

Resolving Boundaries  
2014 Spring Workshop  
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## Disclaimers

- I am currently employed by the Missouri Department of Natural Resources, Division of State Parks, but I am speaking today of my own accord and not as a representative of my employer. It must be clear that I am not speaking for or about the Missouri Department of Natural Resources or the Division of State Parks.
- In the past I have been associated with the Missouri State Land Survey. With their transition to the Missouri Department of Agriculture, however, this association no longer exists. It must be clear that I am not a representative of the Missouri State Land Survey nor do I speak on their behalf or with their consent.
- I make no claim to be the the master of all knowledge.

## Useful Quotes Pertaining to the Resolution of Boundaries

Quotes from *Boundaries and Landmarks, A Practical Manual*, by A. C. Mulford, 1912

"Since no two problems present exactly the same complications, it is useless for any one to attempt to lay out any fixed rules of procedure, yet it may be fairly said that from experience each surveyor acquires a certain amount of definite information concerning boundaries and landmarks and certain definite conceptions concerning the relative importance of different kinds of evidence, both direct and circumstantial. He is compelled to formulate for his own use certain general methods of procedure, and it is probable that the methods worked out by different surveyors bear a much closer resemblance to each other than would be supposed at first thought." (page 2)

**"... when it comes to a question of the stability of property and the peace of the community, it is far more important to have a somewhat faulty measurement of the spot where the line truly exists than it is to have an extremely accurate measurement of the place where the line does not exist at all."** (page 3)

"For the solution of these problems [of boundary location] no general rules can be laid down; each man must work out his own salvation." (page 87)

"The problems of boundary lie at the foundation of all surveying, for one must know where a line is before he can measure it, and the solution of these problems calls for the same powers of accurate observation and of consecutive and logical thought that are demanded for successful work in any branch of modern science. **It is needless to say that the successful surveyor must be accurate in his instrument work and in his computation;** yet, if he would really succeed, he must go beyond this. **He must add to this the patience to collect all the evidence which can be found bearing upon the case in hand, together with the ability to weigh this evidence to a nicety and to determine clearly the course pointed out by the balance of probability.**" (pages 87-88)

"The watchwords of the surveyor are Patience and Common Sense." (page 88)

"Dishonesty in ordinary business life cannot long be hid and errors in accounts quickly come to light, but the false or faulty survey may pass unchallenged through the years, for few but the Surveyor himself are qualified to judge it." (page 89)

Quotes from *Boundary Control and Legal Principles, Third Edition*, by Curtis M. Brown, Walter G. Robillard and Donald A. Wilson, 1986.

"When proving that a monument or line is an original, the surveyor must know what older surveyors usually set, how they made their measurements, and how lines were marked. Thus some knowledge of history and the law of evidence is essential." (page 1)

"Land surveyors, when locating land boundaries, are charged with the responsibility of adequately gathering facts, correctly evaluating them, and arriving at conclusions of law." (pages 365-366)

**"The three main causes of disagreement between surveyors are (1) failure to locate all of the documents that give essential information about the area being surveyed, (2) inadequate field search for monuments, and (3) incorrect interpretation of evidence or the meaning of documents."** (page 371)

"A diligent, thorough, and complete search for all evidence is the fundamental essence of land surveying. Failure to find an original monument position can only lead to the possibility of future litigation and can impart liability upon the less than diligent surveyor." (page 372)

"The objective of the resurveyor is to locate where the original surveyor ran his lines on the face of the earth, and this determination should be in accordance with the best available evidence. At times possession may be the best available evidence remaining, but such a determination should only be made after a complete analysis of all the evidence, such as the age of fencing, ring count in overgrowth on tree blazing, and the collection of testimony." (page 372)

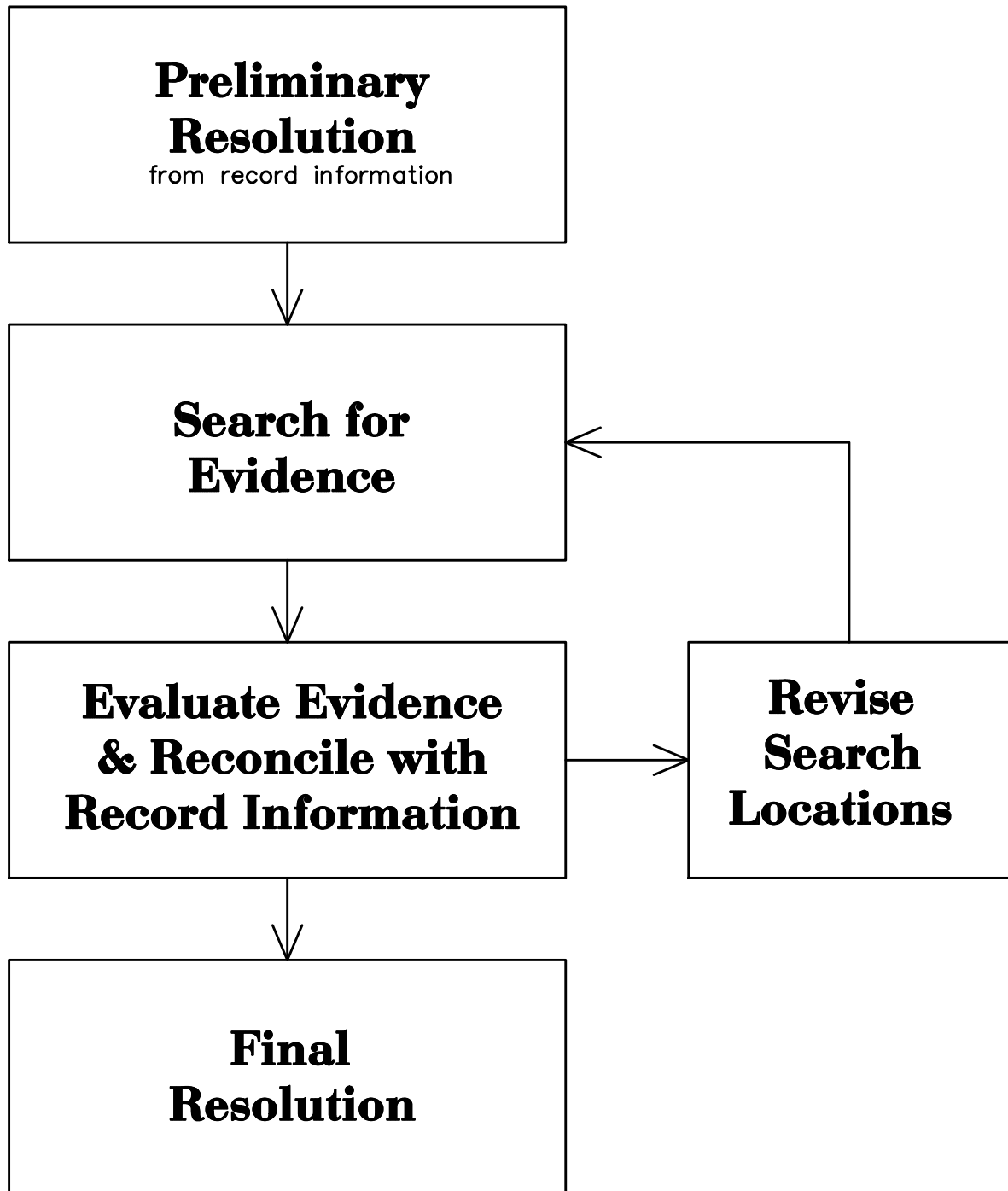
"Since evidence varies in degree of importance, the surveyor must have knowledge of the order of importance of evidence and must locate land boundaries in accordance with the best available evidence." (page 373)

Quote from *Evidence and Procedures for Boundary Location, Third Edition*, by Curtis M. Brown, Walter G. Robillard and Donald A. Wilson, 1994.

"In attempting to survey and locate a described parcel of land, the only permanent and correct location of its boundaries is where a court of competent jurisdiction would locate them. To know where a court would locate property boundaries, the surveyor must have expert knowledge of the laws of boundaries. Yet regardless of where the surveyor would locate the boundaries of the parcel, *the final decision is nothing more than an opinion of the evidence and this is always subject to review by the courts.* [emphasis in the original] (page 2)

# Flow Chart

## General Process for Resolving Boundaries



# General Process of Resolving Boundaries

## Preliminary Resolution

- Examine record information and put the pieces together.
- Are the calls in adjoining tract descriptions calling for the same thing?
- Are they calling for something different?
- What will control the boundary location?
- What will the field crew be looking for?
- Are there any red flags or discrepancies in any of the descriptions?
- Calculate search areas based on the reconciled record information.

## Search for Evidence

- Find enough evidence to "get on the system" with your search coordinates.
- Based on the reconciled record information, look for called-for corners.
- Half the battle is knowing where to look.
- If you don't look for it, it is almost certain that you won't find it.

## Evaluate Evidence and Reconcile with Record Information

- Did you find the evidence called for in the record?
- Do the field measurements match the record?
- If not, is there an explanation?
- Was there additional uncalled for evidence that sheds light on the boundary location?
- Can you reconcile the red flags identified in the preliminary resolution.

## Revise Search locations and Search for more Evidence

- Revise your preliminary resolution to match the evidence found.
- Identify refined search areas where nothing was found on the first attempt.
- Identify additional areas to search when the search area must be expanded.
- Return to the field and look for more evidence.

## Final Conclusion

- Did you find the original called for corners?
- Did you find original uncalled for corners?
- Did you find later uncalled for corners?
- Will you accept or reject what you found?
- For corners not found, which legal principles apply?
- Do you feel confident with your conclusions?
- Does the evidence support your decision?
- If evidence is lacking, is your conclusion reasonable? sensible? equitable?

## Case Study #1

### Background:

A coal mining company has a large landholding on which it strip mines coal. It powers its coal shovels and equipment with electric, so its electricians are an important part of the operation. Having their master electrician close at hand, then, is a high priority, so the coal company provides a residence for him at the edge of the property.

When the coal company has mined out their holdings, they decide to convey the residence and a couple acres to the master electrician.

