



# TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

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## February 2026 – Broadband Updates

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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](mailto:broadband@concordma.gov) should you have any questions, concerns, or feedback.

### Operations

- The Broadband team responded to the power issue at Walden and Main St in early February. Fiber was present in the conduit where a conductor failed, so it had to be pulled out and re-run. It was spliced that afternoon/evening, and final repairs were completed the following day before 11am.
- Gateways continue to fail on the Yukon system. Broadband staff have been resetting the gateways and communicating with Eaton.
- A fiber link connecting Harvey Wheeler with other Town buildings failed. There was a redundant fiber present, so the failed link was disabled until troubleshooting could occur. Fiber patch cables were replaced, and service resumed as expected.
- The XGS-PON migration has taken a lot of staff time. You can read more about this in the lengthy article below.

### XGS-PON Migrations in Progress

As we continue our journey to bring next-generation connectivity to Concord, we want to provide a transparent update on our XGS-PON rollout. Our goal is to provide the fastest, most reliable fiber network possible, and sometimes that means hitting the pause button to ensure everything is perfect.

#### What Happened During the First Phase?

On February 18, we successfully migrated the first group of customers (roughly one-sixth of our network) to the new XGS-PON devices. While nearly all residents experienced a smooth transition with immediate access to the new hardware, we did encounter some hurdles.

Specifically, a few municipal and business accounts with multiple locations experienced connectivity issues between sites. Our team immediately worked to find the root cause.

### Upcoming Maintenance

There will be additional maintenance windows in March/April of 2026. When the dates are chosen, we will update the maintenance page here:

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

## Troubleshooting and Resolutions

After extensive investigation, we identified two primary issues:

- **Software Bug:** We traced the connectivity drops in multi-site accounts to a specific software error. Working with our vendors, we have identified the fix to ensure these accounts remain stable. We will test these newer releases extensively to ensure this issue is addressed and that it does not introduce any other errors.
- **Optics Hardware:** We also discovered a hardware inconsistency in some of the optics (the components that transmit light through the fiber). This could have potentially affected performance for outdoor ONTs (what people often call “modems” that are in basements or the sides of buildings), so we are proactively replacing that hardware. This particular issue did not manifest in the first wave of migrations, but we did want to replace the hardware as a preventative measure.

## Why the Schedule has Shifted

Because we refuse to compromise on the reliability of your service, we have temporarily paused the migration schedule. We are currently in a phase of rigorous, extensive testing to confirm that the software fixes and hardware replacements meet our high standards. We believe it is better to take the time now to get it right than to rush a rollout that isn't 100% ready.

## Looking Ahead: Late March and April

We know many of you are eager for your upgrade! We anticipate resuming the migration schedule in late March or April. We don't have the exact dates for the remaining neighborhoods just yet, but as soon as the testing phase is complete, we will send out direct communications to let you know exactly when your area is scheduled for the switch.

**Our Commitment:** We appreciate your patience as we work through these technical refinements. Our priority remains delivering a world-class fiber network that Concord can rely on for years to come.

## Meet the Team: A Day in the Life of a Concord Broadband Technician

While much of the magic of a high-speed fiber network happens behind the scenes in server rooms and through miles of underground cabling, the real connection to our community happens on the ground. Whether they are climbing a ladder, navigating a dusty basement, or precision-splicing a strand of glass the width of a human hair, our three dedicated Senior Technicians Marc, Rob, and Dan are the backbone of Concord Broadband.

If you've seen one of our trucks in your neighborhood, here is a glimpse into what their day looks like.

### **The Art of the "Walk-Through"**

Before a single foot of fiber optic cable is laid, a technician's day often begins with a site survey. Marc, Rob, or Dan will meet with residents and business owners to map out the "path of least resistance." They determine where the fiber enters the building, where the Optical Network Terminal (ONT) will sit, and how to ensure the installation is as unobtrusive as possible. It's a mix of engineering and customer service, ensuring the technical needs of the network align with the aesthetics of your home.

