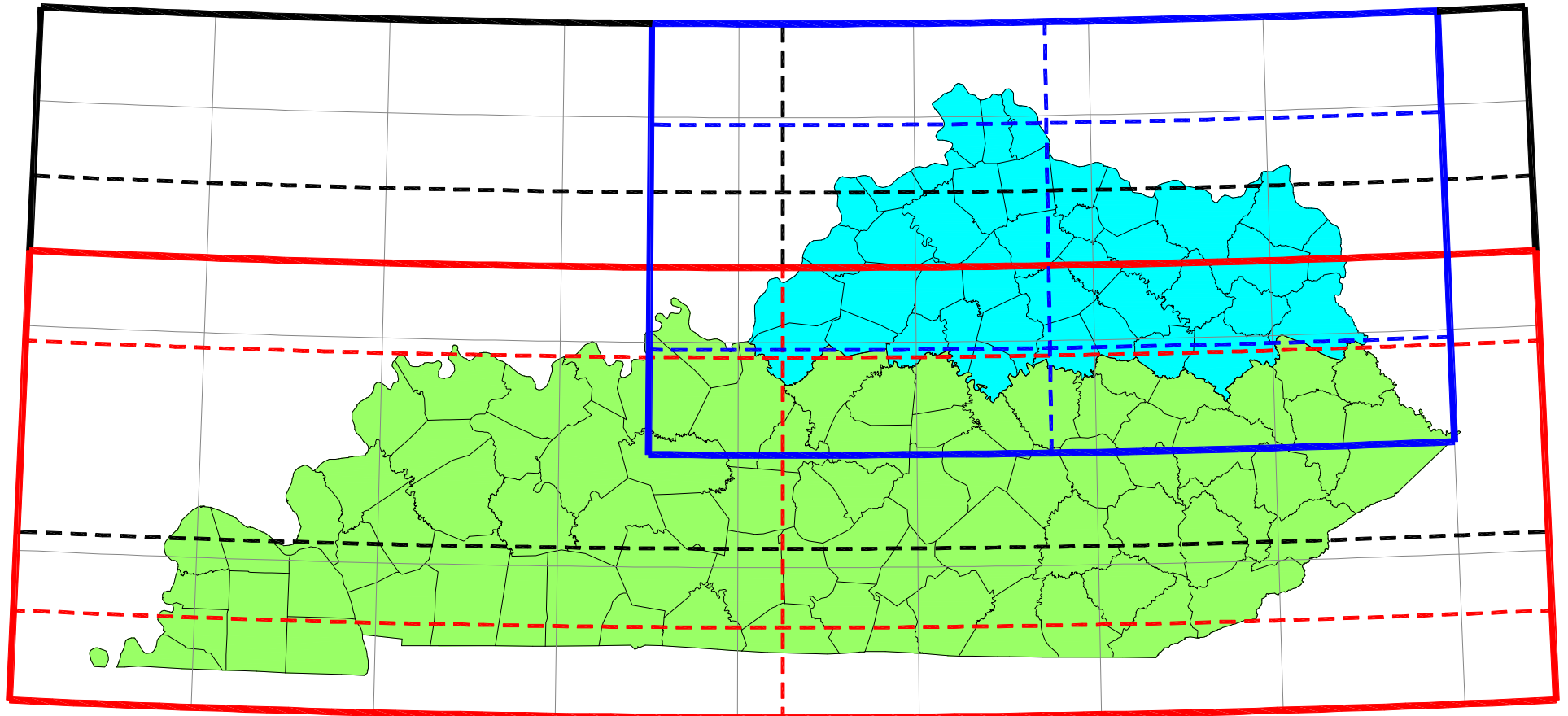








KENTUCKY STATE PLANE COORDINATE SYSTEM



-  North Zone counties
-  South Zone counties
-  Single Zone (all counties)

-  North zone coverage area.
-  South Zone coverage area.
-  Single Zone coverage area (entire state).

THE KENTUCKY SINGLE ZONE COORDINATE SYSTEM OF 1983

The Kentucky Single Zone Coordinate System as defined and officially adopted by [10 KAR 5:010](#) in August of 2001 was developed by the [GIAC Single Zone Subcommittee](#) to address the increasing need for a mapping projection that covered the entire state in a more balanced manner than extending the existing [North and South Zones](#) beyond their originally intended ranges.

