

Origin of the Public Land Survey System (PLSS)

The beginning of the Public Land Survey System (PLSS) was the Land Ordinance of 1785. The Ordinance allowed for methods of an orderly survey, auction, and disposal of lands in the Western Territory.

Following the Declaration of Independence on July 4, 1776, the Continental Congress found itself to be deeply in debt. They had no power to levy taxes on the states or levy property taxes on the land. The only asset the federal government had that could be converted into money was the land in the Western Territory.

The money generated from the sales of the lands was used to pay off war debts and also as bounty payment for war veterans.

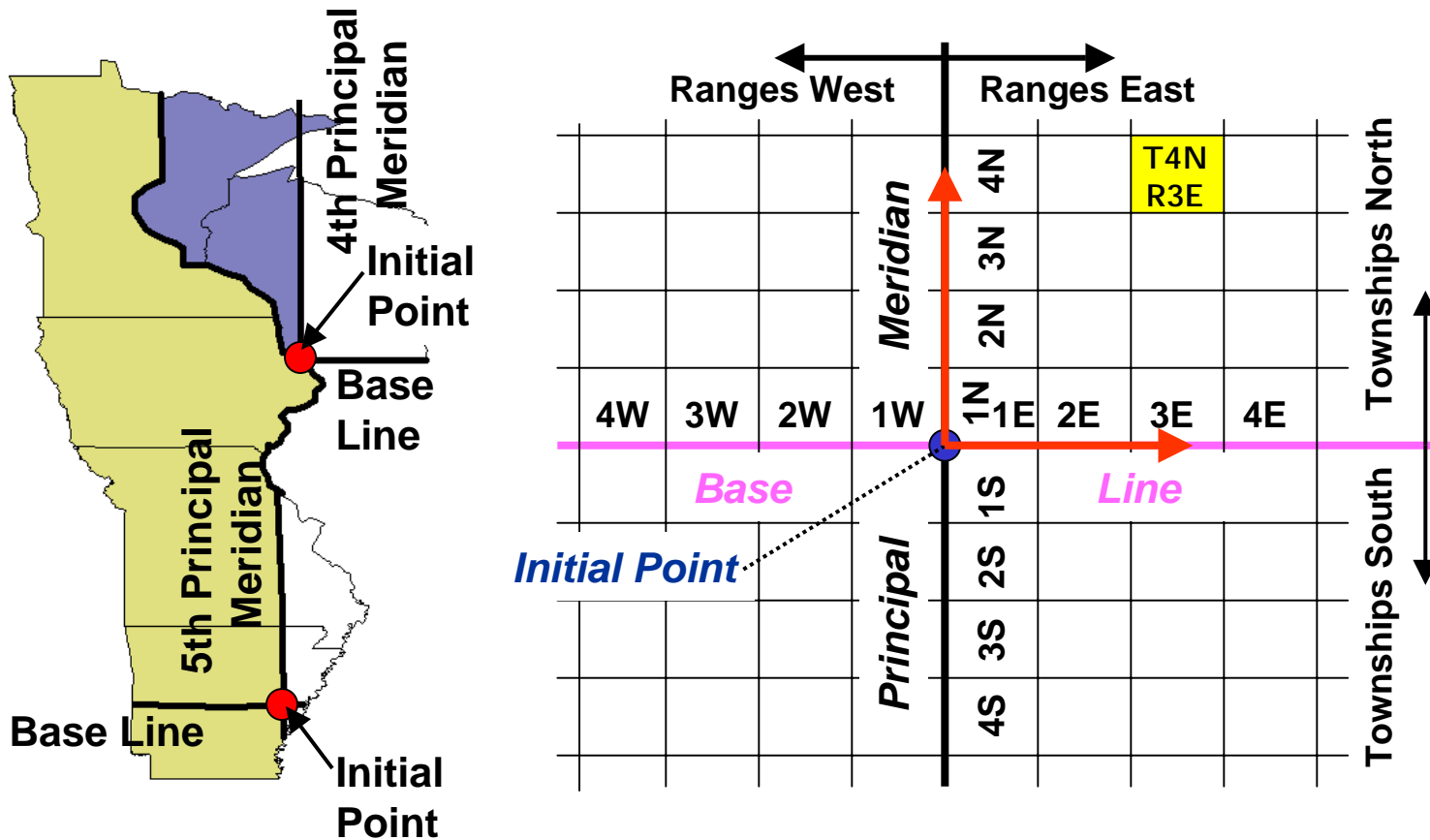
Thomas Jefferson and John Adams were strong proponents of surveying the lands prior to sale. They developed a rectangular system which, in effect, laid a one-mile grid pattern across nearly the rest of the United States. This system provided a fair, economical, and easy way to divide and describe land into uniform parcels. It also prevented land speculators from using indiscriminate metes and bounds descriptions to take all of the choice lands, which was a common problem in the original states.