### Description of Conveyance

May 22, 1973

That part of 10 acres square in the Southwest Corner of the East 60.28 acres of the East Half of the Northeast Quarter of Section 25, more particularly described as follows, to wit:

Beginning at the Southwest corner of the East 60.28 acres of the East Half of the Northeast Quarter of Section 25;

thence **East along the South line** of the 60.28 acre tract for a distance of 271.6 feet;

thence N 1° 47' E for a distance of 155.8 feet;

thence N 25° 42' W for a distance of 170.0 feet,

thence N 74° 01' W for a distance of 205.8 feet,  
to a point in the **West line of original 60.28 acre tract**;

thence S 0° 02' W **along the original line** for a distance of 232.8 feet;

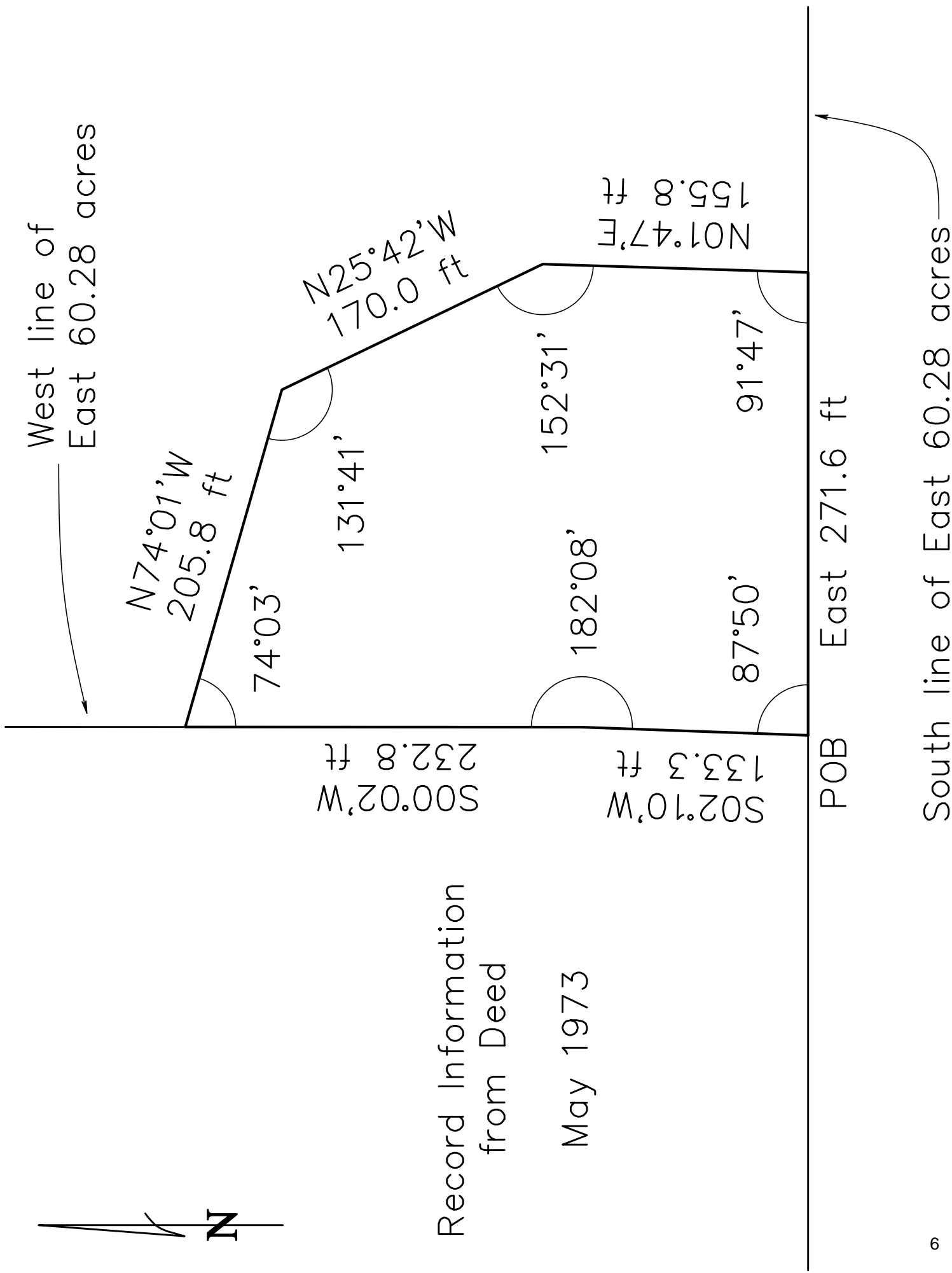
thence **continuing along the West line** of said 60.28 acre tract  
S 2° 10' W a distance of 133.30 feet to the point of beginning,

containing 1.95 acres, more or less.



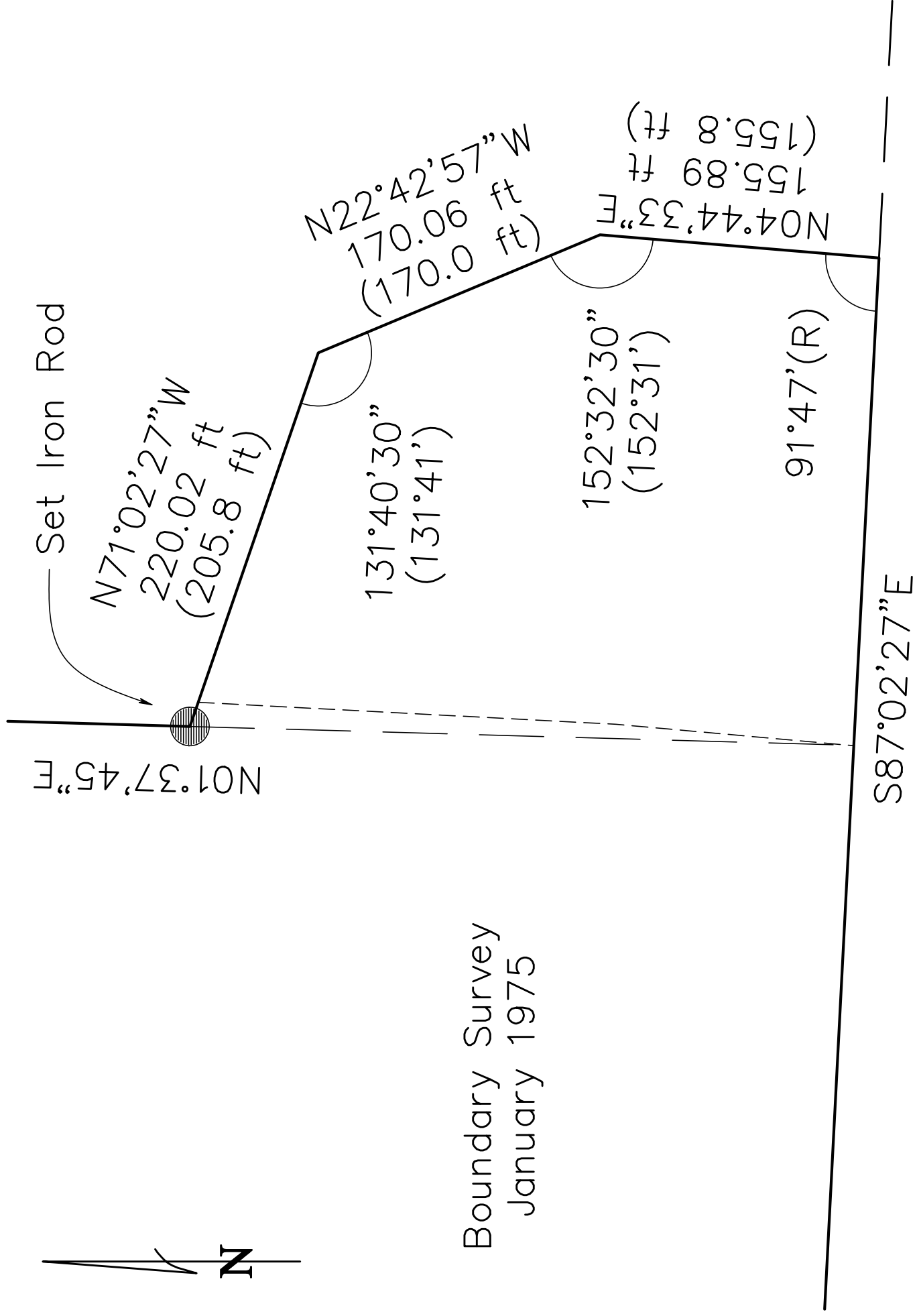
Record Information  
from Deed

May 1973





Boundary Survey  
January 1975





# Retracement Survey

2013

Retraced 1975 boundary

old woven wire fence  
(about N06°E)

