

67.4. Pin to Pt.
1400
164.1

1631.5 W. to pt by Rail
19.3 Rail pt to pt in
28.70
brow

1679.55 E to Turn

216.05' N to pt in fence
to pt of P.P.

IF FOUND RETURN TO

ERWIN U. MOSER

P.O. Box 454

LOGAN UTAH

020
10.20



88972 1.
29022
Smithfield
O & G #9
360B

FIELD

BOOK

7-11 North Main (west side)
from 4th North to edge of
City

1-5 South Main (East side)

- from Central Ave
to pt 1400 E. Street
- 13- Water Measurement - Smithfield.
 - 14- Smithfield value measurements.
 - 16- Phillips Service @ 4th S. Main (curb)
 - 16- Kiwanis Bldg

KEUFFEL & ESSER CO.

CHECKED 7-14-69

Page	Subject.
1-5 ✓	S. Main from Cantwell Lumber Co. S 1400 ft on East Side
7-11 ✓	N. Main from 4 th N. North on West side
13 ✓	Smithfield Water Measurement.
14 ✓	Smithfield Value Measurement.
31 ?	Spring Creek Irrigation
16 ✓	Phillips Service @ 4 th S. Main (curb)
16 ✓	Kiwanis Building
17 ✓	Richard Bagley (Richmond) ^{Percolation Test}
18 ✓	B.M. Farr, Smithfield, Utah.
19-25	Curb & Gutter (3 rd N. & 2-3 E)
26-27	Mt. Fuel Supply Co
28 ✓	Lionel E. Danielson Full

K+M

1593
165

1609.5 + 85.7 to find
180.2 West

**FIELD
BOOK**

KEUFFEL & ESSER CO.

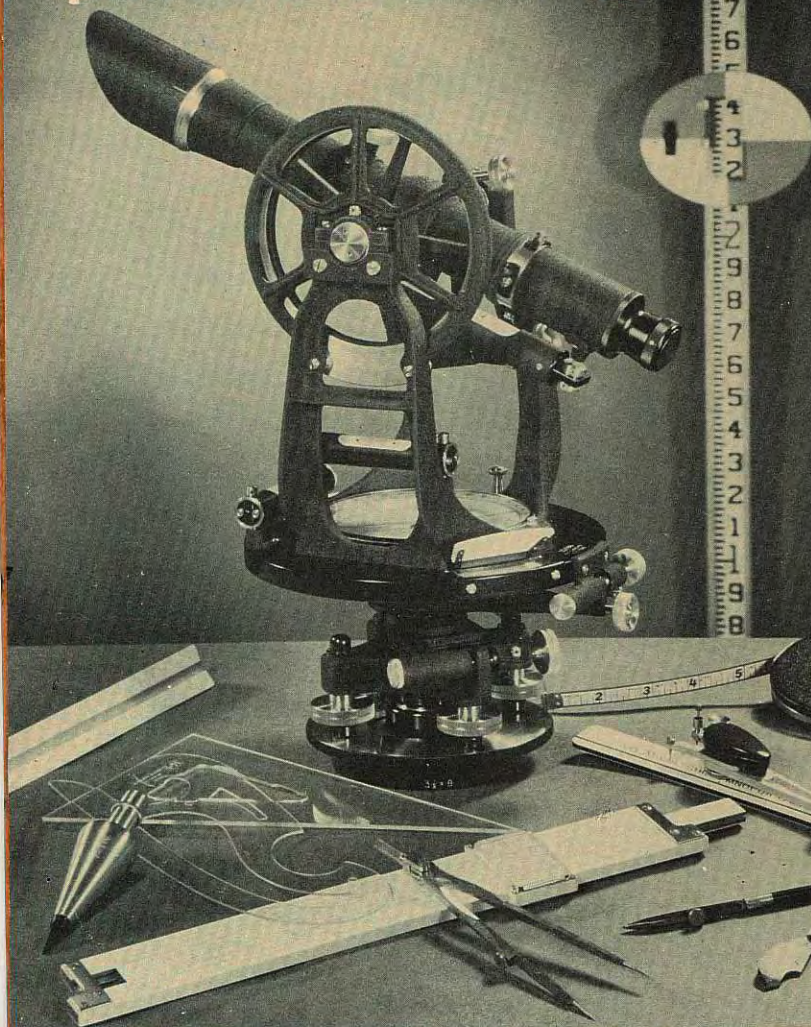
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7-3-53 John Downs
Main. Going South from
Dantwell Lumber Co.

Distances at 4th So

44.4' = dist. betw. $\frac{1}{2}$ of Road
to face of E Curb

45.6 = dist. betw. $\frac{1}{2}$ of Road
to face of W. Curb.

11.7' = dist betw East edge
of Conc. Pav't to
face of East Curb

Above distances are at
State Road Sta. 352+80.7
353+22.4 = Sta. at face
of Curb at N.
side of 4th South
on E. side of Street.

