

Clearwater County Broac bane

This virtual open house is a great opportunity to learn about Clearwater **County's Broadband Project.**





Thank you for joining us and



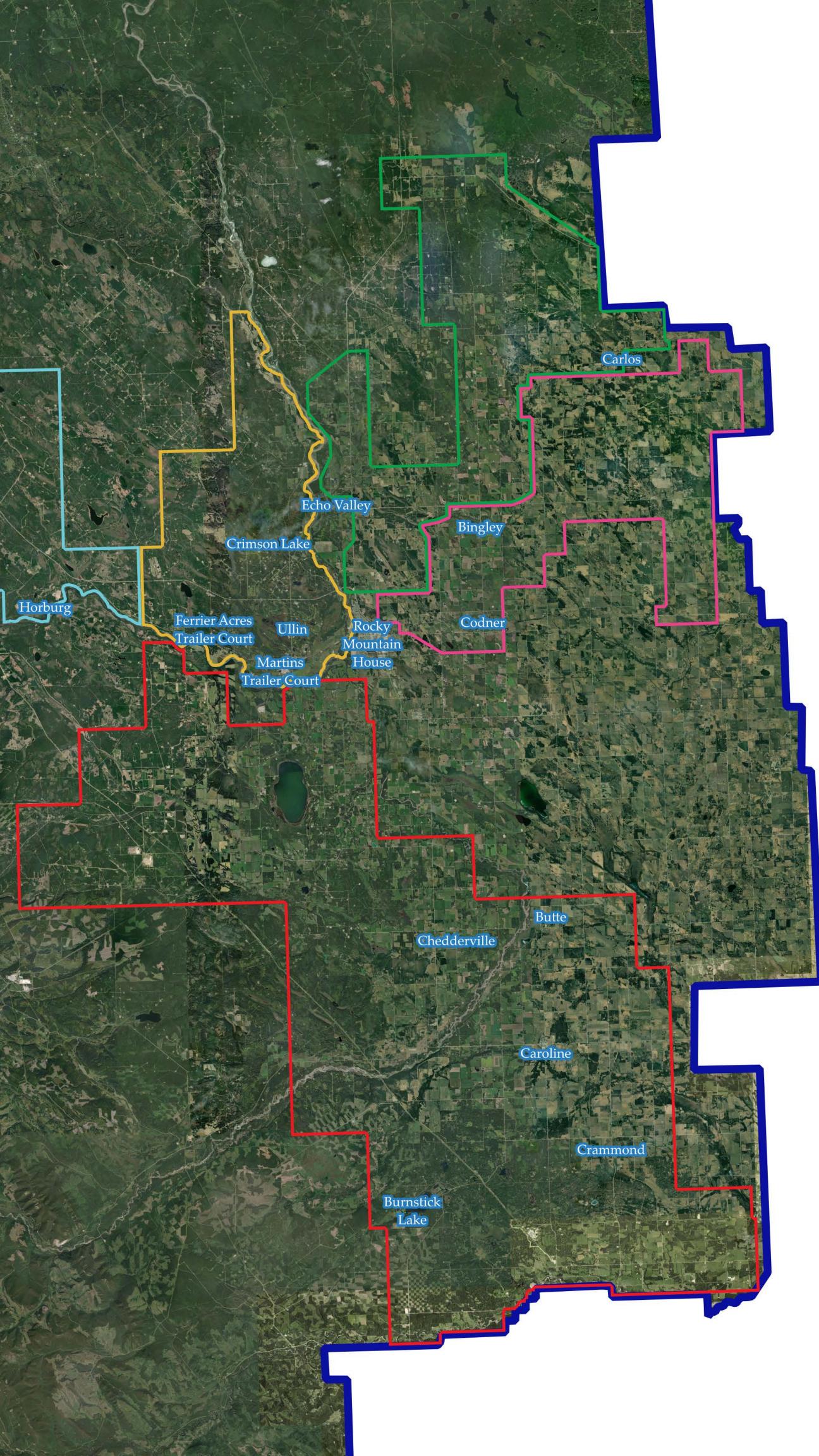
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Learn about project details, why broadband matters, and what it means for residents and businesses.

for your interest in Broadband. **Together, let's build a connected future.**



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Pin where you Live/Work

PROJECT ZONE UBF-03250

PROJECT ZONE UBF-07123

PROJECT ZONE UBF-07119

PROJECT ZONE UBF-07121

PROJECT ZONE UBF-07122



Project Background & What is Broadband?

Project Background

Fibre optic is future-proof and will meet the demands of a modern society while reducing the digital divide for Clearwater County Residents.

Clearwater County's Broadband plan rollout will be a phased approach, broken down into five (5) stages using a combination of fibre-optic cable and wireless towers to provide Broadband Connectivity throughout the County.

What is Broadband?

Broadband refers to high-speed internet access that is faster, more stable, and more reliable than older technologies, such as dial-up or satellite. With a faster download speed, it allows for seamless video calls, streaming, and efficient business operations.



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Clearwater County's Broadband Project is a multi-year initiative that aims to deliver Broadband access to residents and businesses in the County.



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Why does Broadband Matter?

Broadband in today's world is an essential service. This project is about increasing connectivity to help advance opportunities in education, business, healthcare and everyday life while empowering residents and businesses.

Why Broadband Matters

- Economic Growth Supports local businesses, attracts new investment, and can increase home values.
- Quality of Life Enables remote work, education, and entertainment.
- Healthcare Access Facilitates remote health services and increased access for emergency services.

The community-owned network will generate revenues which will be re-invested locally, leaving ownership and control in your hands!

This self-sustaining approach lays a foundation for business growth and improved services.



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Fibre networks help local economies.