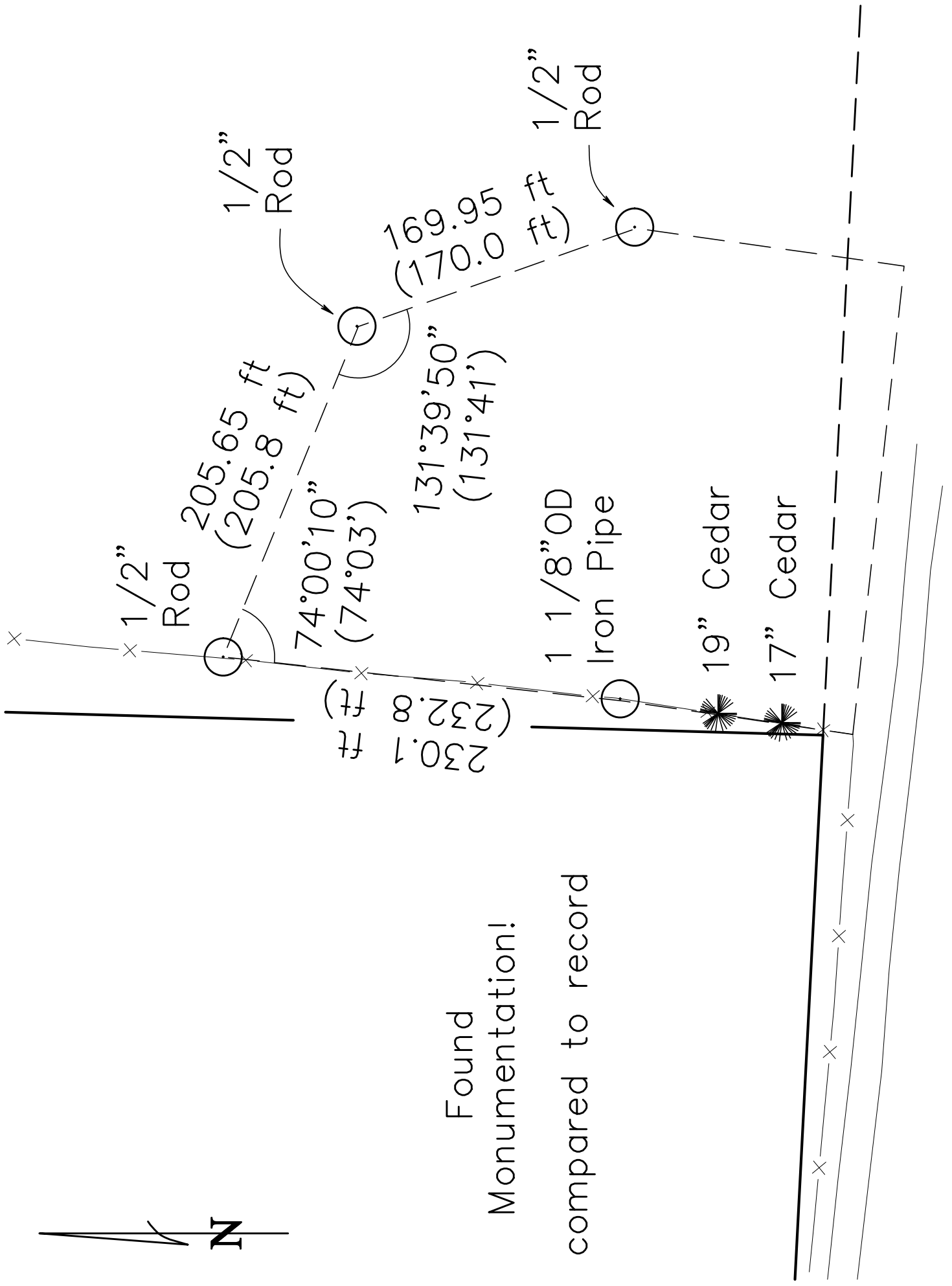
shed

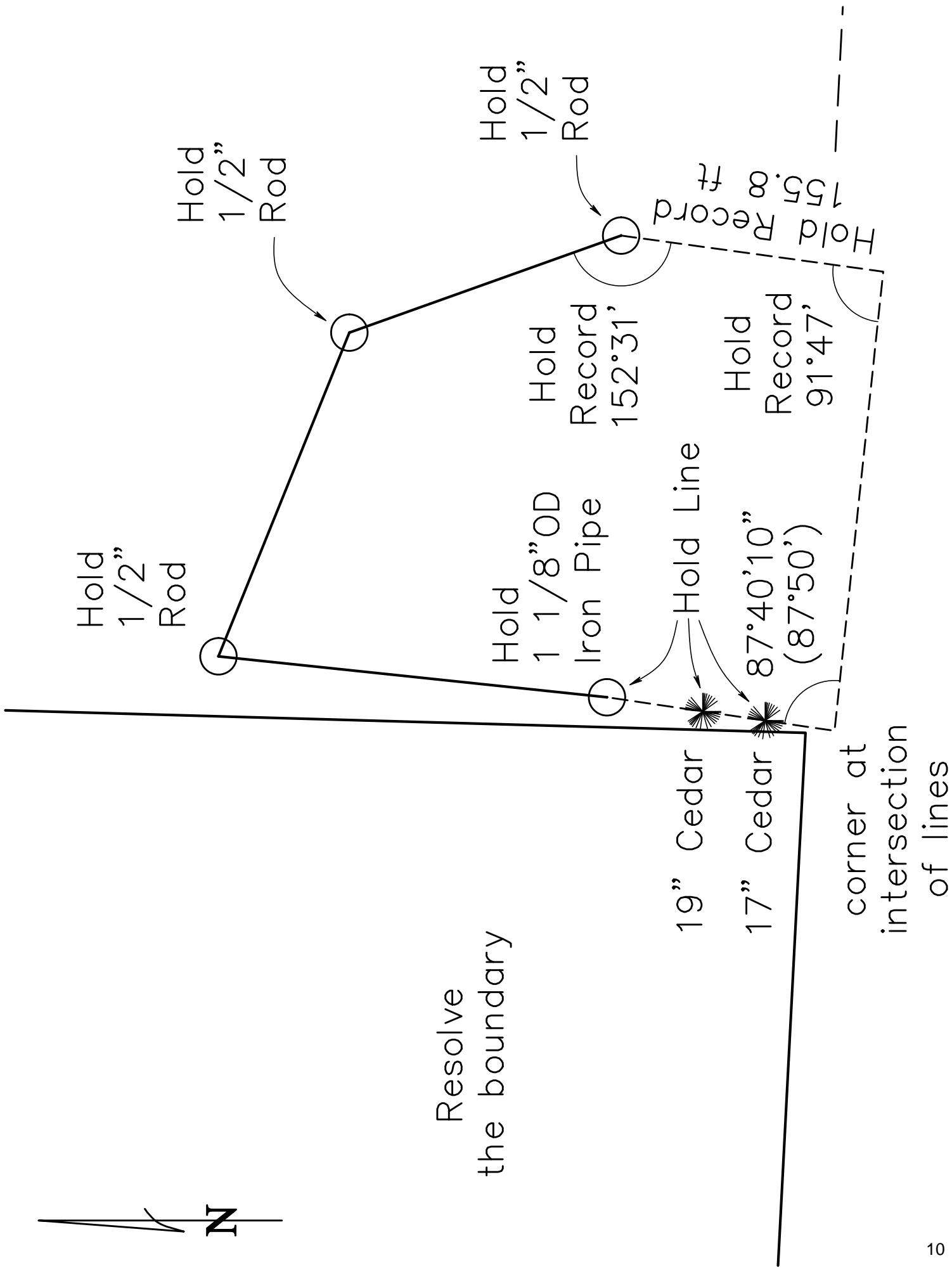
edge of coal pit

line of  
trees

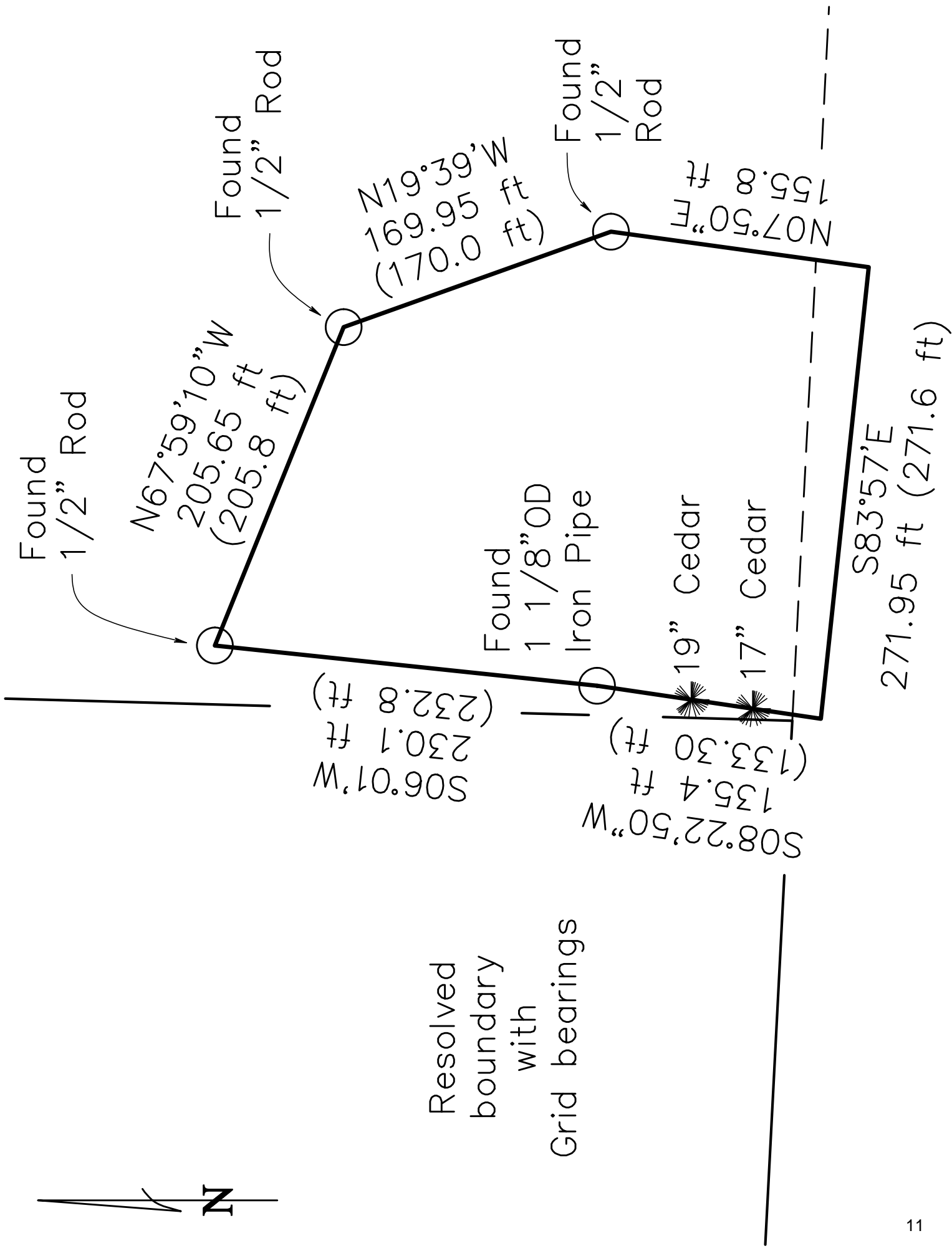
gravel county road







Resolve  
the boundary



## Case Study #2

### Description of Larger Tract September 1, 1999

All of the Northeast quarter of Section 29, lying North of the Highway.

Less and excepting that portion of said property conveyed by instrument dated May 24, 1963 and recorded as Deed #2.

Also less and excepting that portion of said property conveyed by instrument dated February 27, 1964 and recorded as Deed #3.

Also less and excepting that portion of said property conveyed by instrument dated February 27, 1964 and recorded as Deed #4.

### Deed #2 Description May 24, 1963

Begin at an **iron bar** on the North side of the Highway, said corner being a corner 12.23 chains *[807.18 feet]* West of the Northeast corner of the Northwest quarter of the Southeast quarter of Section 29;

thence East along the center line of the Section 4.75 chains *[313.5 feet]* to a stake;

thence North 42°30' West 6.25 chains *[412.5 feet]* to a stake;

thence West 4.75 chains *[313.5 feet]* to a stake on Northeast right-of-way of the Highway;

thence South 42°30' East 6.25 chains *[412.5 feet]* to beginning corner,

containing three (3) acres more or less.

### Survey #1 May 7, 1963

#### Section 29

Began at the NW cor. of Chester Bourisaw's property an **iron bar** on the N. side of the highway.

thence N 41°W 6.25 chs to a point

thence E. 4.75 chs to a stake

thence S 41°E 6.25 chs to a point on the N line of Bourisaw's property

thence W. 4.75 chs to the beginning corner.

cont. 3A more or less.