At State Rd. Sta 340+86.8
45.25' = dist betw. W. Curb
face & $\frac{1}{2}$ of Rd.
49.75' = dist from $\frac{1}{2}$ of
Rd. going E to hub

corrected

	Rad	H.I	Elev.	F.S.	I.B.S.
B.M. 1	0.85	100.85	100.00		
		100.31			
Hub line is 14.7' E. of Post					
0+00	1.18		99.03		
			99.67		
Edge of Pavt	1.40		99.49		
			99.45		
Rd.	1.20		99.01		
			99.65		
0+50	1.75		98.46		
			99.10		
Pavt	2.21		98.00		
			98.64		
1+00	2.42		97.79		
			98.43		
Pavt	3.13		97.08		
			97.72		
1+50	3.10		97.11		
			97.75		
Pavt	3.93		96.28		
			96.92		
2+00	3.57		96.64		
			97.28		
Pavt	4.70		95.51		
			96.15		
2+50	4.46		95.75		
			96.39		
Pavt	5.52		94.69		
			95.33		
3+00	5.52		94.69		
			95.33		
Pavt	6.32		93.89		
			94.53		
3+50	6.84		93.37		
			94.01		
Pavt	7.12		93.09		
			93.73		

7-6-53 John Downs

E. side of Main. S. of Centwell Lbr.
 on Power Pole 12' N of 0+00
 Iron RR spike
 in Line with N. Prop Line of Centwell
See Check Shot after Sta 14+25

RR Spike

RR Spike

Stake (Ref.) is 2' N. by Tree (5'E)

R. H spike in driveway S. edge

RR Spike in N. 1/3 Driveway

	Rod	H.I.	Elev	F.S.	B.S.
4+00	7.91	100.21	92.30		
Post	7.93	100.85	92.94		
			92.38		
			92.92		
4+50	8.87		91.34		
Post	8.74		91.98		
			91.47		
			92.11		
5+00	9.5		90.71		
Post	9.57		91.35		
			90.64		
			91.28		
5+50	10.45	100.21	89.76	10.45	1.50
Post	10.44	100.85	90.40		
			89.77		
			90.41		
			89.18		
6+00	2.08	91.26	93.34		
Post	2.31	91.90	93.98		
			93.57		
			94.21		
			88.95		
6+50	2.80		88.46		
Post	3.21		94.06		
			88.05		
			94.47		
7+00	3.46		87.80		
Post	4.16		94.72		
			87.10		
			95.42		
B					
BM ^N 2	3.36		87.90		
			94.62		
7+50	4.74		86.52		
Post	4.94		96.00		
			86.32		
			96.20		

5.29 tip of gutter } at Nadee Thornley
 4.74 wedge of Post } Drive 3

Stake on Power Pole
 Stake Hub in Driveway

5.29
 4.74
 5.29

	Rad	H.I.	Elev	F.S.	B.S.
8+00	5.24	91.26	86.02 96.50 85.48		
Part	5.78		97.07		
8+50	6.21		85.05 97.47 84.98		
Part	6.28		97.54		
9+00	6.83		84.43 98.09 83.62		
Part	7.64		98.90		
9+50	7.7		83.56 98.96 82.81		
Part	8.43		99.71		
10+00	9.14	91.26	82.12 100.40 89.74	9.14	1.71
Part	2.05	83.83	93.81 82.78		
10+47.2	2.47	83.83 83.69	81.36 96.22 80.97		
Part	2.91		95.78		
11+00	3.46		80.37 95.23 80.16		
Part	3.67		95.02		
11+50	4.43		79.40 91.26 79.53		
Part	4.30		94.59 78.93		
12+00	5.00		93.69 78.97		
Part	4.86		93.83		

Hub at S. edge of Driveway

	Red	HI	Elev
12+50	5.53	98.69	78.30 93.16
Part	5.56	83.83	78.27 93.13
13+00	5.80		78.03 92.89
Part	6.13		77.70 92.56
13+50	6.12		77.71 92.57
Part	6.66		77.14 92.03
BM #3	6.06		77.77 92.63
14+00	7.19		76.64 91.50
Part	7.18		76.65 91.51
14+25	7.56		76.27 91.13
Part	7.34		76.49 91.35
BM #1	3.94		79.89 94.75
0+10	4.91		78.92 93.78

Stake on Power Pole

} Note this check shot to give diff. in Elev. Betw. Hub & BM #1

9

Stake in E. side at 422+00
B.M. on Guy Pole # 75-37
Elev = 4614.67 Betw. 421+00 & 422

418+00 = Last $\frac{1}{2}$ Nail in Rd,
417+00

412+72.1 last Sta South

49' wide width of bank
18.05' W. edge of part to 1st x
24.75' W. " " " " 2nd x
and nail.