Rural Broadband Benefits for Alberta

\$1.7 Billion

Annual **GDP** Growth

Enhancedbroadband access is projected to contribute up to \$1.7 billion annually to Alberta's GDP.

5% Agricultural **GDP** Increase

Improved connectivity can boost the agriculturalsector'sGDP by up to 5% through the adoption of advancedtechnologies.







The deployment of broadband technology is expected to create up to 1,500 jobs in Alberta.

120,000 Students Connected

Reliable high-speed internet will provide over 120,000 students with improved access to remote education.



Why Fibre?

The fastest broadband option is fibre broadband!

Fibre-optic broadband is a data connection **delivered over thin glass** fibres, where data travels as beams of **light** pulsed in a pattern. This technology supports much higher speeds than traditional broadband, with today's networks reaching up to 10 Gbps and future-ready fibre already capable of 25G, 50G, and beyond.



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What is fibre-optic broadband?

Advantages of using Fibre-optic technology

- other technologies.



• High Speeds: Fibre delivers blazing-fast speeds for streaming, remote work, online learning, and cloud-based tools—even in rural areas where other services fall short.

• **Reliability:** Fibre stays strong through **bad** weather, remote terrain, and long distances ideal for acreages, farms, and oilfield sites. It's a **passive network**, meaning it only requires power at the ends—not along the route so it's more resilient in power outages than

• Security: Fibre is harder to intercept and doesn't radiate signal—protecting sensitive data for businesses, remote workers, and health professionals.

• **Bandwidth:** Whether you're running a household, a home-based business, a farm with loT equipment, or a commercial shop uploading drone data, fibre handles it—**no slowdowns**, even with multiple users and devices.

• Scalability: Fibre is built for long-term growth supporting 25G, 50G and beyond without replacing cables, making it the right investment for families, businesses, and future innovation.



Fibre-Optics vs. Satellite Why fibre-optic broadband beats satellite in rural areas

Fibre-optic networks have significantly lower latency than satellite connections, including Low Earth Orbit (LEO) satellites. This makes fibre a better choice for real-time applications like video calls, online gaming, and remote work, where delay matters.

Fibre is unaffected by weather conditions, terrain, or physical obstructions. Satellite signals can be disrupted by rain, snow, or tree cover, leading to service dropouts—especially in heavily wooded or mountainous areas.

Fibre delivers consistently higher speeds than satellite, even during peak usage times. LEO satellites share bandwidth across thousands of users per beam, meaning congestion can slow speeds during high-traffic periods. Fibre networks are designed to handle high demand without performance drops.



Lower

Latency

Improved

Reliability

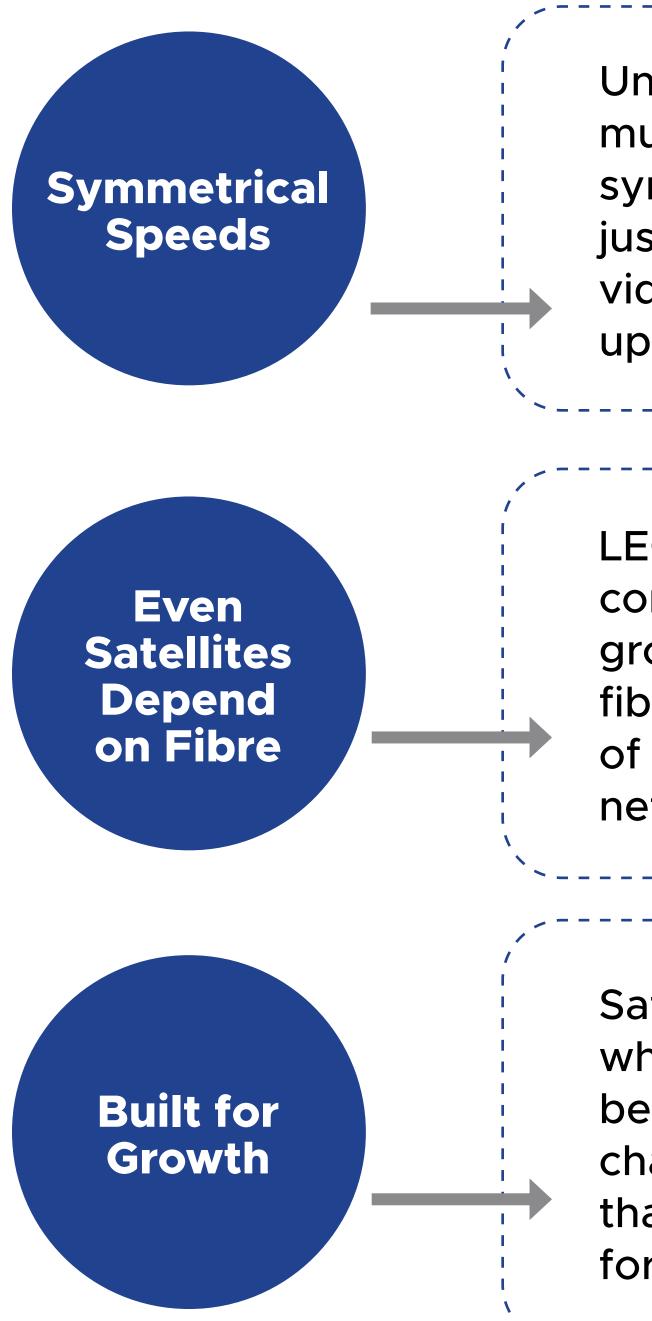
Higher

Speeds

& Less

Congestion

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Unlike satellite connections, which often have much slower upload speeds, fibre provides symmetrical speeds—meaning uploads are just as fast as downloads. This is critical for video conferencing, cloud-based work, and uploading large files.