The Kentucky Single Zone Coordinate System applies to all counties in the Commonwealth and is defined by the following parameters:

KENTUCKY SINGLE ZONE PARAMETERS - FIPS Code: 1600

Projection Scheme:

Lambert Conformal Conic map projection with double standard parallels

Datum and Ellipsoid

North American Datum of 1983 (NAD83)

Geodetic Reference System of 1980 (GRS80) Ellipsoid

Linear units of measure:

United States Survey Foot as defined by:

One USFt equals 1200 / 3937 meter (0.304800610 meter), or

One meter equals 3937 / 1200 USFt (3.280833333 USFt)

Geographic Parameters:

North Standard Parallel: 38 deg 40 min North Latitude

(in decimal degrees): 38.6666666667 deg

South Standard Parallel: 37 deg 05 min North Latitude

(in decimal degrees): 37.0833333333 deg

Parallel of Grid Origin: 36 deg 20 min North Latitude

(in decimal degrees): 36.3333333333 deg

Meridian of Grid Origin: 85 deg 45 min West Longitude

(in decimal degrees): -85.75 deg

False Northing: 1,000,000 meters (3,280,833.33333 US Ft)

False Easting: 1,500,000 meters (4,921,250.00000 US Ft)

Note: The Kentucky Single Zone is not defined on the NAD27 datum.

THE KENTUCKY COORDINATE SYSTEM OF 1983 NORTH AND SOUTH ZONES

The Kentucky Coordinate System of 1983, as defined and adopted by [KRS 1:020](#) was originally developed by the [National Geodetic Survey](#) (formerly the United States Coast and Geodetic Survey) back in the 1930's as part of a national effort to provide land surveyors and engineers with a means of representing projects in a common coordinate system that covered very large areas of interest. Under this system, Kentucky is divided into the North and South Zones.

The state plane coordinate system in Kentucky was originally defined on the North American Datum of 1927 utilizing the Clarke Ellipsoid of 1866 with the United States Survey Foot (USFt) being the linear unit of measure, however, in 1986 the NGS adopted the North American Datum of 1983, which is based on the Geodetic Reference System of 1980 ellipsoid, with the meter being adopted as the standard unit of linear measure.

In the process of transitioning from NAD27 to NAD83, the NGS revised the parameters defining the origin of the North and South zones so that obvious and discernibly different coordinates for the same position would result between the two datums. This strategy was adopted so that it would be possible to recognize the basis of datum (NAD27 or NAD83) for a given set of coordinates when no other information is given in addition to the coordinate values.

Given that the North and South zones were defined on the NAD27 datum over a period of several decades, there are mapping products and spatial datasets based on the NAD27 state plane system still in use today. It is therefore important that the basis of datum for state plane coordinate values be ascertained any time they are encountered. To eliminate the guesswork involved in identifying the basis of spatial data, it is always desirable that the data be accompanied by information, or metadata, explaining the exact basis of datum and the linear units of measure being utilized.

NORTH AND SOUTH ZONE PARAMETERS – NAD83 DATUM

Projection Scheme:

Lambert Conformal Conic map projection with double standard parallels

Datum and Ellipsoid

North American Datum of 1983 (NAD83)

Geodetic Reference System of 1980 (GRS80) Ellipsoid

Linear units of measure:

United States Survey Foot as defined by:

One USFt equals 1200 / 3937 meter (0.304800610 USFt), or

One meter equals 3937 / 1200 USFt (3.280833333 USFt)

Geographic Parameters - North Zone – FIPS Code 1601

North Standard Parallel: 38 deg 58 min North Latitude
(in decimal degrees): 38.9666666667 deg
South Standard Parallel: 37 deg 58 min North Latitude
(in decimal degrees): 37.9666666667 deg
Parallel of Grid Origin: 37 deg 30 min North Latitude
(in decimal degrees): 37.5 deg
Meridian of Grid Origin: 84 deg 15 min West Longitude
(in decimal degrees): -84.25 deg
False Northing: 0 meters (0 US Ft)
False Easting: 500,000 meters (1,640,416.66667 US Ft)

Note: The NAD27 North Zone is defined by the same above geometric parameters and differs only in the False Northing and False Easting values. They are as follows:

NAD27 North Zone False Northing: 0 US Ft
NAD27 North Zone False Easting: 2,000,000 US Ft

Geographic Parameters - South Zone – FIPS Code 1602

North Standard Parallel: 37 deg 56 min North Latitude
(in decimal degrees): 37.9333333333 deg
South Standard Parallel: 36 deg 44 min North Latitude
(in decimal degrees): 36.7333333333 deg
Parallel of Grid Origin: 36 deg 20 min North Latitude
(in decimal degrees): 36.3333333333 deg
Meridian of Grid Origin: 85 deg 45 min West Longitude
(in decimal degrees): -85.75 deg
False Northing: 500,000 meters (1,640,416.66667 US Ft)
False Easting: 500,000 meters (1,640,416.66667 US Ft)

Note: The NAD27 South Zone is defined by the same above geometric parameters and differs only in the False Northing and False Easting values. They are as follows:

NAD27 South Zone False Northing: 0 US Ft
NAD27 South Zone False Easting: 2,000,000 US Ft