28.90' W. edge of Part to face
of W. curb.

Sta 414+28.8 in N. side of 4th

53.7' = dist. betw. face of
W curb and $\frac{1}{2}$ Rd.

56.7' = dist. betw. Off-set
Hub and $\frac{1}{2}$ of Road

John Downs

7-8-53

Flev

Dist W

from # 6

w. edge part

53.67

8

414+28.8 10.33

4613.97

4603.64

4624.30

24.45

Edge Part 8.04

4605.93

4622.01

Edge Walk 10.02

4603.95

4623.99

Diff

4 N & Main going North
North Side of 4th North Ditch Bot.

415+00H 9.11

4604.86

24.7

BM 5.73

4623.08

4608.24

4619.70

Edge Part 6.77

4607.00

4620.94

Edge Walk 17.78

4606.19

4621.75

416+00 7.44

4606.53

25.15

edge Part 5.78

4621.41

4608.19

Prop line 6.16

4619.75

4607.81

4620.13

Hub in bot. of ditch
Top of Stake on Tree

417+00 4.21

4622.13

26.05

edge Part 4.35

4609.76

4618.18

bot Ditch 5.92

4609.62

4618.37

Prop line 4.98

4608.05

4619.89

418+00 3.56

4608.99

4610.95

edge Part 2.80

4610.41

4616.53

4611.17

4616.77

4609.69

4618.25

27.4

Prop line 4.28

BS BS

419+00H 2.30

4613.97

4611.67

2.30 6.51

29.5

edge part 5.7

4618.18

461248

27.20

Prop line 5.78

461240

Bot. of ditch

Last Nail in place in Road

Hub is 9' E & 3 1/2' S of Tree
in Rd is small cut in Pav't.

	Rod HI	Elev
420+00	6.04	4618.18
edge Post	5.15	4613.03
Prop line	6.00	4612.18

420+89	5.26	4612.92
edge Post	4.54	4613.64

B.M.#2	3.51	4618.18	4614.67
--------	------	---------	---------

B.M.#2	2.57	17.24	4614.67
419+70	5.00	12.24	12.24
419+85	4.63		12.61

$$\begin{array}{r} 31.5 \\ 29.5 \\ \hline 2.0 \end{array}$$

$$\begin{array}{r} 31.5? \\ 25.2 \\ \hline \end{array}$$

$$\begin{array}{r} 33.32 \\ 29.68 \\ \hline 24.00 \\ 23.38 \end{array}$$

$$\begin{array}{r} 56.7 \\ 31.5 \\ \hline 25.2 \end{array}$$
 $31.25.2$

9

Nail in Conc. 4.9' E of W. edge of Post
Ref. Stake 15' E. of Hub

Hub in fence line

$$\begin{array}{r} 31.5 \\ 15 \\ \hline 16.5 \end{array}$$

$$\begin{array}{r} 31.5 \\ 14.2 \\ \hline 17.3 \end{array}$$

Driveway
on Grass high spot

$$\begin{array}{r} 25.2 \\ 18.2 \\ \hline 7.0 \\ 28.38 \\ 2.05 \\ 9.68 \\ 19.40 \\ 16.40 \\ \hline 3.0 \end{array}$$

$$\begin{array}{r} 56.7 \\ 23.38 \\ \hline 33.32 \end{array}$$

90

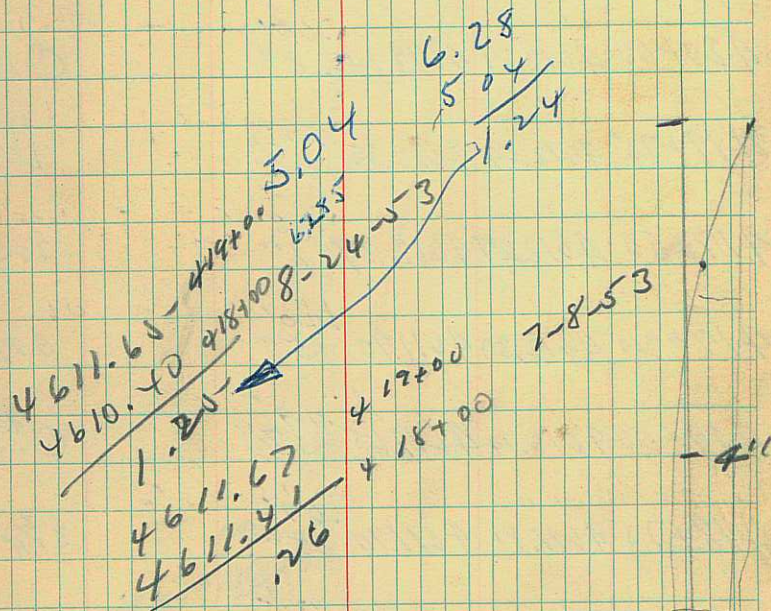
$$\begin{array}{r} 4.37 \\ 3.9 \\ \hline 3.933 \\ 1.4 \end{array}$$

