



# Rutherford County

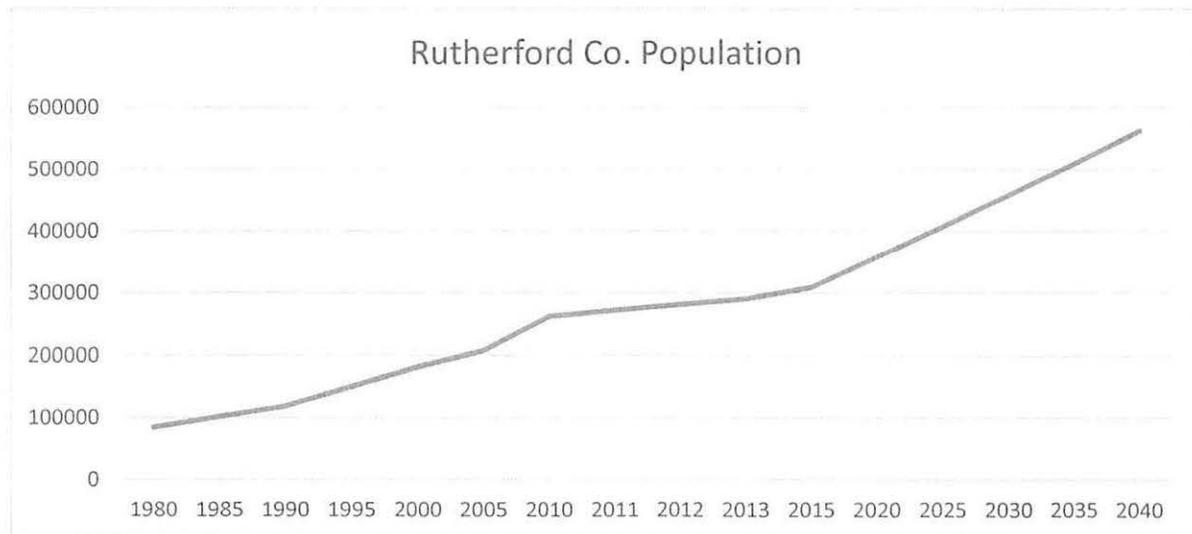
OFFICE OF THE COUNTY MAYOR  
ONE PUBLIC SQUARE, SUITE 101, COURTHOUSE  
MURFREESBORO, TN 37130  
(615) 898-7745 • FAX (615) 898-7747

March 7, 2014

To: Federal Communication Commission (FCC)

Subject: Expression of Interest

Only 15 miles southeast of Nashville and located at the geographic center of Tennessee, Rutherford County is the fifth largest and the second fastest growing county in the state, and the 20<sup>th</sup> fastest growing county in the nation in terms of housing. The County operates 43 public K-12 schools and is routinely expanding existing or building new schools as more people move into the area. Between 2000 and 2010 Rutherford County's population increased by an estimated 44.27 percent. In fact, Rutherford County has outpaced population projections for the last 20 years. The current estimated population for Rutherford County is over 290,000, with the rural population easily exceeding 80,000 (over 30 percent of total population). Current projections indicate that this trend will continue with Rutherford County's population potentially estimated to double again in approximately 30 years with a population of over 600,000 in the year 2045. This growth is visually depicted in the graph below.



Rutherford County is one of the nation's leading warehouse and distribution centers and is home to the second largest public university (Middle Tennessee State University) in Tennessee. Our county also has a large automotive manufacturing plant that is the second largest employer in our county. Sixteen freight carriers, with terminals, directly serve Rutherford County. There are 203 manufacturing establishments in the County. The County has two hospitals and 37 nursing home/assisted living complexes. Rutherford County/Smyrna Airport is the third largest airport in Tennessee. The County covers 618 square miles of land and 2,185 roadway miles, which includes 13 federal and state highways, and CSX railroad transportation.

Unfortunately, too many citizens of Rutherford County do not have access to modern networks that support fixed broadband. A January 2010 survey indicated that 27 percent of Rutherford County residents did not have home broadband service. Of those surveyed 89 percent stated broadband service was available, 9 percent did not know and 3 percent responded that service was unavailable for their respective residence. An additional 48 percent responded that broadband was too expensive clearly indicating that cost is a barrier to adoption of the service. Our vision is that by expanding broadband we will be able to significantly improve access to employment, public safety, educational and health care opportunities to an underserved demographic of the county.