The Public Land Survey System

Public Land Survey Townships (as opposed to political townships) were surveyed and named progressively from their Initial Point. These Initial Points represented the intersection of a Principal Meridian (typically a longitudinal line) and a Base Line (typically a latitudinal line).

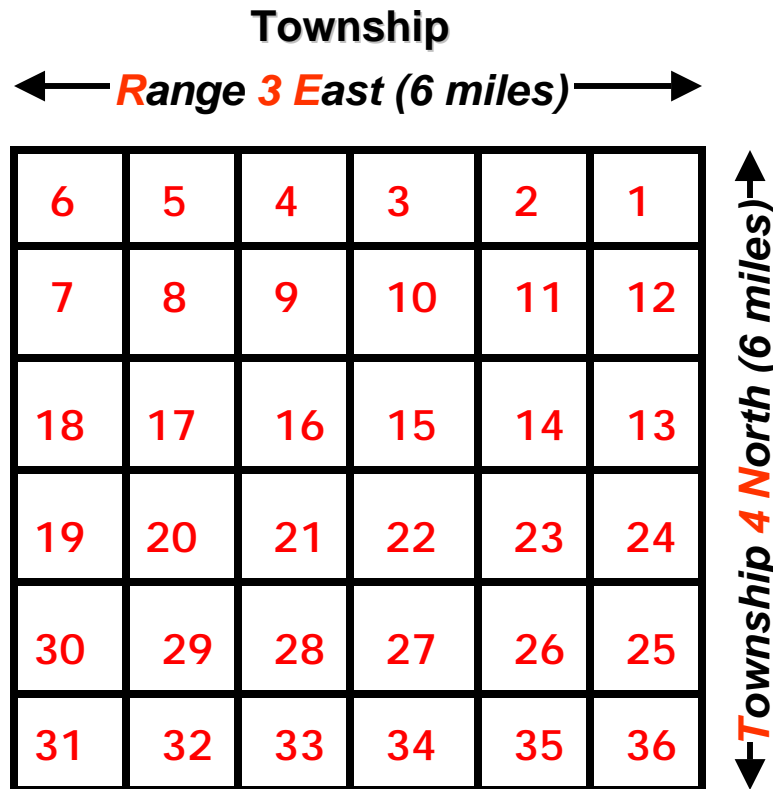
In Minnesota, the Public Land Surveys are measured North (townships), East or West (ranges) of the 4th Principal Meridian, or West (ranges) of the 5th Principal Meridian.



