W172

FIELD BOOK
361

CITY OF
SAN DIEGO-CALIFORNIA
1710 FOOT BARRETT CONTOUR
TRAVERSE, LAND-LINE TIES.

KEUFFEL & ESSER CO.

DRAWING MATERIALS
AND
SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

Tables for Excavations and Embankments.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

FOR KEITH'S RAILROAD CURVE TABLES SEE END OF BOOK.

Index

Co.	Sta.	Dist.	Defl.	Az.	Mag. Co.
T@ 31	33+706				
F.S. on 1	0+00			199-46	S19-50W
to 947a			36-58 Rt	236-44	S57-00W
to 922			97-02 Rt	296-48	N63-05W
to C			125-55 Rt	325-41	N34-15W
to 49			137-20 Rt	337-06	N23-00W
	#				
T@ 49	58+829				
F.S. on 31				157-06	S23-10E
to 1			22-18 Rt	179-24	S 0-50E
to 947a			41-25½ Rt	198-31½	S 18-10W
to 922			98-02 Rt	255-08	S74-55W
to C			161-49 Rt	318-55	N41-30W
to PC saddle			184-26 Rt	341-32	N19-00W
to 507			192-09 Rt	354-15	N 6-10W
	#				
T@ 922					
F.S. on 777				356-08	N3-30W
to PC saddle			8-18½ Rt	4-26½	N4-40E
to 507			23-40½ Rt	19-48½	N19-55E
to 49			78-59½ Rt	75-07½	N75-20E
to 31			120-39½ Rt	116-47½	S63-00E
to 1			154-21½ Rt	150-29½	S29-15E
to 947a			164-48 Rt	160-56	S18-45E

Co.	Sta.	Dist.	Defl.	Az.	Recd Co.
Δ@833	1435+91.9				
FS on 777	1352+68.9			357-35½	N2-15 W
to 738	1290+39.6		2-49 Rt	0-24½	N0-30 E
to 618	1071+41.3		17-59 Rt	15-34½	N15-40 E
to PC Saddle sec COR			22-37 Rt	20-12½	N20-20 E
to 507	841+65.0		24-57 Rt	22-32½	N22-30 E
			60-15 Rt	57-50½	N58-00 E
to sec cor	¼ bet 10-15, 17S3E		69-54½ Rt	67-30	N60-35 E (?)
to 441	698+03.6		107-52 Rt	105-27½	S74-30 E
to ?			108-57½ Rt	106-27	S73-10 E
to ?			110-11 Rt	107-46½	S72-00 E
to 103			115-23 Rt	112-58½	S66-40 E
to 63	74+60.05		117-57½ Rt	115-33	S64-15 E
to 49			141-19½ Rt	138-55	S40-40 E
to 31	33+70.6		148-05½ Rt	145-41	S34-00 E
to 1	0+00		163-08 Rt	160-43½	S19-05 E
to 947a	—		170-14½ Rt	167-50	S12-00 E
to 922			176-16 Rt	173-51½	S6-00 E
to 834			227-50 Rt	225-25½	S45-45 W
	*				
Δ@63	74+60.05				
FS on 833	1435+91.9			295-33	N64-30 W
to 507			49-17½ Rt	344-50½	N15-30 W
to sec cor.	¼ bet 10-15, 17S3E		79-32½ Rt	15-05½	N15-00 E
to 464	751+98.3		162-34½ Rt	98-07½	S81-45 E
to 441	698+03.6		166-43 Rt	102-16	S77-45 E
to 406	606+45.3		167-13 Rt	102-46	S77-15 E
to 239	319+41.6		168-30 Rt	104-03	S76-00 E
to 227			169-19 Rt	104-52	S75-10 E
to 206 210			170-33 Rt	106-06	S74-00 E
to 103			175-37½ Rt	111-10½	S69-00 E

S. Soda Cottonwood

Co.	Sta.	Dist.	Defl.	Az.	Mag. Co.
T@63	74+60.05				
F.S. on 833	1435+91.9			295-33	N64-30W
to 64	76+63.7		188-29½ Rt	124-02½	S56-00E
	Sec. T.R.				
T@Sec.Cor.					
B.S. on intersec.mon.				No. 14	
to intersec.mon	242+26	114.	0-41 Lt	178-31	S0-30E.
to witness mon		147.	✓	✓	
to sec.cor.	✓	5159.	✓	✓	
	Sec. T.R.				
T@Sec.Cor.					
F.S. on sec.cor.					
to witness mon		42.	90-38 Rt		S0-30W
to intersec.mon	163+54.55	75.	✓	No. 8	
to intersec.mon	179+28.15	603.	✓	No. 11	
to witness mon		633.	✓		
to Sec.Cor.	✓	5185.5	✓		

4-9-23
R.C. Wueste
Chas. Lockhart

13-14-23-24, 17S 3E	concrete monument
06 180' cont. intersection mon	N side lake
	1" pipe
	1" pipe
23-24-25-26, 17S 3E	stone in earth md.
14-15-22-23, 17S 3E	1" pipe in earth mnd
¼ cor. 14-23, 17S 3E	lost
	1" pipe
	1" pipe
	1" pipe
	1" pipe
22-23-26-27, 17S 3E	stone in earth mnd.