LEO satellites require local ground stations to connect to the internet backbone, and those ground stations must be fed by high-capacity fibre-optic connections. Fibre is the foundation of modern broadband—even satellite networks rely on it.

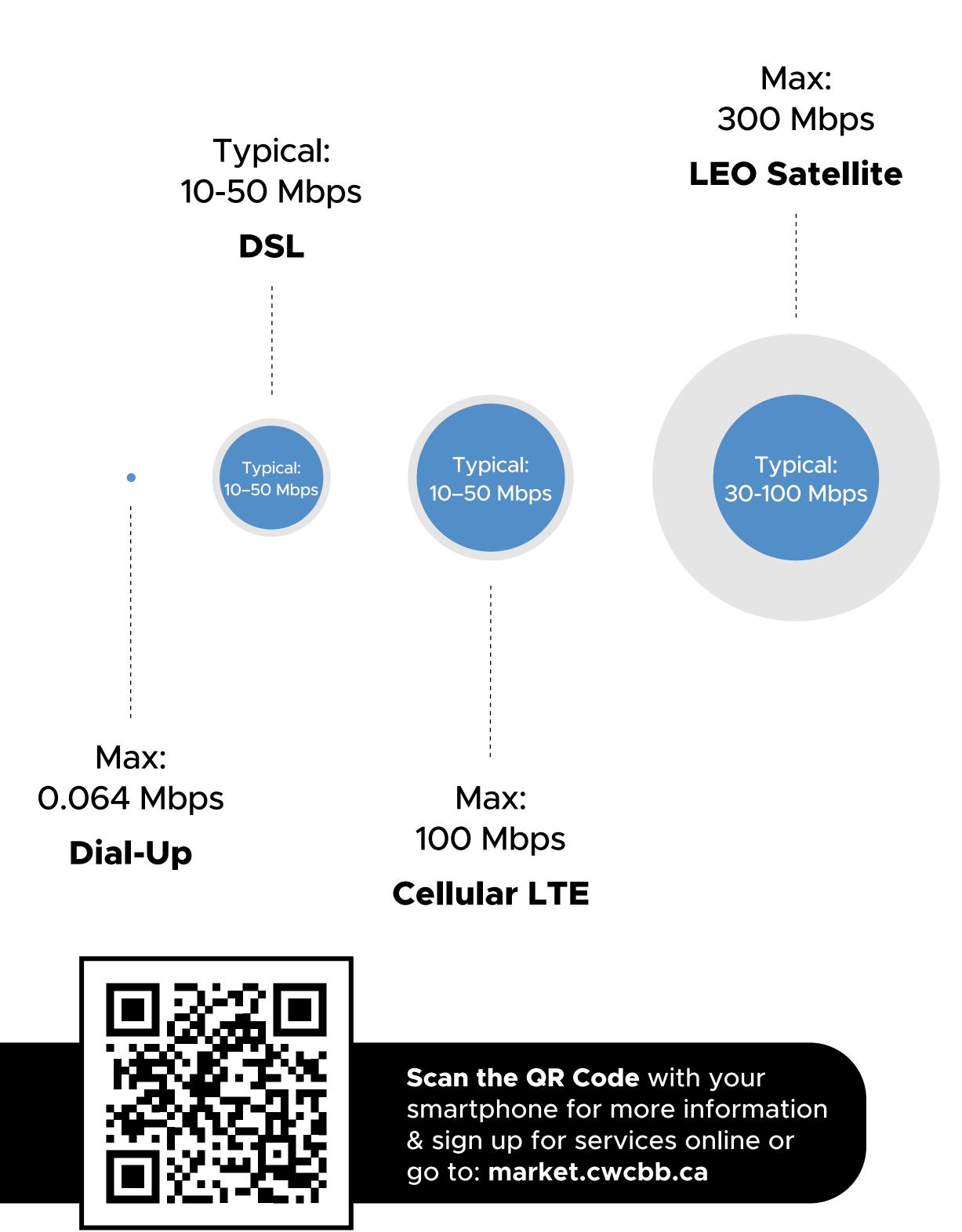
Satellite technology has physical limitations, while fibre can scale to 25G, 50G, and beyond without major infrastructure changes. Fibre is a long-term investment that ensures communities are prepared for future broadband demands.

Rural Broadband Technology Scaled Comparison

Typical Speed for the technology

Max Speed for the technology

Speed ranges based on real-world performance and publicly available broadband reports, including data from the FCC, Ookla, Microsoft Airband, and ISP specifications.



Mbps – Megabyte per Second (units of measurement for network bandwidth)

Max: 1,000 Mbps Cable

Typical: 25-100 Mbps

Max: 1,000 Mbps **Fixed Wireless**



Typical: 100-300 Mbps

250 -10,000+ Mbps **Fibre Optics**



Open Access Broadband



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Most broadband networks are owned and controlled by a single provider, limiting choice and competition. **Clearwater County is building an Open Access Broadband network** a different model that separates the network infrastructure from the services running on it.

This allows multiple providers to compete on the same fibre network, ensuring better service, pricing, and long-term sustainability.

How Open Access Broadband Benefits You

- and innovation.



• Multiple service providers compete on the same network, increasing choice

 You can choose the provider that best meets your needs—without switching networks.

 A shared network makes broadband more efficient, keeping costs lower for everyone.

• Open Access ensures fair access to the network, fostering competition and better service quality.