The Public Land Survey System

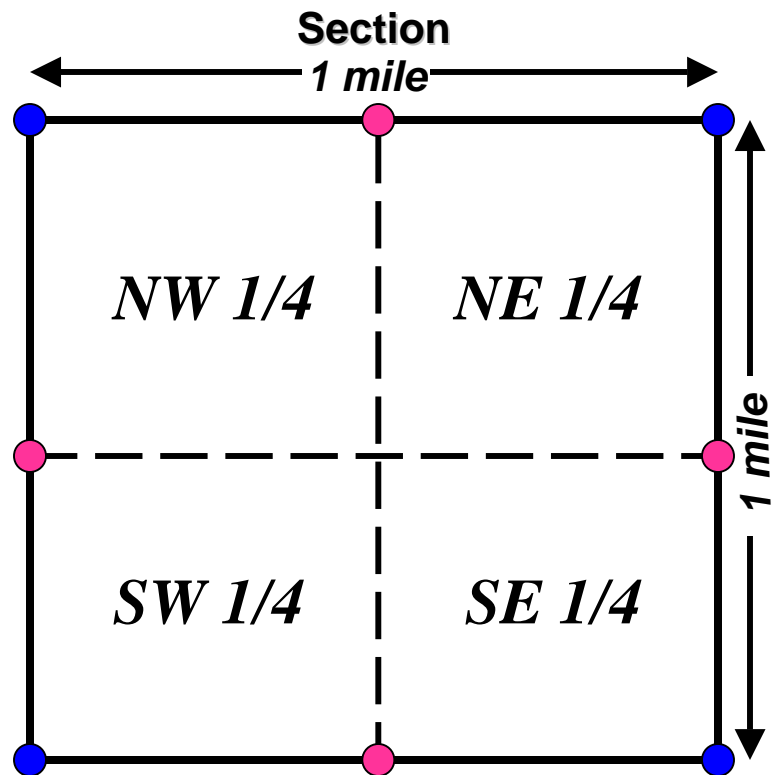
Public Land Survey Townships were then subdivided into 36 sections, each section being approximately 1 mile by 1 mile in dimension.

Sections are numbered from 1 to 36 and are labeled in a switch-back pattern.

