

## **Appendix I. System of Location**

Locations are described using township, range, and section numbers as established by the Northwest Ordinance of 1785. The ordinance mandated that all federal lands be surveyed into vertical strips 6 miles wide, called ranges, and horizontal strips of townships, each 6 miles wide. Ranges are numbered east or west of a principal meridian (for example, range 11 west or R11W). Township strips are numbered north or south of a base line (for example, township 5 south or T5S). Range and township strips in Kane County are surveyed relative to the Third Principal Meridian and Base Line. Range and township strips intersect to form townships, which ideally are square with sides 6 miles long and an area of 36 square miles. Townships are divided into 36 sections, each section 1 square mile in area, or 640 acres.

Subsection locations are sometimes described in this report using a coordinate system that assigns a unique number and letter to each quarter-quarter-quarter section (Figure I-1). Numbers between 1 and 8 indicate the east-west position of the location within the section, and letters between A and H indicate the north-south position. A standard section, which is 1 square mile in area, contains 64 quarter-quarter-quarter sections, each 10 acres in area. These tracts are referred to as 10-acre plots, or more simply, plots.

A complete description of location by this system includes designations for county, township, range, section, and subsection location. For example, the location of a well in Kane County, township 41 north, range 8 east, section 36 with the plot location as shown in Figure I-1 could be referenced as Kane-T41N-R8E Sec 36.4c.

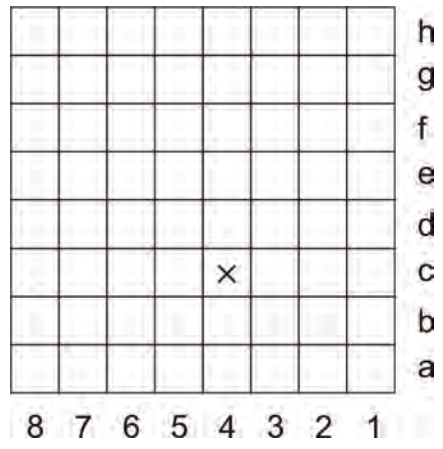


Figure I-1. Illustration of plot designation for a section.