Sta	Rod H.I.	Elev.	Full cut Elev.	Elev.
B.M. #1	2.58	4617.25	4614.67	
420+89	4.33		4612.92	5 1/2"
420+60	4.84		4612.41	80" 7 1/2"
420+30	5.05		4612.20	81" 7 3/8"
420+00	5.12		4612.14	.67 8"
419+75	4.90		4612.35	29" 3 5/8"
419+50	4.86		4612.39	.08 1"
419+25	5.35		4611.90	.40' 5"
419+00	5.60		4611.65	.49' 5 1/2"
418+75	6.11		4611.14	.67' 8"
418+50	6.52		4610.73	.75' 9"
418+25	7.05		4610.20	.95' 11 3/8"
418+00	6.85		4610.40	.40' 5"
check B.M. #1	2.58		4614.67	

8-24-53 14.67
2.58
17.25

10

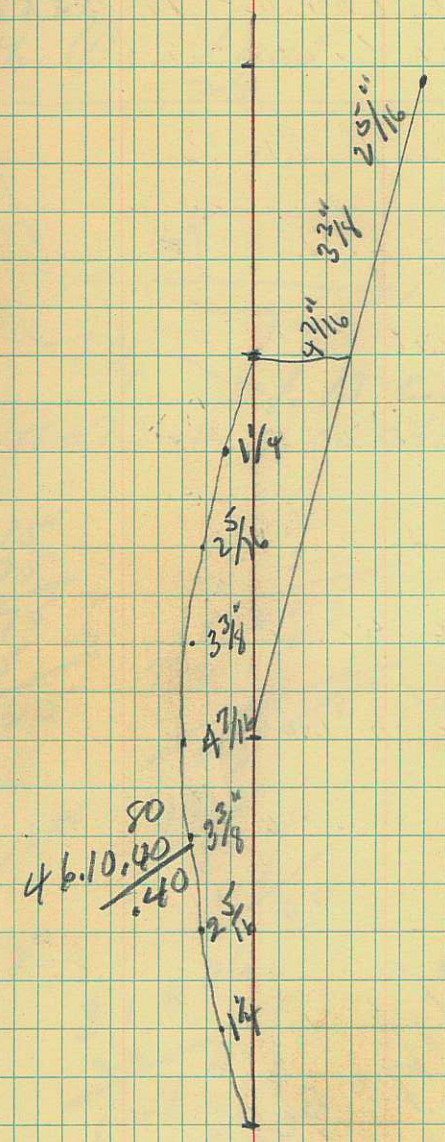
B.M. on Pole on West side of Road
These shots were taken to give grades at 25' intervals on Curve



check shot O.K.

Sta	Elev. C.	Elev. H.	Fill	Out	Offset
420+89	4613.41	4612.92	.49'	5 7/8"	0.0
420+60	4613.20	4612.41	.80'	9 1/2"	
420+30	4613.01	4612.20	.81'	9 3/8"	
420+00	4612.81	4612.14	.67'	8"	0.0
419+75	4612.64	4612.35	.29'	3 5/8"	1 1/4
419+50	4612.47	4612.39	.08'	1"	2.5/16
419+25	4612.30	4611.90	.40'	5"	3 3/8
419+00	4612.14	4611.65	.49'	5 9/16"	0.0
418+75	4611.81	4611.14	.67'	8"	3 3/8
418+50	4611.48	4610.73	.75'	9"	2 5/16
418+25	4611.15	4610.20	.95'	11 3/8"	1 1/4
418+00	4610.80	4610.40	.40'	5"	0.0

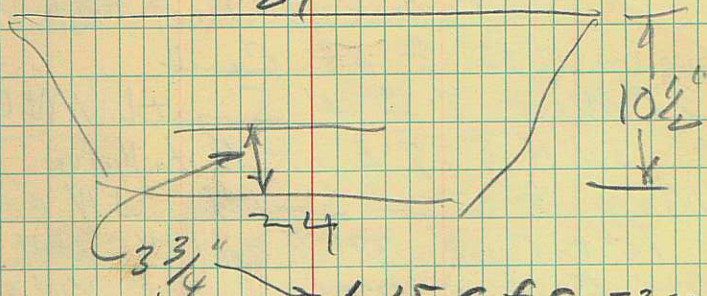
No. 9. North Main



Smithfield 3-22-55

13

Water Measurement
gn. 36226
with Os. Low
29



$\approx 1.15 \text{ cfs.} = 3-22-55$
 $4-12-55 = 7'' \rightarrow 3.00 \text{ cfs.} = 2,040,000 \text{ gpd.}$

1.15
 7.0

 8.15
 8.05

 8.625

24

 2210
 86401

 28840
 8560

 2760

517

31,000
 24

 1270
 62

 74900

Note See Book
 page 15 for measurement
 made 1-10-61
 2.316 cfs.

