

Book H.

BOOK 4006

# FIELD NOTES

OF THE SURVEY OF THE

4006

North boundary of that portion of the N $\frac{1}{2}$  SE $\frac{1}{2}$  of section 9, Township  
 1 North, Range 4 East, lying South and West of a line parallel to and  
 250 ft. distant from the center line of the Phoenix-Tempe paved high-  
 way and Washington Boulevard,

Of the Gila and Salt River Meridian,

In the State of Arizona

### EXECUTED BY

Francis E. Joy, U.S. Cadastral Engineer,

4006

In the capacity of U. S. Surveyor, under Special Instructions dated February 21,  
 1933, issued by the District Cadastral Engineer to govern surveys included in Group  
 No. 176, which were approved by the Commissioner of the General Land  
 Office, March 3, 1933, and Assignment Instructions dated March 6, 1933.

Survey commenced March 24, 1933.

Survey completed March 26, 1933.

# INDEX DIAGRAM.

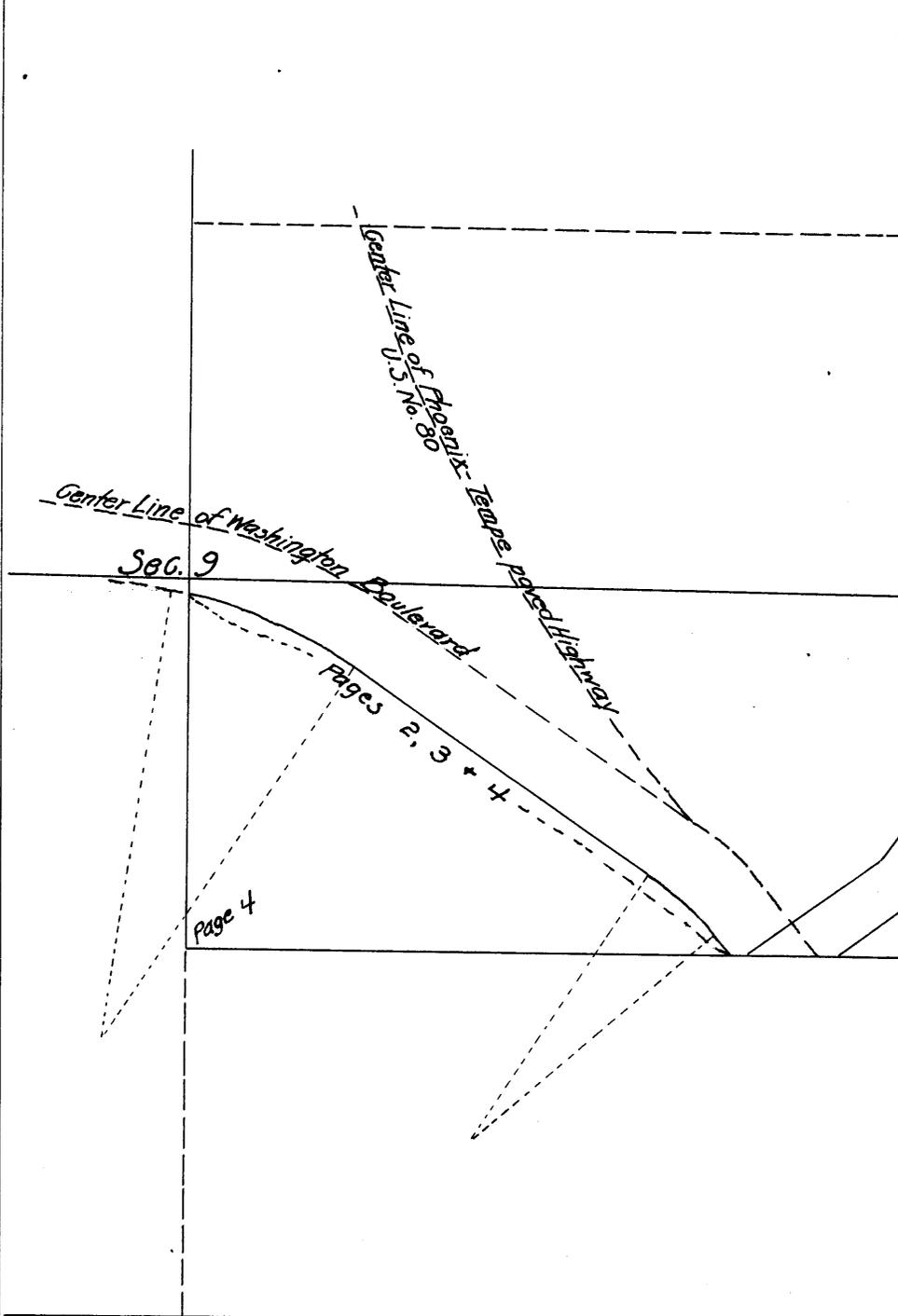
*Township* ..... , *Range* .....

