

## Geolocation by Township and Range in the Prairie Provinces

How do you tell someone where in the world you are? In addition to geographic coordinates (latitude and longitude) and UTM coordinates (easting and northing), in Saskatchewan we also have legal land descriptions. How the land was originally surveyed and granted to settlers has created the current patchwork of land parcels that still determines the boundaries of local municipalities, how we describe our location, and how we travel from place to place in Saskatchewan.

Here is a Saskatchewan basemap, showing the outlines of our municipalities.

<http://publications.gov.sk.ca/documents/313/98285-Saskatchewan%20Base%20Map201303.pdf>

The boundaries of the municipalities in the southern half of the province follow township and range lines. These lines relate to latitude and longitude but are defined legally by markers placed in the ground.

Shortly after Confederation, the federal government decided to open the prairies to settlement. They designed the Dominion Land Survey System to measure and divide up the land and install permanent marker posts (iron pins or pits and mounds). The purpose was to define properties and avoid future property disputes; to make it easy for settlers to find the land that they had been assigned; and to retain road rights-of-way. Conflicts arose with Metis people who were already settled on the prairies and in some cases caused them a great deal of hardship.

The Dominion Land Survey (DLS) created a grid system for land description. The grid is formed by the intersection and physical marking of township lines running east - west and range lines running north -south. An attempt was made to space the lines such that the resulting squares were all approximately six miles on each side. The grid starts at the prime meridian, a line of longitude running through Manitoba.

Each 6-mile square is called a “township”. It is divided into 36 “sections”, which are further divided into “quarter sections”. Sometimes a section is instead divided into 16 “legal subdivisions”. Subdivisions can be further broken down into

plan, block and lot number. This is usually in or near towns to create what we generally call a “new subdivision”.

This article provides some diagrams.

[https://en.wikipedia.org/wiki/Dominion\\_Land\\_Survey](https://en.wikipedia.org/wiki/Dominion_Land_Survey)

Range roads run north and south, following the range lines. Their numeric names tell you their location. For example, Range Road 3062 is two miles west of the 6<sup>th</sup> range line west of the 3<sup>rd</sup> meridian. The third meridian is at 106° W, just east of Saskatoon near Allan.

Township Road 370 (33<sup>rd</sup> Street West in Saskatoon) is the 0<sup>th</sup> mile of Township 37 (actually the township boundary, or township line). The road is the line defining the 37<sup>th</sup> row of townships north of our border with the U.S.

At the bottom of every fourth row of townships (every 24 miles) the range roads jog west at the township line. So, these township lines are known as correction lines. This is to correct for the convergence of range lines. Remember that range lines follow lines of longitude on the globe and the DLS was trying to put flat squares on a globe and keep the townships roughly six miles square. Driving along 33<sup>rd</sup> Street W you can observe the jog in the city’s north-south avenues.

For more information on land descriptions see Saskatchewan’s Information Services Corporation website.

<https://www.isc.ca/signedinhome/help/land/pages/landdescriptions.aspx>

The website below allows you to convert between map coordinates (lat/long or UTM) to the legal land description.

<http://www.legallandconverter.com/>

*Prairie Coordinates Plus* is an app that purports to do the same.