702 36226

Smithfield 4-12-55

Valves on Water Line

Center & 1st W Northwest Cor

{ 33' E & 14.5 N. of RR to Valve
16' E of Curb

3rd West & 2nd South NW Cor.

32' N & 27' E of RR to Valve

Main & 2nd South SW Cor

15' to Curb 38' E and 7' S of RR

2nd East & 2nd South NW Cor.

11' S of & 29' E of RR also

Valve is 88' N. of S RR on

S. side of Street

2nd E and 1st So. NW Cor

8' N & 31 1/2' E of Prop Line

Water in catch basin in
Miles Farm
A in Canyon was 7" deep
going over Weir = 3.0 C.F.S. = 2044000 gpd

1st E Str. N. of Center Str.

2nd & 3rd prop North of Cor
of Center & 1st East

Jos Belkington 2nd house of
Dra Inteman 3rd " "

19

9-19-55 Smithfield

6 1/2" deep in catch basin
including all culinary water

6 1/2" over 24" Weir = 2.66 C.F.S.

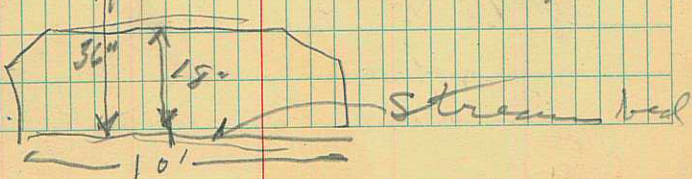
= 1,723,680 gpd
gal. per day

Lid 25" dia
Ring 30 1/2" dia.

Outside of New Ring 29 1/4"
dia. Outside to outside



10' Span of bridge
18" clearance
18" from finish top to
Road surface
Road surface



367

4.03

4

36

32

C59 WAYNE GITTINS
SMITHFIELD, UTAH

S $\frac{1}{2}$ OF LOTS 4 & 5 BLK 5 PLAT A SMITH
FIELD CITY SVY IN SE $\frac{1}{4}$ SEC 28 T 13N
R 1E Page 48 of 13 NRIE

Q Rd 1 4.03
4.03

15

3-22-56 at Phillips Service

Curb at 4th St. at Main

Pipe at
4th St. 5.65

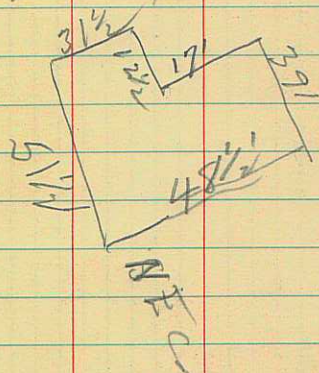
Service
at Station 6.95

- C 659a
- C 662
- C 661
- C 663

Kiwanis Bldg

Page 40 of 13 NRIE

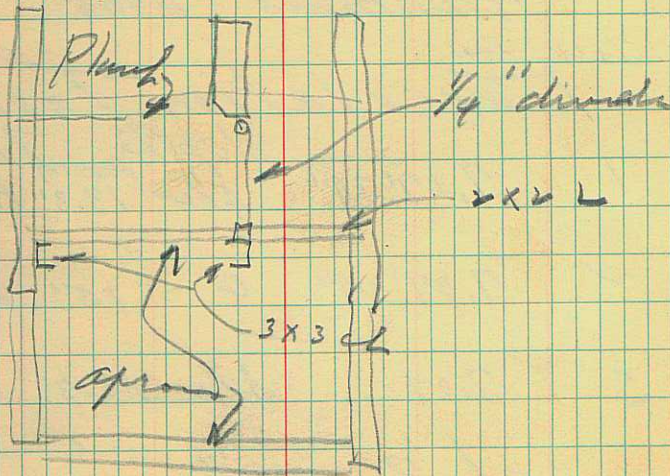
105' E & 153' South to Road,
222' S & 28 1/2' W to Vld
from known pole to NRIE
7 Bldg



See drawing

KIWANIS

16



Richard Bayley 4-5-57
Richmond Utah

Percolation Test

		depth	per 15'	Time
1	7.07' 30"	4 1/2	13.3'	60'
2	7.07' 20"	4	15'	60'
3	7.07	4 1/2	13.3'	60'

ch 8-2317

B.M. Farr
Smithfield Utah Jan. 26 1927
Survey requested

Page 33 of Plate

18

2 6436-647-646 C. 650a

Book 96 page 118 3

Roo Phone Gr. 3-6827

Bank Phone Gr. 3-6033

498 N. Main Smithfield

C650A BRAMLEY M. & IRIS H. FARR
SMITHFIELD, UTAH

COM 62 RD W OF A PT 9.69 CH W & 28
RD N OF SE COR SW $\frac{1}{4}$ SEC 22 T 13N R
1E W 16 RD S 95 FT E 264 FT N 95 FT
TO BEG. IN SW $\frac{1}{4}$ SEC 22 T 13N R 1E.