Currently, Rutherford County does not have the expertise to accomplish this experiment and would be required to coordinate and partner with a private entity. Additionally, without a public private partnership in place or the technical expertise available, we are unable at this point to determine the exact broadband technology to be deployed. The services envisioned would be fixed broadband through fiber, cable or DSL. Minimum required speed for service would be 4 Mbps down and 1 Mbps up with High Speed Packet Access (HSPA). In regards to a potential mobile wireless solution 4G Long Term Evolution would be required. A funding estimate to execute this requirement in area specified would not exceed 20 million dollars. Additional analysis potentially could lower the funding. The primary area to which this grant would apply and benefit are the following census tracts:

Connected Nation Breakdown			Census Tract ID		
State	County Code	County Name	StateID	CountyID	Tract
TN	47149	Rutherford	47	149	407.01
TN	47149	Rutherford	47	149	407.02
TN	47149	Rutherford	47	149	408.09
TN	47149	Rutherford	47	149	408.10

### **Anchor Institutions**

Within the identified area numerous anchor institutions would benefit from improved broadband access. Entities that identified in the area of interest are, Eagleville High School, Eagleville Middle School, Eagleville Elementary School, Rockvale Middle School, Rockvale Elementary School, Christiana Middle School, Christiana Elementary School, Eagleville Town Hall, Eagleville Police, Eagleville Fire Station, Eagleville Town Hall, Eagleville Library, Eagleville Community Center, Rockvale Fire Station, Christiana Fire Stations (2) and Fosterville Midland Fire Stations (2) and Eagleville Medical Clinic.

### **Education**

Currently, all schools within Rutherford County are connected to the internet. As a result the majority of the educational material for use in the school and at home are only available via the internet. School and classroom access to computers is critical since many students lack such equipment and broadband connections at home. While home broadband adoption and computer ownership rates have consistently increased over the last several years, certain demographic within Rutherford County, e.g. the unincorporated area, still lag behind.

A fundamental barrier to robust access to educational material is lack of adequate broadband access in homes. A survey of over 18,000 students in the Rutherford County Public School system indicated that over 15 percent did not have broadband internet access at home.

Rutherford County Schools are moving to electronic textbooks to cut costs of education and take advantage of interactive digital technologies in learning. With limited access to broadband in the

home many students will be unable to take full advantage of this educational capability in the location where it is most important, the home.

Where increased affordable broadband access may make the most immediate impact in Rutherford County is in the area of adult education and increased job opportunities. Lower levels of formal education explain lower average income for rural residents. Within the unincorporated areas of Rutherford County the poverty rate is at nearly 13.5 percent.

Approximately 10.9 percent of Rutherford County's population does not have a high school degree, with only 30 percent HS/GED, 32 percent with some college or associate's degree.

### **Healthcare**

In regards to healthcare, the average commute to a hospital from rural areas at 25 miles or 35 minutes. Within the identified rural area there are no emergency or full service health care facilities making it very difficult for residents to receive adequate healthcare. With an aging population in the rural/unincorporated areas, (21.3 percent aged 55 or greater) telemedicine will provide residents with the latest in home healthcare monitoring providing faster and easier access to consistent reports and patient data. Widespread Broad Band internet in Rutherford County would facilitate growth in telemedicine in the rural population with a potential positive community as well as individual health impact. The ability to teach a class on one campus such as the Health Department and stream it on the internet for persons in their home or local community center could largely increase the reach of that health message thus increasing overall the health of that population. Health disparities can be found in rural area and targeting our messages could help eliminate some health disparities in our county. With easy access to broad band internet our county could be on the cutting edge of developing health programs able to reach a diverse population. Partnering with emergency planning, Telemedicine could be an important role in public health's responding to public health emergencies and allows for yet another method of communication that can occur in a time of emergency.

## **Emergency Management**

From an Emergency Management perspective, greater access to broadband for Rutherford County residents would greatly enhance emergency communications in many ways. The redundancy of WIFI associated with broadband would aid in getting initial warnings and follow-up messages out to the public via our county alert system Alert Rutherford, Twitter and other cell-phone based applications in areas where cell phone coverage is weak. Along with that, WIFI allows most of the location services applications to be much more accurate.

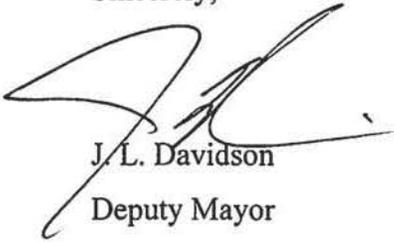
In addition, most of our initial warning systems do not allow for detailed information to be passed to the affected residents. Normally we add a link within a short message for detailed information, such as where to go for specific recovery services and how to volunteer to help. If a resident has broadband, they can easily go access this detailed information via a webpage. During the recovery period of a disaster, this detailed and changing information is critical.

Access to broadband would give residents another method to communicate with Emergency Management, the National Weather Service, and others via Facebook, Twitter, etc., to give real time reports on the situation, before, during and after an incident. For example, the National Weather Service just recently conducted Storm Spotter training for about 60 Rutherford County residents. These people, as well as those already trained, can provide up-to-date information on storms using multiple avenues, but most are web-based. Expanding broadband will simply enhance how many spotters can contribute to the common operating picture.

**Summary**

In summary Rutherford County's rural population is in dire need of expansion of current broad band service and access. This rural broadband experiment holds potential in greatly increasing the quality of life of a substantial number of residents. Rutherford County Government looks forward to potential participation in the Rural Broadband Experiment and working with a private Telecommunications Carrier as well as the FCC to bring this needed requirement to reality.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. L. Davidson', written over the typed name and title.

J. L. Davidson  
Deputy Mayor