### Deed #3 Description

February 27, 1964

Part of the Southwest quarter of the Northeast quarter of section 29, described as follows:

Begin at an **iron bar** on the north side of the Highway, said corner being a corner 807.18 feet west of the Northeast corner of the Northwest quarter of the Southeast quarter of Section 29;

thence North 42°30' West a distance of 412.50 feet to a stake, the point of beginning,

thence East 400 feet to a stake,

thence North 42°30' West 300 feet to a stake,

thence West 400 feet to an **iron bar**,

thence South 42°30' East a distance of 300 feet to the point of beginning,

containing 2.05 acres, more or less.

### Deed #4 Description

February 27, 1964

Part of the Southwest quarter of the Northeast quarter of section 29, described as follows:

Begin at an **iron bar** on the North side of the Highway, said corner being a corner 807.18 feet west of the Northeast corner of the Northwest quarter of the Southeast quarter of Section 29;

thence East 313.50 feet to the point of beginning,

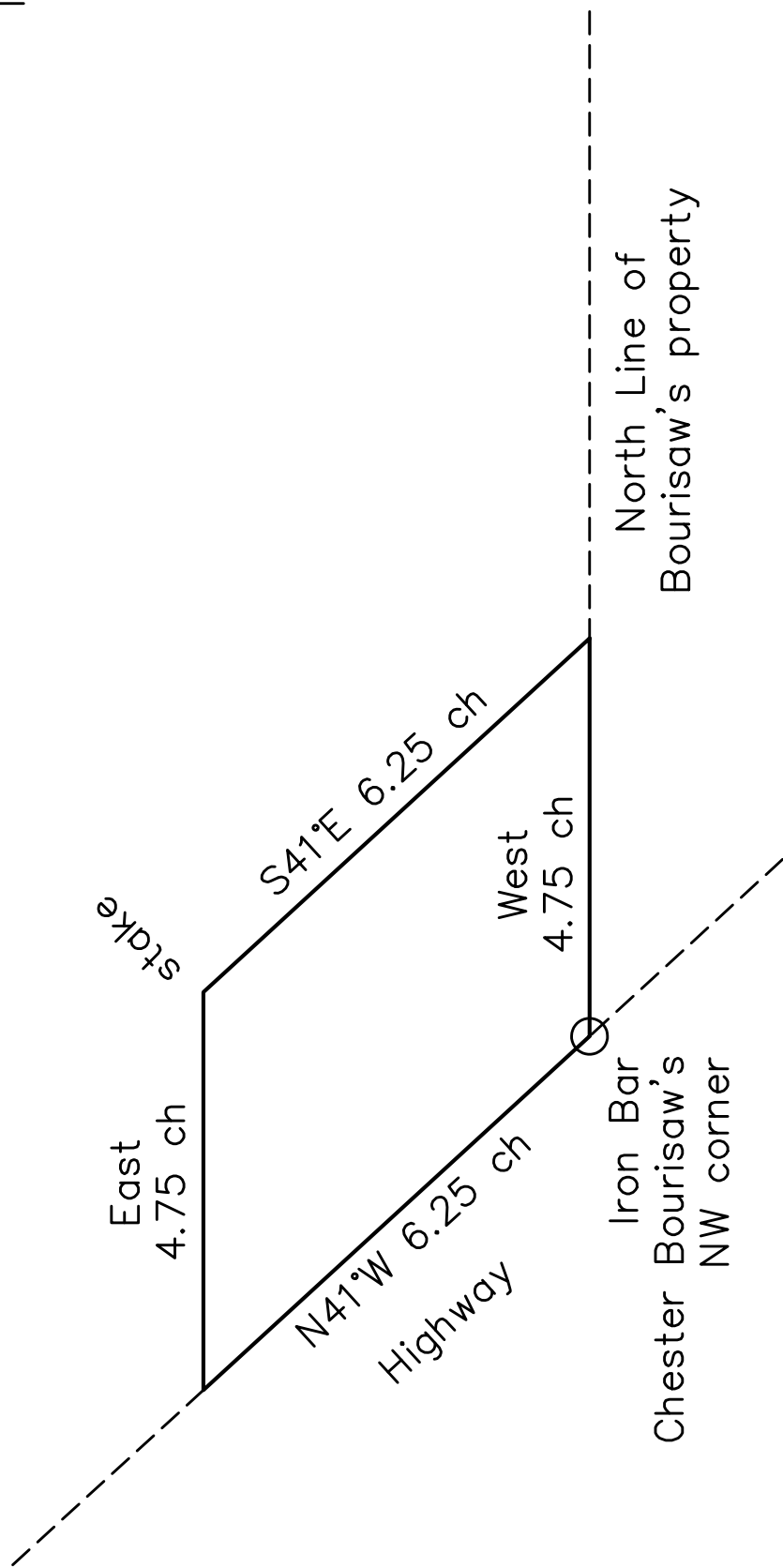
Thence East 313.50 feet to a stake,

thence North 42°30' West 412.50 feet to a stake,

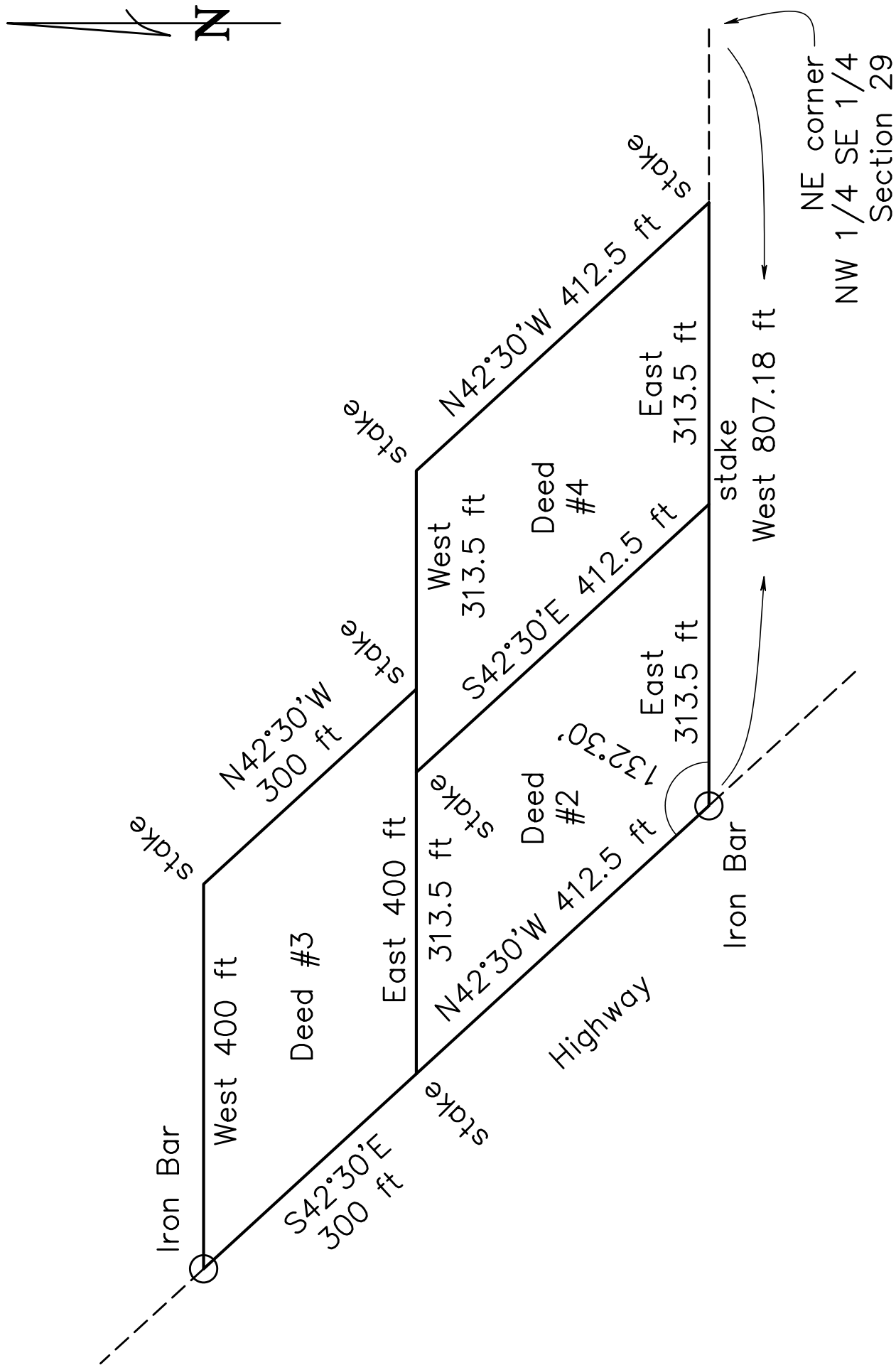
thence West 313.50 feet to a stake,

thence South 42°30' East 412.50 feet to the point of beginning,

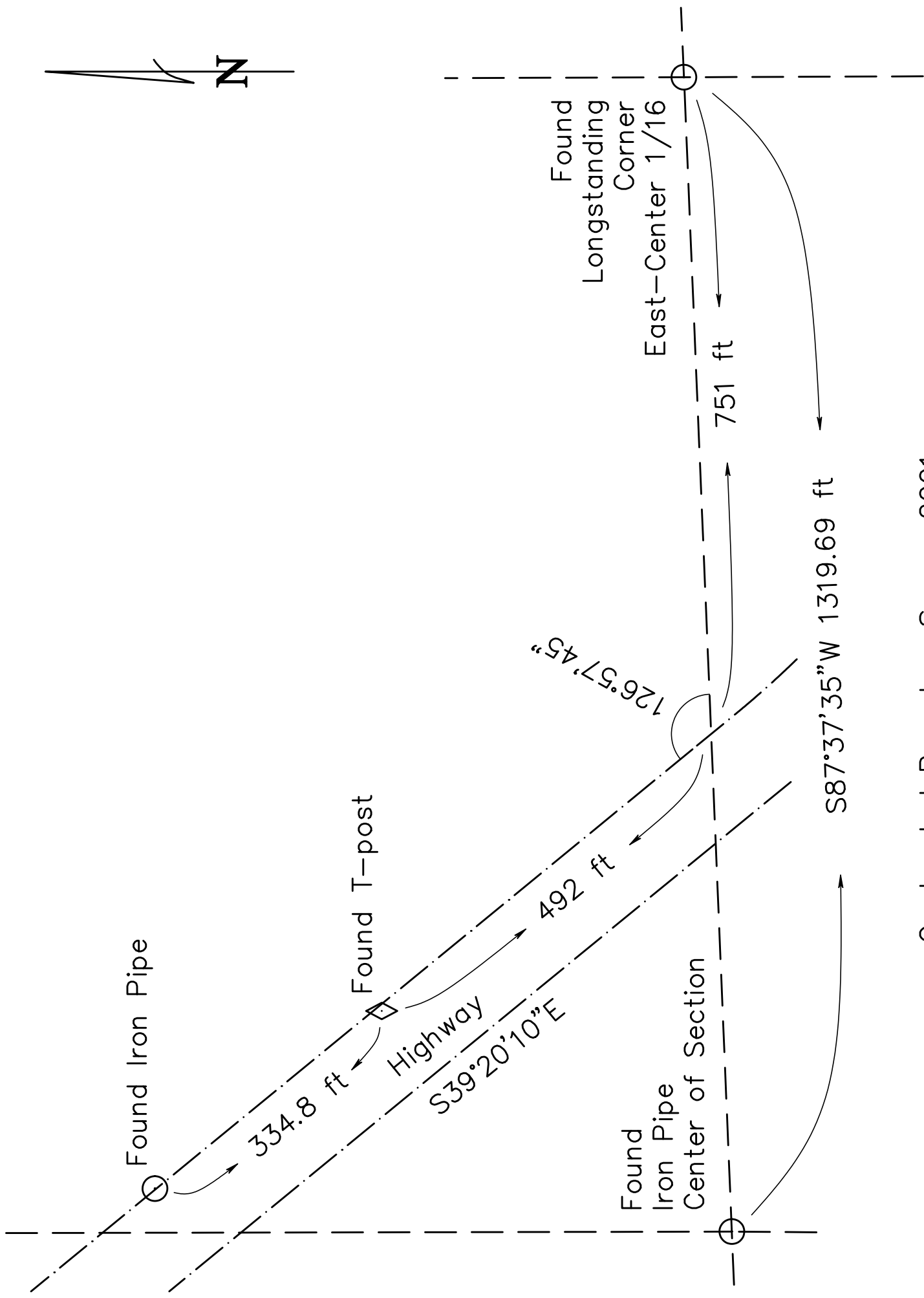
containing 2.18 acres, more or less.



