

COORDINATES

State Plane Coordinate values are Colorado Coordinate System of 1983 / 1992 HARN, Colorado Central Zone and are based on a G.P.S. survey by the City of Aurora Survey Section in 2006 of 64 stations, holding N.G.S. values for stations Jog, King, and Brybec fixed in the final adjustment. Densification of this control network is based on data from City of Aurora Survey Section field traverses, performed primarily from 1984 to 1994, and adjusted using "Starnet" least squares adjustment software.

CONVERGENCE

The convergence angle is the difference between Grid North and Geodetic North, at the corner specified. Convergence angles were calculated using "Corpscon" conversion software.

Inverse bearings from coordinates are grid bearings. Geodetic bearings are obtained by the following equation:

$$\text{GRID AZIMUTH} + \text{CONVERGENCE} = \text{GEODETIC AZIMUTH}$$

GRID FACTOR

The grid factor (also known as combined factor) is the product of the scale factor, based on the latitude of each corner, and the sea level factor (using mean radius of ellipsoid), based on the elevation of each corner. These grid factors are point grid factors for the corner specified. Elevations were determined by trigonometric leveling (+/- 2.0') during traversing, or in some cases taken from a USGS 7.5-min. quad. topo map (+/- 5.0'). To obtain a project grid factor, take the average of all the grid factors for all the corners in the area you are working in. To obtain ground coordinates, divide the grid coordinates by your project grid factor. When working in a very large area or over a very long distance, it may be necessary to use more than one project grid factor, and "grid factor equations" may be needed. Grid factors were calculated using "Corpscon" conversion software.

DESCRIPTION

The corner descriptions are generally of the monument that existed at the time of traversing, and do not reflect township, range or section markings, if so stamped. Corners indicated as remonumented, are monumented with a 3" City of Aurora BC, properly marked. More recent descriptions may be available from the City of Aurora Survey Section located at 13645 E. Ellsworth Ave., Aurora, Colorado 80012. Phone Number 303-326-8015 - Fax Number 303-326-8016

THE PURPOSE OF THIS HORIZONTAL CONTROL IS TO PROVIDE A REFERENCE FRAMEWORK FOR THE CITY OF AURORA'S GEOGRAPHIC INFORMATION SYSTEM.

THIS INFORMATION HAS BEEN PREPARED WITH REASONABLE CARE. HOWEVER, USERS OF THE INFORMATION CONTAINED HEREIN DO SO AT THEIR OWN RISK.

THE CITY OF AURORA DISCLAIMS ANY RESPONSIBILITY OR LIABILITY TO ANY USER OR THIRD PARTY HAVING INTEREST.