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

# Index Diagram

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T. 1 N., R. 4 E., G. and S. R. M.



## Survey of a Tract in Sec. 9, T. 1 N., R. 4 E.

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The survey of a certain tract of land in the  $N\frac{1}{2}$  of the  $SE\frac{1}{4}$  of sec. 9, T. 1 N., R. 4 E., Gila and Salt River Meridian was executed with a light mountain transit made by Buff & Buff, Serial No. 16723, constructed in accordance with the standard specifications of the General Land Office. The horizontal circle has a diameter of  $4\frac{1}{2}$  inches, with two opposite verniers reading to single minutes; the vertical circle has a diameter of 4 inches, with one double vernier reading to single minutes. The instrument is equipped with the improved Smith solar attachment; radius of latitude arc  $2\frac{1}{2}$  inches, and of declination arc  $3\frac{1}{2}$  inches, each with verniers reading to single minutes. The instrument was in good condition, and having been placed in satisfactory adjustment prior to beginning the survey, and tested and found free from appreciable error, was approved by the district cadastral engineer on March 6, 1933. I examine all the instrumental adjustments before making the field tests hereinafter recorded.

The directions of all lines were determined by the solar transit method. The measurements were made with a Lallie steel tape, 5 chains in length, graduated every link for the first 100 links, and the remainder at intervals of 10 links. The tape was tested by comparison with a Keuffel & Esser standard and found correct. The measurements were made on the slope, and the vertical angle of each interval was ascertained by a clinometer in good adjustment; the horizontal equivalents are entered in the field note record.

March 21, 1933, near the center of sec, 10, T. 1 N., R. 4 E., latitude  $33^{\circ} 26' 21''$  N., longitude  $111^{\circ} 56' W.$ , I make an hour angle of Polaris west of the meridian, three each with the telescope in direct and reversed positions, reading the horizontal deflection angle from an iron pipe about  $1\frac{1}{2}$  miles distant in the direction N-E to Polaris.

Mean time of observation	6h 21m p.m., l.m.t.
Mean horizontal angle to pipe	$13^{\circ} 21'$
Azimuth of Polaris	$1^{\circ} 11'$
True bearing to pipe	N. $14^{\circ} 32'$ W.

March 26, 1933, preliminary and final tests of the solar attachment were made on this date, the instrument having been in continuous use. Every hour from 8 to 11 a.m. and from 1 to 4 p.m., app. t., I make proper settings on the arcs of the solar attachment and ascertain that the resulting orientation of the instrument, when compared with the meridian established by Polaris observation, has a maximum error of less than  $1' 30''$ .

I repeat the tests of the arcs daily by noon observations.

The subdivision involved,  $N\frac{1}{2} SE\frac{1}{4}$  sec. 9, was surveyed by Francis E. Joy, U.S. Cadastral Engineer, in 1931.

## Survey of a Tract in Sec. 9, T. 1 N., R. 4 E.

## Chains.

The Special Instructions issued under date of Feb'y 21, 1933 for the survey of a certain tract in Sec. 9, T. 1 N., R. 4 E., provide in part for the survey of a line parallel to and 250 ft. distant from the center of the Phoenix-Tempe paved highway and Washington Boulevard.

The general course of this segment of highway bears NW. and SE. along which two curves occur.

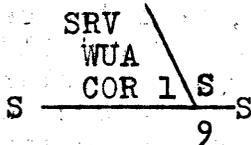
The method of procedure follows:

The tangents approaching the curves were very carefully determined and prolonged to point of intersection. From point of intersection to center of pavement on curve reveals a 3° curve in the NW. and a 4° curve in the SE. parts of this portion of the highway.

I now offset 250 ft. at right angles from the tangents thus determined, set temporary points in the required parallel line and proceed with the survey of said line.

At a point 250 ft. dist. at right angles to the center line of the highway and on the S. 1/16 sec. line of sec. 9,

Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground to bedrock, with a granite stone, 13 x 6 x 4 ins. mkd. X, deposited at the base, and in a mound of stone to top, for cor. No. 1 of tract, with brass cap mkd.



1933

From this point the S. 1/16 sec. cor. bet. secs. 9 and 10 bears N. 89° 55' E., 9.73 chs. dist.; an iron post, marked and witnessed as described in the official record.

From the same point the center S. 1/16 sec. cor., sec. 9 bears S. 89° 55' W., 30.70 chs. dist.; an iron post, marked and witnessed as described in the official record.

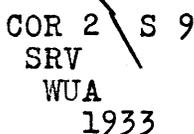
Thence

N. 40° 39' W., along line parallel to center of highway.

Over heavy rolling land, through scattering brush.

1.72 To beginning of a curve with a radius of 1182.7 ft. or 17.92 chs.

Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for cor. No. 2 of tract, with brass cap mkd.



1933

raise a mound of stone, 3 ft. base, 2 ft. high, SW. of cor.

