

# Westminster Fiber Network in Maryland Sets Growth Path

In partnership with Ting, the Westminster Fiber Network is thriving thanks to careful planning, hard work and luck.

By Robert Wack / Westminster Fiber Network

This June marks four years since completion of backbone construction and lighting of all phases of the Westminster Fiber Network (WFN) project in Westminster, Maryland. Another milestone will soon be achieved: In the next several months, subscriber growth will begin generating sufficient revenue for the city to cover the debt service on the general obligation bonds sold to finance the project. This is well ahead of the planned timeline – a major success.

To put the entire project in perspective, it's helpful to do a quick recap of its origins. Serious planning began in 2012 after two developments made it clear the city would have to act on its own if it were ever to have affordable, abundant broadband.

The first was the realization that the considerable resources the state of Maryland received from the Broadband Technology Opportunities Program of 2009 were not going to address last-mile infrastructure and deliver better services to the community. The second was that the city's finances were back in order after a massive 33 percent property tax increase implemented in 2010. The financial crisis of 2008 left a massive hole in the budget because of the collapse of state and federal funds, but the property tax increase fixed that problem. New capital projects could be contemplated. The stage was set.

## NAVIGATING CHALLENGES

It's important to acknowledge that the success of the project was far from predestined. Westminster had to navigate numerous challenges – all of which could have turned out badly. Thanks to a lot of hard work, excellent preparation and abundant luck, the city avoided catastrophe.

In 2012, the city began the process of engaging with consultants and performing the research and planning necessary to undertake the project. A feasibility study was completed, correctly assessing the need and potential demand for the services contemplated. A business plan with pro forma financial statements was created, and various business models for providing broadband services to a community the size of Westminster were explored.

In 2014, a pilot project was initiated, using Capital Benefit Assessment funds the city had accumulated over the years from other development projects. This lucky situation was valuable for several reasons. First, it got a running start on engaging with contractors for construction of the fiber, and learned a lot of valuable lessons from this trial run. Second, it generated public interest and support leading up to the far more serious decisions about financing the larger project. Third, it demonstrated to potential partners during the RFP process that the city was serious, which gave it valuable credibility in discussions and eventual negotiations.

The feasibility studies and business plan articulated a vision of the Westminster Fiber Network as a public-private partnership (P3) from the outset. There's a spectrum of models: On one end, there are completely government-owned and government-operated models, such as those in Sandy, Oregon, and Wilson, North Carolina. On the other end, concessions or franchises are granted to large operators, such as Google, as in models in Kansas City, Missouri, and Austin, Texas. Westminster chose a middle path. Its model is based on that of Stokab in Stockholm, Sweden. There, the local fiber utility builds and maintains the dark infrastructure, and leases it to operators that install equipment and sell services.

Westminster did not have the political will or the IT experience to run Westminster's ISP, but the city wanted to maintain some level of control by owning the infrastructure. Like the Stokab model, Westminster owns and maintains the conduits, fiber, handholes and enclosures, and its partner handles everything else. Westminster owns all fiber all the way up to the side of the premises: backbone, laterals and drops.

The RFP process was thorough and quickly identified Ting as the most suitable partner for the project. Because both Westminster and Ting were new to the municipal fiber game at that point, the fiber lease negotiation was an exercise in creative problem-solving. Ting proved to be an open, trustworthy partner and the city quickly agreed to partnership terms.

The key element of the agreement from the city's perspective was ensuring that the debt service for the bonds



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it planned to issue for the capital costs would be covered in a reasonable time frame by the lease revenues generated from subscriber enrollment. The major variables in that discussion were the city's borrowing costs, projected construction costs, lease rates and projected subscriber enrollment.

For obvious reasons, the city wanted to make extremely conservative assumptions about take rates and costs; Ting made more optimistic assumptions. Because there wasn't good information about what the operating expenses would be for fiber maintenance, Westminster and Ting mutually agreed to exclude those from calculations, and focused only on debt service as the benchmark for setting the other variables, including the all-important lease rates.

