



Solution Story: Surry County Schools

Another quality solution by: VICOM, Virginia Integrated Communications

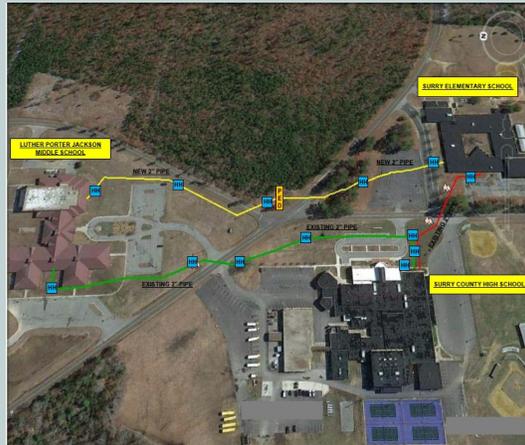
Date: July 2013

Author: Rick Cunningham



Highlights

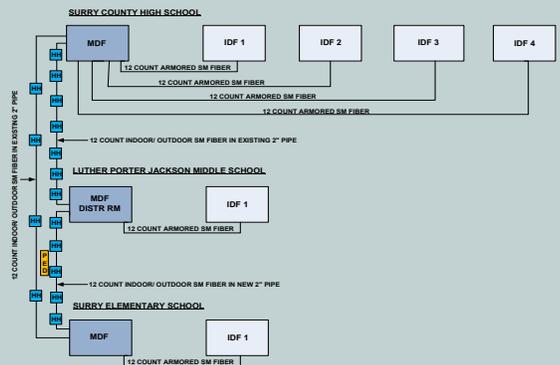
- ◆ New underground conduit and vault systems.
- ◆ Repair and reuse of existing underground conduit and vault systems.
- ◆ New outside plant single mode fiber optic ring created between the High School, Middle School, and Elementary School.
- ◆ New inside plant single mode fiber optic backbone feeds installed in the High School, Middle School, and Elementary School.



damaged during a past project and used this pipe to create the third leg of the fiber optic ring, shown in green, while keeping an active network up and working on the existing multimode fiber optic cables inside.

This project also included the installation of new inside plant single mode fiber optic feed cables between each school's Main Distribution Frame (MDF) and its associated Intermediate Distribution Frames (IDF). These armored backbone fiber optic cables were installed throughout each facility to currently active telecommunications rooms. Vicom technicians installed new fiber optic enclosures in each MDF and IDF and terminated the fiber strands accordingly. School officials will provide connectivity of current telephony and data technologies across this new information transport system.

In April of 2013, Vicom was awarded the installation project to install a new single mode fiber optic ring and fiber optic backbone in Surry County, Virginia. Vicom worked with school officials to provide the new design, installation, and testing of the new outside plant infrastructure between Surry County High School, Luther Porter Jackson Middle School, Surry Elementary School, and an empty lot, slated for a future County building. This project included the installation of a new high density poly ethylene conduit, shown to the left in yellow, multiple concrete polymer subsurface vaults shown in blue, and a distribution pedestal for future connectivity, shown in gold. Vicom also repurposed an existing conduit system



BENEFITS OF THE NEW TECHNOLOGY

The benefits and advantages of the new fiber optic cables over copper feed cables are higher data transmission rates, immunity to EMI/RFI or lightning, low signal and data loss, and secure signaling due to the difficulty in tapping these cables. The single mode fiber optic backbone and fiber optic ring offer the ability to utilize high bandwidth multimedia applications through a dedicated connection between sites. This dedicated link eliminates the need for reoccurring costs through multiple service providers. A private infrastructure also offers opportunities to share connectivity for the telephone systems, data networks, security systems, audio visual systems, and future mass notification systems. Flexibility to reroute these systems through a redundant pathway in the event one of the connections is severed between schools will prove invaluable in a critical outage.