### **Precision Under Pressure: Splicing Fiber**

Fiber optics transmit data using pulses of light, which means every connection must be perfect. Our technicians handle two types of splicing:

- **Outdoor Splicing:** Often performed in varied weather conditions, this involves connecting the main distribution lines to the individual drop cables that head toward your home. While fiber systems usually overbuild the fiber with enough slack to bring the splice case into a warm van, Concord's fiber system was not designed in this manner, so nearly everything is spliced in the air.
- **Indoor Splicing:** This is the finish work. Once the fiber is pulled inside, the team uses specialized fusion splicers to join the glass strands. This process uses an electric arc to melt two glass ends together with microscopic precision.

### **The Heavy Lifting: Pulling Cable**

Not every day is spent doing delicate desk work. Much of the job involves pulling cable—physically threading fiber through conduits and over aerial attachments. It's a physically demanding task that requires coordination and a deep understanding of Concord's unique utility infrastructure. Whether it's a standard residential install or a complex municipal building, the team ensures the fiber is secure and protected from the elements.

### **The Detectives: Troubleshooting**

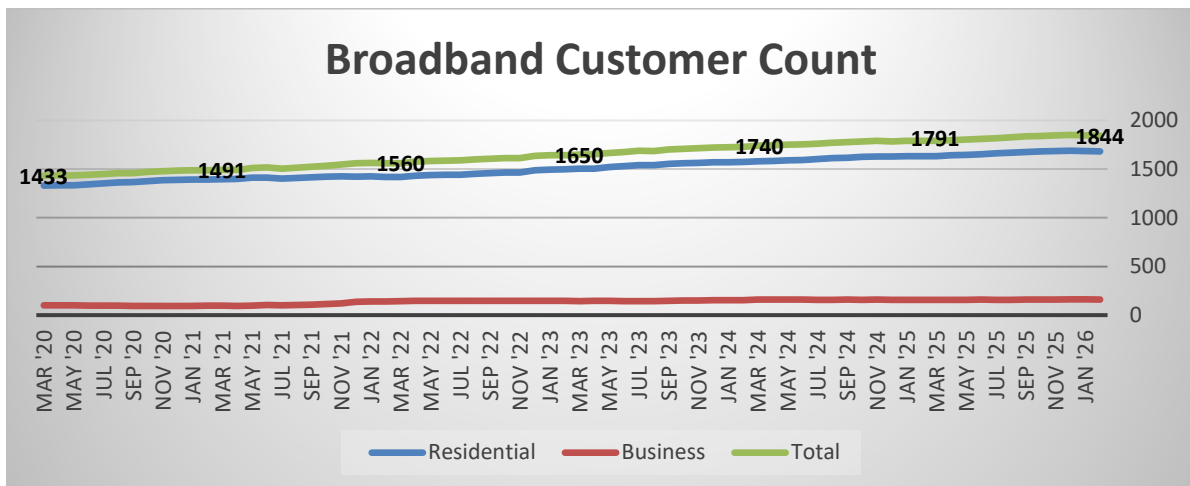
Perhaps the most critical part of the job is when things *don't* go as planned. When a customer reports an issue, Marc, Rob, or Dan become detectives. They use specialized tools like OTDRs (Optical Time-Domain Reflectometers) to see into the fiber and find exactly where a signal might be bending, breaking, or experiencing interference. Their goal is always the same: get the customer back online as quickly as possible.

Fun Fact: Because fiber uses light rather than electricity, our technicians are often looking for “micro-bends,” which are tiny kinks in the cable that can cause light to leak out and slow down your video stream!