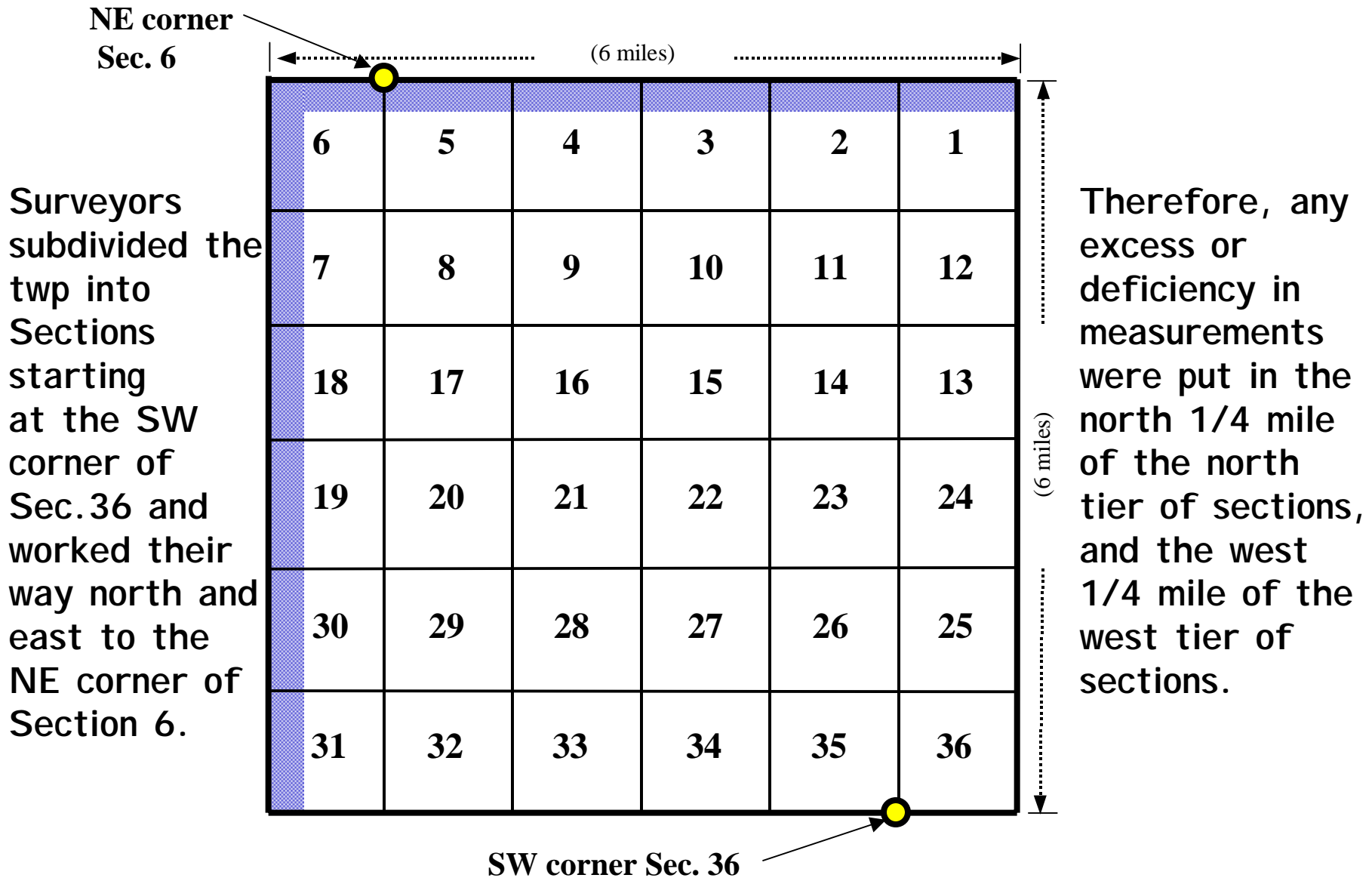


All sections were surveyed and monuments were placed marking the **SECTION** and **QUARTER** corners (every 1/2 mile).

Additional geographical information was noted by the Deputy Surveyors such as the soil type, general description of the land, and mineral deposits. They also surveyed the water courses, lakes, and swamps over an acre in size.

