Building Ting Networks: Process & Capex video transcript

Monica Webb [00:00:05] Welcome Tucows investors. With me today is Ting’s Chief Networks Officer and Executive Vice President of Operations, Jason Smith, as well as Tucows President and CEO, Elliot Noss.

Monica Webb [00:00:16] First, Jason will take us through the timeline and process of building a citywide fiber network for Ting, including how and when Capex is spent, and when addresses become serviceable and start generating revenue. Jason has been with Ting since 2021 and has over 25 years of experience leading teams building telecom infrastructure.

Monica Webb [00:00:37] Elliott will then put that information into a financial context, discussing assumptions of Capex components of Ting network builds and how investors can best gauge Ting’s build progress. As always, please heed our Safe Harbor statement seen here.

Jason Smith [00:00:58] Thank you, Monica. So there are two topics for us to discuss today: timing of capital spend and serviceable address timing. First, let's talk about capital spend. There are a few dynamics that influence and drive the nature and timing of capital expenditures on a citywide fiber optic network construction project: engineering and design materials and equipment, primary infrastructure buildout, and lastly, access network construction. I want to try sketching this out while speaking to it. The first step in cost in building a network is to design it. This step takes place some number of quarters in advance of construction starting. This exact timing may vary due to permitting timeframes and other factors, but let us suffice to say this at least six months prior to construction start. There are two stages in the design process: high level designs; and detailed designs. We need a comprehensive, high level design to ensure we build the right type and size of primary infrastructure to support all of the homes and buildings in the town. This is the first expense in a build. As we get closer to construction start, detailed designs are created that provide very specific instructions for construction crews to follow while building. We will spend a few dollars per address on high level designs and then anywhere from 35 to $50 per address on detailed designs. The variability in low-level design costs is usually driven by varying municipal requirements.

The next significant capital expense also happens before construction starts: materials and equipment purchases. Many of the products and equipment used in construction of a fiber-optic network have significant lead times between order and delivery, so we’ll make these purchases far enough in advance of construction start to ensure there are no delays while waiting on equipment. These expenses typically fall in the $400 to $500 per address range. So now with designs in hand, we’re ready to start building. I think it’s helpful to look at a sketch of a small city to help depict where we start building and how the network develops throughout the construction process. When we think of a typical small city makeup, something like we sketched here may come to mind: a commercial business district; a residential apartment district; and quite a bit of single family homes scattered
across a large geographic area. It's important to have the foundation of our network built to enable us to continually add new addresses and customers. I'll refer to this as our primary infrastructure. This consists of electronics and optical equipment, and data centers to manage or route internet-bound traffic, conduit and cables installed from the data center to provide transport to various parts of the city; we could refer to these as backbone cables. And lastly, small cabinets or structures along those backbone cables that serve as aggregation points for the neighborhood fibers in traffic. Because of the extensive permitting requirements for some of this work and the time required to establish new facilities and data centers, this work and expense usually starts a couple of quarters before we anticipate addresses being serviceable in the city. An important note is that these are individually large expenses, $500,000 per cabinet, and maybe $25 a foot for conduit and cable construction. But they will ultimately support all of the addresses for the entire city. Each cabinet will support up to 10,000 homes, but it may take several years of construction of access networks before that happens.

So now let's look at access network construction. Access network construction usually starts from a cabinet location and begins progressing through neighborhoods or commercial areas, making addresses serviceable as it's being built. It may take 2 to 4 months to build any given neighborhood or serving area. It's important to build in a somewhat contiguous and sequential way to avoid creating isolated islands of network -- and capital -- that have no upstream connectivity back to their cabinet. It may take a year or more to complete the access network associated with the cabinet, but as I mentioned earlier, we make addresses serviceable as we progress throughout the build, so we can begin serving customers and generating revenue prior to all construction being completed. This access network will make many and usually most single family residential addresses and freestanding business buildings serviceable immediately.

There are two types of addresses that require additional work before they can be served. The first is single family residential areas that are controlled by private roads and homeowners associations. The second is multi-tenant buildings, whether they are apartment buildings or business complexes. Both of these types of buildings require access agreements and some additional level of capital expense to serve. So while it may take us 2 to 2 and a half years from initial capital outlay to complete the access network, it usually takes additional time beyond that to maximize the capacity of the primary infrastructure and even the access networks due to homeowners associations and multi-tenant buildings and the associated access agreements. This is the primary driver behind why the average cost of serviceable addresses typically goes down over time.

Thank you for listening and I hope this has helped you better understand the timing of capital spend on the fiber-optic network construction project. Here are a few final words and thoughts from Elliot.