Traditional Network vs. Open Access Network

Traditional Network	
One company owns AND operates the network	 No separation betw infrastructure and
No competition, limited choice	 Customers are lock into a single provic
If service is poor, switching networks is difficult (or impossible in rural areas)	
Pricing and service quality are controlled by one company	 No market pressure to improv
Limited innovation	 A single provider controls upgrades, delaying advancen
Inefficient use of infrastructure	 Competing ISPs mu build duplicate net increasing costs.
Take rate limits efficiency	 The network is only efficient as its subs rate, which is neve in a competitive ma



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Open Access Network

Network is share open to multiple

More choice, bet and competitive

Customers can sy providers without changing networ

Encourages inno

Local ISPs can participate

Highly efficient infrastructure us

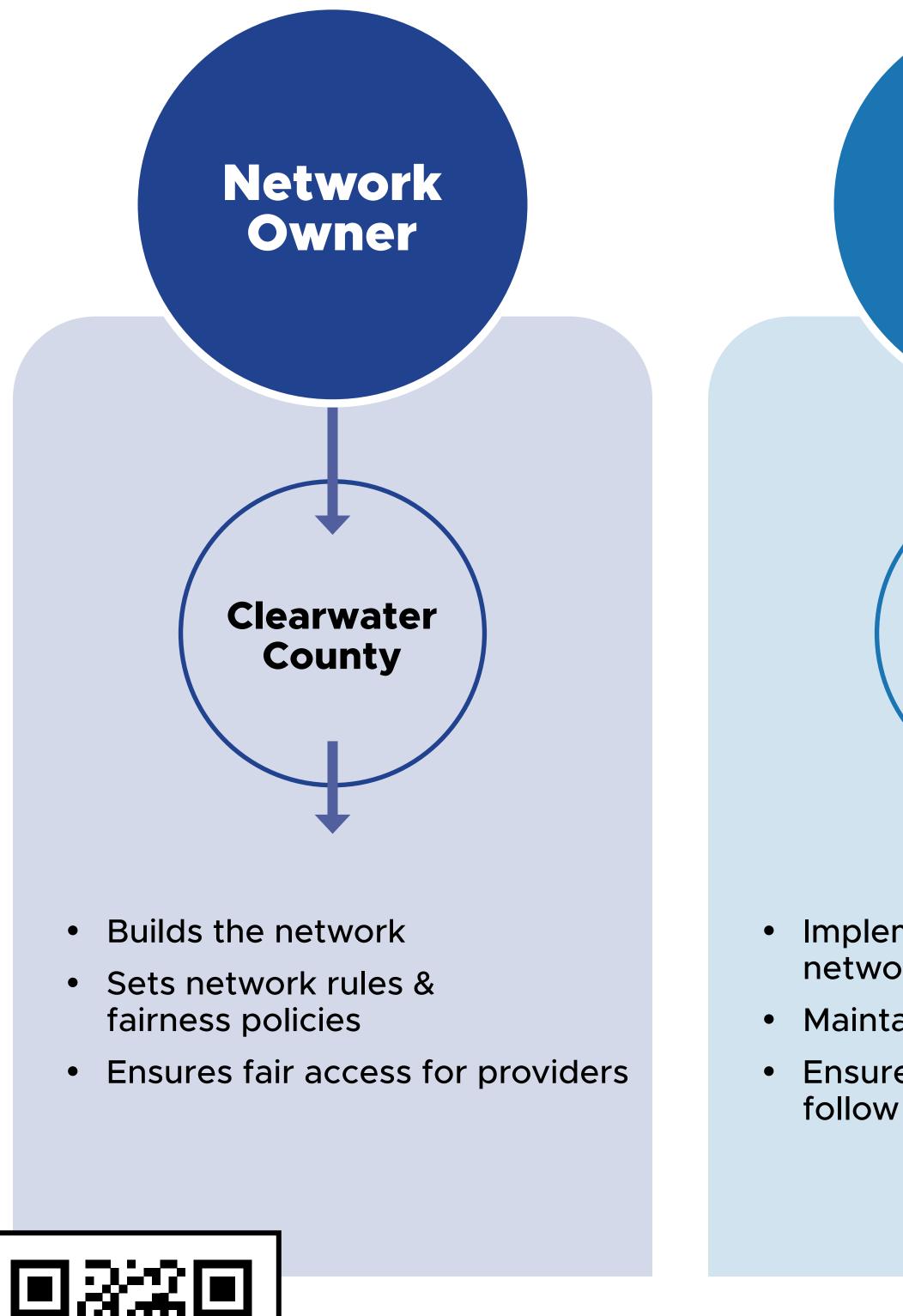
Lower costs and better sustainability



ed and e providers	>	Encourages competition and choice.
tter service, pricing		ISPs must earn customers.
switch ut rks		No service disruption when switching.
ovation		ISPs compete with better services, features, and pricing.
		Keeps money in the community and strengthens the local economy.
5 e		Utilization rates approach 100% (or higher) as multiple providers can deliver services over the same fibre line.
l bility		Shared infrastructure means reduced capital costs for ISPs and more affordable services for customers.

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Open Network Roles



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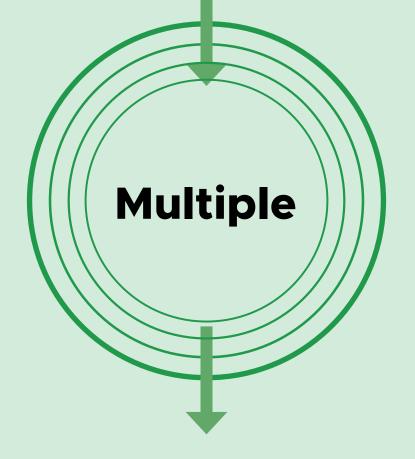
Selected by County

Implements & enforces
 network rules

• Maintains network performance

Ensures Service Providers follow policies

Service Providers



- Sell services to customers
- All providers pay the same network access fee
- Compete on pricing, features & service quality
- Offer different service types (Internet, TV, Phone, etc.)