Boundary Survey dated May 7, 1963

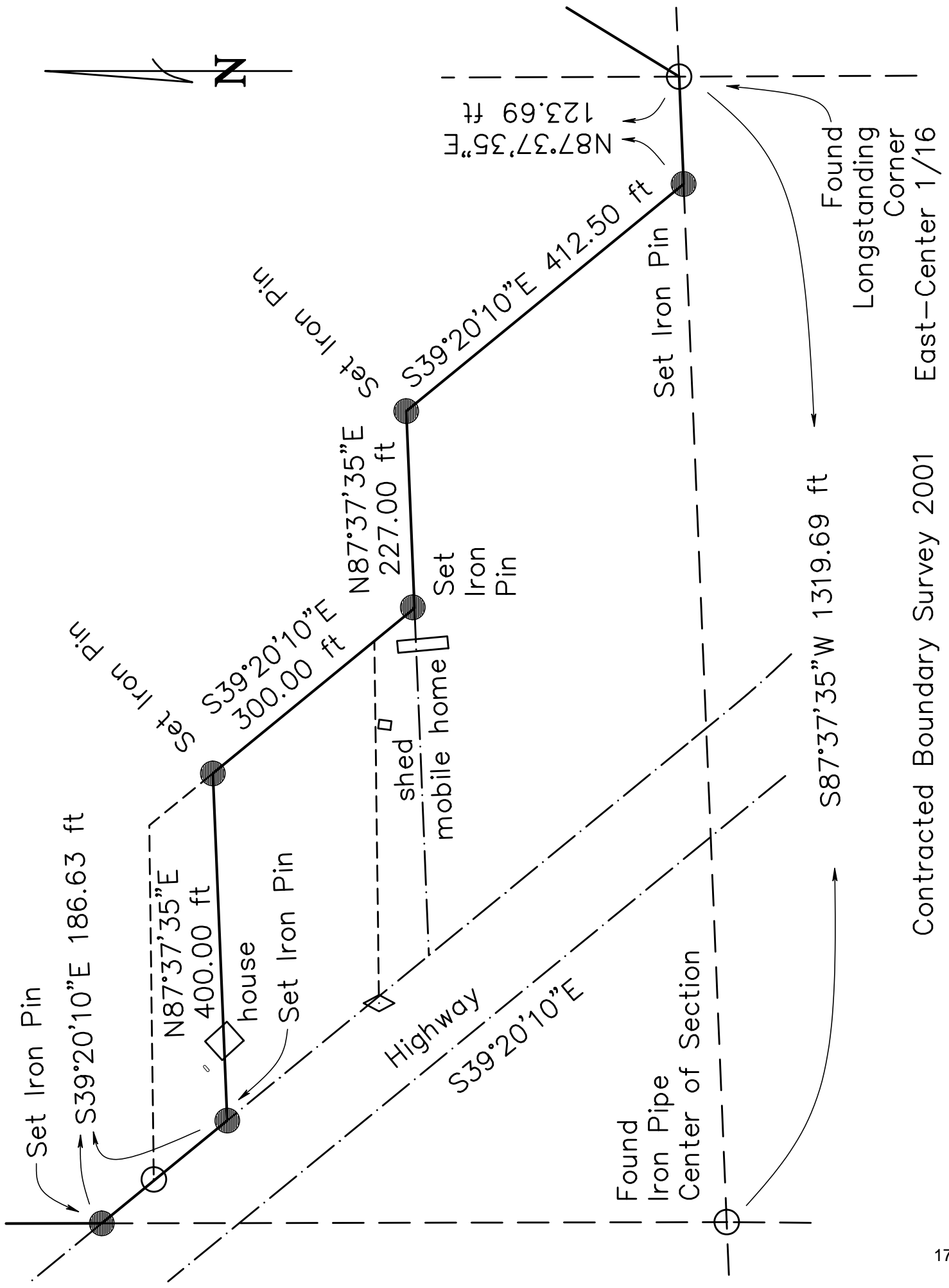


Compiled record information for exceptions

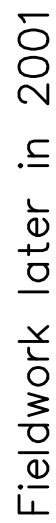


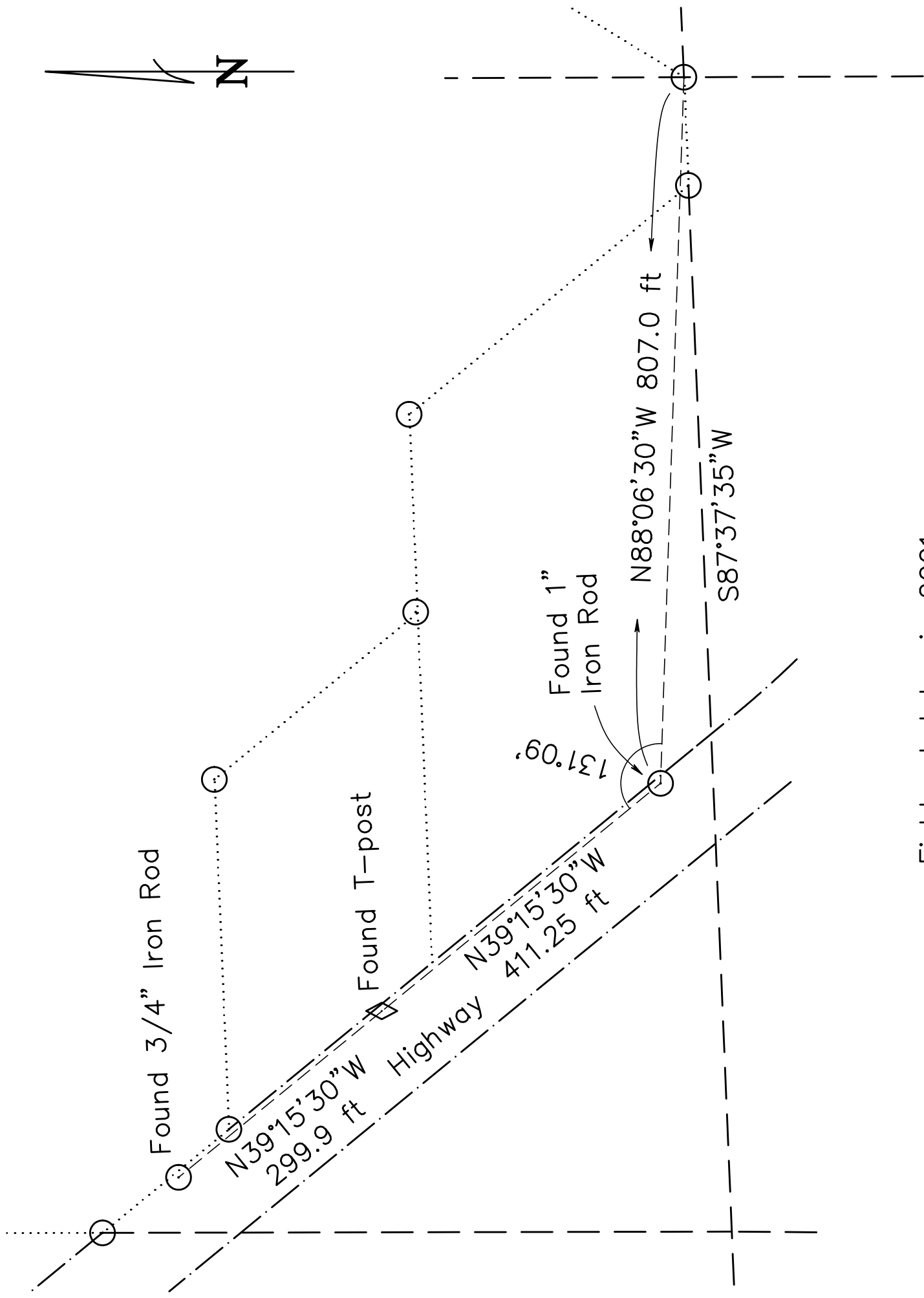
Contracted Boundary Survey 2001



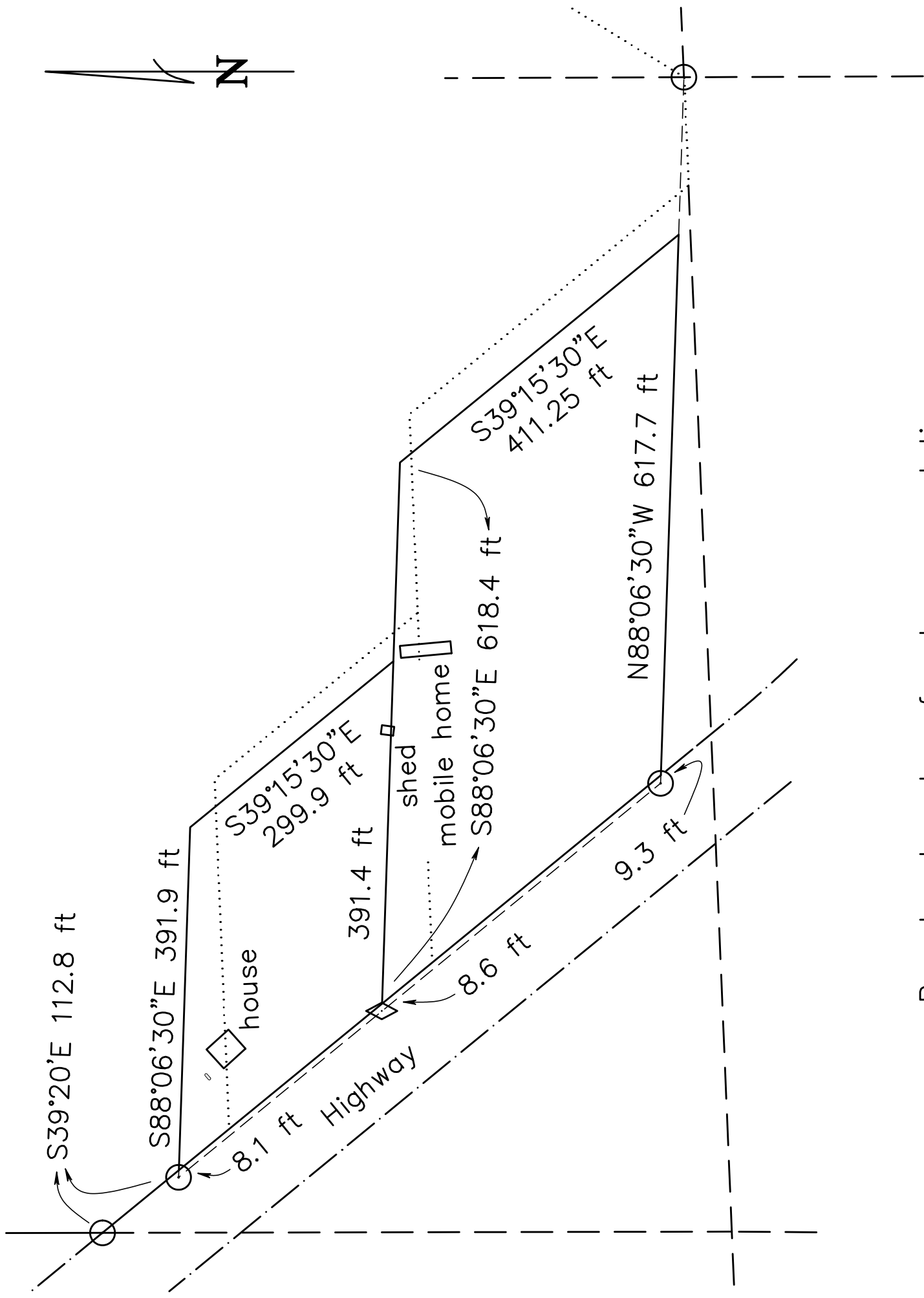


Contracted Boundary Survey 2001





Fieldwork later in 2001



Boundary based on found monumentation

## Case Study #3

### Description

September 28, 1976

... to an **iron rod** in the south line of a 20-foot alley lying south of and adjoining Block "H" of Platted Subdivision;

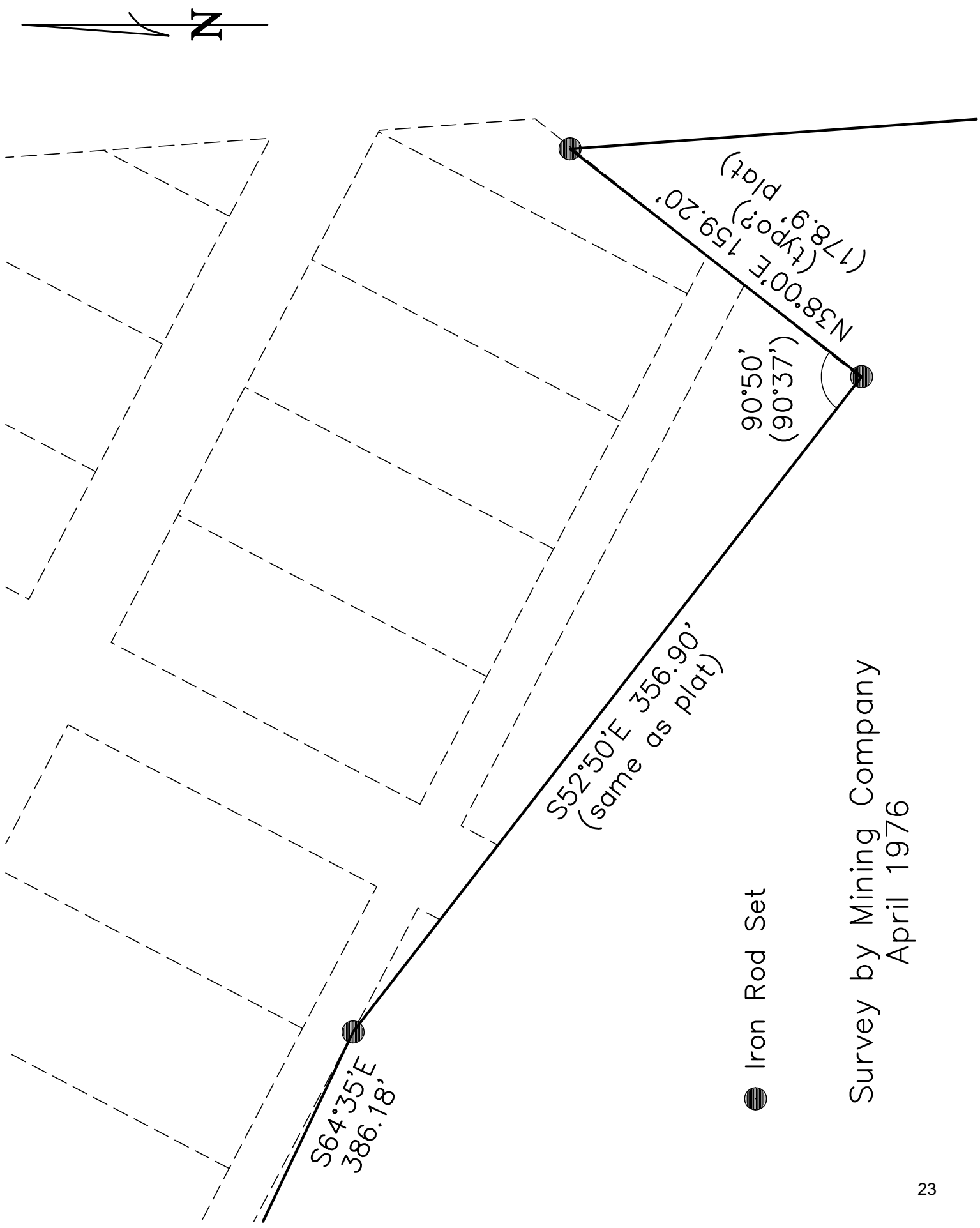
thence S. 64° 35' E., along said south line of said alley, a distance of 386.18 feet to an **iron rod** at the most westerly corner of Lot 9 in said Block "H" of said Platted Subdivision;

