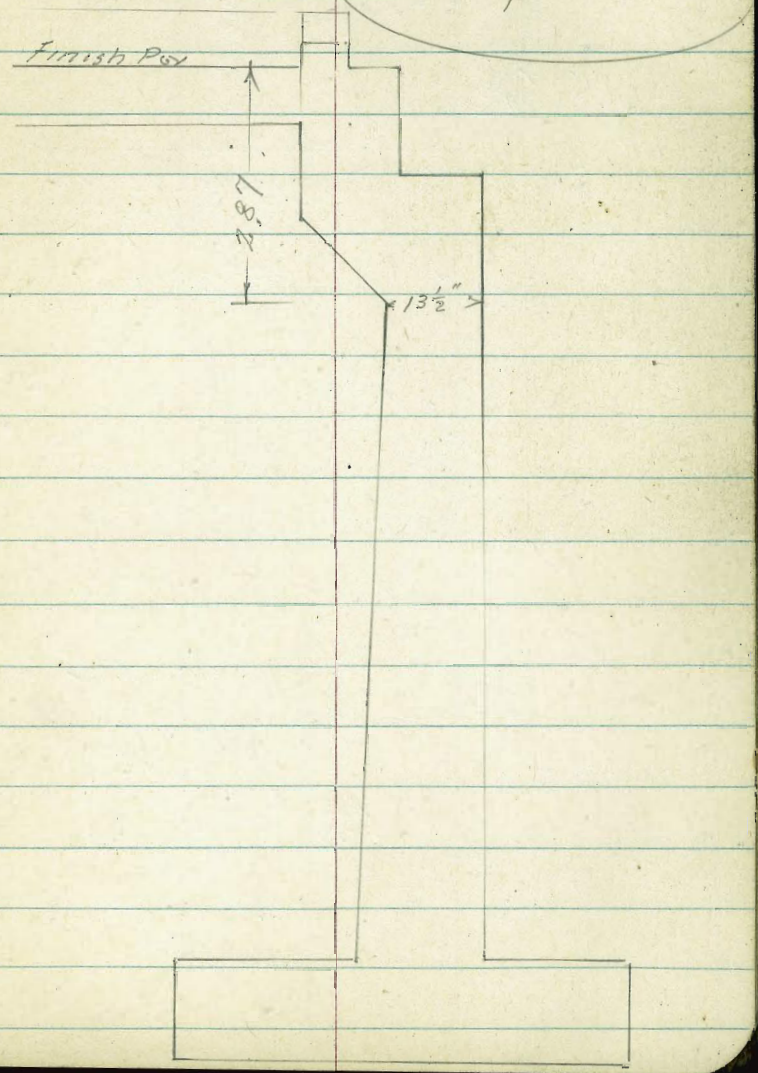
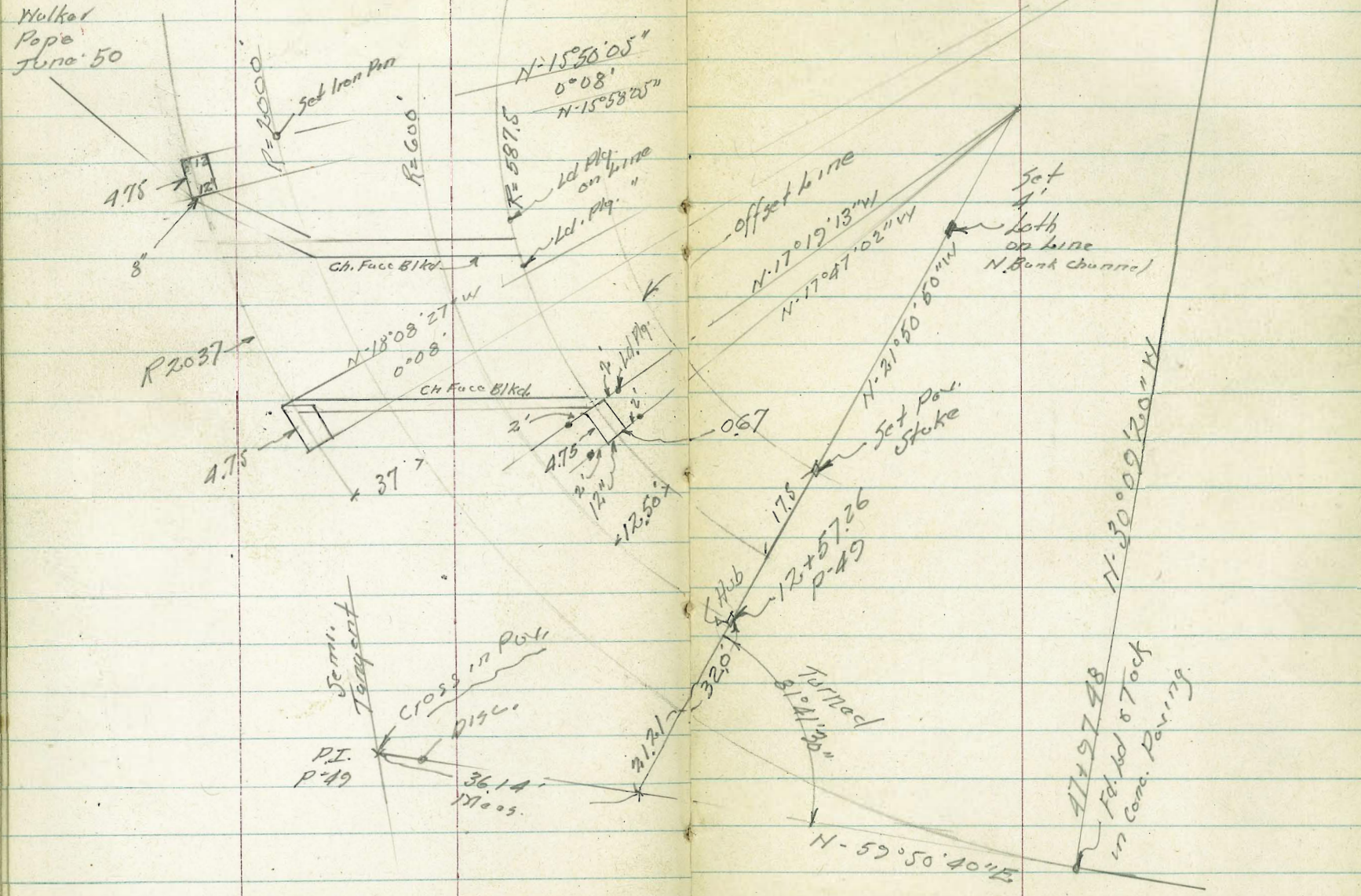


Las Chollas Creek Bridge

Corner Post - Ties



Las Cholla Creek Bridge

Reference Elev. on Existing Col,s.

Walker
Pope
R. Sisson
7-11-50

55.00 → This Elev. is for Reference and is set on East & West Side of each Col.