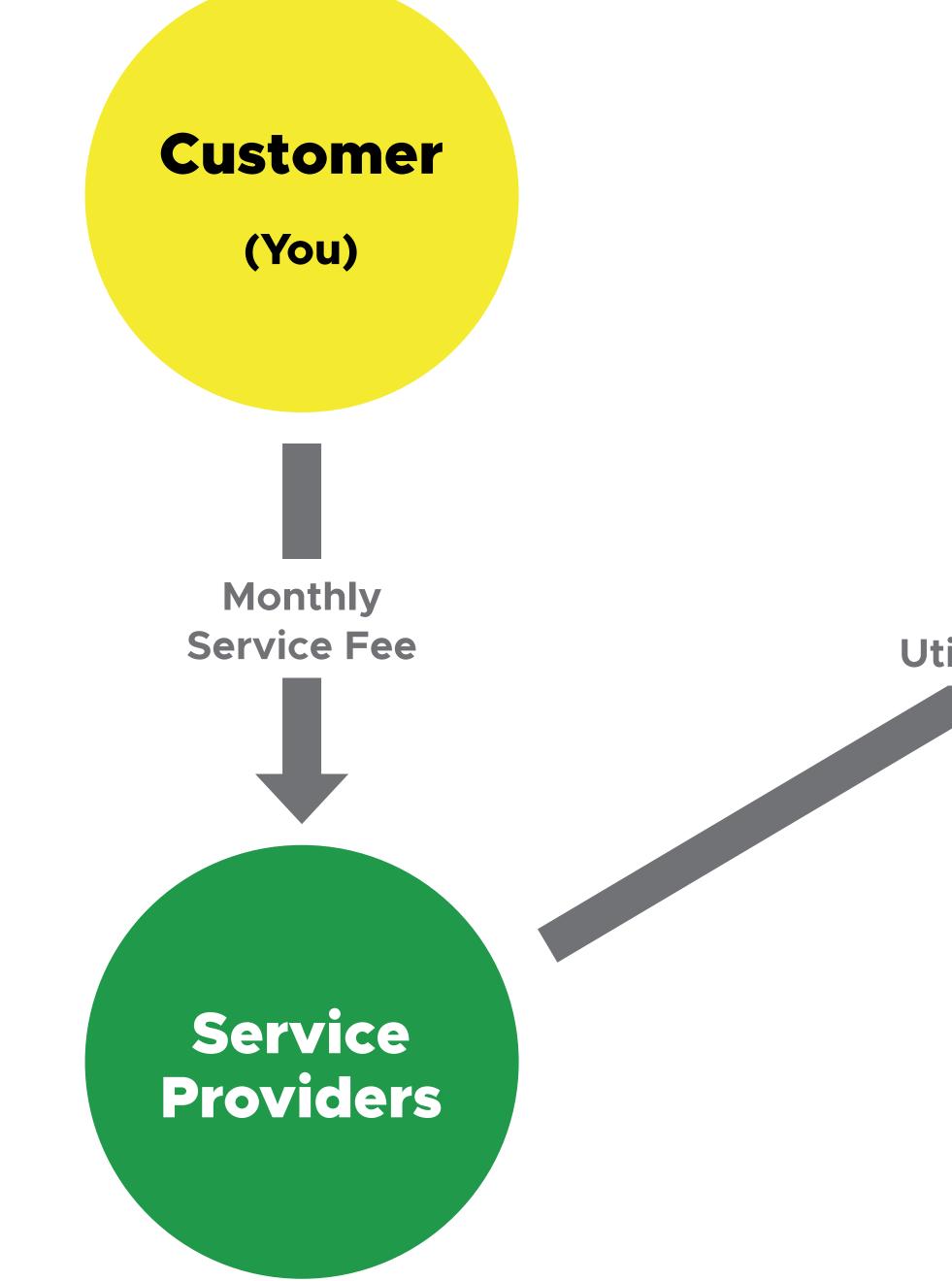
YOU

End Customer

- Can choose multiple providers
- Pay only for services you need
- Can switch providers anytime



Who Pays Who? Keep your money local





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Clearwater County

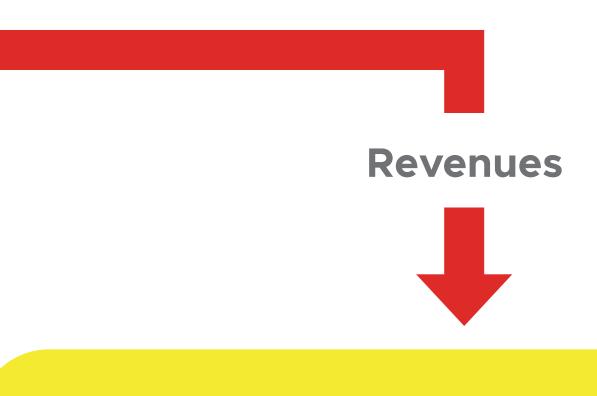
> (Network **Owner**)