thence S. 52° 50' E., along the south line of said Lot 9, the easterly prolongation of said south line of said Lot 9 to the southwest corner of Lot 6 in Block "I" of said Platted Subdivision, and along the south line of said Lot 6, a distance of 356.90 feet to an **iron rod** at the southeast corner of said Lot 6;

thence N. 38° 00' E., along the east line of said Lot 6, the northerly prolongation of said east line of said Lot 6 to the southeast corner of Lot 5 in said Block "I", and along the east line of said Lot 5, a distance of 159.20 feet to an **iron rod** on the west line of a blacktop road ...

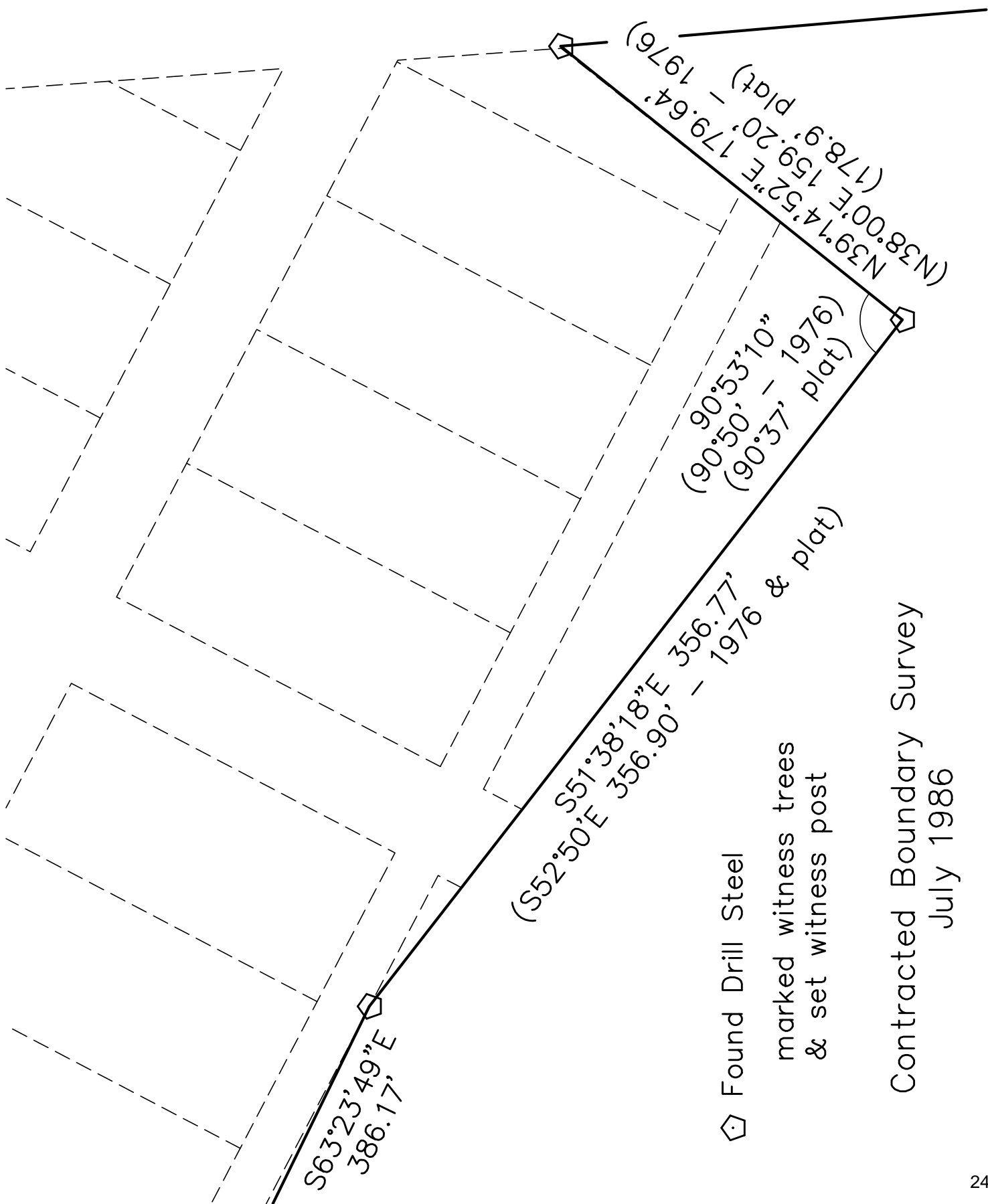
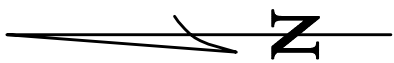
Also, all of Lot 9 in Block H, and all of Lots 5 and 6 in Block I, all in Platted Subdivision, as shown on a plat recorded in the County Recorder's Office.