Co.	Sta.	Dist.	Defl.	Az.	Mag. Co.
T@ P.C. Saddle					
F.S. on 49					S 18-45 E
to 1	0+00		8-04 Rt		S 10-30 E
to 947a			14-46½ Rt		S 4-30 E
to Sec. cor.	9-10-15-16, 17S 3E		20-02 Rt	181-35½	S 0-35 E
to 922			22-55 Rt		S 4-15 W
to 833			38-39 Rt	200-12½	S 19-45 W
to 777			180-49 Rt	342-27½	N 18-00 W
to 738			192-37 Rt		N 6-15 W
to ?			194-02½ Rt		N 5-00 W
to Sec. cor.	¼ bet 3-4, 17S 3E		199-51 Rt		N 0-50 E
to 618			212-30 Rt	14-03½	N 13-30 E
Azimuth Check					
T@ 777	1352+68.9				
F.S. 618				37-24	N 37-05 E
to 563			34-10½ Rt	71-34½	N 71-30 E
to P.C. Saddle			124-58 Rt		S 17-45 E
to 947a			134-55 Rt		S 7-40 E
to 922			138-45 Rt		S 4-00 E
to 833			140-11½ Rt	177-35½	S 2-35 E
to 778	1356+27.7		203-19 Rt	240-43	S 60-40 W

4-10-23
R.C. Wueste
O.L. Dotson

4-12-23
R.C. Wueste
O.L. Dotson

Co.	Sta.	Dist.	Defl.	Az.	Mag. Co.
Azimuth Check.					
T@ 738	1290+39.6				
FS on 719				330-39½	N 28-40 W
to 676			4-56 Rt	335-35½	N 23-45 W
to 640			28-23 Rt		N 0-30 W
to Sec. Cor.	¼ bet 3-4	1753E	47-52 Rt		N 19-00 E
to 618			128-02 Rt	98-41½	S 80-40 E
to 563			138-43 Rt	109-22½	S 70-00 E
to RC Saddle			203-31 Rt	174-10½	S 05-10 E
to 947a			204-40 Rt		S 4-15 E
to 833			209-45½ Rt	180-24½	S 1-00 W
to 739			283-22½ Rt	254-01½	374-45W
Azimuth Check.					
T@ 618	1071+44.3				
FS on RC Saddle				194-03½	S 13-30 W
to 833			1-31 Rt	195-34½	S 15-30 W
to 777			23-20 Rt	217-23½	S 37-16 W
to 738			84-38 Rt	278-41½	N 81-30 W
to 719			107-43 Rt	301-46½	N 58-30 W
to 676			118-50 Rt	312-53½	N 47-10 W
to 640			129-22 Rt	323-25½	N 37-00 W
to 619			132-02 Rt	326-05½	N 34-15 W

4-12-23
R.C. West of Dotson

Co.	Sta.	Dist	Defl.	Az.	Mag. Co.
Azimuth Check.					
π @ 640	1129+606				
F.S. on sec. cor.	¼ bet 3-4, 17S3E.				S86-25E
to 618			50-08 Rt	143-25½	S36-20E
to R.C. Saddle			82-17 Rt		S 4-10 E
to 738			85-43½ Rt	179-01	S 0-40 E
to 719			123-42 Rt	216-54½	S 37-00 W
to 676			188-10½ Rt	281-28	N 78-15 W
to 641			241-10 Rt	334-27½	N 25-20 W
Azimuth Check					
π @ 676	1189+17.2				
F.S. on sec. cor.	¼ bet 3-4, 17S3E			98-06½	S81-35 E
to 640			3-21½ Rt	101-28	S78-25 E
to 618			34-47 Rt	132-53½	S47-00 E
to 738			57-28 Rt	155-34½	S24-15 E
to 719			63-37½ Rt	161-44	S18-10 E
to 677			184-39 Rt	282-45½	N77-00 W
Azimuth Check					
π @ 719	1258+38.1				
F.S. on 677				341-44½	N18-30 W
to 640			55-16 Rt	37-00½	N36-55 E
to sec. cor.	¼ bet 3-4, 17S3E.		77-17 Rt	59-01½	N58-50 E
to 618			140-02 Rt	121-46½	S58-30 E
to 738			148-54 Rt	150-38½	S29-25 E
to 720	1260+91.2		264-08 Rt	245-52½	S65-50 W

4-12-23
R.S. W. as to
of Dotson

Barrett Reservoir Survey

Azimuth Correction Stations.