Thence with continuous alinement and measurement on blank line.

3.40 Draw, 10 lks. wide, 10 ft. deep, course S.

4.18 To point of intersection of tangents..

## Survey of Tract in Sec. 9, T. 1 N., R. 4 E.

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## Chains.

Thence

N.  $56^{\circ} 17'$  W., on blank line, on tangent.

2.46 To end of curve; the length of curve is 322.7 ft. or 4.889 chs.

Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for cor. No. 3 of tract, with brass cap mkd.

COR 3 / S 9  
SVR  
WUA  
1933

raise a mound  
of stone, 3 ft. base, 2 ft. high, SW. of cor.

Thence along tangent parallel to center line of highway with continuous alinement and measurement.

6.20 Rocky draw, 10 lks. wide, 10 ft. deep, course S.

11.90 Draw, 10 lks. wide, 10 ft. deep, course S.

21.70 Draw, 10 lks. wide, 10 ft. deep, course S.

22.67 To beginning of a curve with a radius of 1660.1 ft. or 25.153 chs.

Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for cor. No. 4 of tract, with brass cap mkd.

COR 4 / S 9  
SRV  
WUA  
1933

raise a mound  
of stone, 3 ft. base, 2 ft. high, SW. of cor.

Thence with continuous alinement and measurement on blank line.

23.70 Road, bears N. and S.

24.80 E. bank of gulch, 15 ft. high, bears NW. and SE.

26.75 Dry water channel, 12 ins. deep, 30 lks. wide, course SW.

28.39 To point of intersection of tangents..

Thence

N.  $81^{\circ} 55'$  W., on blank line, on tangent.

Ascend 24 ft. over W. bank of gulch.

1.00 Top of bank, bears NE. and SW.

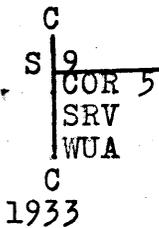
4.00 Head of draw, 6 ft. deep, course S.

4.58 Intersect the N. and S. center line of Sec. 9 at a point 2.6 lks., N.  $0^{\circ} 33'$  W. of intersection of a curve. Length of curve to point of intersection is 667.4 ft. or 10.11 chs. At point of intersection of curve

Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for cor. No. 5 of tract, with brass cap mkd.

Survey of Tract in Sec. 9, T. 1 N., R. 4 E.

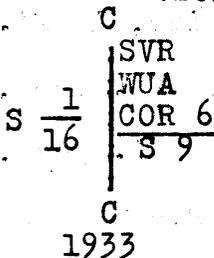
Chains.



Raise a mound of stone, 3 ft. base, 2 ft. high, SE. of cor.

From this point the center 1/4 sec. cor. of sec. 9, bears N. 0° 33' W., 95 lks. dist.; An iron post, 1 in. diam., standing firmly 3 ins. above the top of a mound of stone, 3 ft. base, 18 ins. high, marked and witnessed as described in the official record.

From the same point the center S. 1/16 sec. cor., bears S. 0° 33' E., 19.57 chs. dist.; an iron post, 1 in. diam., 8 ins. above ground, firmly set, marked and witnessed as described in the official record, and which I additionally mark to read as follows, for cor. No. 6 of Tract:



GENERAL DESCRIPTION.

The land covered by this survey is rolling and rather badly cut by dry washes. The soil gravelly and rocky, 3rd and 4th rates.

Scattering palo verde, ironwood, greasewood and cacti constitutes the ground cover.





OK 4006

CERTIFICATE OF UNITED STATES SURVEYOR

I, Francis E. Joy, U.S. Cadastral Engineer, hereby certify upon honor that, in pursuance of special instructions received from the District Cadastral Engineer for Arizona

bearing date of the 21st day of February, 1933, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed the North boundary of that portion of the N 1/2 SE 1/4 of section 9, Township 1 North, Range 4 East, lying south and west of a line parallel to and 250 ft. distant from the center line of the Phoenix-Tempe paved highway and Washington Boulevard.

of the Gila and Salt River Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the District Cadastral Engineer for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Glendale, California, May 10, 1934.

Francis E. Joy, U.S. Cadastral Engineer.

APPROVAL

OFFICE OF U. S. SUPERVISOR OF SURVEYS,

Denver, Colorado, October 13, 1934.

The foregoing field notes of the survey of the North boundary of that portion of the N 1/2 SE 1/4 of section 9, Township 1 North, Range 4 East, lying south and west of a line parallel to and 250 ft. distant from the center line of the Phoenix-Tempe paved highway and Washington Boulevard, of the Gila and Salt River Meridian, in the State of Arizona,

executed by Francis E. Joy, U.S. Cadastral Engineer,

under his special instructions dated February 21, 1933, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Supervisor of Surveys.

I certify that the foregoing transcript of the field notes of the above-described surveys in has been correctly copied from the original notes on file in this office.

U. S. Supervisor of Surveys.