



TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

January 2025 – Broadband Updates

Concord Broadband is pleased to share the following updates and information from the past month. Please do not hesitate to contact us at broadband@concordma.gov should you have any questions, concerns, or feedback.

Operations

After almost 3 years of service to Concord Broadband, we are sad to say goodbye to our Senior Network Engineer, Victor Sencion. Victor has been a terrific asset since 2021, and he has helped support customers and staff while accomplishing several large upgrades. Victor, we wish you the best of luck in your next venture! His last day will be February 18, 2025.

We would like to thank the underground crew for their assistance painting the Broadband Technician room!

XGS PON Project Upgrades

We are excited to report positive progress on the upgrade to Concord Broadband's new 10 Gig network. We have obtained the equipment that will facilitate both our new OLTs, which can utilize 100 Gigabit links, as well as our new 10 Gigabit ISP link, which is burstable to 100 Gigabit speeds. We have identified the equipment we need and are going through the procurement process, which should take a few more weeks. And finally, we have located enough fiber at our two datacenter sites to connect the new equipment while leaving the existing equipment in place.

Once the equipment arrives, we will be racking it and configuring it to run on our network. We will cutover to our new routers and switches, and conduct extensive testing to ensure the new network is robust and can handle all existing traffic.

During the actual cutover, individual PON ports will be moved, fiber by fiber, to the new equipment. There will be slight downtime for these customers until ONTs populate and register in the new management system.

The beauty of this new hardware is that it allows both GPON (existing customers) and XGS (next generation devices) on the same fiber. This minimizes the impact and upgrade costs while allowing the possibility of future expansion. More updates will follow once we have completed the procurement phase of the project.

Upcoming Maintenance

There are no maintenance windows currently scheduled.

Concord Broadband typically schedules maintenance windows from 1-4am on Saturday or Sunday to minimize the impact to customers.

Learn more on our maintenance page here:

<https://concordma.gov/3144/Broadband-Maintenance>

Bridging the Digital Divide: BEAD Grant Opportunities for Low-Income Housing

Our Access to reliable, high-speed internet is no longer a luxury—it's a necessity. From education and employment to healthcare and civic engagement, broadband connectivity is crucial for full participation in modern society. Unfortunately, a significant digital divide persists, particularly affecting low-income communities and residents of affordable housing. The good news is that significant funding is on the horizon, and the Broadband Equity, Access, and Deployment (BEAD) program presents a powerful opportunity to bridge this gap.

What is the BEAD Program?

The BEAD program, part of the Infrastructure Investment and Jobs Act, represents a historic investment in expanding broadband access across the United States. Administered by the National Telecommunications and Information Administration (NTIA), BEAD will distribute billions of dollars in grants to states and territories to deploy broadband infrastructure in unserved and underserved areas. This funding aims to connect communities that currently lack access to minimum broadband speeds, prioritizing areas with the greatest need. In Massachusetts, the Massachusetts Broadband Institute (MBI) is administering these funds.

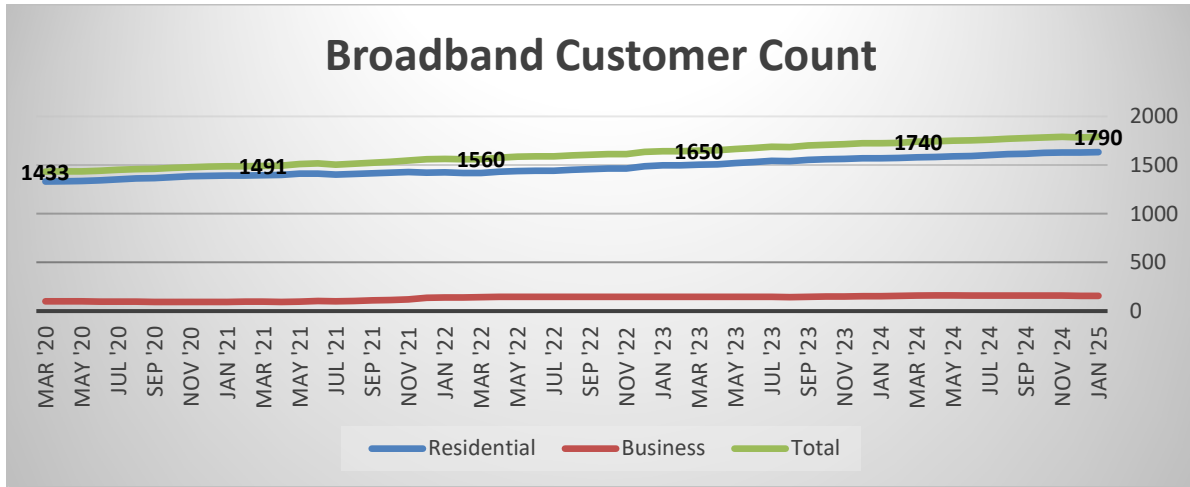
How Can BEAD Help Low-Income Housing?