Network **Operation Fee**

Network Operator

Network **Utilization Fee**



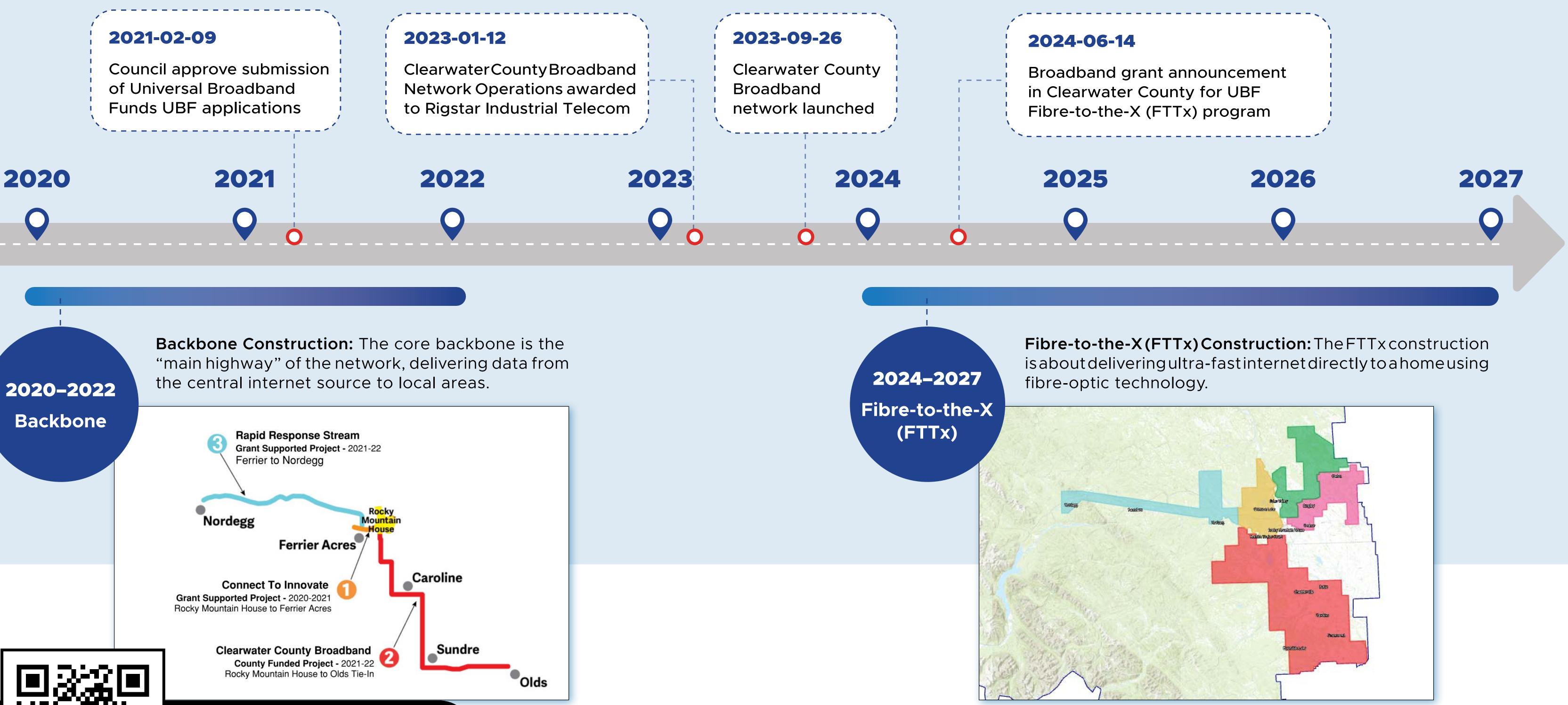


Community Benefit & Network Expansion

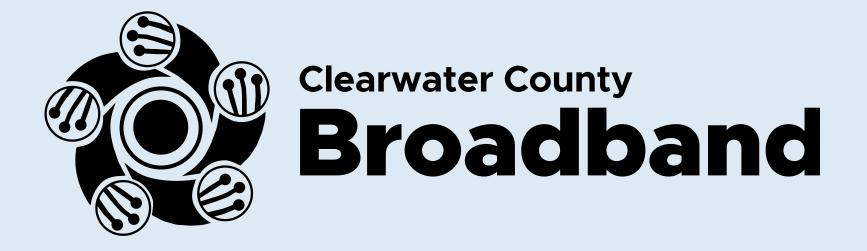
- Profits stay in the community rather than going to large corporations
- Funds collected by the Network Owner help expand fibre coverage
- Supports future upgrades & maintenance
- Ensures long-term affordability and local control

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Broadband **Implementation Timeline**



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Funding Channels **Investing in Clearwater County's Future**

Clearwater County has secured significant funding to build a high-speed fibre-optic network, ensuring reliable internet access for residents and businesses.

Five major grants from Innovation, Science, and Economic Development (ISED) Canada and the Government of Alberta are covering up to 75% of eligible project costs.



Universal Broadband Fund (UBF)

A \$3.225 billion federal initiative supporting rural connectivity, including funding for this project.

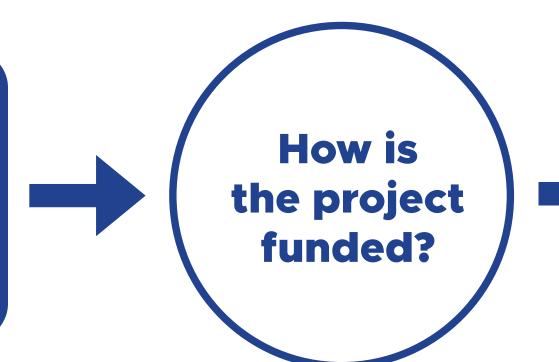
Alberta Broadband Strategy

This strategy identifies opportunities and challenges of improving access to broadband by allocating \$26 million to the Alberta Broadband Fund and has made a joint commitment of \$780 million with the federal government.