T.P. 53.44

Chk Bent 2. Col E on W/ P-51 53.80✓

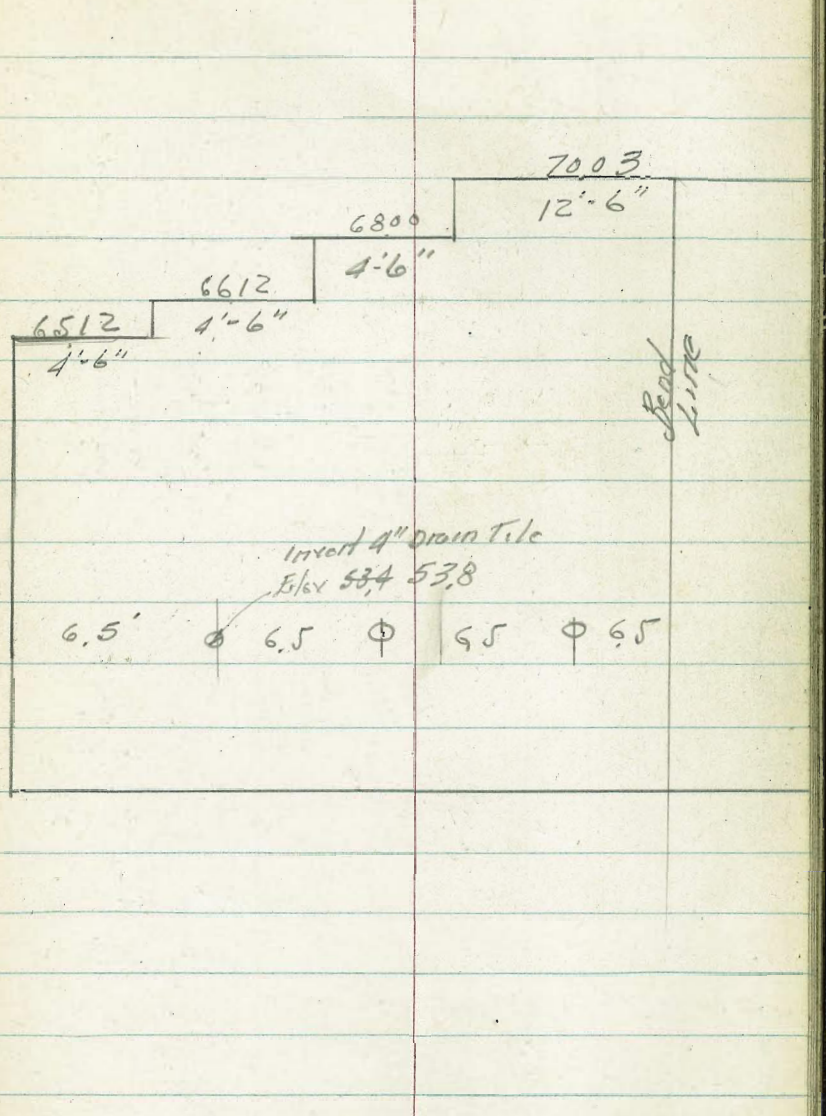
T.P. 55.80

62.12 B.M. Ld & Tk. P-78

Las Cholla Creek Bridge

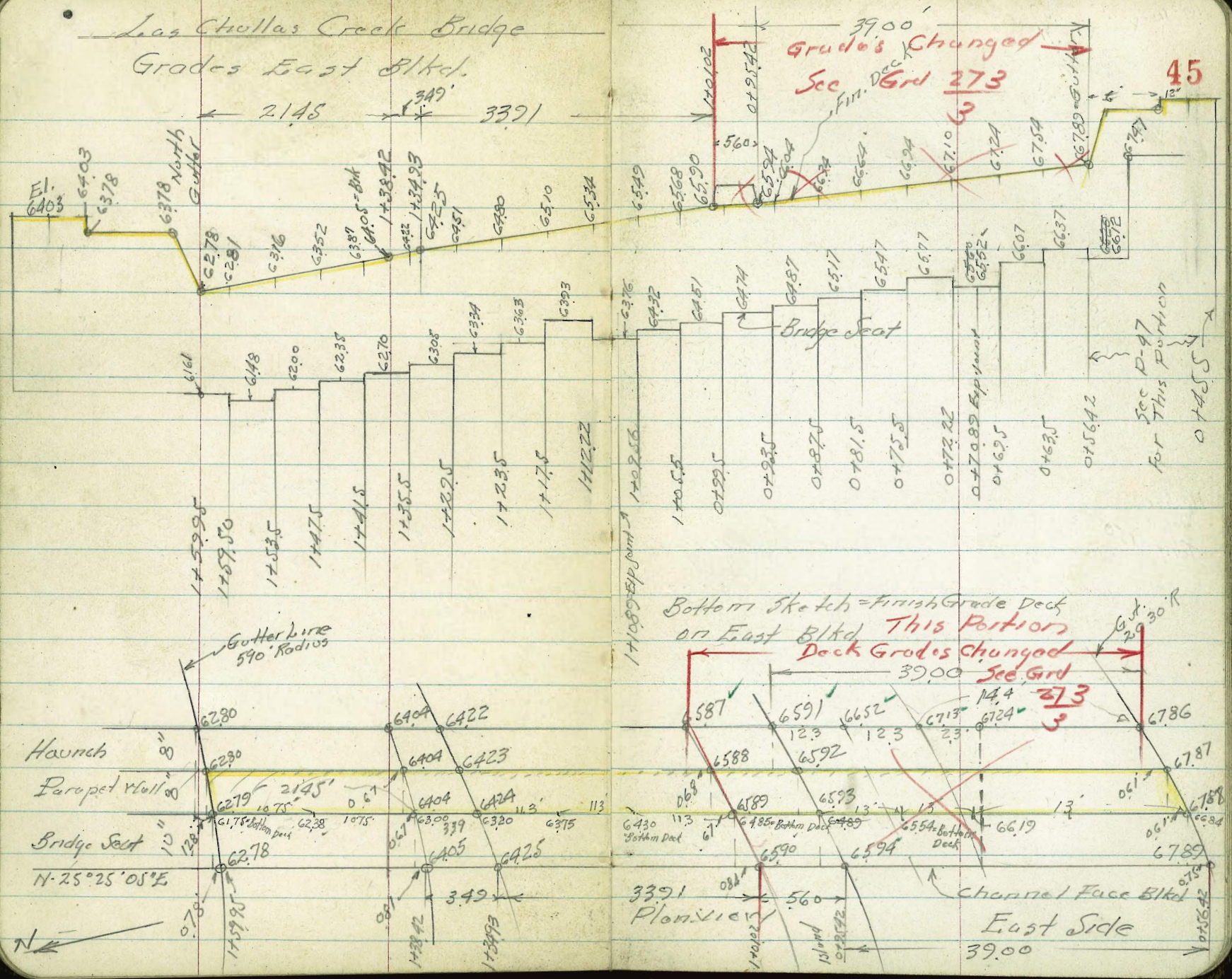
Grades - Top S.W. Wing Wall

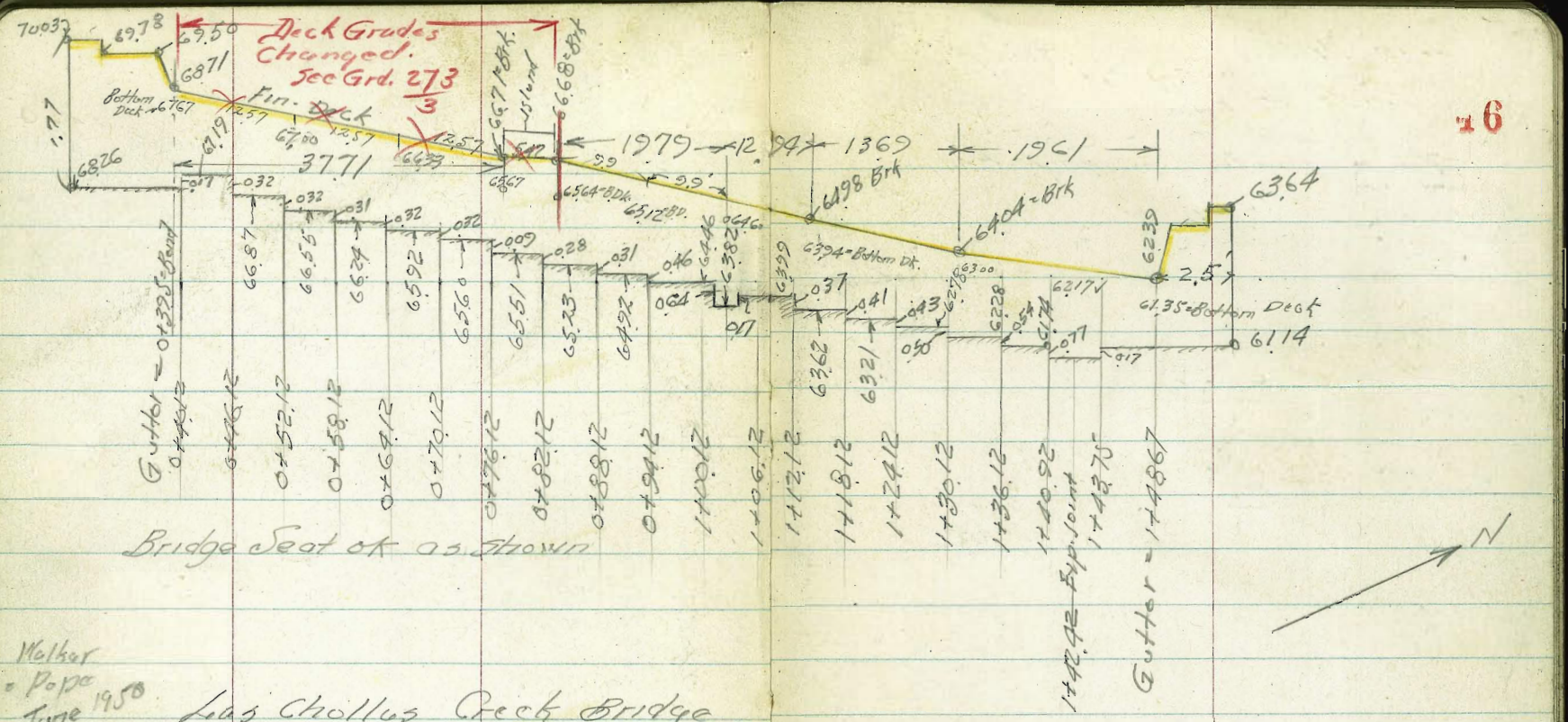
Walker
Popo
R-Session 7-6-56



Las Chullas Creek Bridge

Grades East Bldg.





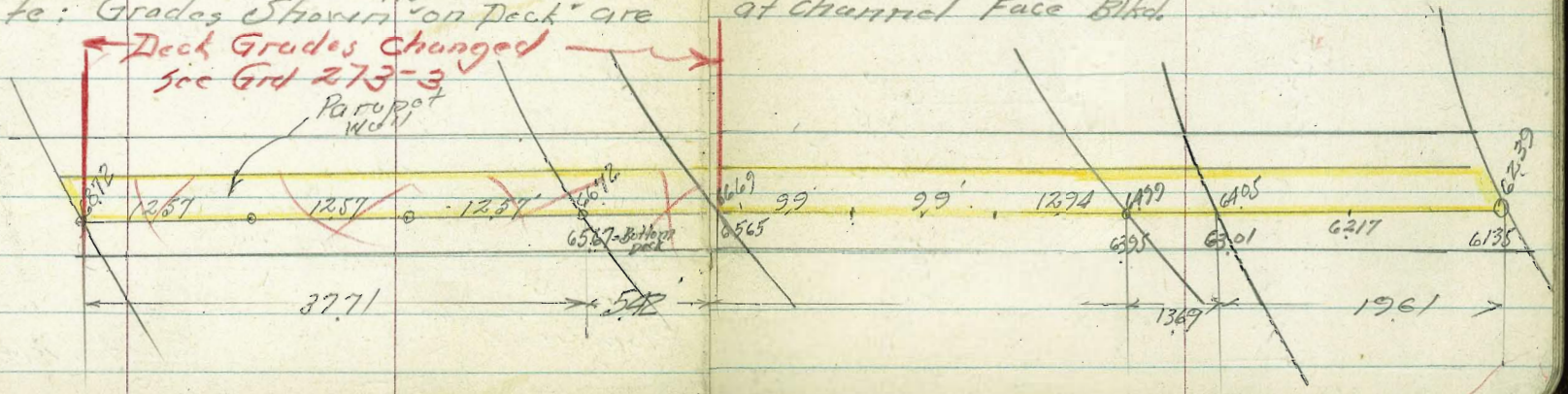
Walker
Popa
June 1958

Las Chollas Creek Bridge

Elev. Fin. Deck & Bridge Seat

West Blkd.

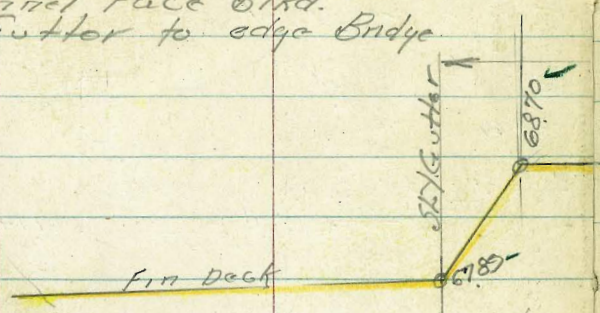
Note: Grades Shown "on Deck" are Above are And at Channel Face of Blkd.