C646 THOMAS E. & ANNA B. MATHER
SMITHFIELD,
UTAH

COM AT PT 29.44 CHS W OF SE COR OF SW $\frac{1}{4}$
OF SEC 22 T 13N R 1E N 13.64 RDS E 18
RDS S 13.64 RDS W 18 RDS TO BEG 1.53
AC

C647 MILDRED M. DALLOF
SMITHFIELD, UTAH

BEG 29 CH W & 13.64 RD N SE COR SW $\frac{1}{4}$
SEC 22 T 13N R 1E E 14 RD N 141.94
FT W 14 RD S 141.94 FT TO BEG. CONT
1 ACRE .

C643A HAROLD H. & BARBARA GUTKE
SMITHFIELD, UTAH

BEG AT A PT ON E LINE CO RD 30.50
CH SW $\frac{1}{4}$ LY OF PT 26.50 CH W OF NE COR
SW $\frac{1}{4}$ SEC 22 T 13N R 1E SW $\frac{1}{4}$ LY 2.50 CH
E 7.60 CH NE $\frac{1}{4}$ LY 2.50 CH TO A PT 7.6
CH E OF BEG. W 7.60 CH TO BEG. 1.90A

Smithfield City ✓ 4-6-57
 N. Line of Side walk is 48' North
 From Spot (nail) in Road

Face of Curb is 15.28' South
 from N. line of Side Walk.

Stakes placed 34.72' N
 of Spot in Road = 2'
 offset N. for Hub Line
 from Face of Curb
 80.11

Stakes at 2' offset

3rd E is 4 1/2' W of 15.28' pt.

1+81' West

Olson Curb + gutter
 3rd N. E. 3rd East
 going North

B.M.	2.77	102.77	100.
stake	4.9	97.87	
± Rd	2.81	99.96	
Sidewalk	2.95	99.82	

$$\begin{array}{r} 48 \\ 15.28 \\ \hline 32.72 \end{array}$$

$$\begin{array}{r} 34.72 \\ 15.28 \\ \hline 50.10 \end{array}$$

$$\begin{array}{r} 235.2 \\ 182 \\ \hline 57.2 \end{array}$$

4-6-57

19

Ray 1 1/2 hrs
 E.M. 42 min

67.6

18.1

78.7

5

83.7

99.82 ✓

99.62

99.62 ✓

97.87

.20

1.95

4-8-57 Ray C. Hargis & Me.
 SE cor of Rock work by steps
 of house

	Prod	HI	Elev	FS	B.S.
0+25	4.28	102.77	98.49		
± Rd.	2.04		100.73		

0+50	3.33		99.44		
T.P.			99.44	3.33	7.56
± Rd.	5.32	107.00	101.68		

0+75	6.91		100.09		
± Rd.	4.65		102.35		

1+00	6.8		100.20		
± Rd.	4.1		102.90		

going West

0+00	4.9	102.77	97.87		
Walk	2.95		99.82		
± Rd.	5.00		97.77		

0+25	6.79		96.03		
Walk	5.83		96.94		
± Rd.	6.14		96.63		

0+50	7.2		95.57		
Walk	6.77		96.00		
± Rd.	7.08		95.69		

Same pt as 0+00 going North

" " " " " "

O	Rel	HI	Elev
0+75	7.98	102.77	94.79
Walk	7.64		95.13
± Rd.	7.87		94.90
1+00	8.47		94.30
Walk	8.48		94.29
± Rd.	8.66		94.11
1+25	9.26		93.51
Walk	9.19		93.58
± Rd.	9.37		93.40
1+50	9.92		92.85
Walk	9.71		93.06
± Rd.	9.95		92.82
1+75	10.38		92.39
Walk	10.31		92.46
± Rd.	10.64		92.13
1+81	10.68		92.09
Walk	10.49		92.28
± Rd.	10.73		92.04

Rod HI Elev
 Going North 4-11-57
 BM. 4.17 104.17 100.00

Cut F11
 0+00 6.29 97.88 0.07
 0+08.5 6.35 97.82 0.05 Side walk
 0+25 5.67 98.50 0.02
 0+50 4.73 99.44 0.29
 0+75 4.18 99.99 0.17
 0+01 3.96 100.21 0.30

6.4 Going West
 ♀ Rd. ~~12.20~~ 97.77 Road S. of 0+00
 ♀ R 18' W 7.23 96.94
 0+00 6.29 97.88 0.07
 0+18 7.36 96.81 XX XX
 0+25 8.13 96.04 0.71
 0+50 8.60 95.57 0.33
 0+75 7.39 94.78 0.27
 0+00 9.86 94.31 0.08
 1+25 10.65 93.52 0.13
 1+50 11.35 92.82 0.12
 1+75 11.85 92.32 XX XX
 1+81 12.09 92.08 0.0 0.0
 ♀ Rd 12.20 91.97

