

Hanover County Communications System and Tower Construction Project

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- **Hanover County is located approximately 20 miles north of Richmond, Virginia.**
- **It consists of 471 square miles of mainly rural area with some urban and suburban settings**
- **It has a population of approximately 102,000**
- **Hanover County is rich with historic tradition with numerous civil war battlefields and historic landmarks.**
- **It is the home place of Patrick Henry and Henry Clay and has more modern venues such as Kings Dominion Theme Park and Richmond Newspaper Headquarters**

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- **In April 2010 Hanover County cutover to a new 15-site, 12-channel, 700/800Mhz, P-25, Digital, Trunked, Public Safety Communications System.**
- **This new system replaced a 4-site, 10-channel, 800Mhz, analog, trunked system that was placed in operation in April 1992.**

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- **The tower and transmitter sites for the new system consist of:**
 - **The re-use of the four existing County owned towers, one of which is used for microwave only**
 - **The leasing of space on three privately owned commercial towers, one of which was constructed in parallel with the County towers.**
 - **And, the construction of nine new towers, one of which was built by a commercial vendor that deeded the tower over to the County for the rights to the top fifty feet.**

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- **The County towers range from 300' to 450'**
- **The tower compounds are 70' by 70', with one compound being 100' by 100'**
- **The towers are a combination of self-supporting and guy.**
- **All County towers, with the exception of one, are located on County owned property**

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- **All towers constructed by the County were constructed in a manner that would support the current County needs, future County needs and accommodate four or five commercial co-locations, based on the tower height.**
- **Given this, today the County has 16 commercial provider installations on 8 of the its towers.**
- **The providers are Sprint, AT&T, Verizon and NTELOS**
- **These commercial installations are generating approximately a quarter of a million dollars in revenue for the County.**

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- **Why did the County take this approach?**
 - **To attempt to limit the number of towers that would have to be constructed in the County for Public Safety and commercial use.**
 - **To generate revenue to offset the cost of the system and annual maintenance fees for the system and towers**
 - **And, to assure the County maintained control of as many Public Safety tower and transmitter sites as possible**

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- **The County's approach to sharing Public Safety tower space with commercial providers:**
 - **Advertised the tower space and handle co-location requests on a first come/first serve basis**
 - **Spelled out the rules and rates ahead of time and in the lease agreements**
 - **Minimize the Planning Requirements**
 - **Limit the commercial provides access to the sites**
 - **For security reasons there is no sharing of space in Public Safety Shelters**
 - **Built the compounds large enough to accommodate commercial provider's shelters or racks so commercial providers wouldn't have to do site plan amendments.**

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- **Sharing of tower and compound space is a win/win approach**
 - **Limits the number of towers needed in the County**
 - **Saves the commercial providers money and time by not having to construct towers and not having to submit site plan amendments**
 - **It provides revenue to the County to offset project and ongoing maintenance costs**
 - **It allows Public Safety to maintain control over their tower and transmitter sites**
 - **County also benefits by the commercial providers installing copper and fiber at the sites which can be used by the County, if needed**

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- **Over the past several months, one of the commercial providers has requested to perform antenna changes to their installations at two of the County's rural tower sites.**
- **The purpose of these antenna changes is to provide broadband technology in the rural area of the County.**
- **It is also my understanding that they are gearing up to do the same upgrade at an additional County tower in which they are co-located.**

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Questions or Comments

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