Las Chollas Creek Bridge

East Blkd. showing stations on Channel Face Blkd. from Gutter to edge Bridge

Walker Pope June 28-50



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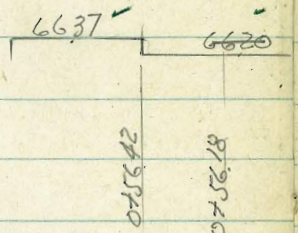
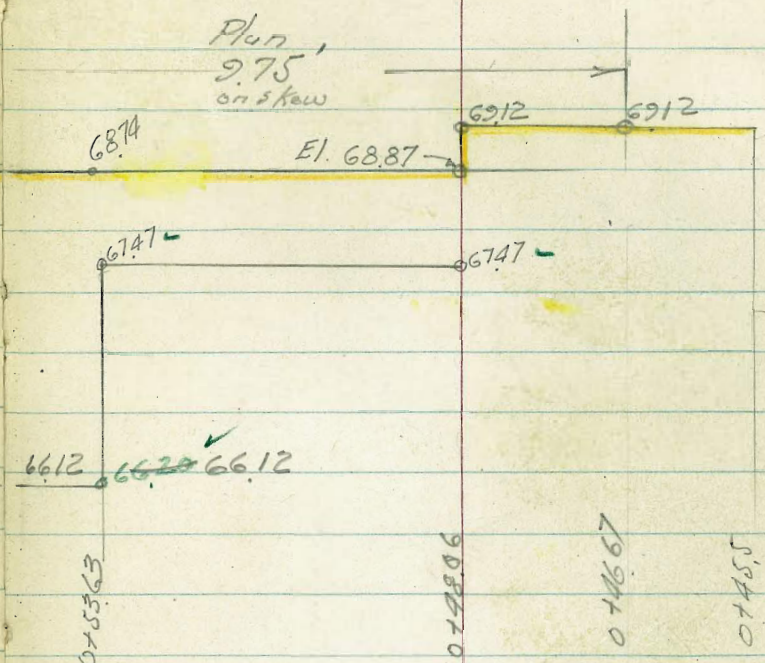
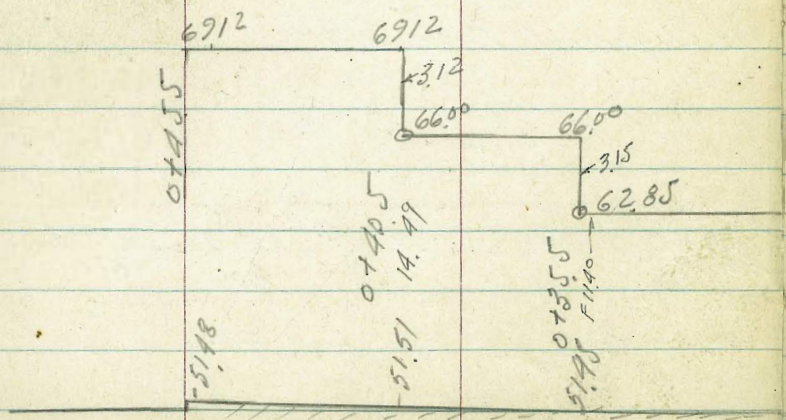


Plan
2.75'
on skew





Blk 51.27 = 0+45.5
P-63

Weep Holes This Wing Wall
= Elev. 53.20

Los Chollas Creek Bridge

Grades For Const. Joints

Walker & Popo
6-7-50

Sketch of Bents = P-50

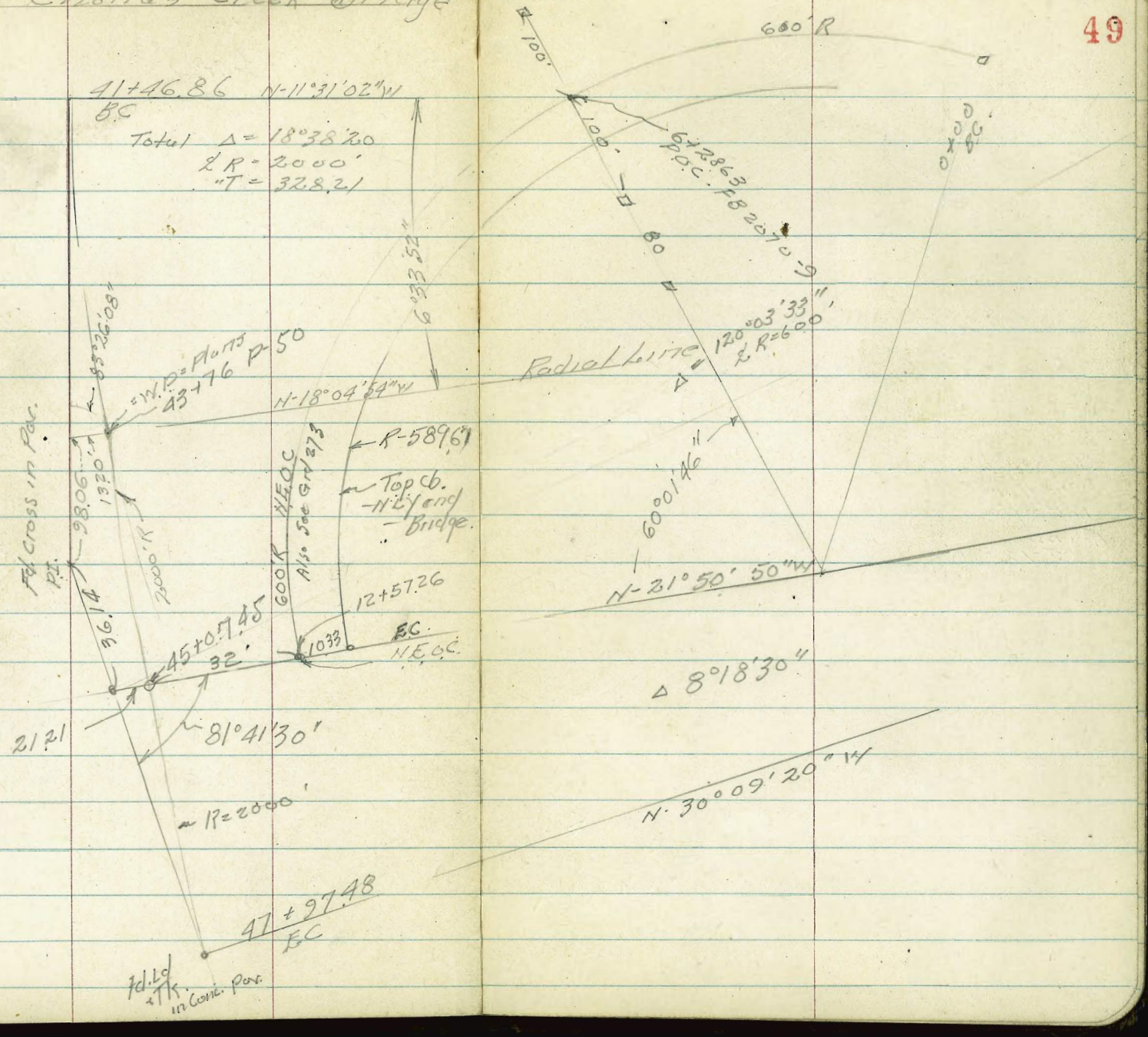
Station	Bent #1 El. Const. Joints	Bent #2 Elev. Const. Joints	Bent #3 Elev. Const. Joint
Should be →	59.54	59.66 ✓	
Const. at →	59.69 ✓	~~59.82~~	59.62 ✓
Col - "A"			
" "B"	59.84 ✓	59.96 ✓	60.05 ✓
" "C"	61.07 ✓	60.91 ✓	60.87 ✓
" "D"	61.22 ✓	61.79 ✓	61.59 ✓
" "E"	62.62 ✓	62.43 ✓	62.33 ✓
" "F"	63.36 ✓	63.12 ✓	62.97 ✓
" "G"	6377 ✓	63.62 ✓	6341 ✓
" "H"	64.43 ✓	64.25 ✓	6413 ✓
" "I"	65.09 ✓	64.93	64.75

Chk 0+12.5 P-57 Cross in Pav. 61.35 ✓

62.12

B.M. on P.I. Ld + Tack P-50

Lick Chollas Creek Bridge



WABASH BLVD. – FEDERAL BLVD. INT.

LAS CHOLLAS CREEK BRIDGE.

51551 015 = FB 2070-9 Chkd. P-51

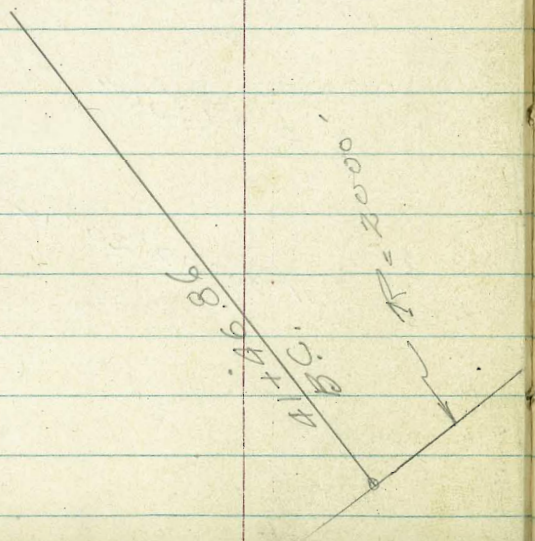
BM 62.12 = 00. Pt. Ld & Tk Federal Paving.
FB. 2070-9

