

*Community-friendly solutions for wireless broadband coverage.*

## Quality Wireless Service is Vital to Your Community

Nearly everyone has experienced the frustration of a dropped call or of missing that important text or e-mail due to lack of signal. Our lifestyles have evolved, and we now depend on wireless broadband and cellular services to enable many of our vital daily activities. And while urban centers enjoy the coverage and signal strength needed to deliver these services reliably, suburban communities are grappling with the challenge of balancing aesthetic concerns with the need for improved wireless services throughout their neighborhoods and business centers.

## NewPath Networks Delivers Wireless Solutions that Balance Aesthetics and Performance for Multiple Providers

In 31 states and over 1000 locations, NewPath Networks provides wireless broadband infrastructure that balances performance with the aesthetic requirements of the community. Many of the nation's most discriminating neighborhoods leverage NewPath's stealth DAS (distributed antenna system) solutions to deliver high-speed, high-quality wireless coverage across multiple carriers. And all with small, unobtrusive antennas that blend with existing structures in the public right of way such as light posts and traffic signals. Fiber optic cabling is used to connect the small "nodes" to off-site base stations that house service provider equipment. And the result? The performance service providers demand to deliver outstanding service to their customers, across multiple technologies like cellular and wireless broadband, with the least visual impact possible for the surrounding community.



## What will it look like?

The diagram below illustrates how existing structures may be altered or added to the public rights of way. This photo is a simulation only, and actual construction may vary based on location and equipment requirements.



*Sample radome atop light post.*

## Is it safe?

It is common to hear concerns about the safety of the wireless antennas needed to provide coverage to our neighborhoods. But the fact is, NewPath's DAS systems are completely safe for residents, and do not pose a community health risk. In fact, DAS systems operate at a power level nearly 900 times lower than that of a typical AM radio station, and people are exposed to nearly 100 times more RF energy from their Bluetooth headset than they would by standing under a DAS installation. Please review these commonly asked questions for additional information.

### **How is the NewPath DAS system different from a traditional cell site?**

NewPath's DAS network architecture splits the transmitted wireless signals among several small antennas to provide coverage over the same area as would typically be covered by a large cell site, but with significantly reduced total power and improved reliability.

### **What are people exposed to from the DAS sites?**

The DAS network of sites communicate with one another and customers near the sites using radio waves. These radio waves are referred to by a number of different names such as electromagnetic energy (EME), radio frequency (RF) energy, electromagnetic radiation (EMR), electromagnetic fields (EMF) and non-ionizing radiation. The term "RF energy" or just "RF" is used in this document to refer to transmitted signals from DAS sites. RF energy is emitted by natural sources like the sun and the earth, and by man-made sources such as AM/FM radio and television broadcasts; cellular telephones and their base stations; baby monitors and paging antennas, just to name a few.

### **Is the RF energy from DAS antennas similar to x-ray radiation?**

No. While x-rays are a form of EME, the energy of x-rays is more than 100 million times higher than the radio waves transmitted by DAS antenna. The interaction of x-rays with tissues is completely different than with RF energy. X-rays contain enough energy to change the chemistry of important biological molecules in cells like proteins and DNA through a process called "ionization". RF energy is more than 100 million times weaker than x-rays and does not contain anywhere near enough energy to cause ionization. For this reason, RF energy is referred to as "non-ionizing" radiation.

### **Why are RF exposures from DAS antennae so low?**

As previously stated, DAS uses many distributed low power sites to complete its communications network rather than a single or even a few high power sites to cover the same area. Thus, unlike common broadcast facilities such as AM radio that may have broadcast power as high as 50,000 watts, DAS sites typically use less than 60 watts to transmit their signal.

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