Residents of low-income housing often face significant barriers to broadband adoption, including affordability, lack of access to infrastructure, and digital literacy challenges. The BEAD program offers a potential lifeline for these communities by:

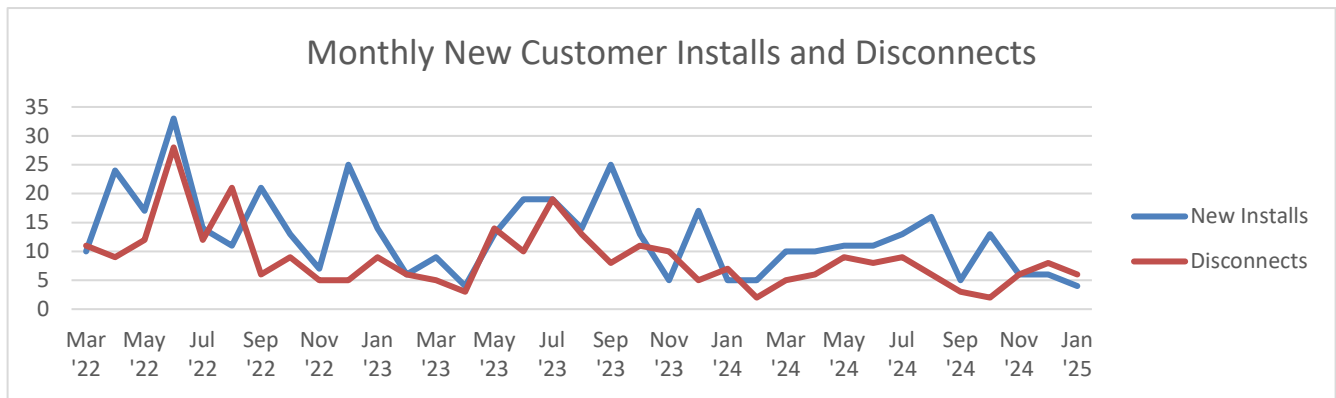
- **Funding Infrastructure Deployment:** BEAD grants can be used to build the necessary infrastructure to bring broadband service to low-income housing developments. This includes laying fiber optic cable, installing wireless equipment, and upgrading existing networks. Connecting these communities with robust infrastructure is the first and most critical step.
- **Supporting Affordability Programs:** While BEAD primarily focuses on infrastructure, it can indirectly support affordability. By expanding access and increasing competition among providers, the program can contribute to lower broadband prices. Furthermore, BEAD funding can be coordinated with other federal programs, such as the Affordable Connectivity Program (ACP), which provides subsidies to eligible households to help offset the cost of internet service.
- **Promoting Digital Inclusion:** Beyond infrastructure, BEAD can support digital literacy initiatives and programs that help residents of low-income housing develop the skills and knowledge needed to effectively use the internet. This includes training on computer basics, online safety, and utilizing online resources for education, job searching, and healthcare.

Concord Broadband staff have spent many hours attending webinars, obtaining quotes, doing research, and strategizing how we might be able to make use of these funds to expand access to residents in Concord. We won't know for a while if we are successful, but it is critically important to us that find a way to connect everyone in this Town.