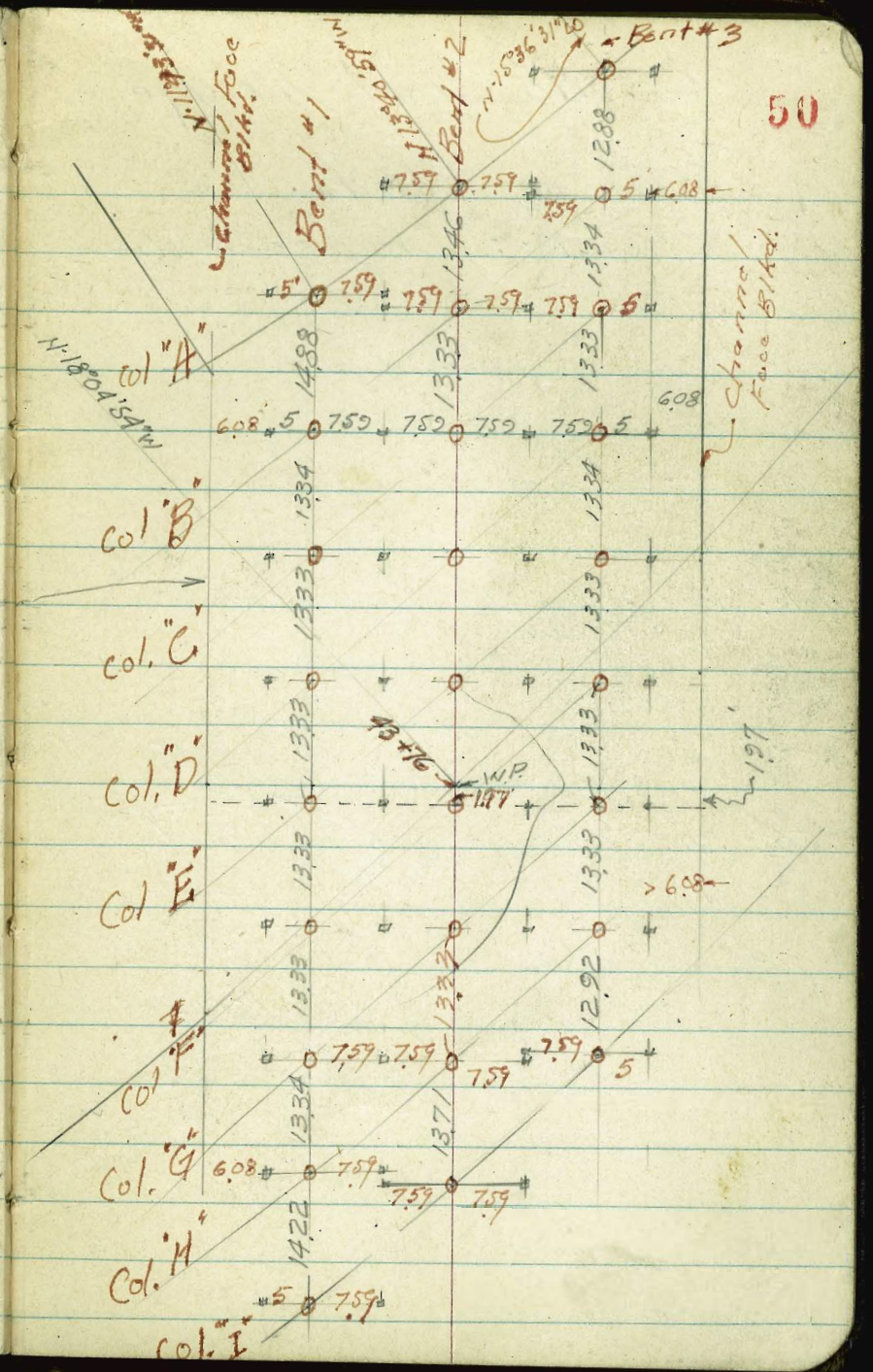
52.00 = El. inlet end
Culvert at BC. -2000. R 41+46.86

Note: For Sketch and Ties
for Blkd. See P-51

Channel
face Blkd.

Walker
F. Gregory
G. Phelps
K. Sission
5-12-50





Cholla Creek Bridge

Tie to Blkds.

See P-52 Large Sketch

Note; used BM 62.12 shown below for all Bridge work

0.05

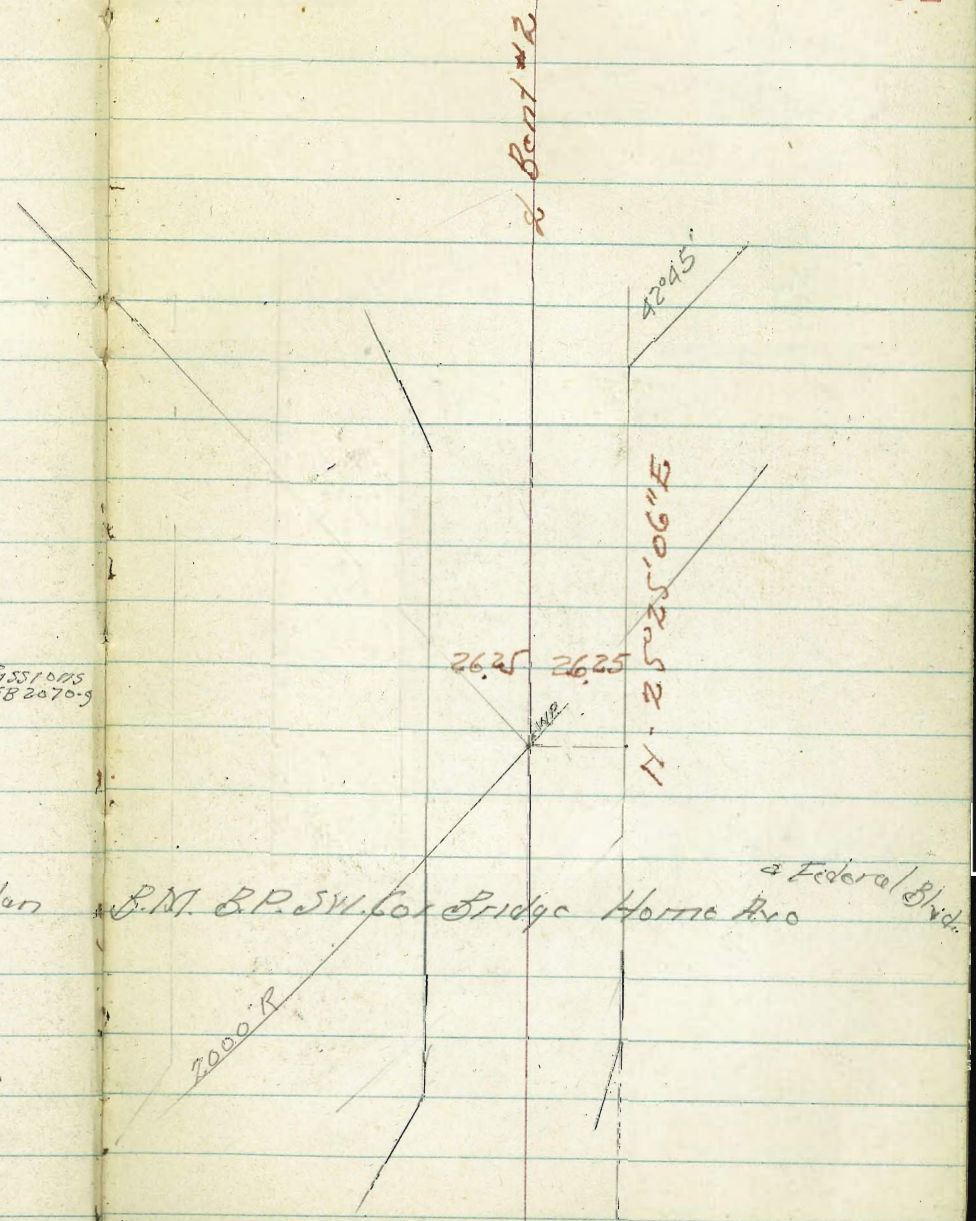
62.12 = Sissoms FB 2070-9

Chk B.M. Ld & Tk P-50 — 62.17

T.P. — 64.81

T.P. — 70.73

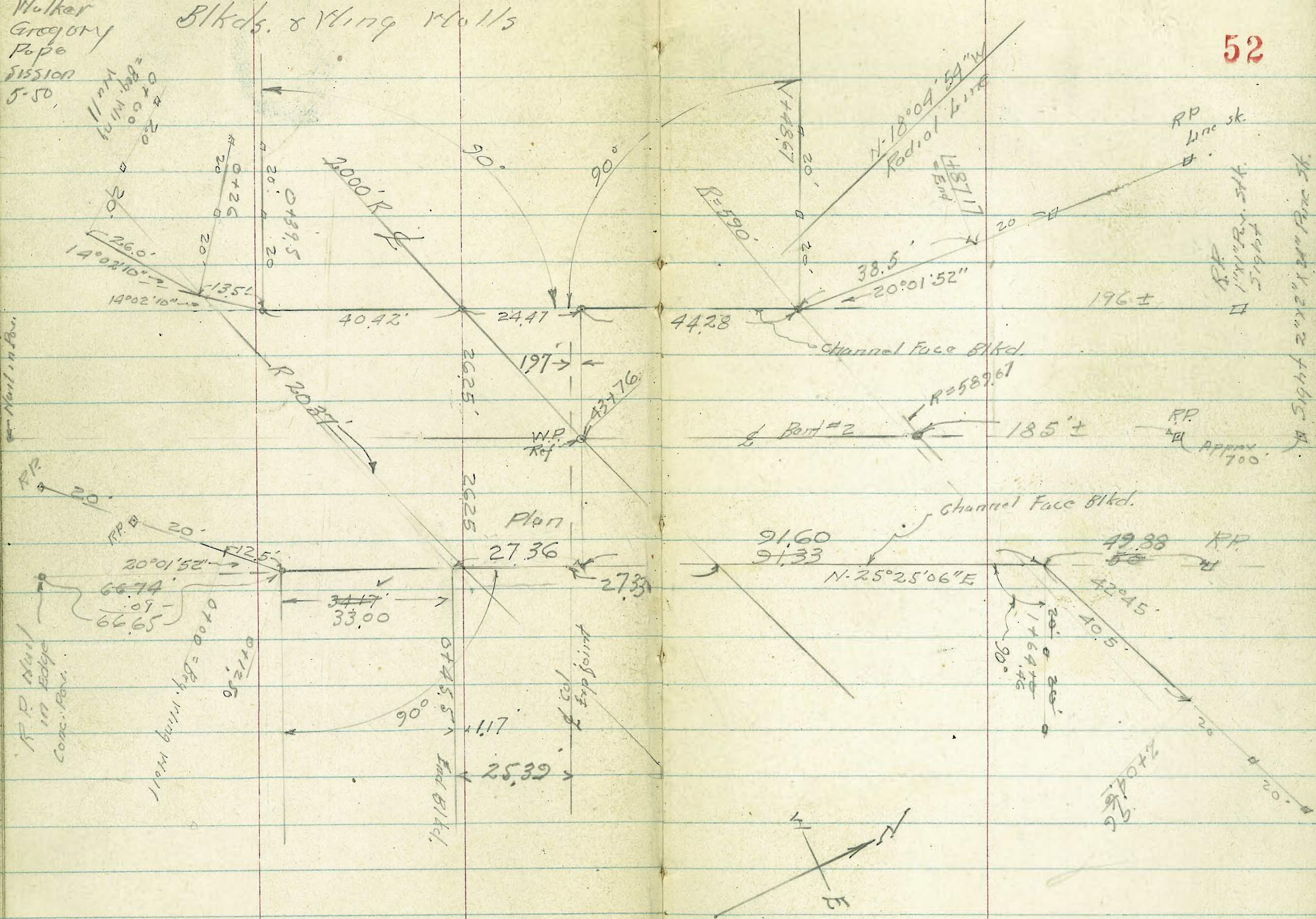
75.24 = Plan — B.M. B.P. SW. Cor. Bridge Home Ave & Federal Blvd.