Source: Innnovation, Science and Economic Development Canada; Government of Canada



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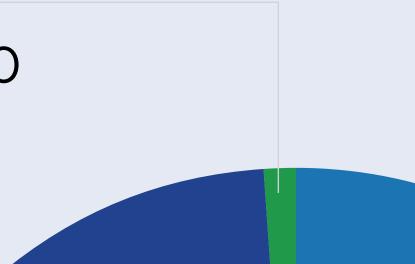
Donated Services

\$756,000









Net Cost to County

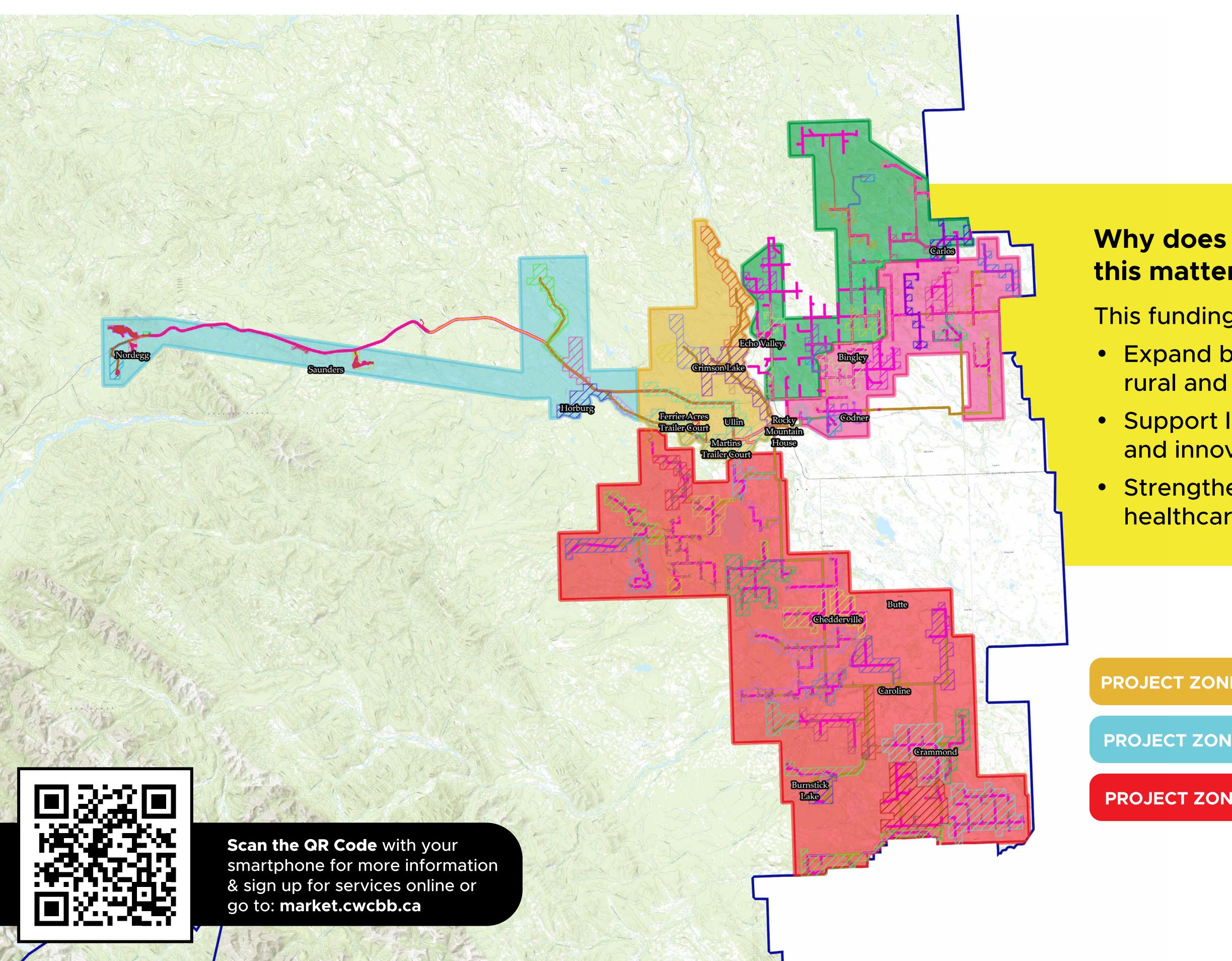
\$43,485,457

Project Total

\$110,652,093

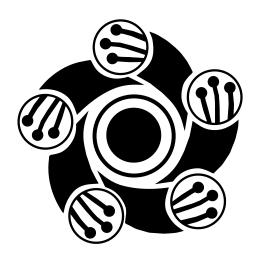


Project Overview Map

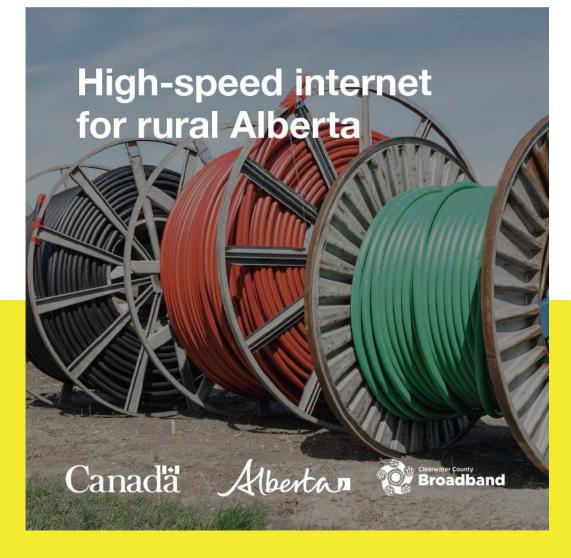












this matter?

This funding will:

 Expand broadband to underserved rural and remote areas.

 Support local business growth and innovation.

• Strengthen connectivity for education, healthcare, and social welfare.



PROJECT ZONE UBF-07121

PROJECT ZONE UBF-07122



Project Construction Details

Main Construction

Installation of the duct, cable, vaults, and pedestals required to connect homes and businesses along the route. This construction occurs within the Road Right of Way.