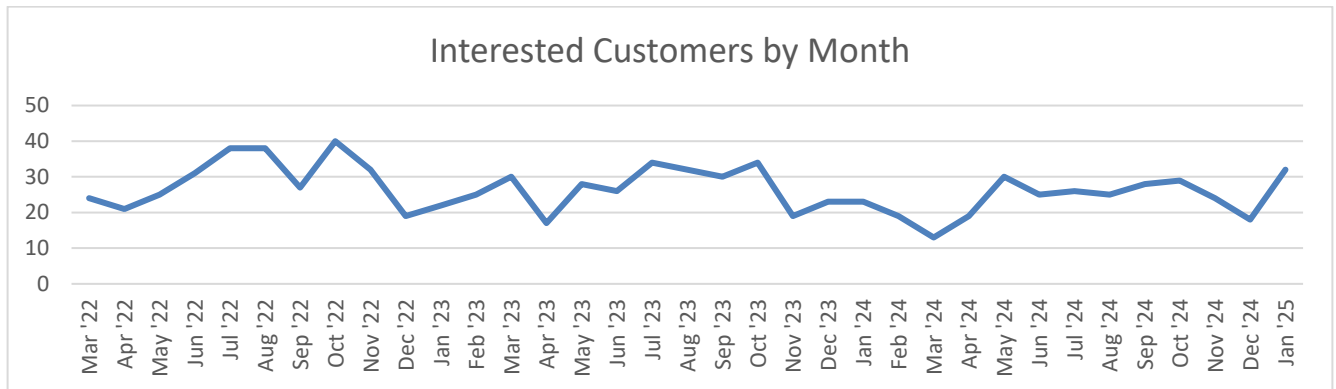
Monthly Metrics and Business Data



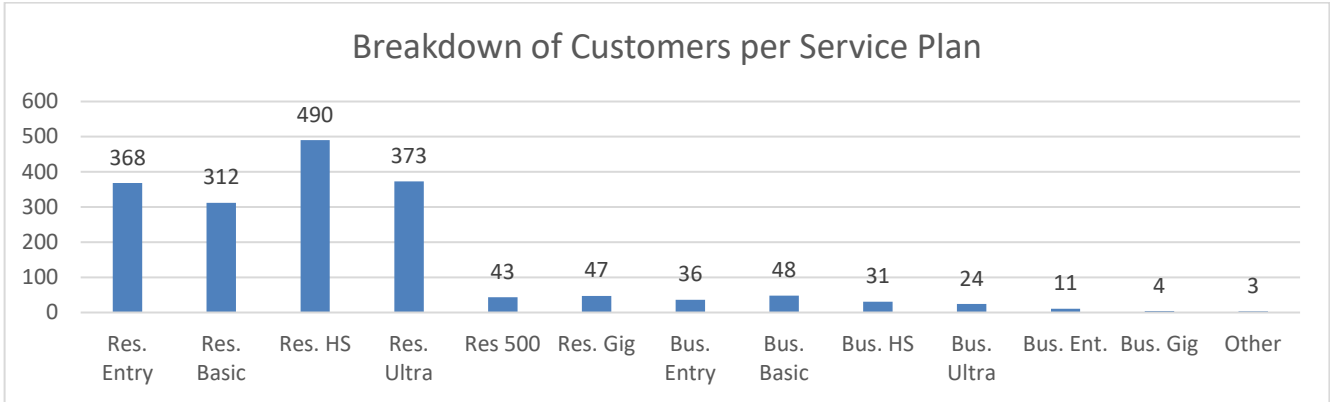
(Customer count: March 2020 – January 2025)



(The number of new installations and disconnects completed each month.)

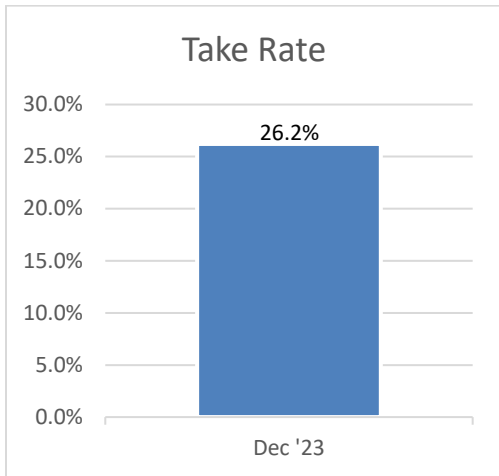
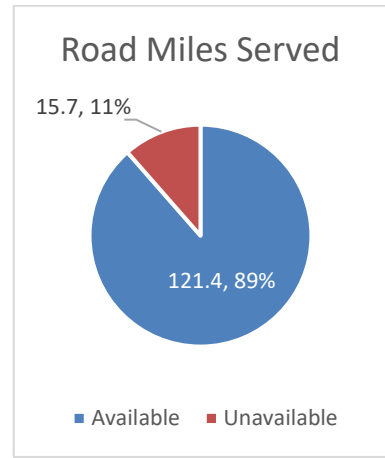
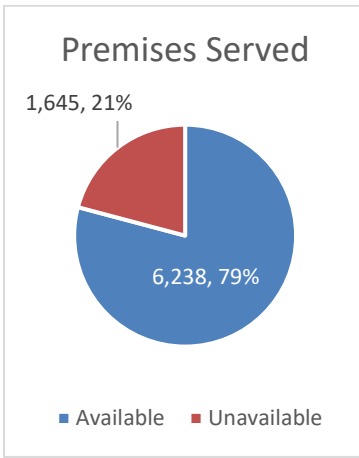
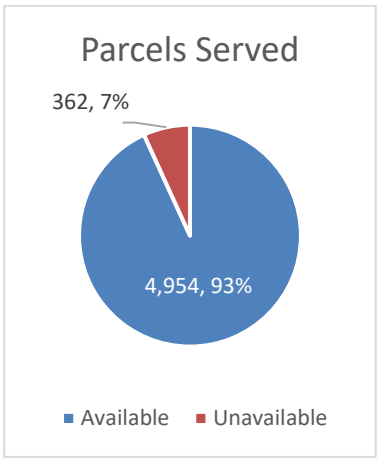


(This is the number of individuals who submit the Broadband interest form, whether they are in the current service area or not.)