Las Chollas Creek Bridge

Blkds. & Wing Walls

Walker
Gregory
Pope
Sission
5-50



Las Chollas Creek Bridge

Grades for Footings

Bent #1.	Elev. Stakes	Elev. Bottom Footing	Cuts	Cuts in Ft + Inches.
Col "A" West	53.91	49.60	4.31	4' 3 3/4
" " East	54.07	"	4.47	4- 5 5/8
" "B" West	53.61	"	4.01	4-0 1/8
" "B" East	53.79	"	4.19	4' 2 1/4
" "C" West	53.47	"	3.87	3-10 1/2"
" "C" East	53.48	"	3.88	3-10 9/16
" "D" West	53.25	"	3.65	3- 7 3/4
" "D" East	53.50	"	3.90	3- 10 3/4
" "E" - West	53.27	"	3.67	3- 8"
" "E" - East	53.40	"	3.80	3-9 5/8
" "F" West	53.23	"	3.63	3- 7 1/2
" "F" East	53.39	"	3.79	3-9 1/2
" "G" West	53.23	"	3.63	3-7 1/2
" "G" East	53.20	"	3.60	3- 7 1/8
" "H" West	53.16	"	3.56	3- 6 1/4
" "H" East	53.18	"	3.58	3- 7"
" I West	53.23	"	3.63	3- 7 1/2
" I East	52.98	"	3.38	3' 4 3/8

B.M. Ld & Tk Pt. → 62.12 = B.M.

Las Cholla Creek Bridge

Footings

Bent No 2		El. Holes	Elev. Bottom Footing		Cuts in ft. & Inches
Col A	W	54.05	49.60	3.45	3' 5 3/8
" A	E	53.88	49.60	4.28	4-3 3/8
" B	W	54.12	"	4.52	4- 6 1/4
" B	E	53.73	"	4.13	4- 1 5/8
" C	W	53.80	"	4.20	4- 2 3/8
" C	E	53.11	"	3.51	3- 6 1/8
" D	W	53.48	"	3.88	3-10 1/2
" D	E	53.31	"	3.71	3- 8 1/2
" E	W	53.51	"	3.91	3-10 7/8
" E	East	53.48	"	3.88	3-10 1/2
" F	W	53.40	"	3.80	3- 9 5/8
" F	E	53.14	"	3.54	3- 6 1/2
" G	W	53.39	"	3.79	3- 9 1/2
" G	E	52.96	"	3.36	3- 4 3/8
" H	W	53.20	"	3.60	3- 7 3/16
" H	E	53.02	"	3.42	3- 5"
" I	W	53.17	"	3.57	3- 6 7/8
" I	E	52.36	"	2.76	2- 9 1/8

Las Chollas Creek Bridge

— Footings —

Walker
F. Gregory
G. Pope
R. Sisseen
5-12-50

		Bent #3	Footing. Ele. Bottom	Cuts	Cuts in Ft + Inches.
Col "A"	W	53.87	49.60	4.27	4 - 3 1/4
" "A"	E	53.88	49.60	4.28	4 - 3 3/8
" "B"	W	53.87	49.60	4.27	4 - 3 1/4
" "B"	E	53.77	49.60	4.17	4 - 2"
" "C"	W	53.72	49.60	4.12	4 - 1 1/2
" "C"	E	53.56	49.60	3.96	3 - 11 1/2
" "D"	W	53.12	49.60	3.52	3 - 6 1/4
" "D"	E	53.39	49.60	3.79	3 - 9 1/2
" "E"	W	53.31	49.60	3.71	3 - 8 1/2
" "E"	East	53.38	49.60	3.78	3 - 9 3/8
" "F"	W	53.48	49.60	3.88	3 - 10 1/2
" "F"	E	53.39	49.60	3.79	3 - 9 3/8
" "G"	W	53.15	49.60	3.55	3 - 6 5/8
" "G"	E	53.33	49.60	3.73	3 - 8 7/8
" "H"	W	52.96	49.60	3.36	3 - 4 7/8
" "H"	E	53.16	49.60	3.56	3 - 6 3/4
" "I"	W	53.00	49.60	3.40	3 - 4 3/4
" "I"	E	52.97	49.60	3.37	3 - 4 1/2

Las Challas Creek Bridge

West Bulkhead - Grades

Walker
Gregory
G. Pope

5-12-50

	Elev. Stakes	Elev. Bottom of Footing	Cuts	Cuts in Ft & Inches
1+87.17 - End NW Wing Wall	54.52	49.60	4.92	4' - 11"
1+48.67 - Δ	54.27	49.60	4.27	4' - 3 1/4"
0+39.5 Δ	53.41	49.60	3.81	3' - 9 3/4
0+26 - Δ	53.51	49.60	3.91	3' - 10 7/8
0+00	53.54	49.60	3.94	3' - 11 1/4"

East Bulkhead
Los Chollus Creek Bridge

		Elev. Stakes	Elev. Bottom Footing.	Cuts	Cuts in Ft. & Inches.	
Chk Starting BM P-50-53			62.12			
2+04.96		59.69	42.60	10.09	10 - 1 1/8"	
1+64.96 = Δ Rt 42°45'		55.97	49.60	6.37	6 - 4 3/16	
0+12.5 = Δ Lt. 20°01'32"		61.35	49.60	12.75	12 - 9"	20 Ft. Cross in Pav.
0+00		52.40	49.60	2.80	2 - 9 3/8 = Reset	

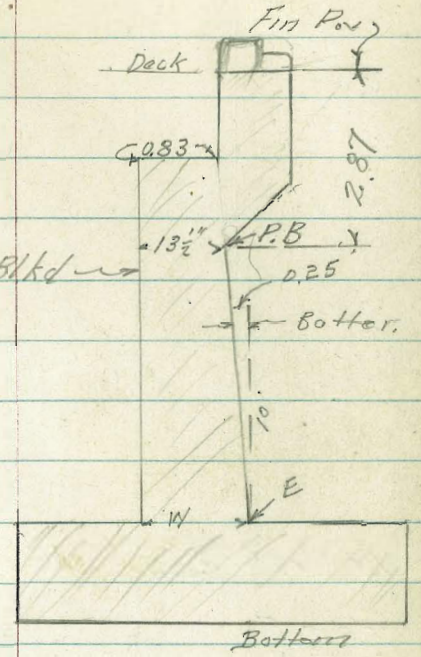
Los Challucs Creek Bridge

Grades - West Blkd. Footing

P.B. = Point of Batter

Walker
F. Gregory
G. Pope
R. Session
5-23-50

	El. Fin. Rail	Elev P.B. = Point of Batter	Elev E	Width W
1+22.67 = End Blkd. = Beg. Wing Wall (Δ Rt 14°02'10")				
1+09.16 = Bead. (Δ Rt 14°02'10")	68.74	65.87	51.27	149
0+87.5			51.24	
0+66.03	66.66	63.79	51.20	143
0+49.65			51.18	
0+33.3	64.97	62.10	51.15	139
0+19.61	63.97	61.10	51.13	137
0+00 = Bead Line (Δ Rt 20°01'52" = N Gwt. of 5730' R)	62.30	59.47	51.10	133
		54.27		

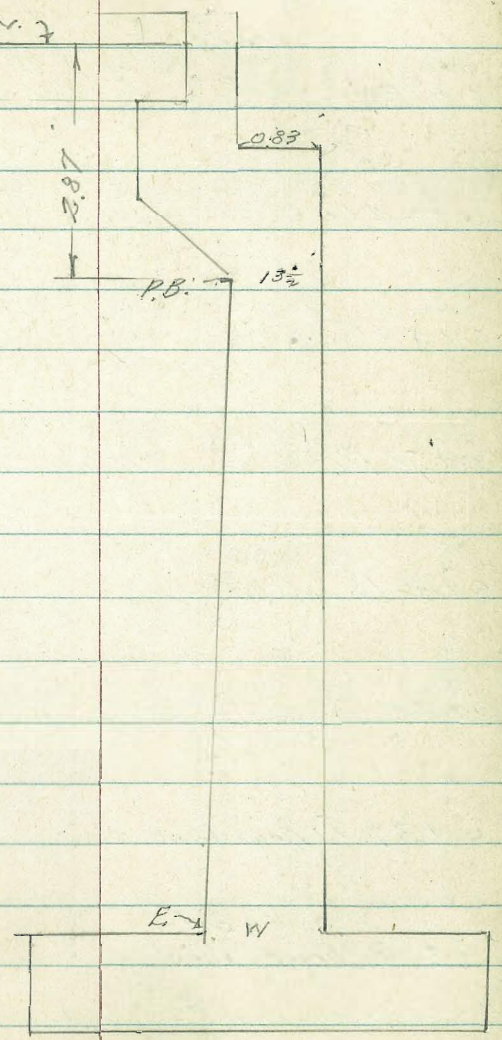


B.M. on Hub 20' Lt. 1+98.67 = 56

Las Chollas Creek Bridge

Grades - East Bulkhead Footings

	Elev. Finish Pav.	Elev P.B. = Point of Beginning	Elev E.	Width W
	1+59.95			
1+64.46 = Bend	62.80	59.93	51.11	1.34
1+38.5 (17.6)	63.88	61.01	51.14	1.37
1+20.9			51.17	
1+03.05	65.88	63.01	51.19	1.42
0+80.71			51.23	
0+58.45	67.89	65.02	51.27	1.46
0+45.6 = End Blkd.			51.27	1.48
0+00 = Send Wing Wall				