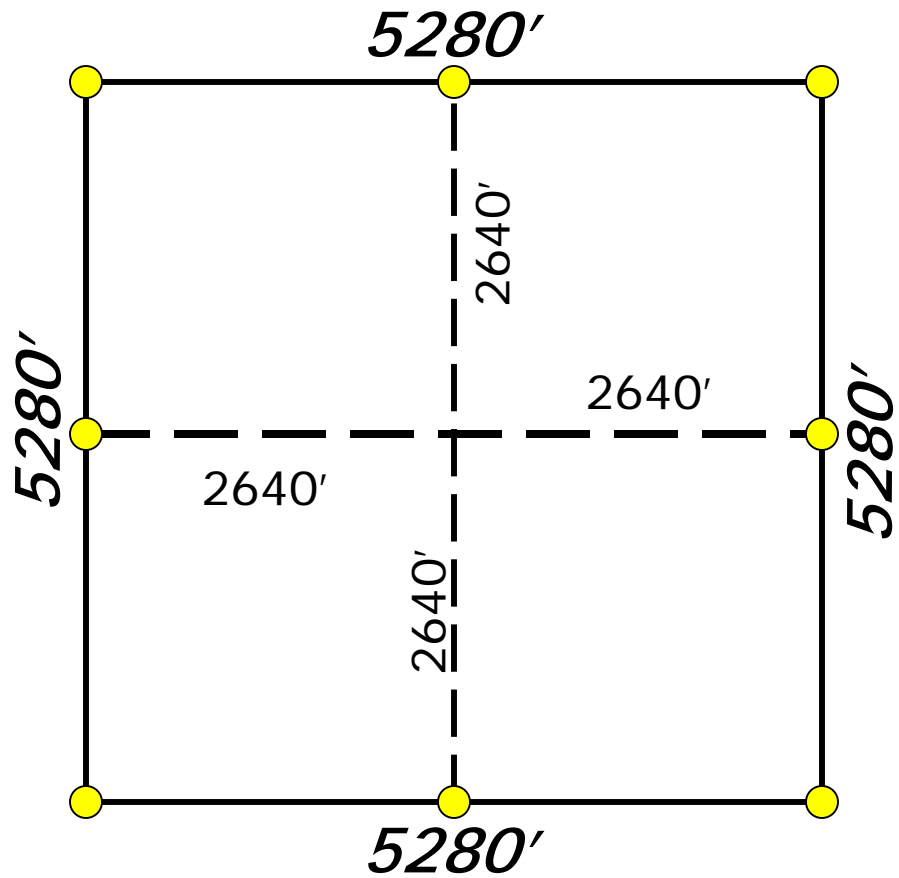


The Public Land Survey System

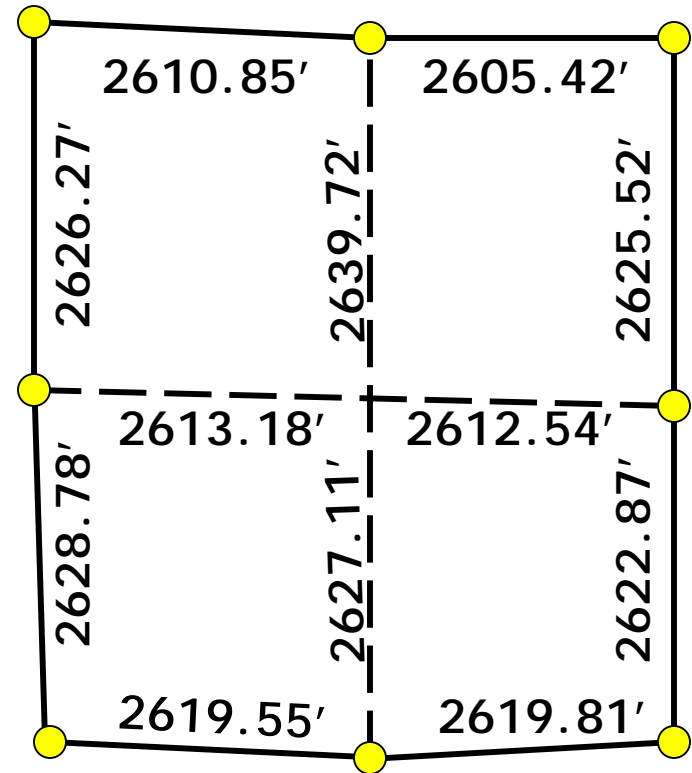


The Public Land Survey System

The Intention...