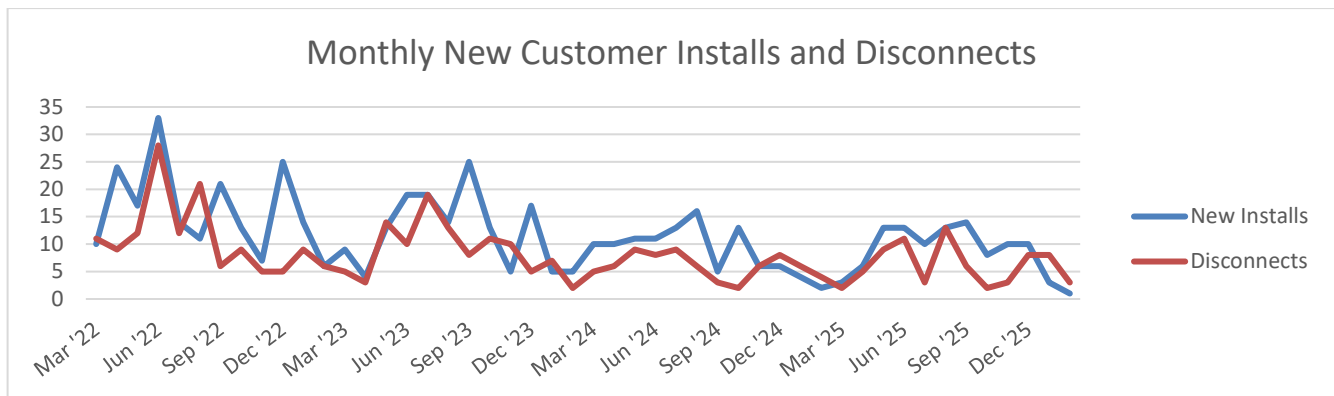
### A Local Team for a Local Network

What sets Concord Broadband apart is that when you call for support, you aren’t reaching a massive call center in another time zone. You’re reaching a team that knows our streets and our infrastructure inside and out. The next time you see Marc, Rob, or Dan out in the field, feel free to give them a wave—they’re the ones keeping Concord connected, one splice at a time.

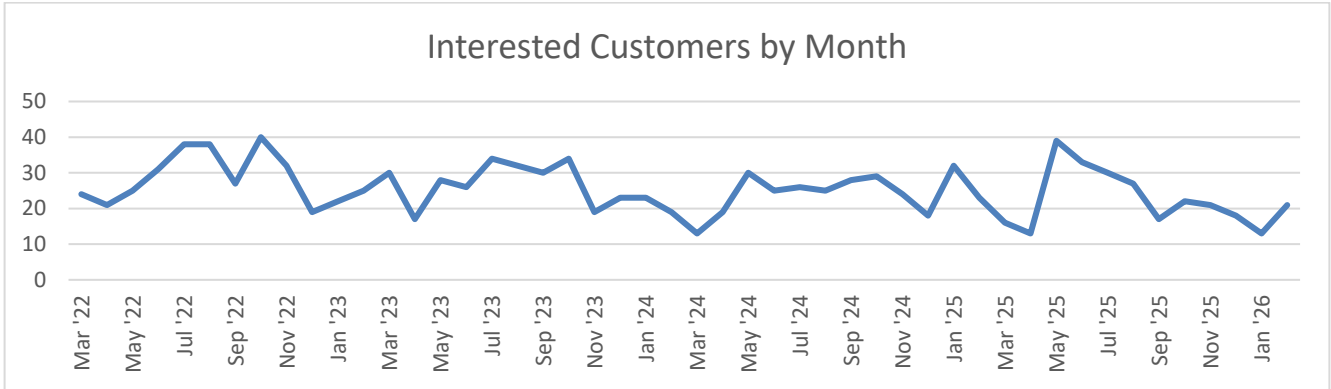
### Monthly Metrics and Business Data



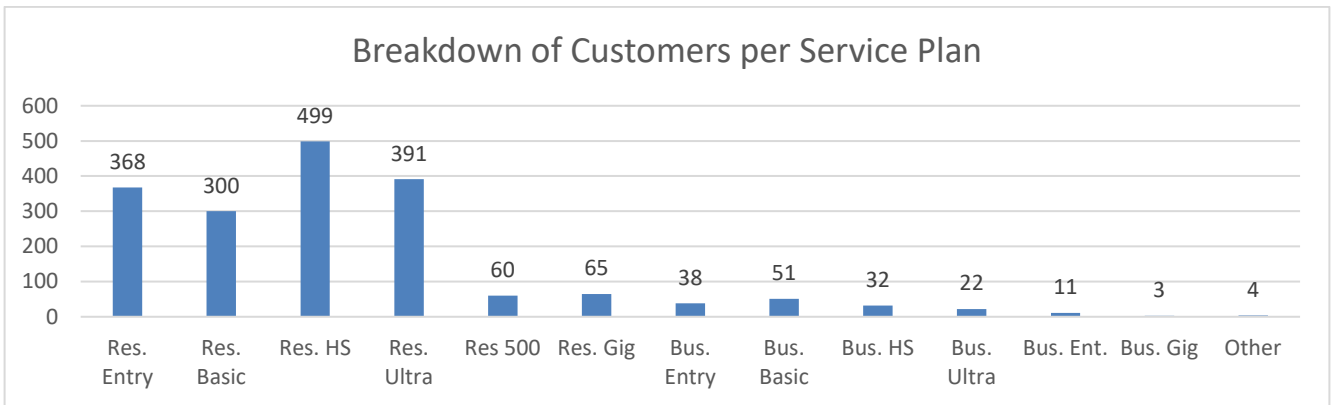
(Customer count: March 2020 – Present)