(This is the number of each customer on our different service plans as of 1/31/2025.)

Other Metrics



(As of 12/1/2023; update coming soon!)

Appendix

Fiber Broadband Completion Task Force's Report Goals

Goal	Type	Priority	Responsible Party	Additional Info.
Policies (p.39)				
<ul style="list-style-type: none"> Universal Access 	Policy	Highest	Select Board/Town Meeting	
<ul style="list-style-type: none"> Expansion outside current territory 	Policy	Low	Select Board/Town Meeting	Conversations happening
<ul style="list-style-type: none"> Support Economic Vitality, Sustainability, Equity & Inclusion 	Policy	High	Select Board/Light Board/TM Economic Development	Rate subsidy planned
<ul style="list-style-type: none"> Affordable Housing 	Policy	Medium	Select Board/Housing Groups	Rate subsidy planned; working on Concord Housing Authority properties
<ul style="list-style-type: none"> Public Safety 	Policy	Medium	Select Board/Town Manager	
<ul style="list-style-type: none"> Education 	Policy	Medium	Select Board/School Dept.	
<ul style="list-style-type: none"> Government Access (PEG) 	Policy	Medium	Select Board/PAAC	
Recommended metrics for tracking (p.41)				
<ul style="list-style-type: none"> Parcels served 	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
<ul style="list-style-type: none"> Premises served 	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
<ul style="list-style-type: none"> Road miles served 	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
<ul style="list-style-type: none"> Subscribers 	Metric	High	Town Staff/Light Board	Complete; will report monthly
<ul style="list-style-type: none"> Take rate 	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
<ul style="list-style-type: none"> Churn 	Metric	High	Town Staff/Light Board	Complete; included in monthly report
<ul style="list-style-type: none"> Installations 	Metric	Highest	Town Staff/Light Board	Complete; will report monthly
Governance (p.39)				
<ul style="list-style-type: none"> Track progress against completion 	Metric	Highest	Light Board/Town Staff	Working on this
<ul style="list-style-type: none"> Rate of return policy 	Policy	High	Light Board/Town Staff	Working on this
<ul style="list-style-type: none"> Financial goals with regular reporting 	Policy	High	Light Board/FinCom	Working on this
<ul style="list-style-type: none"> Retained earnings and reserve policy 	Policy	High	Light Board/FinCom	Working on this

Goal	Type	Priority	Responsible Party	Additional Info.
Strategic Planning Goals (p.43)				
• Marketing and growth	Metric	High	Light Board/Town Staff	Working on this
• Business return	Policy	High	Light Board/Town Staff	Working on this
Budgeting Process for Fiber Expansion (p.41)				
• Expand to fill existing opportunities	Planning	High	Light Board/Town Staff	
• External funding sources	Research	Medium	Light Board/Town Staff	Working on this
• ARPA Relief Funds Allocation, incl. Lost Revenue	Finance	Highest	Select Board/Town Manager	Complete
• Review/Confirm Internal Loan Findings	Finance	Highest	Financial Audit Comm/Staff	Complete
• Review and Rescind PILOF to MMN	Finance	High	Select Board/Town Manager	Complete
Capital Planning Process (p.42)				
• Review/Revise Debt financing schedule	Policy	Highest	Light Board/Town Staff	In progress; due to positive financial situation, anticipating being able to repay faster.
• Quantifying cost of expansion	Planning	Medium	Town Staff	Working on this
• How to fund expansion	Planning	Medium	Light Board/Town Staff	Working on this
• Revise/refine methods for computing ROI	Planning	Medium	Light Board/Town Staff	Working on this
Construction and Logistics (p.42)				
• Vibratory plow – direct buried fiber cables	Operations	Medium	Town Staff	Working on this
• Revise/Refine Communication conduit construction standards and guidance	Policy	Medium	Town Staff	Working on this
• Integrate Fiber construction with the Roads Program – focus on Streets without fiber that already have underground electric	Planning	High	Town Staff	Working on this