Henderson County was part of the Cherokee Nation for 10,000 years. After treaties with the Cherokee in 1777 and 1783, the land was officially opened for settlement by early Appalachian mountain pioneers. Early land grants date back to 1777, with most occurring after the Revolutionary War in 1783 and 1785. Early settlers included Revolutionary War Patriots, such as Andrew Miller, Matthew Haydon and Joseph Mincy, along with many others. Some Teres, such as William Mills, also settled in the county in the 1780s. The county of Henderson is called a topographical mountain county, because it consists of these elements: mountain ranges, isolated peaks, a rolling plateau and level valley areas. Elevations range from 1,400 feet near Bat Cove at the foot of the Blue Ridge, to 5,000 feet on Little Pisgah. Henderson County is located on a intermountain plateau and is almost circled by mountains. To the west, the county touches the Pisgah Ledge, and to the east and south borders the Blue Ridge and Saluda Mountains. The county is bordered on the north side by Buncombe county, to the east by Rutherford and Polk counties, to the west by Transylvania county and to the south by South Carolina. The first source of revenue was agriculture for the people of Henderson County. The settlers grew corn, wheat, rye, potatoes and cabbage. As the self-sustaining pioneer settlers entered the county, they brought fruit trees with them. (http://www.historichendersonville.org) I will identify county’s urban growth to predict future urban development using GIS information. In order to make decision for the more development planners need to know and analyze past urban growth patterns. Especially, Since Henderson County is surrounded by mountains, planners should consider appropriate areas to develop.

**Flow Chart**

**Location of Henderson County, NC**

**Urban Growth Analysis - Case Study of Henderson County, North Carolina 1800-2012**

**Data Source – US Census Bureau and Henderson County, NC**

**Analysis**

**Elementary School Districts**

**Statistics of Residential Buildings**

**Spatial Analysis**

**Growth of Buildings in 1800-2012**

**Elevation of Henderson County, North Carolina**

1. Urban Growth: If you see the total building constructions in 1800-2012, there are consistent patterns. One is the central high-demand development on the other is low demand growth that the surrounding areas except for north-east and south-east. The reason why two areas has not been developed is high elevation which is more than 3,000 ft. According to the below map which is provided by Henderson County, since Henderson County is surrounded by mountains and hills, they cannot expand urban development to the border areas. Therefore, planners and building developers must focus on developing land in medium and low-demand areas.

2. Since the first source of revenue was agriculture for the people of Henderson County, mostly residential buildings are developed, including mobile homes. 81% - 85% is the residential. The country give more effort to pay attention to the industry and commercial growth. In order to do that, they need to establish good mobile home policy of zoning code because the 18.9% of total building is residential mobile home. It can make slum streets and poor environments in the city.

3. The property value is the very consistency around $250,000 but as you see trend line in the graph, sizes of buildings and lots are slowly decreasing. It means that value of per square footage would be increased gradually in the future.

4. For my personal interest, examined the elementary districts than Henderson County’s districts, one lower school which is average 441 students, three middle schools which are average 503 and US average 446 according to NCES report. Therefore they can learn: the 12 districts without more addition for elementary school for a while.