— Las Chollas Creek — Sketch P-46

Grades — Top West Bulkhead
~ " of Deck

Walker Pope 6-1-50

Stations	Step Downs El. Steps	Step Down	El. Offset Point	Top Blkd Elev. North Point	Blkd Fills	Elev. Fin. Deck	Fills Deck
0+70.12	~~6.73~~ 6.79 ~~6.79~~	0.32 ~~0.29~~	51.19	65.92 ~~66.08~~	14.73 ~~14.89~~	67.09 ~~67.25~~	15.90 ~~16.06~~
0+64.12	~~6.03~~ ~~6.08~~	0.32 ~~0.29~~	51.21	66.24 ~~66.37~~	15.03 ~~15.16~~	67.41 ~~67.54~~	16.20 ~~16.33~~
0+58.12	~~6.37~~ ~~6.37~~	0.31 ~~0.29~~	51.20	66.55 ~~66.66~~	15.35 ~~15.46~~	67.72 ~~67.83~~	16.52 ~~16.63~~
0+52.12	~~6.62~~ ~~6.66~~	0.32 ~~0.29~~	51.21	66.87 ~~66.95~~	15.66 ~~15.74~~	68.04 ~~68.12~~	16.83 ~~16.91~~
0+46.12	~~6.92~~ ~~6.95~~	0.32 ~~0.25~~	51.22	67.19 ~~67.20~~	15.97 ~~15.98~~	68.36 ~~68.41~~	17.14 ~~17.19~~
0+40.12			51.27	67.19 ~~67.20~~	15.92 ~~15.93~~	68.68 68.74	17.41 ~~17.47~~
0+39.5 = Bend Line	6.702 ~~6.11~~	Step up 0.17					
South end 0+26 = Beg. Bulkhead							
Chk Stk. Bent #2 Cole E.	5.331 5.327						

B.M. on Stake Bent #2 Cole West P.53

Las Chollas Creek
Bridge Cont. from p-61
West Blkd. Bridge -
-Seat.

Station	El. Steps	Diff. = step Dn.	Elev. Offset Point	Top Blkd. Elev. North Point	Blkd. Fills To North Pt.	Elev. Finish Deck	62 Deck Fills
1+52.17 = End Blkd.							
1+48.67 = Bend			51.10	61.14	10.04	62.36	11.26
1+43.75 = N and Step in Exp. joint		Step up 0.17 =	5114 This only	61.14	10.06	62.80	11.66
1+48.67 = ~~Bend~~ Line Under N Gutter.			51.10	~~61.30~~ 61.19	~~10.09~~	~~62.39~~ 62.36	~~11.26~~
1+42.42 = Exp joint		Step Dn.		61.19		62.36	
1+40.92	62.19	0.77	51.14	61.74 61.77	10.60 ~~10.57~~	63.05 63.00	11.91 ~~11.86~~
1+36.12	62.77	0.54 0.52	51.15	62.28 62.29	11.13 ~~11.08~~	63.45 63.40	12.30 ~~12.25~~
1+30.12	62.27	0.50 ~~0.49~~	51.14	62.78 62.72	11.64 ~~11.58~~	63.95 63.89	12.81 ~~12.75~~
1+29.12	62.72	0.43 ~~0.44~~	51.12	63.21 63.16	12.09 ~~12.04~~	64.38 64.33	13.26 ~~13.21~~
1+18.12	63.16	0.41 ~~0.44~~	51.15	63.62 ~~63.61~~	12.47 ~~12.45~~	64.79 64.77	13.64 ~~13.62~~
1+12.12	63.60	0.37	51.16	63.82 63.77	12.83 12.81	65.16 65.14	14.00 13.98
1+06.12	63.97	0.00 ~~0.19~~	51.17	63.99 64.16	12.82 12.99	65.47 65.45	14.30 ~~14.28~~
1+02.42 = Exp joint	~~64.16~~	~~0.47~~		64.46	13.21	65.78	14.59
1+00.12	64.16	0.31 0.04	51.19	64.47	~~13.28~~	65.76	14.57
0+94.12	64.47	0.46 ~~0.42~~	51.16	64.92 64.89	13.76 ~~13.73~~	66.09 66.06	14.83 ~~14.90~~
0+88.12	~~64.89~~	0.31	51.19	65.23 65.20	14.04 ~~14.01~~	66.40 66.37	15.21 15.18
0+82.63 = Gutter Island Deck = 66.68		0.28		65.51	14.31	66.70	15.50
0+82.12	~~65.20~~	~~0.30~~	51.20	65.56	~~14.36~~	66.67	~~15.47~~
0+77.21 = Gutter Island Deck = 66.71		0.09		65.60	14.42	66.77	15.59
0+76.12	~~65.50~~	~~0.33~~	51.18	~~65.19~~	~~14.41~~	~~66.96~~	~~15.78~~

Las Chollas Creek Bridge
Grades East Blkd. Bridge Seat

Stations		El. offset on Top of Footing	Elev. North Point Top of Blkd.	Fills To N Point.	Step Down	Elevs. of Deck Above North Point	Fills To Top of Deck from offset on Footing.
Cont P-64							
1+17.5		51.13	63.93	12.80'	0.30	65.10	13.97'
1+12.22 - N. edge Exp joint		51.12	63.93	12.81'	0.17 up	65.34	14.22'
1+11.5 No Step down		51.13				65.39	
1+10.89 = Exp. joint ctr.							
1+09.56		51.15	64.32	13.17'	0.56	65.49	14.34'
1+05.5		51.14	64.51	13.37'	0.19	65.68	14.54'
0+99.5		51.13	64.74	13.61'	0.23	65.91	14.78'
0+95.42		51.15				65.94 = 0+95.42	14.79
0+93.5		51.15	64.87	13.72'	0.13	66.04	14.89'
0+87.5		51.16	65.17	14.01'	0.30	66.34	15.18'
0+81.5		51.20	65.47	14.27'	0.30	66.64	15.44'
0+75.5		51.17	65.77	14.60'	0.30 Dn.	66.94	15.77'
0+72.22					0.17 up	67.10	
0+70.89 = Exp joint.							
0+69.5		51.20	66.07	14.87'	0.47	67.24	16.04'
0+63.5		51.22	66.37	15.15'	0.30	67.54	16.32'
0+57.5		51.20			Step up 0.17		
0+56.42 = Cut. South	No Step Down	51.20	66.20	15.00		67.89	16.69'
0+54.34 = 1st Step Down		51.20	67.44	16.24'	1.24		
	No Step Down						
0+45.5 = P-52 = Beg. Blkd.		51.27	67.44	16.17'			
			5333				

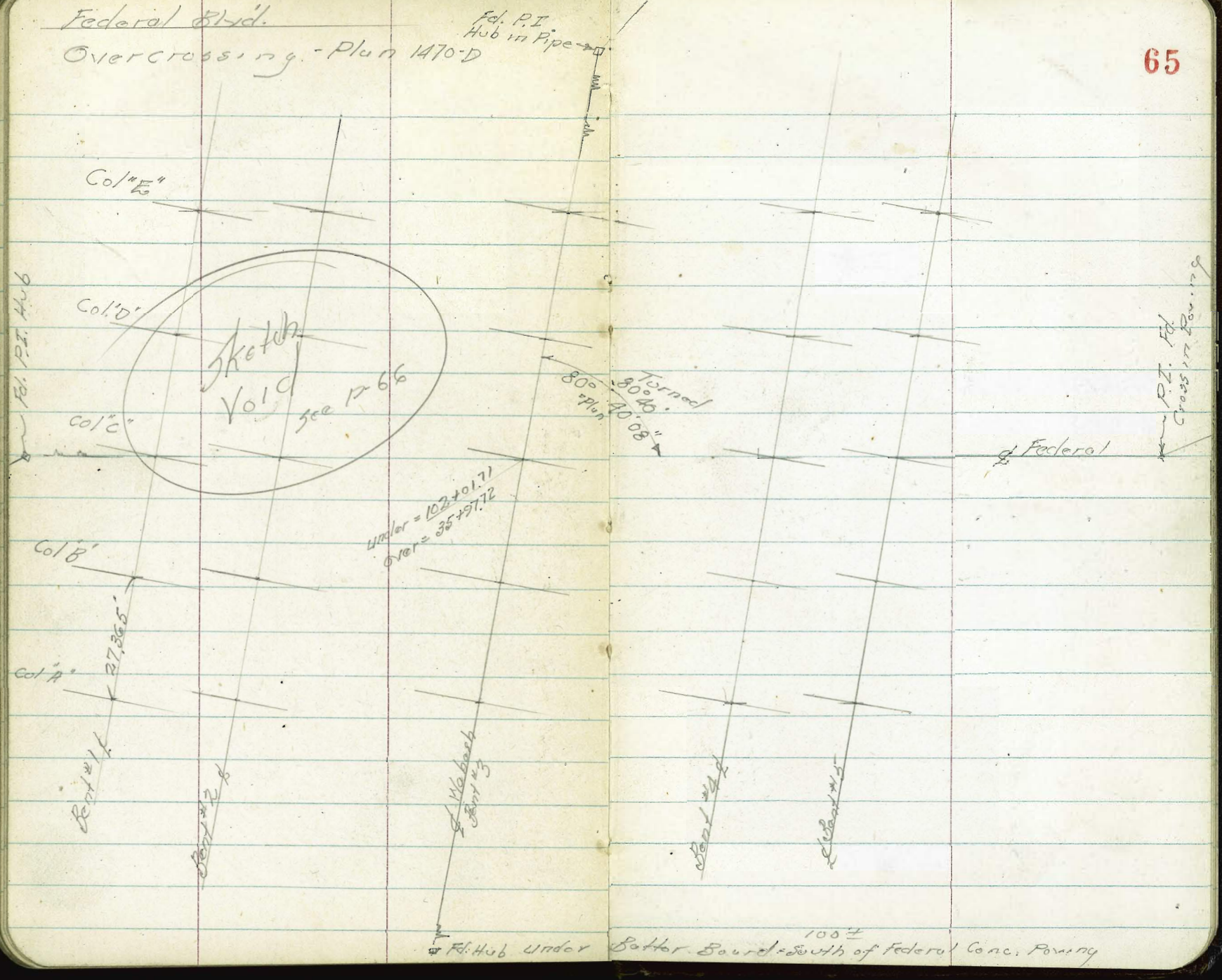
B.M. on Stake "G" East Bent #3 P-55

Las Cholla Creek Bridge.