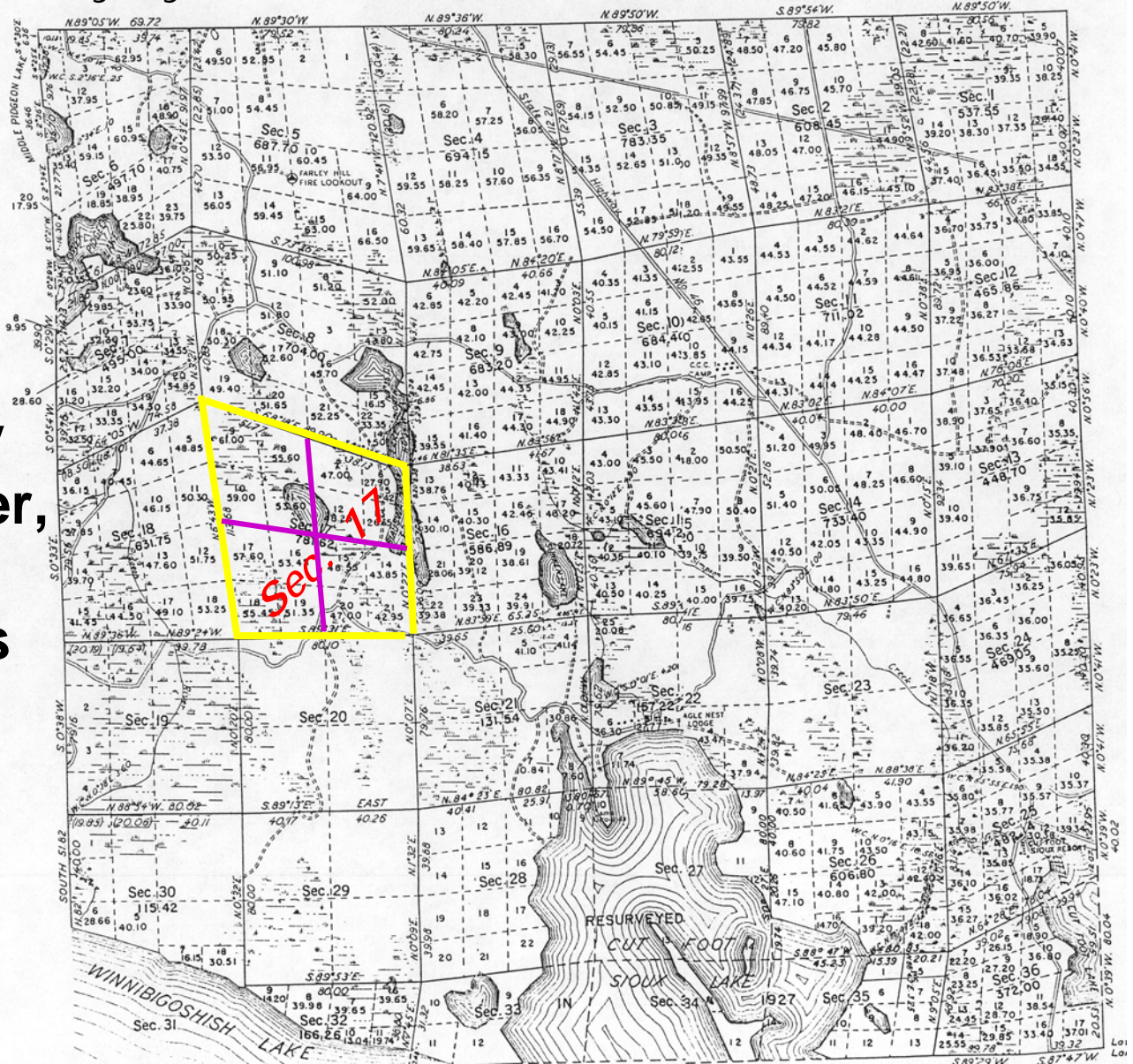
The Reality....



The Public Land Survey System

T147N R27W

Some sections can be extremely skewed. However, the same subdivision rules still apply.