Footing Paridge 4-15-57 22
 2 So & W

9.04
 9.08
 6.13

 2.95

Sta	Prod	HI	Elev	FS	BS.
B/M	0.41	100.41	100	Cut	Fill
0+00	2.52		97.89	*	
Side Walk	2.56		97.85	*	
± Rd	2.63		97.78	*	
0+25	4.39		96.02		
Side Walk	3.40		96.96		
± Rd	3.77		96.64		
0+50	4.85		95.56		
Walk	4.40		96.01		
± Rd	4.70		95.71		
0+75	5.63		94.78		
Walk	5.30		95.11		
± Rd	5.52		94.89		
1+00	6.11		94.30		
Walk	6.13		94.28		
± Rd	6.32		94.09		
1+25	6.91		93.50		
1+50	7.58		92.83		
1+75	8.01		92.40		
2+00	8.64		91.77	CO.12	
Walk	8.66		91.75		
± Rd	8.88		91.53		
2+25	9.48		90.93		FO.05
T.P.		100.41	90.49	9.92	2.37
		92.86			

top SE Cor of Sandstone wall on Olson Entrance



Sta	Rod	HI	Elev	FS cut	B.S. fill
2+50	2.37	92.86	90.49	0.18	
2+75	2.92		89.94	0.30	
3+00	3.66		89.20	0.20	
Walk	3.66		89.20		
to Rd.	3.84		89.02		
3+25	4.24		88.62	0.28	
3+50	4.66		88.20	0.51	
3+75	5.96		86.90		0.12
4+00	6.67		86.19		0.14
Walk	6.25		86.61		
to Rd.	6.88		85.98		
4+25	7.05		85.81	0.09	
4+50	7.55		85.31	0.24	
4+75	8.39		84.47	××	××
5+00	8.86		84.00	0.27	
Walk	8.88		83.98		
to Rd.	8.84		84.02		
5+25	9.94		83.12	0.10	
5+50	10.78		82.08		0.35
5+75	11.30		81.56		0.24
6+00	12.22		80.64		0.51
Site Bk	11.4		81.46		
to Rd	12.75		80.11		
T.P.		92.86	79.97	12.89	4.19
		84.16			

Sta	Red	H.I.	Elev.	Cut	Fill
6+25	4.08	84.16	80.08		0.42
6+50	4.66		79.50		0.35
6+75	5.86		78.30		0.93
6+79.2	5.09		79.07		
Sidewalk W. of Sta	5.10		79.06	XX	XX
Sidewalk N. of Sta	4.67		79.49		

~~79
77
78~~

9-27428429-
Mt. Fuel Supply Co. 1957
Page 47 of 10 NR 1 W
E 761 (E 760)

Probable W $\frac{1}{4}$ Cor Sec 33
T 10 N R 1 W.

N 79° 16' W from pt in
E of Road = intersection
of E of Rd with W. fence
line intersection

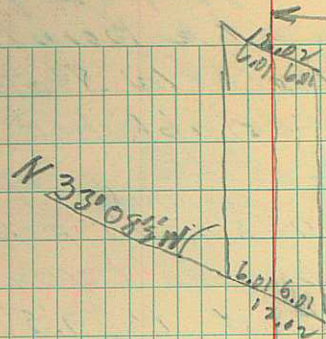
L. from Trench with
fence South 47° 47'

Trench bears N 22° 08' E

W $\frac{1}{4}$ Cor of Sec 33 is 2668.7'
South from apparent NW
Cor of Sec 33

Rock found in place at W $\frac{1}{4}$ Cor

Fence line at Trench
is N 33° 08 $\frac{1}{2}$ ' W



1631.5' = dist. East along E of
Sec 33 to point East
of Guard Rail in Rd.

19.3' = dist East from above pt.
to pt. at brow of fill

28.75' = dist. from pt. at brow
of fill to pt. due
South from pt in ^{South} E
of described prop.
which point is in
the E. Rt-of-Way line
of State Highway

1679.55' = Total dist E. from
W $\frac{1}{4}$ Cor to pt due South
from S. E of prop.