Grades - East Blkd.

Stations	Elev. offset Point on Footing	Elev. North Point on Blkd.	Step Down	Fills Blkd.	Elev. Finish Deck Above North Pt.	Fills To Deck from offset Pt.
1+69.21 = End Blkd.	51.18				64.05 - Blkd.	12.87
4.75 Δ Rt. 42°45						
1+64.46 = Bend Line	51.10				64.05 - Blkd.	12.95
1+62.45	51.13				64.05 - Blkd.	12.92
1+59.95 = North Gutter	51.15	61.64		10.49	62.80 = Deck	11.65
1+59.5	51.15	61.64	0.16 up.	10.49	62.82	11.67
1+53.5	51.11	62.00	0.52	10.89	63.17	12.06
1+47.5	51.12	62.35	0.35	11.23	63.52	12.40
1+41.5	51.11	62.70	0.35	11.59	63.87	12.76
1+38.42 = Brk in Deck					64.05	
1+35.5	51.11	63.05	0.35	11.94	64.22	13.11
1+34.93 = Brk in Deck					64.25 = H3493	
1+29.5	51.10	63.34	0.29	12.24	64.51	13.41
1+23.5	51.13	63.63	0.29	12.50	64.80	13.67

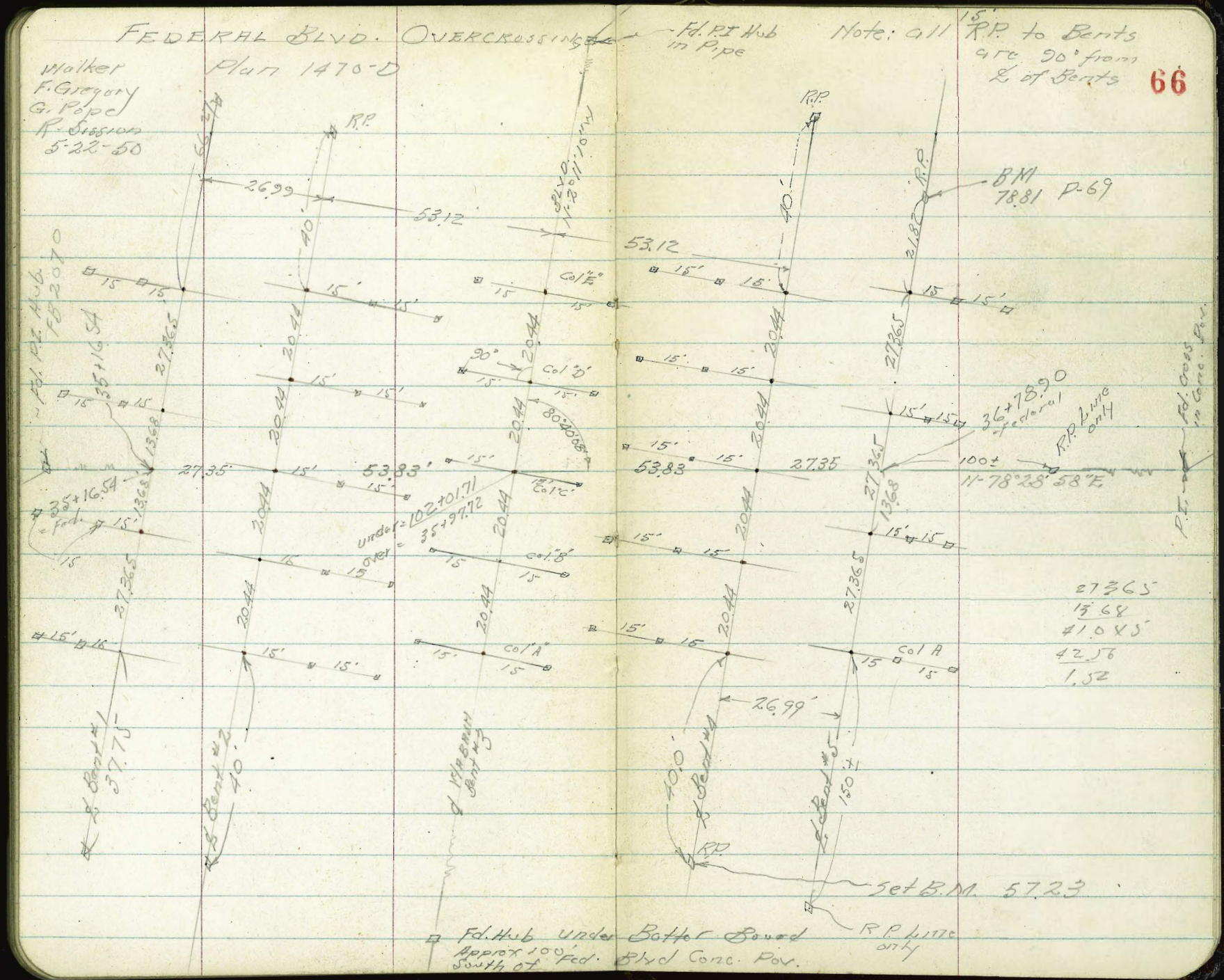
Federal Blvd.
Overcrossing - Plan 1470-D



FEDERAL BLVD. OVERCROSSING

Walker
F. Gregory
G. Pope
R. Session
5-22-50

Plan 1470-D



Federal Blvd.

Grades - for footings

			Elev. Bottom	Cuts in ft & inches.	
Bent #1					
Col "A"	East		59.00		
" "A"	West	60.87	59.00	1.87	1'-10½
Col "B"	East		59.00		
" "B"	West	62.26	59.00	3.26	3'-3⅛
Col "C"	East		59.00		
" "C"	West	63.27	59.00	4.27	4'-3¼
Col "E"	East		59.00		
" "E"	West	64.14	59.00	5.14	5'-1¾"
Bent #2					
Col "A"	East	56.20	51.00	5.20	5'-2⅜
" "A"	West		51.00		
" "B"	East	56.71	51.00	5.71	5'-8½
" "B"	West		51.00		
" "C"	East	57.21	51.00	6.21	6'-2½"
" "C"	West		51.00		
" "D"	East	57.58	51.00	6.58	6'-7"
" "D"	West		51.00		
" "E"	East	57.96	51.00	6.96	6'-11½
" "E"	West		51.00		

Brass Plg.
BM Conc Mon SW
Broadway
& 35th Pl = 54.10
3.30 +
57.40
#1 2.49 -
TP = 54.91
9.39 +
64.30 +
10.02 -
54.28 ✓

Top Footing 61.50

Chk cut
stake
Culvert on Lt
91+46.86

TP #1 = 54.91

Set BM. ⟶ 57.23
on RR
40' South of ℄ Col A
Bent #4 P-66

Elev. Top Footing
54.67

Federal Blvd. - Overcrossing

Cont from P-67

Grades - Footings

			Elev. Bottom	Cuts ft	Cuts Inches
	Bent #3	El. Shoes			
Col "A"	East	56.42	51.00	5.42	5'-5"
" "A"	West	56.62	51.00	5.62	5'-7 7/16"
Col "B"	East	56.78	51.00	5.78	5'-9 3/8"
" "B"	West	56.78	51.00	5.78	5'-9 3/8"
" "C"	East	56.96	51.00	5.96	5'-11 1/2"
" "C"	West	57.12	51.00	6.12	6'-1 1/2"
" "D"	East	57.37	53.00	4.37	4'-4 7/16"
" "D"	West	57.48	53.00	4.48	4'-5 3/4"
" "E"	East	57.83	53.00	4.83	4'-10"
" "E"	West	57.97	53.00	4.97	4'-11 5/8"
	Bent #4				
Col "A"			51.00		
" "A"	West	56.70	51.00	5.70	5'-8 1/2"
" "B"			51.00		
" "B"	West	56.94	51.00	5.94	5'-11 1/4"
" "C"			51.00		
" "C"	West	57.19	51.00	6.19	6'-2 9/32"

Cont. on P-69

Federal Blvd.-overcrossing

Bent #4 - Cont. from P-68

			Elev. Bottom	Cuts in ft.	& Inches
Col "D"	East		51.00		
" "D"	West	57.47	51.00	6.47	6'-5 5/8"
" "E"	East		51.00		
" "E"	West	57.80	51.00	6.80	6-9 5/8
Bent No 5					
Col "A"	East	60.29	54.00	6.29	6-3½
" "A"	West		54.00		
" "B"	East	64.23	60.00	4.23	4-2 3/4
TP " "B"	West	65.53	60.00		
" "C"	East	69.25	66.81	2.44	2-5¼
" "C"	West		66.81		
" "E"	East	72.79	66.81	5.98	5-11 3/4
" "E"	West		66.81		

Set BM on 21.82' R.P. North of ℄ Bent #5 Col. E El. 78.81 — Sketch p-66

Federal Blvd - Bridge

Elev. for Col. Const. Joint

		Elev. Const. Joint
	Bent #1	
	69.85 = Form N-Side	
Col A	69.87 = S-Side	69.87
" B	69.82 = S Side	
" C	69.81 = N "	
" E		
	Bent #2 Top Footing.	
Col A	59.67	71.93
" B		
" C		
" D		
" E		
	Bent #3	
Col A		71.79
" B		
" C		
" D		
" E		
		69.25 ✓
		72.79

71.68
14
71.54

7155

10

	Bent #4 Top Form	Footing 59.67	Elev. Const. Joint 71.25 / 71.54
Col A			
" B			
" C			
" D			
" E			
	Bent #5		
" A			69.17
" B			69.17
" C			69.31
" E			69.31

72.87 = Top Form
59.67
13.20

Chk. Stake Bent #5 Col "C" East

BM on Stake Bent #5 Col E - East D-69

Federal Blvd - Bridge

Reference Elevations

Set on Cols.

