The Vint Hill fiber infrastructure represents an opportunity to attract more businesses and jobs to the community than would be possible otherwise. In the business area of the community, most commercial office buildings not only lack fiber services but are struggling with low capacity, forty year old copper telecom cable left by the Army when the base was surplus to Fauquier County. The Economic Development Authority (EDA) has already spent over $400,000 on fiber and duct to retain existing jobs at a critical FAA building in Vint Hill. The EDA believes building middle mile fiber past all commercial and retail space will make it possible to increase employment more quickly. Vint Hill is a 700 acre business and residential community in Fauquier County in northern Virginia. The middle mile fiber will pass 60 existing businesses, 150 planned business, retail, and office space locations, and 1275 residences. Fifteen community anchor institutions are passed, including a community college satellite campus, two medical/healthcare providers, public housing, public safety, four community support organizations, and six government facilities, including a major Federal Aviation Agency facility. Services to customers will be provided by private service providers, and not by the EDA. The Vint Hill EDA will build and maintain the network, but all services will be provided by private companies. Proposed services include offerings from two identified service providers who have already signed Intent to Offer Service agreements with Vint Hill EDA. All services will be delivered over fiber with a minimum 100 megabit fiber connection and the capacity to offer Gigabit, 10Gigabit, and DWDM (Dense Wave Division Multiplexing) services. Internet access, VoIP telephone, computer backup, IP-based security services, SOHO business services, and VPN services are planned as part of the service provider offerings. As an open network, Vint Hill EDA is fully committed to the non-discrimination and interconnections obligations stipulated in the NOFA. Vint Hill is a political subdivision of Virginia and is required by law to provide publicly available price information and to provide interconnection to any requesting provider at the same price. The network is designed as an open access dark fiber system, using a fully redundant dual ring architecture. The redundant fiber design is required to support existing Federal government data centers already in Vint Hill, including the FAA and a contractor managing health records for the U.S. Department of Health and Human Services. All duct and fiber will be routed to an existing colocation facility in Vint Hill, in a building left by the Army. Service providers will place their own equipment in the colocation facility and light the fiber directly to a customer premise in a commercial office building or community. Customer premise equipment will also be provided by the service provider. Service providers using the Vint Hill infrastructure will bill customers directly, and pay a share of revenue (15%) to the Vint Hill EDA for the use of the duct and fiber infrastructure. This revenue share is adequate to fully support all operating expenses by the third year of operations. Expense shortfalls projected in the first two years are very
small, and the Vint Hill EDA is prepared to cover those shortfalls from other revenue sources (e.g. office rents). The dark fiber low maintenance approach focuses on lowering service provider costs by providing a high performance middle mile fiber backbone past every home and business in the Vint Hill community. The all fiber architecture will allow service providers to deliver advanced services like telepresence HD video conferencing to businesses, will help attract data centers and ecommerce operations to the area, and will enable many kinds of work from home and home-based businesses. The network can support 10Gig and DWDM light paths for long term business data needs. The high capacity connections can also deliver HD video TV and video on demand services, voice telephone, Internet access, telemedicine and health services, security services, rich multimedia distance learning opportunities, and many other residential and small business applications. Vint Hill offers a unique advantage to major businesses that may want to locate in Vint Hill: due to an existing business with a Federal agency data management contract, the Northern Virginia Electric Coop (NoVEC) has fiber to the colocation facility in Vint Hill. This NoVEC fiber is directly connected to the Ashburn, Virginia Equinix colocation facility, which is one of the major Tier One peering points on the east coast. Many Federal agencies and virtually all Tier One and Tier Two backbone Internet providers are colocated at Equinix, so businesses locating at Vint Hill can inexpensively purchase, via NoVEC fiber, inexpensive connections to Equinix providers. In 1993, with the announced closing of Vint Hill Farms Station, Fauquier County learned that it would lose its largest employer and 2,656 jobs, representing 14 percent of the County’s total job base. The Vint Hill Economic Adjustment Task Force, consisting of 18 business and community leaders appointed by the County Supervisors, recommended that the County Supervisors ask the Governor to create a new public authority to restore the economic contributions that Vint Hill provided to the County’s job base and local economy. Governor George Allen, Jr created the Vint Hill Economic Development Authority (VHEDA) in 1996. The VHEDA is now responsible for redeveloping the former base into a civilian mixed-use community. The Vint Hill Economic Development Authority is developing a quality, sustainable and responsible community with a local orientation, a regional commitment and a global perspective. Over the past two years, the EDA has successfully constructed and maintained more than three miles of telecommunications duct and fiber that connects businesses in three different buildings. This investment represents more than $400,000 of fully paid telecom-related capital expenditures that is already earning revenue from businesses that are leasing dark fiber pairs. The cost of this project is estimated to be just under $700,000. This figure includes two fully redundant duct/fiber rings that will pass by every business, commercial, and retail space. The rings also pass by the residential area of the community and will be able to support a fiber last mile expansion to all private residences in Vint Hill. The community anchor institution and business subscriber projections are based on a very modest 20% take rate in year one that grow over seven years to an estimated 80% take. We believe that these rates are conservative. About fifteen businesses and anchor institutions are projected to be connected in the first year, and will grow to approximately 150 businesses and anchor institutions by the seventh year. With the demand for bandwidth doubling (based on FCC data) every two years, we believe a modern fiber-based telecommunications infrastructure is essential to economic prosperity and jobs growth in Vint Hill. Using the BTOP formulas, the Vint Hill project will create 7 job years, which includes 5 direct and indirect job years and 3 induced job years.