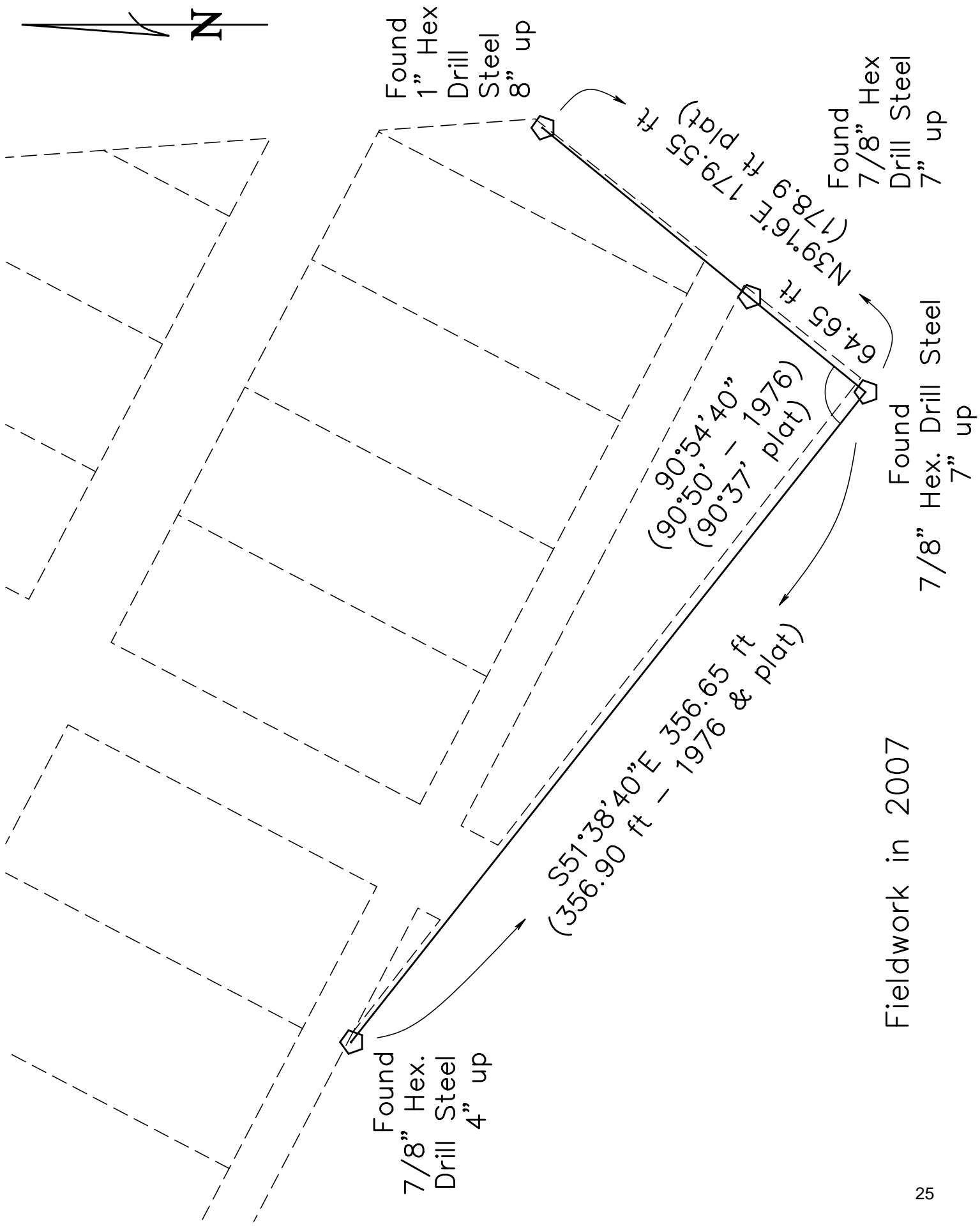
● Iron Rod Set

Survey by Mining Company  
April 1976

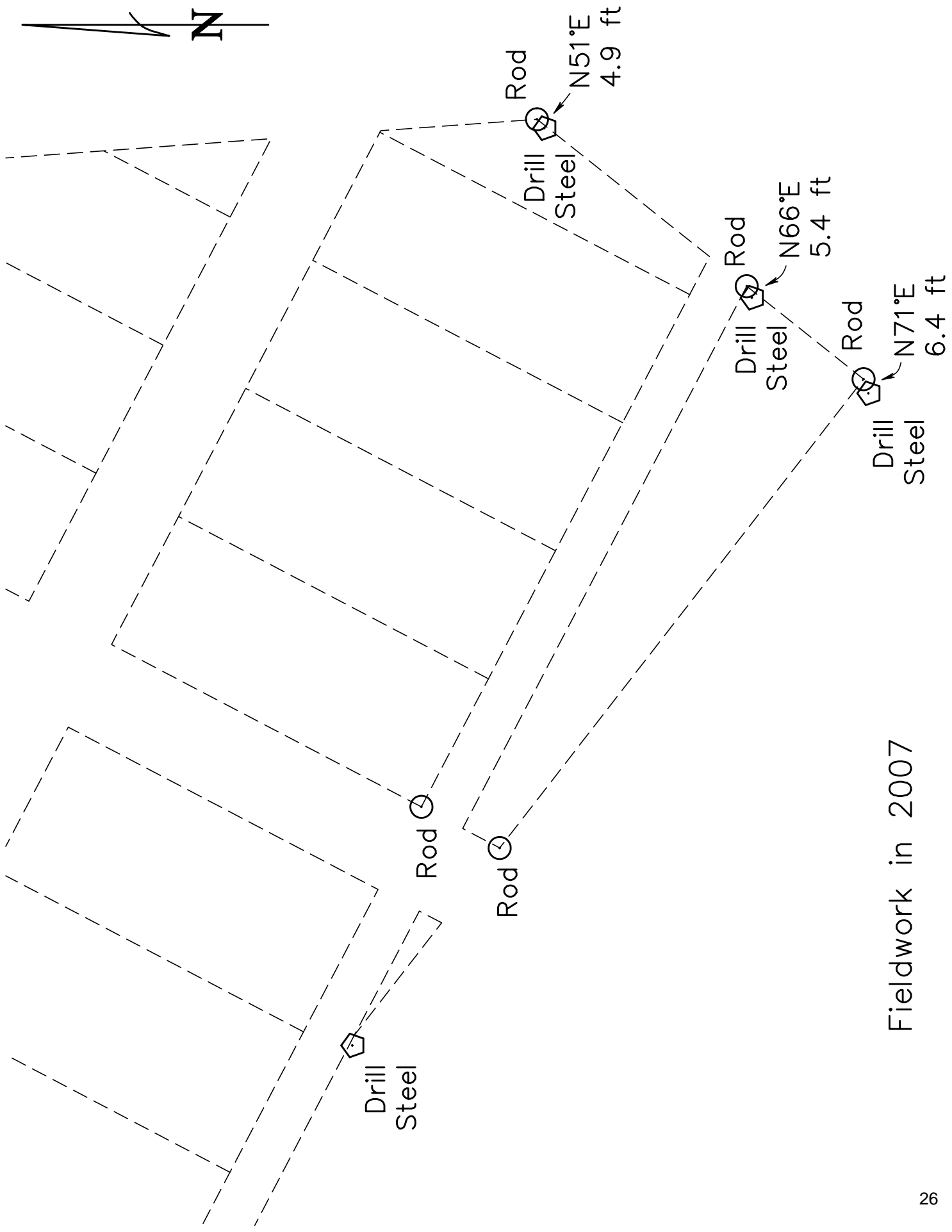


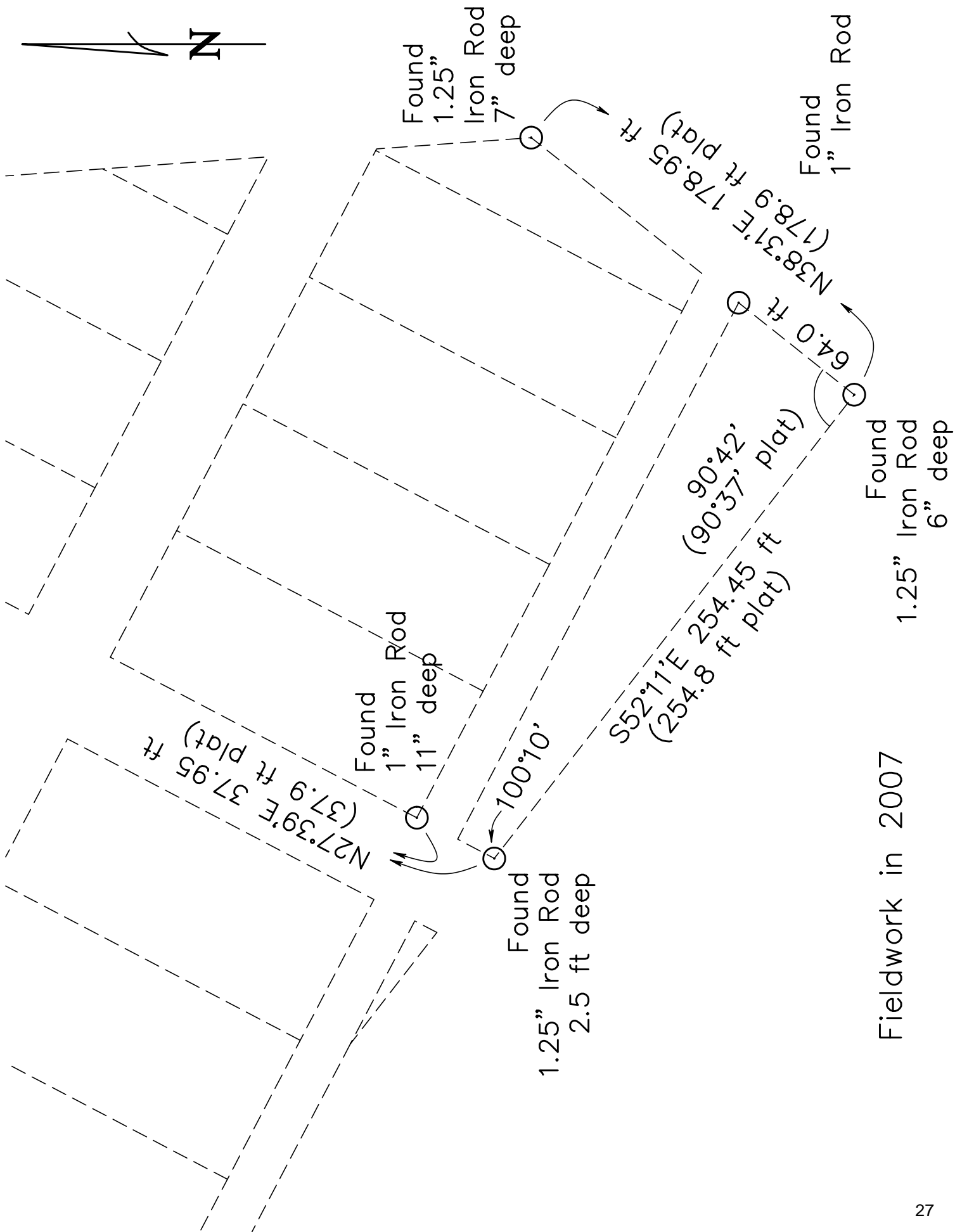
Contracted Boundary Survey  
July 1986





Fieldwork in 2007







## Case Study #4

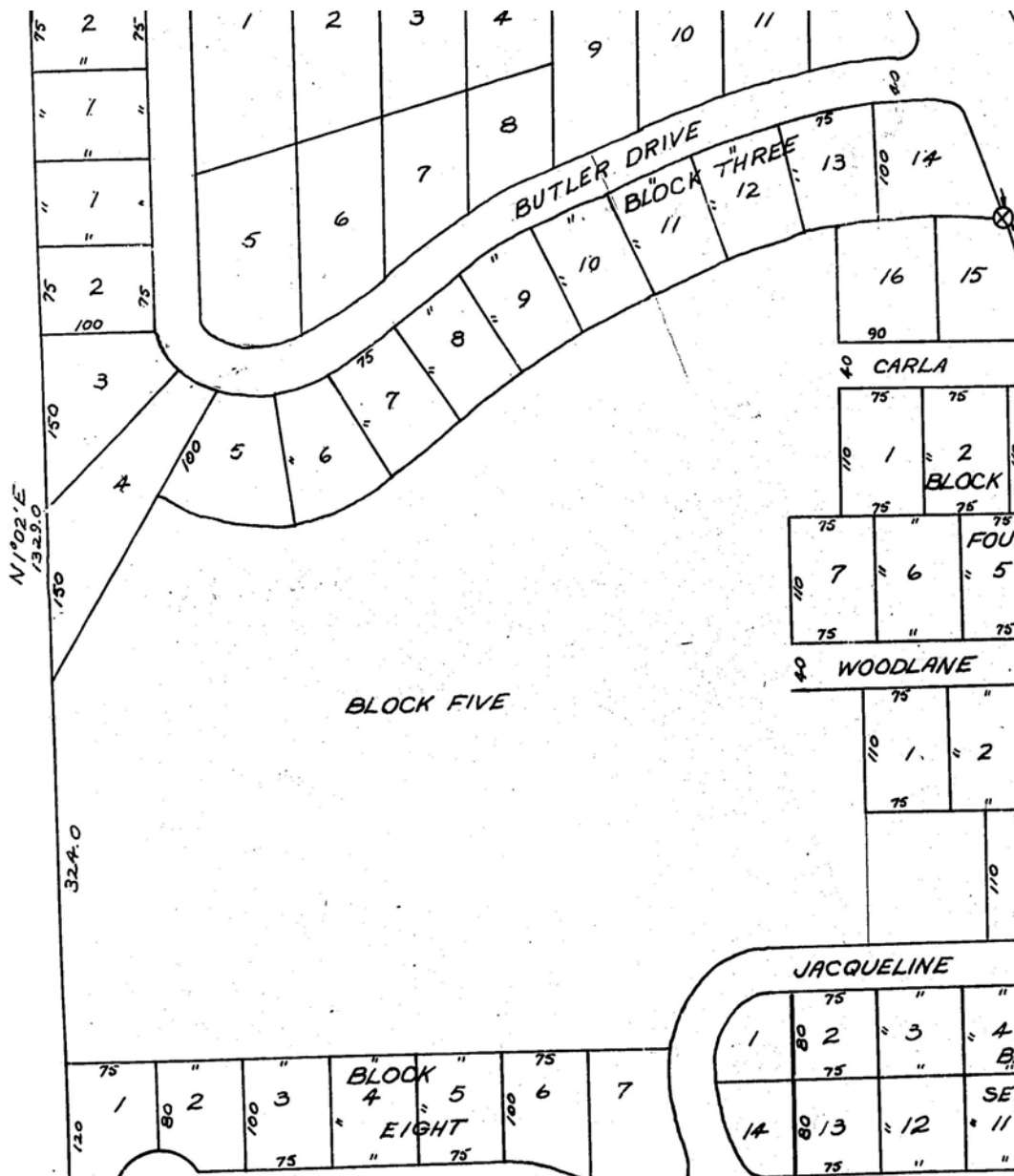
### Description

October 18, 2004

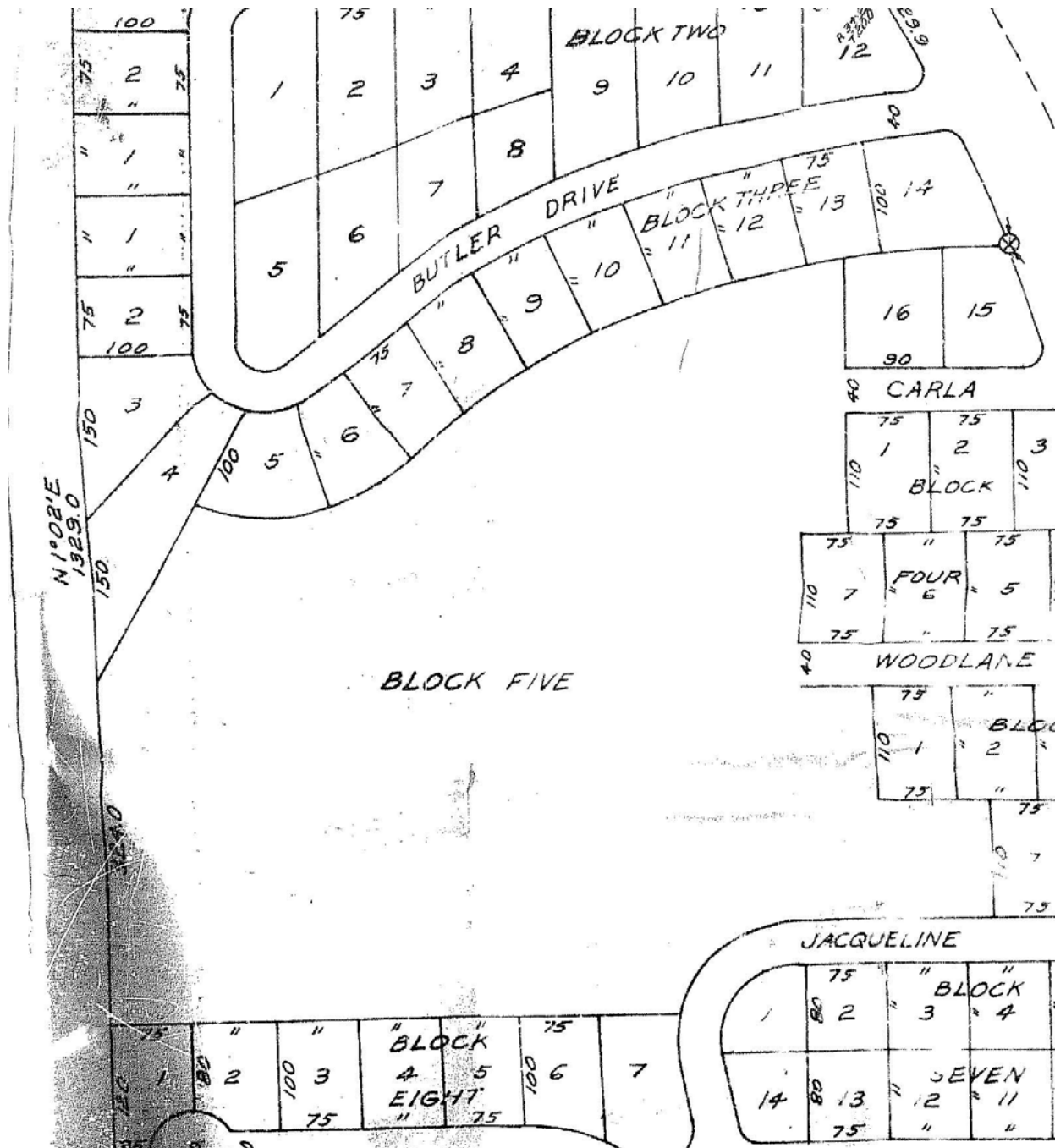
All of Block Five (5) of the BRILLIANT SUBDIVISION, according to the plat thereof recorded in the Recorder's Office.

### Commentary:

The Land Survey Index indicates two entries for the subdivision. Looking at the microfiche for the first reference, we find a drawing that appears to be a tracing or hand copy into the Plat Book. The curves seem to have been freehanded and the names are printed on the line where the signatures should be.



Looking at the microfiche for the second reference, we find what appears to be a folded drawing with smooth curves and actual signatures. The microfiche is labeled "Records in Drawer."



Both drawings have incomplete dimensions, so I decided to visit the County Recorder of Deeds to see if I could look at the original drawing. At the Recorder's Office, I found that the drawing in the Plat Book was the hand-drawn version. I was told by the Deputy Recorder that this drawing was the only one available. I persisted, however, and eventually the Recorder found the "original" blue-line print folded up in a filing cabinet full of other folded drawings. From this blue-line print I carefully scaled the missing distances, angles and curve radii.

Where actual monumentation was not recovered and no dimensions were shown on the plat, the survey was made to conform to the original blue-line print according to the distances, angles and curve radii that I scaled.