Walker
Pope
A-Session
7-7-50

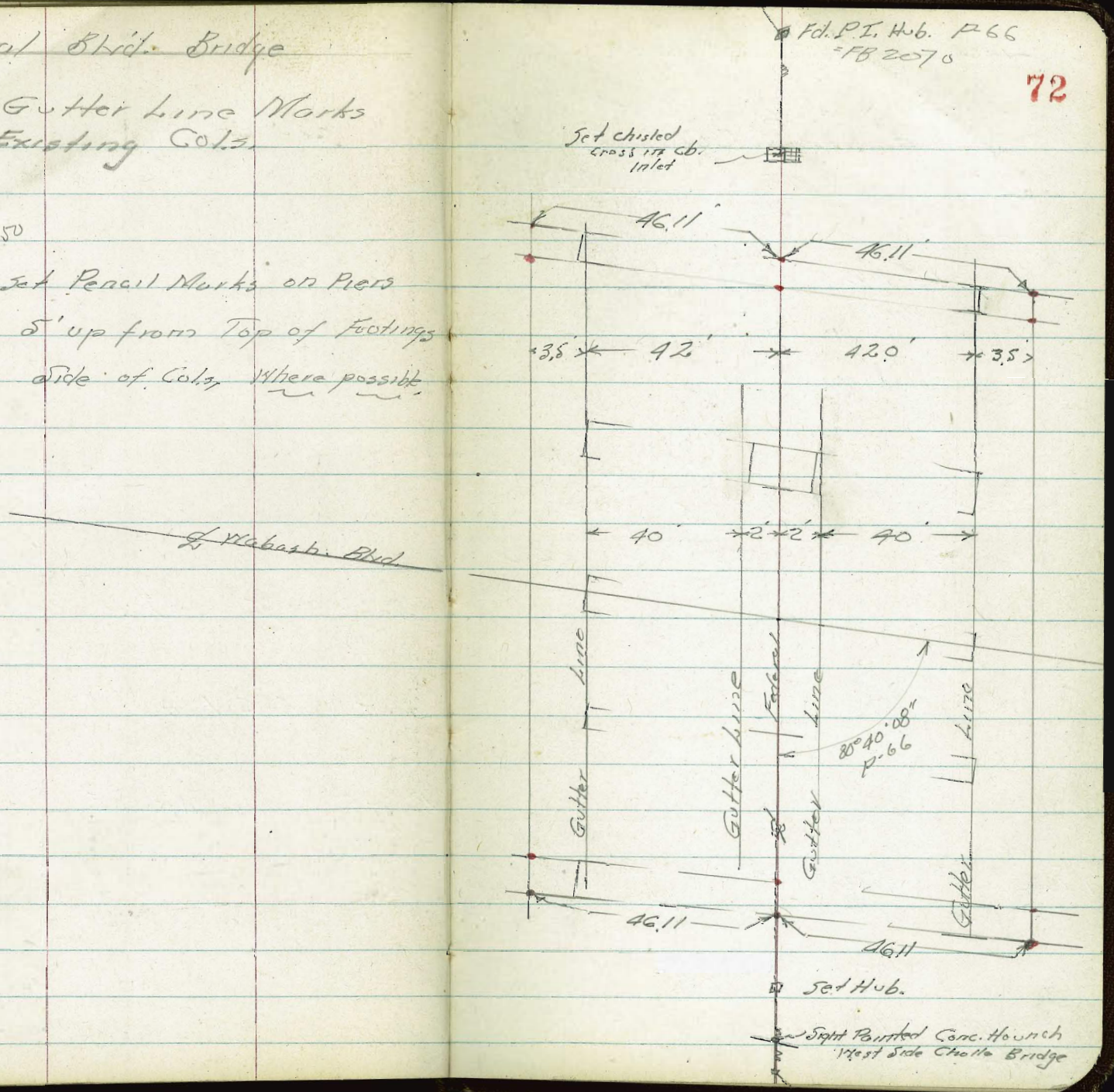
	64.14 P.67	
Chk Stake Bent #1, Col E West	64.14	
	65.00	Bent # 5 Col B
	60.00	Bent # 5 Col A
	65.00	Bent # Cols. A, B, C, E
	60.00 —	Ref. Elev. on Bents # 2, # 3, # 4.
Col "E"		
Chk. Stake West Bent #3	57.97	
	57.83	B.M. on Stake Bent #3 Col "E" East P-68

Federal Blvd. Bridge

Set Gutter Line Marks on Existing Cols.

Walker
Pope
R. Sission 7-7-50

Note: Set Pencil Marks on Piers Approx 5' up from Top of Footings on each side of Cols. Where possible.

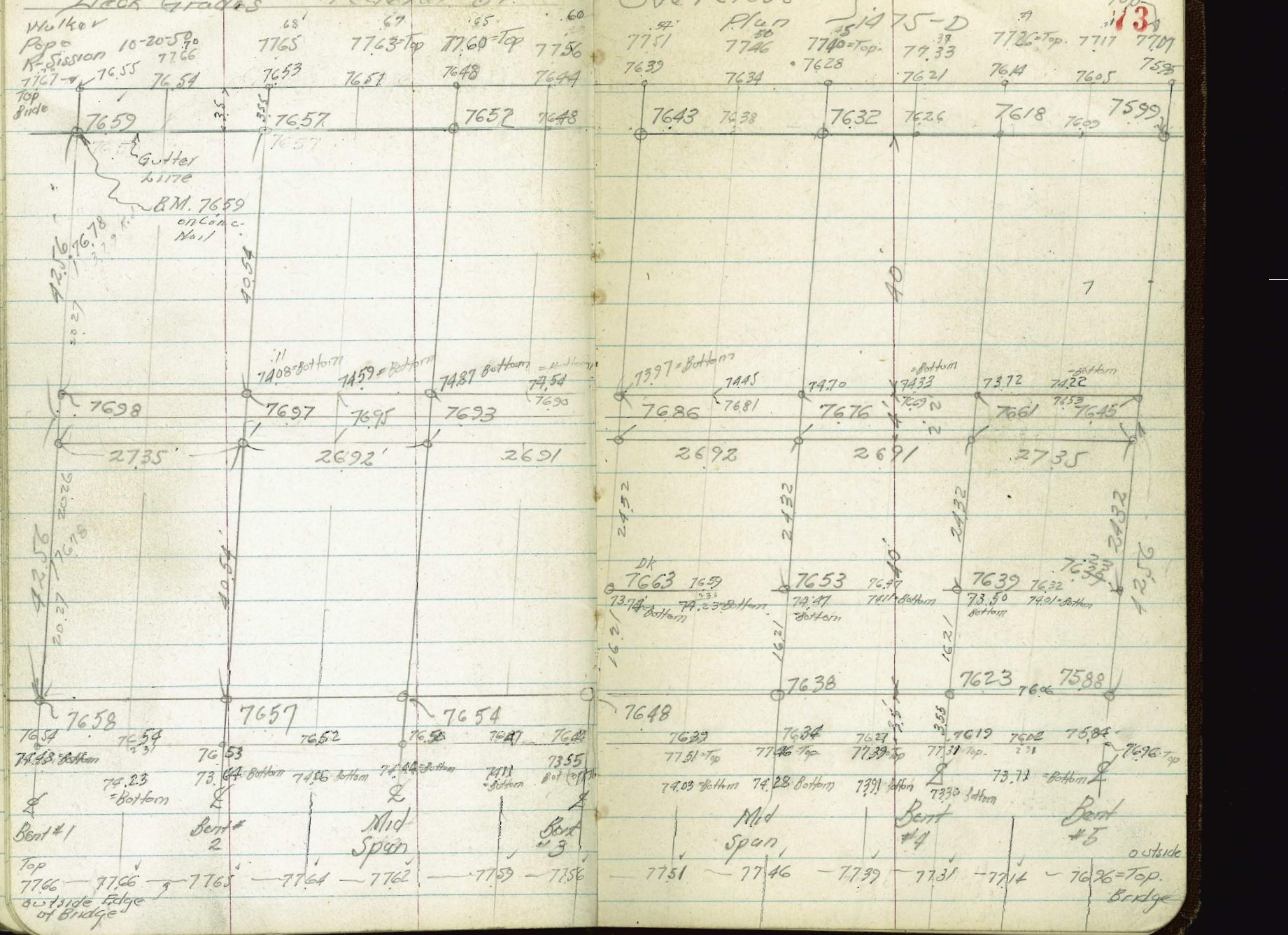


Wabash Blvd

Deck Grades -- Federal St.

Overcrossing Plan 14 75-D

Walker Pop R-Session 10-20-50



Walker
R. Session
10-23-50

Federal Bridge

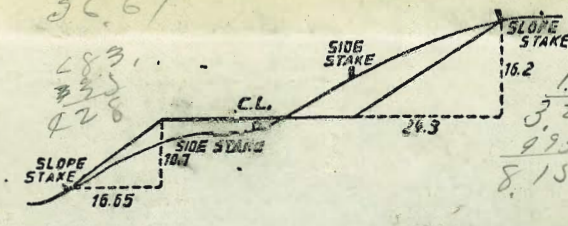
Elev. Bridge Sect Bent #1

			Elev. Bridge Sect
Bent #1		6.06	74.51
Bent #5			73.81
	0.50	79.31	78.81
Chk. starting BM			002
			78.81
		0.50	78.79
T.P.	4.32	80.29	1.92	75.97
T.P.	12.26	77.89	1.70	65.63
T.P.	-3.49	66.33	10.75	69.82
	1.76	80.57		78.81

B.M. on R.P. Bent #5 P.66

Federal Bridge

	62.05	Ref Elev. N.E. Cor Cold Bent #3
T.P.	71.71	
L Bridge L E Parapet wall	76.90	
T.P.	71.08	
T.P.	61.87	
	62.12	B.M. P-50



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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