216.05' = dist. N. from E-W E
of Sec 33 to S. E
of property

(over)

Mt. Fuel Supply (Dry Lake)

Commencing at a point in
the E. fence line of a State
Hi. Way, as now established, which
pt. is also ⁱⁿ the ~~of~~ ^{of the} proposed
12" gas line, said ^{beginning} point being
further described as being North
216.05' and East 1679.5' from
the W¹/₄ Corner of Section 33,
T10 N., R1W., of the SLB and
Meridian, and running thence
N 33° 08' 1/2" W 6.01 feet: thence
N 22° 08' E 30'; thence S 33° 08' 1/2" E
12.02'; thence S 22° 08' W 30';
thence N 33° 08' 1/2" W 6.01' to the
point of beginning

Lionel E. Danielson

Smithfield Utah

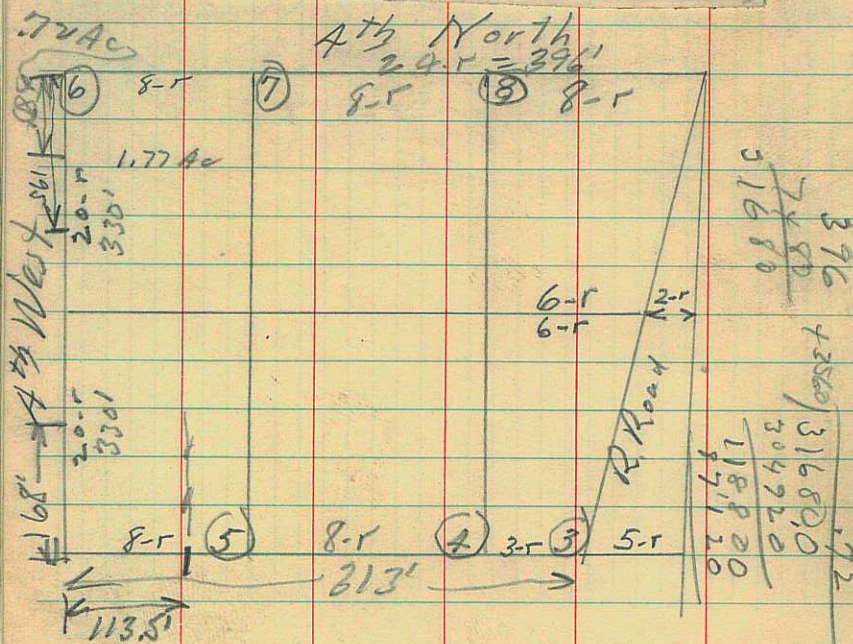
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Book 5 Page 255

C555 LIONEL ERICK DANIELSON,
SMITHFIELD, UTAH

ALL OF LOTS 4, 5, 6 & 7. AL SO PT OF LOT
3 AS FOLLOWS: COM 5 RDS W OF SE COR OF
LOT 3 W 3 RDS N 20 RDS E 6 RDS SLY 20
RDS TO BEG. ALSO: BEG AT A PT 2 RDS W
OF SE COR OF LOT 8 W 6 RDS N 20 RDS E

8 RDS SWLY TO BEG IN BLK 14 PLAT B
SMITHFIELD CITY: IN NE 1/4 SEC 28 T 13N R
1E



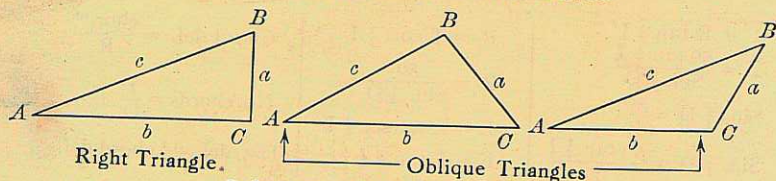
190
132
390
585
194
3560
7400
219900
386000
8480

Book 73/21
of Deeds.

Com at the NW cor of Lot 6
Blk 14, Plat 73 of Smithfield
City Survey, located in the
NE 1/4 of Sec 28 T13N R1E of S2137M
and running th S. 195' th E 132'
th N. 195' th W 132' to beg.
Cont. in all 0.59 Acre ±

8.98

TRIGONOMETRIC FORMULAS



Solution of Right Triangles

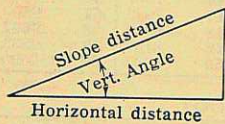
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\text{cosec} = \frac{c}{a}$

Given	Required	Formulas
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90^\circ - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180^\circ - C, \tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a + b + c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{bc}}$ $\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{ac}}, C = 180^\circ - (A + B)$
a, b, c	Area	$s = \frac{a + b + c}{2}, \text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
A, b, c	Area	$\text{area} = \frac{bc \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = $5^\circ 10'$. Since $\cos 5^\circ 10' = .9959$, horizontal distance = $319.4 \times .9959 = 318.09$ ft.
Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. $\cos 5^\circ 10' = .9959, 1 - .9959 = .0041, 319.4 \times .0041 = 1.31, 319.4 - 1.31 = 318.09$ ft.

When the rise is known, the horizontal distance is approximately the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.

Y. Main { $8 \frac{7}{8}$ " offset per 100'
 $0^\circ 13''$ per 100.

2 $\frac{7}{32}$
4 $\frac{3}{16}$

14 28
16 32