



Extended Statewide PLSS Corner Numbering System

An Extension of the Romportl System for the Statewide PLSS Database

Background and Rationale

This publication outlines an extension to the Statewide PLSS Corner Numbering System, also known as the Romportl Numbering System.¹ The need for an extended version of the system arises from several special cases known to occur in Wisconsin:

1. Fractional townships, such as Township 29N Range 21- $\frac{1}{2}$ E in Marinette and Oconto counties.
2. Corners in adjacent states to which surveys in Wisconsin are tied. Such corners may be referenced to a meridian other than the Extended 4th Principal Meridian.

In such cases, the extended system should be used to ensure accuracy.

Details

The extended system is different from the standard system in the following ways:

1. It includes a state code to identify the state in which the corner point is located. The FIPS code is used, even though it is no longer a federal standard, because it is widely recognized and only 2 characters in size.
2. It includes a principal meridian code. This code is needed because some states use more than one principal meridian. Each principal meridian is associated with a unique baseline. Principal meridian values follow the CADNSDI standard.²
3. It indicates the direction north or south of the baseline. In the standard system, north is always assumed.
4. The township and range numbers are both 3 characters in size (rather than 2) to accommodate values larger than 99.
5. It can accommodate fractional values such as $\frac{1}{2}$ for township or range.

The extended number is 20 characters in width. All

codes are numeric allowing the entire number to be stored as a long integer rather than as a text string for more efficient processing.

Examples

Figure 1 compares the standard and extended systems. Figure 2 shows a portion of the Marinette fractional township example. Figure 3 shows an example from La Crosse county where a point in Minnesota is referenced.

Implementation

The SCO plans to maintain both the standard 11-character corner number and the 20-character extended corner number in the statewide PLSS database. It is unlikely that counties will adopt the extended system unless they have known special cases that occur. Note that the extended number can be computed for any correctly formulated standard number, but if there is a special case requiring the use of the extended number, this cannot be expressed correctly as a standard number. In the latter case, the standard number will be NULL.

Feedback

If you have insights into special cases that have not been identified in this document, or have general comments or suggestions, please contact us the SCO:

Phone: (608) 262-3065

Email: sco@wisc.edu

Notes

1. Statewide PLSS Corner Numbering System <https://www.sco.wisc.edu/pubs/statewide-plss-corner-numbering-system/>
2. Standardized PLSS Data Set (PLSS CadNSDI) Users Reference Materials p 39 <https://nationalcad.org/download/PublicationHandbookOct2016.pdf>

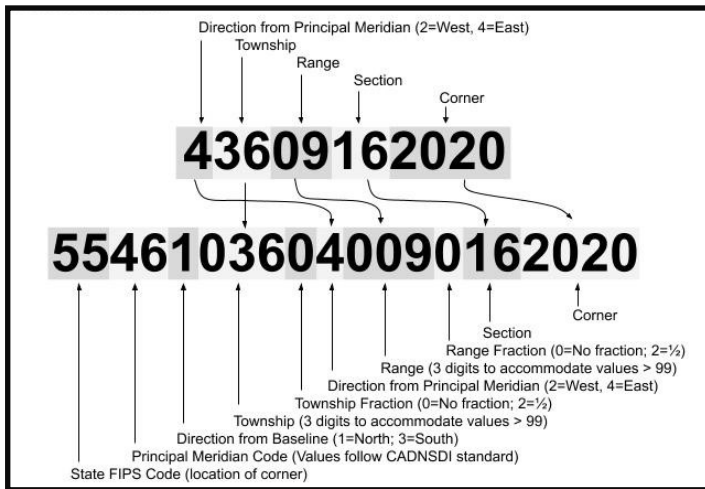


Fig. 1. Comparison of standard and extended corner numbering systems



Fig. 2. Fractional township example, Marinette and Oconto counties

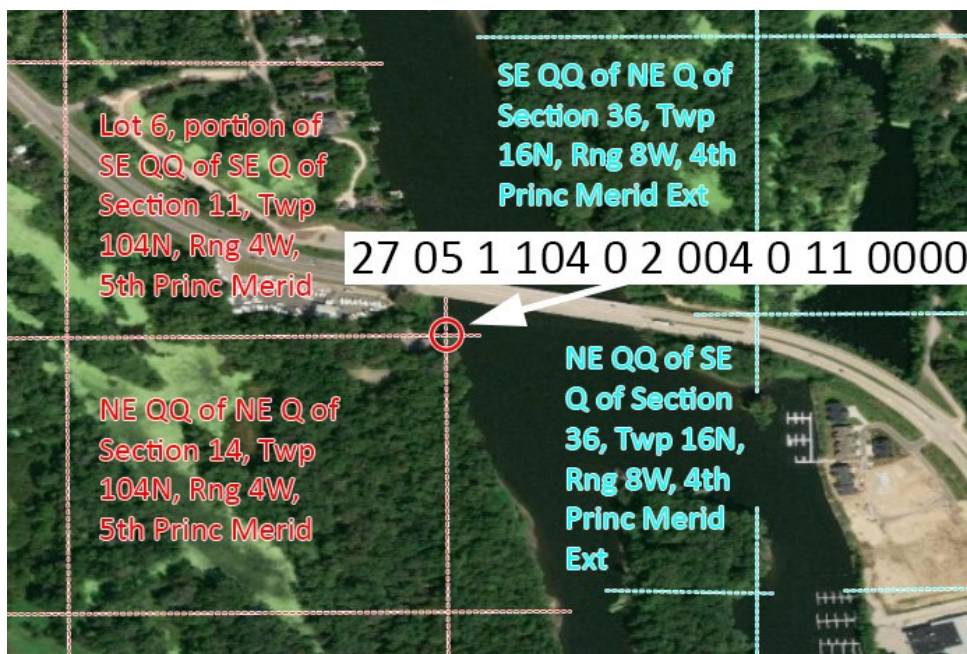


Fig. 3. Point in adjacent state, La Crosse County