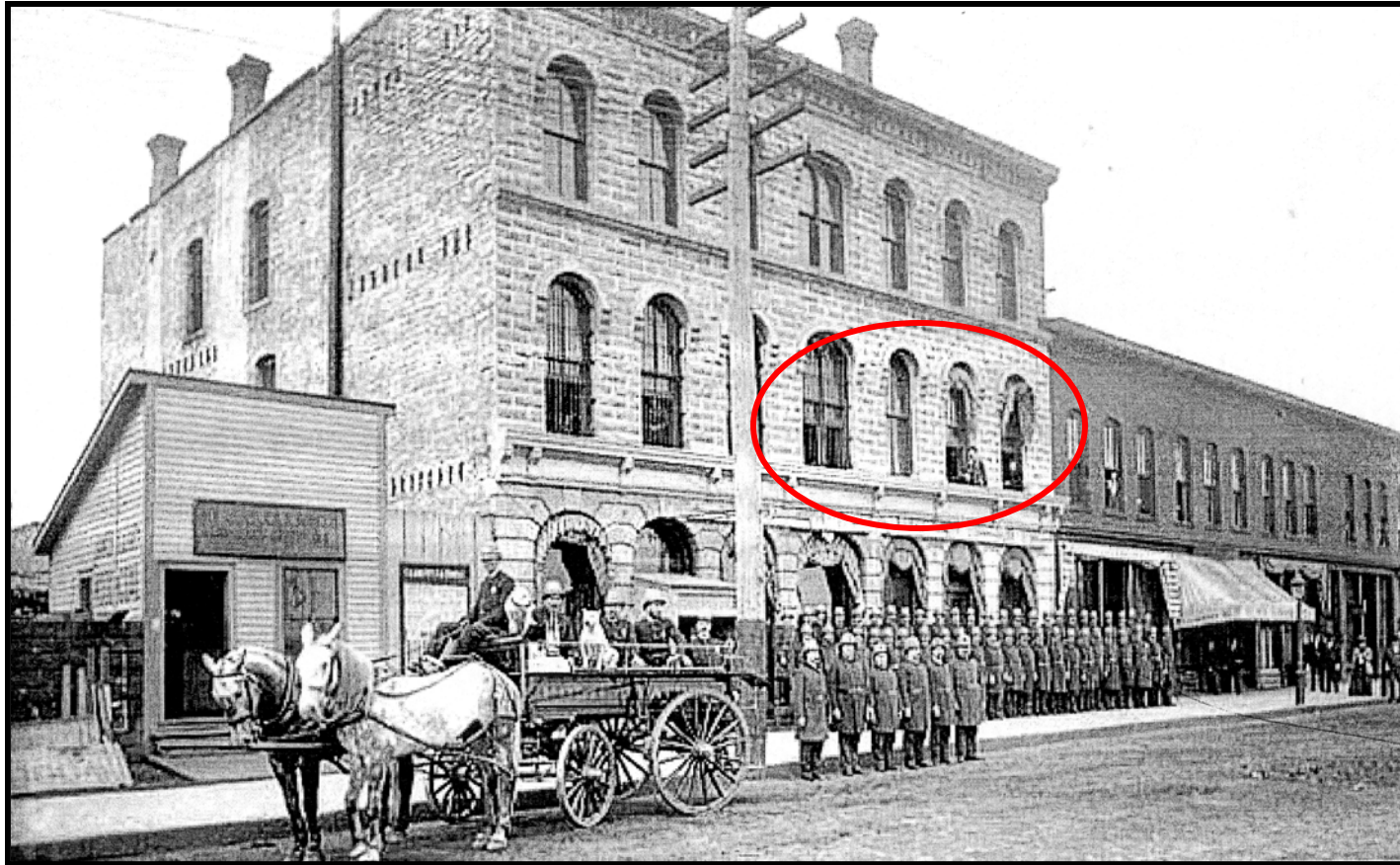
The Public Land Survey System (First two General rules)

The boundaries and subdivisions of the Public Lands as surveyed and approved are *unchangeable* after the passing of the title by the United States.

The original township, section, quarter-section, and other monuments as physically evidenced must stand as the true corners of the subdivisions which they were intended to represent, and will be given controlling preference over the recorded directions and lengths of lines.

Minnesota PLS History

The Surveyor General's Office for the Minnesota Territory was located in St. Paul from 1857-1908. This is a picture of the second location of the office.



**Minnesota Surveyor General's Office
3rd Street between Washington and Market, St. Paul**

What was originally noted ...

SUMMARY OF OBJECTS AND DATA REQUIRED TO BE NOTED.

1. The precise length of every line run, noting all necessary offsets therefrom, with the reason and mode thereof.
2. The kind and diameter of all "*bearing trees*," with the course and distance of the same from their respective comers; and the precise relative position of WITNESS CORNERS to the *true corners*.
3. The kinds of materials (earth or stone) of which MOUNDS are constructed -- the fact of their being conditioned according to instructions -- with the course and distance of the "*pits*," from the centre of the mound, where necessity exists for deviating from the *general* rule.
4. *Trees on line*. The name, diameter, and distance on line to all trees which it intersects.
5. Intersections by line of *land objects*. The distance at which the line first intersects and then leaves every *settler's claim and improvement*, prairie; river, creek, or other "bottom;" or swamp, marsh, grove, and wind fall, with the course of the same at both points of intersection; also the distances at which you begin to ascend, arrive at the top, begin to descend, and reach the foot of all remarkable hills and ridges, with their courses, and *estimated* height, in feet, above the level land of the surrounding country, or above the bottom lands, ravines, or waters near which they are situated.
6. Intersections by line of *water objects*. All rivers, creeks, and smaller streams of water which the line crosses; the distance on line at the points of intersection, and their *widths on line*. In cases of *navigable* streams, their width will be ascertained between the *meander corners*, as set forth under the proper head.
7. The land's *surface*--whether level, rolling, broken, or hilly.
8. The *soil*--whether first, second, or third rate.
9. *Timber*--the several kinds of timber and undergrowth, in the order in which they predominate.
10. *Bottom lands*--to be described as wet or dry, and if subject to inundation, state to what depth.