Letter	Angle Point	Station	Az. to Next Station	Correction	True Azimuth
B	1	0+00	45-51	—	45-51
	31	33+706	34-39	+0-04½	34-43½
	49	58+829	354-58½	+0-02½	355-01
	63	74+60.05	123-59½	+0-03	124-02½
	103	119+955	115-43½	+0-01	115-44½
	188	226+6945	111-14	-0-14	111-00
	209	264+38.1	91-47	-0-12½	91-34½
	227	293+41.0	124-59½	-0-10½	124-49
	239	319+41.6	176-10½	-0-11	125-59½
	286	386+318	119-49½	-0-22¾	119-26¾
	360	517+49.9	271-03½	-0-38¼	270-25¼
E	406	606+453	302-37	-0-39¾	301-57¼
	424	653+27.3	290-10	+0-01½	290-11½
D	441	698+036	319-11½	+0-01¾	319-13¼
	464	751+98.3	296-55	-0-03¼	296-51¾
	507	841+65.0	285-17½	-0-10	285-07½
	563	944+42.9	6-16½	-0-03	6-13½
F	618	1071+413	326-19½	-0-14	326-05½
	640	1129+60.6	334-32½	-0-05	334-27½
	676	1189+17.2	282-52	-0-06½	282-45½
	719	1258+38.1	246-03	-0-10½	245-52½
	738	1290+396	254-17	-0-15½	254-01½

4-10-23

R.C. Wagstaff-O.L. Dotson.

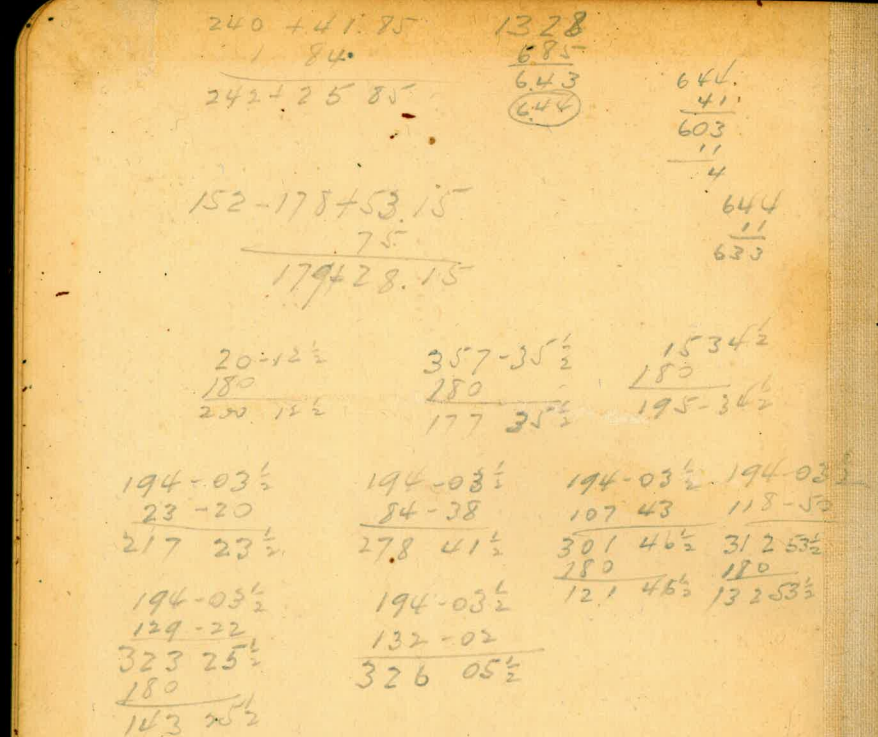
Distance to Next Correction Sta.	Deflections to Next Correction Sta
3,370.6	30
2,512.3	18
1,577.15	14
4,535.45	40
10,673.95	85
3,768.65	21
2,902.9	18
2,600.6	12
6,690.5	47
13,110.1	74
8,903.4	46
4,677.0	18
4,481.3	17
5,394.7	23
8,966.7	43
10,277.9	56
12,698.4	55
5,819.3	22
5,956.6	36
6,920.9	43
3,201.5	19
6,729.3	39

Letter	Angle Point	Station	Az to Next Station	Correction	True Azimuth
	777	1352+68.9	241-08	-0-25	240-43
C	833	1435+91.9	225-54½	-0-29½	225-25
	922	1581+89.3	225-37	-0-08½	225-28½
G	947a				
B	1	0+00 (1631+84.9)	331-16	-0-11	331-05

Distance to Next correction Sta	Deflections to Next correction Sta
8,323.0	56
14,597.4	89
4,995.6✡✡	29 ✡✡

✡

✡ to A ✡✡ to 1



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.