Fast forward to today, and Westminster is closing in on the very important financial milestone of covering all debt service, years ahead of schedule, thanks to Ting's successful marketing and ability to deliver outstanding service at very competitive prices.

## LESSONS LEARNED

Looking back, what are the major lessons other local government bodies can learn from the Westminster Fiber Network? When it comes to the perils of large capital projects, it's helpful to look at the Four Horsemen of Large Capital Project Apocalypse: incompetence, malfeasance, cowardice and bad luck. These are the big factors that can account for the failures of many huge public projects and, when it comes to publicly owned telecommunications infrastructure, are the causes of some of the more notorious failures that public fiber skeptics like to harp about.

Let's get the ugliest one off the table first. Thanks to a long tradition of good government in Westminster, the corruption, misappropriation, and shady dealings that crippled other projects was not an issue. In communities with less scrupulous public officials, a multimillion-dollar capital project is a ripe target for all sorts of shenanigans – a major obstacle for many public fiber projects across the country.

Incompetence can damage any ambitious undertaking, and for a

relatively small community taking on a completely new type of infrastructure, Westminster ran that risk. Fortunately, its public works employees were more than up to the task of managing the contractors, learning the similarities and differences between the public works infrastructure they already knew well and the new telecom infrastructure the community was building. Mistakes were made early on – some a bit expensive – but lessons were learned, and the entire project came in significantly under budget and ahead of schedule.

Cowardice refers to the failure of political will that can occur when a difficult, expensive, multiyear project spans a time frame across multiple election cycles. Elected officials come and go, and enough change can undermine the consensus necessary to see a large, long project through to successful completion. Westminster fortunately had relative political stability during the bulk of the project, so this wasn't much of an issue.

The last variable, luck, is the one no one can control or predict. Westminster was lucky in that it had enough cash

on hand to undertake a timely pilot project, and that its eventual partner, Ting, entered the market at exactly the same time as Westminster initiated its RFP process. The city was lucky it didn't encounter any major construction surprises (hidden rock during directional boring for conduit was a constant worry), although there were many minor ones. It's impossible to know the bad things that didn't happen, but seeing now how complicated the process was, it seems likely that Westminster avoided many by mere dumb luck.

The city's preparation was near perfect; the feasibility study and business plan were of sufficient detail and quality to enable good decision-making, and to make the case to elected officials and the public. Thanks to consultants, the financial projections were also remarkably accurate, even with all the uncertainties at the time.

In retrospect, the decision not to include operating costs in the

rate structure, though not ideal and somewhat risky, appears to have been successfully managed. Westminster just didn't have enough information about what the costs would be and couldn't achieve consensus on how those costs would impact lease fees, so they were excluded. Given what an excellent partner Ting turned out to be, it was prudent not to blow up the negotiation for something Westminster really didn't have the data to argue.

There is sufficient remaining potential subscriber growth to substantially cover all operating expenses. That growth may take a little longer to achieve with the maturation of the market.

The COVID-19 pandemic was proof of concept, and another example of Westminster's dumb luck. The network was completed less than a year before lockdown began. During and afterward, story after story emerged of the seamless transition to telework

and remote learning in the community thanks to the stability and capacity of the network at affordable prices. In my home, I had a college student, a graduate student and my wife and I working remotely – all without a hitch.

## EYING OPEN ACCESS

Open access remains a goal for the WFN, but experience has tempered that enthusiasm. Size matters. For successful open access, a market must be of sufficient size to allow a network operator to allocate fixed costs in such a way as to not make service provider fees unacceptably high (e.g., UTOPIA Fiber) or a public owner has to take on the overhead costs of managing the network in that manner (e.g., the network in Ammon, Idaho). Westminster has neither of those things, so despite having a partner willing to explore open access, the community still has just a single provider.

But that doesn't mean a network of Westminster's size can't have multiple providers. There are still opportunities to explore in terms of linking smaller public networks to aggregate customer bases to create a market of sufficient size to accommodate multiple retail service providers.

The Westminster Fiber Network is a success and still has room for growth and more financial benefits. As with all big achievements, a combination of careful planning, hard work and a generous portion of old-fashioned luck all contributed to the success. 🙌



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