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

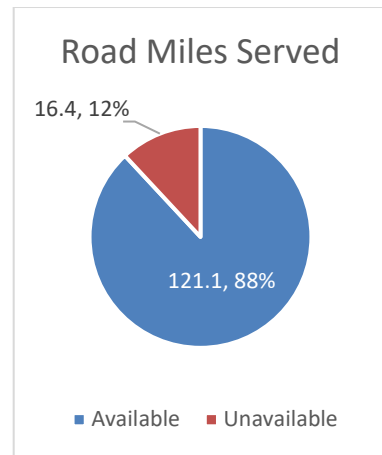
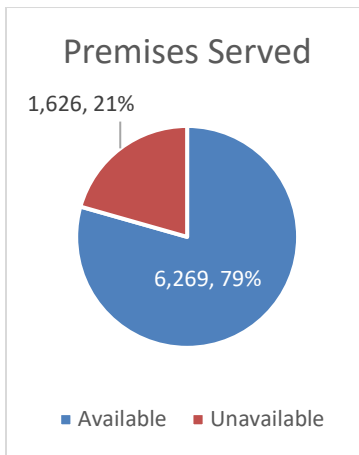
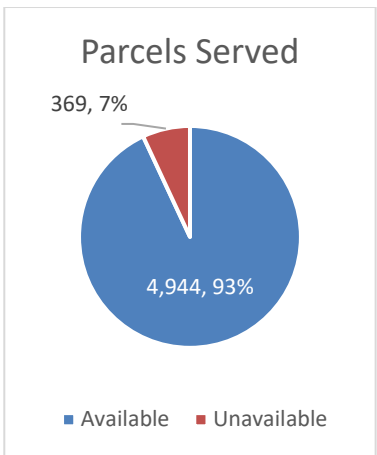


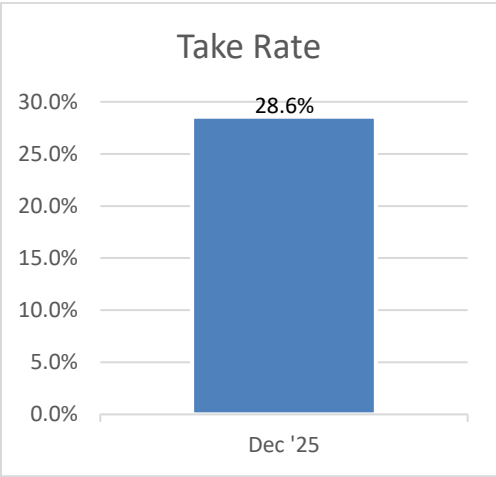
(This is the number of individuals who submit the Broadband interest form, whether they are in the current service area or not.)



(This is the number of each customer on our different service plans as of 2/28/2026.)

## Other Metrics





*(As of 2/15/2025)*

## Appendix

### Fiber Broadband Completion Task Force's Report Goals

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

Goal	Type	Priority	Responsible Party	Additional Info.
<b>Strategic Planning Goals (p.43)</b>				
• Marketing and growth	Metric	High	Light Board/Town Staff	Working on this
• Business return	Policy	High	Light Board/Town Staff	Working on this
<b>Budgeting Process for Fiber Expansion (p.41)</b>				
• 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
<b>Capital Planning Process (p.42)</b>				
• 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
<b>Construction and Logistics (p.42)</b>				
• 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