What was originally noted ...

11. *Springs of water*--whether fresh, saline, or mineral, and the course of the stream flowing from them.
12. *Lakes and ponds*--describing their banks and giving their height, and also the depth of water, and whether it be pure or stagnant.
13. *Improvements*. Towns and villages; Indian towns and wigwams; houses or cabins; fields, or other improvements; sugar tree groves, sugar camps, mill seats, forges, and factories.
14. *Coal* banks or beds; *peat* or turf grounds; *minerals* and ores; with particular description of the same as to quality and extent, and all *diggings* therefor; also *salt* springs and licks. All reliable information you can obtain respecting these objects, whether they be on your immediate line or not, is to appear in the general description to be given at the end of the notes.
15. *Roads and trails*, with their directions, whence and whither.
16. Rapids, cataracts, cascades, or falls of water, with the height of their fall in feet.
17. Precipices, caves, sink-holes, ravines, stone quarries, ledges of rocks, with the kind of stone they afford.
18. *Natural curiosities*, interesting fossils, petrifications, organic remains, &c.; also all ancient works of art, such as mounds, fortifications, embankments, ditches, or objects of like nature.
19. The *variation* of the needle must be noted at all points or places on the lines where there is found any material *change* of variation, and the position of such points must be perfectly identified in the notes.
20. Besides the ordinary notes taken on line, (and which must always be written down on the spot, leaving nothing to be supplied by memory,) the deputy will subjoin, at the conclusion of his book, such further description or information touching any matter or thing connected with the township (or other survey) which he may be able to afford, and may deem useful or necessary to be known--with a *general description* of the township in the *aggregate*, as respects the face of the country, its soil and geological features, timber, minerals, waters, &c.

Deputy Surveyor's field notes

58	59
<p>North Bdy T109M R18M</p>	<p>North Bdy T109M R18M</p>
<p>Bur Oak 24 N 27 E 470 " 30 S 53 E 870 Land level 2nd rate Timber Bur Oak</p>	<p>Mark on true line bet Secs 4 & 33. Va 8° 12' E</p>
<p>Check on true line bet Secs 3 & 34 Va 8° E</p>	<p>3.90 Creek 6 th wide runs SE 5.00 Same runs NE 6.10 Recross same runs SE 40.00 Set 14 Sec Post</p>
<p>1.50 Stream 24 th wide runs NE 3.50 Same stream " SE 11.50 Same " NE 40.00 Set 14 Sec Post</p>	<p>Bur Oak 20 N 8 W 22 th Jack " 12 S 13 E 45 " 80.00 Set Post cor to Secs 4, 5. 32 & 33</p>
<p>Bur Oak 7 N 60 E 85 " 9 S 51 W 425 58.00 Enter mark unfit for cultivation br. p. Leave same br. p. 71.00 Set Post cor to Secs 3 4 80.00 33, 4, 34.</p>	<p>W Oak 23 S 51 W 285 th " 24 N 60 W 256 " " 18 N 21 E 286 " " 27 S 21 E 221 " Land broken 2nd rate Timber Oak Aspen undergrowth Hazel & Vines</p>
<p>Bur Oak 12 S 40 W 190 " 8 N 29 W 121 Jack " 8 N 34 E 162 " 24 S 67 E 136 Land broken 2nd rate Timber Oak & aspen</p>	

What was originally placed