Elliot Noss [00:06:18] Jason did a great job of describing the categories of a Capex build. I would like to put these categories into a financial context. For me, the easiest way to do that is to express them as a percentage of the cost of a typical home. For these numbers and for all numbers presented, with the exception of specific financial results from specific periods, these are broad estimates. Design and engineering will be roughly 3% of a typical address. Materials and equipment, 20 to 25%. Primary infrastructure buildout, roughly 10 to 15%. And access network construction -- the biggest category -- at 60 to 65%. An address is not
serviceable until the last of the access network is complete. Over the last couple of years, we've been asked a lot about inflation and whether rising costs were having an impact on the cost per pass. Here, I will note that we have seen this most clearly in materials and equipment, which over time has drifted up from 15 to 20%, to the 20 to 25% noted above.

Elliot Noss [00:07:29] Now, we have had a lot of questions over the years about the difference between a passed and serviceable address and how investors should think about this difference. Well, I have explained one technical distinction: a serviceable address has the electronics working on top of the physical network. Jason identified an even larger distinction: right of entry. Historically, right of entry was not a big part of the Ting build story. In the suburbs of Raleigh or the suburbs of Denver, there are simply not a lot of apartment buildings or commercial properties. Moving forward, particularly with Alexandria, this will change. This creates disclosure challenges that I intend to set up here, but not resolve. First, we are the only one of the mid-market fiber builders who is public. Allo was public for a brief period, but likely partly because of the difficulty of building this business in the public eye, their owner took their ownership below 50% and now avoid detailed disclosure. Of course, both AT&T and Frontier are public, but while that does provide a little useful comparison information, it also creates some challenges. Typically, public companies report passed addresses. This inflates the address count and will report addresses that may never be relevant for the business, like an apartment building or an HOA -- each containing potentially hundreds of homes with no right of entry. Historically, the large public companies had an incentive to report as many addresses as possible. We have all heard about the challenges with the FCC maps and overreporting. In addition, their fiber builds were a small enough part of their total businesses that this did not create issues for them. We would prefer to talk about serviceable addresses as this is the economic unit that actually creates revenue and cash flow. The challenge is, reporting one way makes it different from the way others report, and reporting the other way makes understanding the business more difficult. For now, we will maintain the status quo. But I wanted investors to understand this point as we honed down on more disclosure.

Elliot Noss [00:09:44] With those two general comments out of the way, I want to start to apply the frameworks we are providing to help investors dig deeper. We will look at 2022 in more detail. Then we will compare '22 to '21 to try and highlight where we are. Rather than me saying roughly before every number, please just note that all of these numbers are round.

Elliot Noss [00:10:05] Let's start with the cash spent on capital expenses in the Statement of Cash Flows. This is the place an investor would typically start. For 2022, but is $137 million. Now that is for the whole business. So the first adjustment is for non-Ting Capex. In 2022, that was $16 million in capitalized labor for Wavelo, and a couple million dollars for servers and other hardware for the rest of the business. We're now down to $119 million. That $119 million includes additions to inventory. In 2022, while we were worried about supply chain issues and given the land rush going on in the coax-to-fiber transition in the U.S., we placed more value on time than money. We ran up our inventory significantly, adding $25 million of physical fiber and conduit, and $7 million in electronics. We were probably too conservative in hindsight, but would also likely make the same decisions again in context. That $32 million takes us from $119 million to $86 million. The $86 million includes $14 million for installs and $2 million for fleet additions, taking us to $70 million in build capex. There is a little bit of this spent on partner markets, but that number is low enough for me to ignore
here. So that $70 million is what we spent to both complete addresses that had been materially built prior to 2022, as well as to build for addresses that would become serviceable in the future.

Elliot Noss [00:11:45] The last piece of information that I thought would be helpful here is to look at 2021 a bit. Doing the same analysis as I did above for 2021, one would get to $45 million. Now comparing the $45 million in 2021 to the $70 million in 2022, our savvy investors would next point out that we delivered roughly 30,000 addresses in each year. Now I note that I’m rounding up slightly in ‘21, and that we no longer report passed addresses in ‘22, but that we did call out that there were a large number of addresses that would move from passed to serviceable in Culver City early in 2023. Did we suddenly become much less efficient? In fact, when looking at the difference in spend across categories, we see that we spent $4 million more in 2022 on primary infrastructure build, and $16 million more in building access networks. Now, spend in each category is not something we currently disclose nor something we intend to disclose. We do think it will be important from time to time to share key data points, particularly things like some of the detail we have added above in order to help investors understand better. We shared a lot of information in this video and I hope that it helps you to track the business better. We expect this disclosure to continue to evolve.

Elliot Noss [00:13:17] Thank you. And we look forward to seeing many of you in Toronto on May 9th.