- Infrastructure is not placed on private property during this phase
- Duct, vaults and pedestals are placed using various construction equipment including:
 - Vibratory Plows

- Horizontal Boring Machines



– Hydrovac Trucks

– Trenchers & Excavators



- Skidsteers, Picker Trucks, Duct Reel Trailers and other support machinery.
- - Cable Jetting Rigs and Air Compressors
 - Splicing Trucks
- Impact to driveway approaches may occur including:
 - Short Term Construction Vehicle Parking
 - underground trenching
- An empty duct is left at edge of property line to allow for future connection to the home.

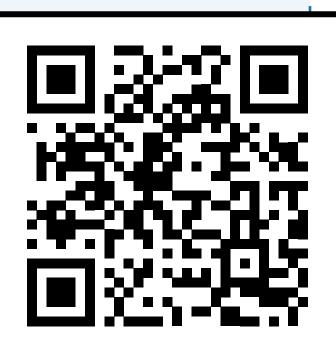


• Cables are placed inside the ducts, vaults and pedestals using:

- Manual Pulling Personnel
- Cable Reel Trailers, Cable Reel Stands and other support equipment

– Minimal disturbance to road surface from construction and

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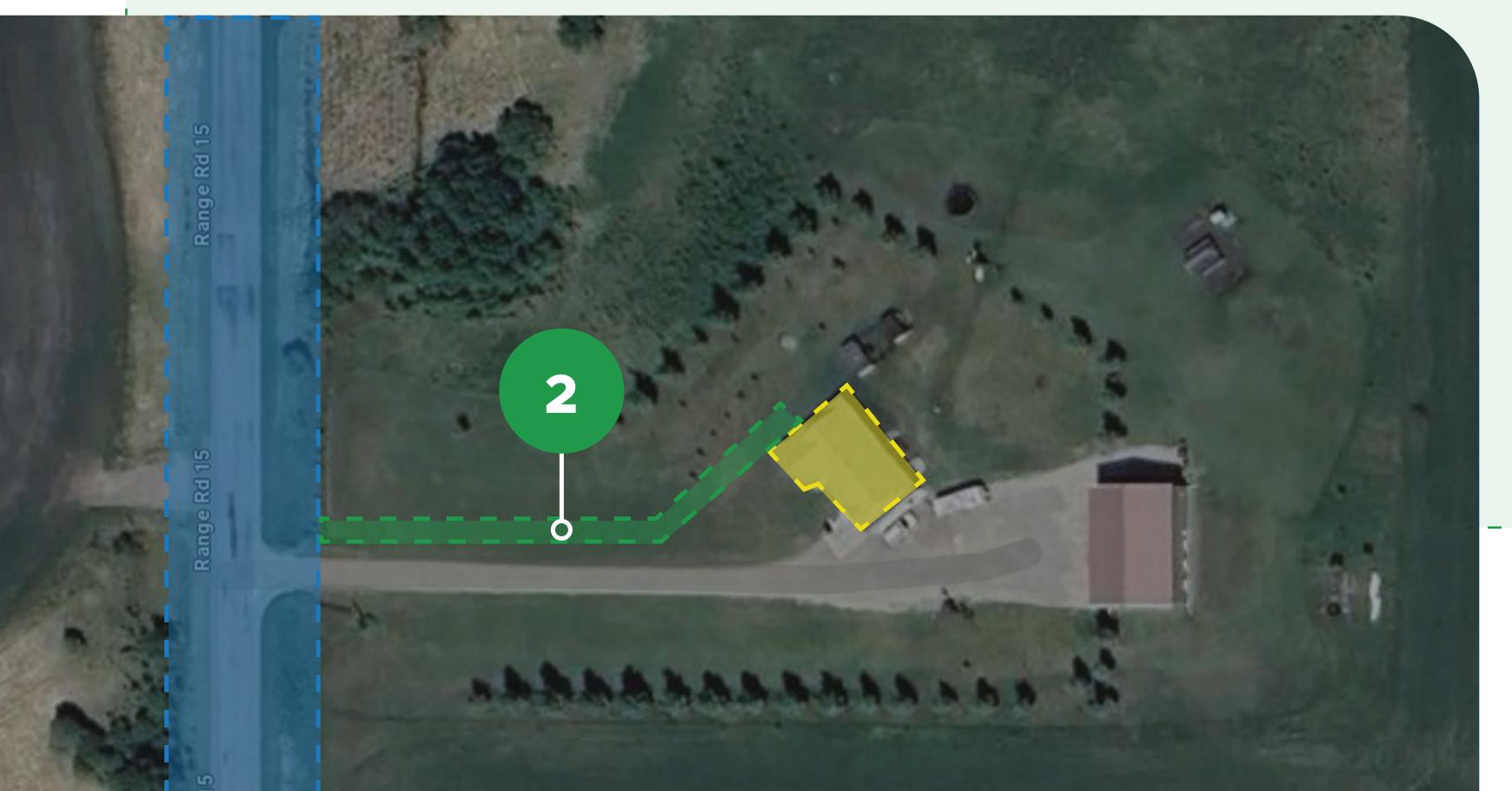
Project Construction Details

Drop Program

Installation of the duct and cable required to connect your home or business. Infrastructure is placed on private property during this phase.

- Property Owners are presented Access Agreements a document used to plan and agree upon the installation route and method – prior to any work commencing.
- Duct and Cable is installed from the Main Construction to the exterior of the building
- Smaller installation equipment is utilized to minimize impact to land and landscaping including:
 - Vibratory plows

– Horizontal Boring Machines



- Hydrovac trucks
- Trenchers & excavators



- Impact to yards and landscaping is minimized by:
 - Selecting appropriate routes to avoid sensitive areas
 - Avoiding work during wet or snowy weather
- Property Owners can expect:
 - Input and communication for planning and construction
 - Input and communication if issues in routing or installation arise



- Short term construction vehicle parking
 - Minimal disturbance to yards and landscaping from construction equipment

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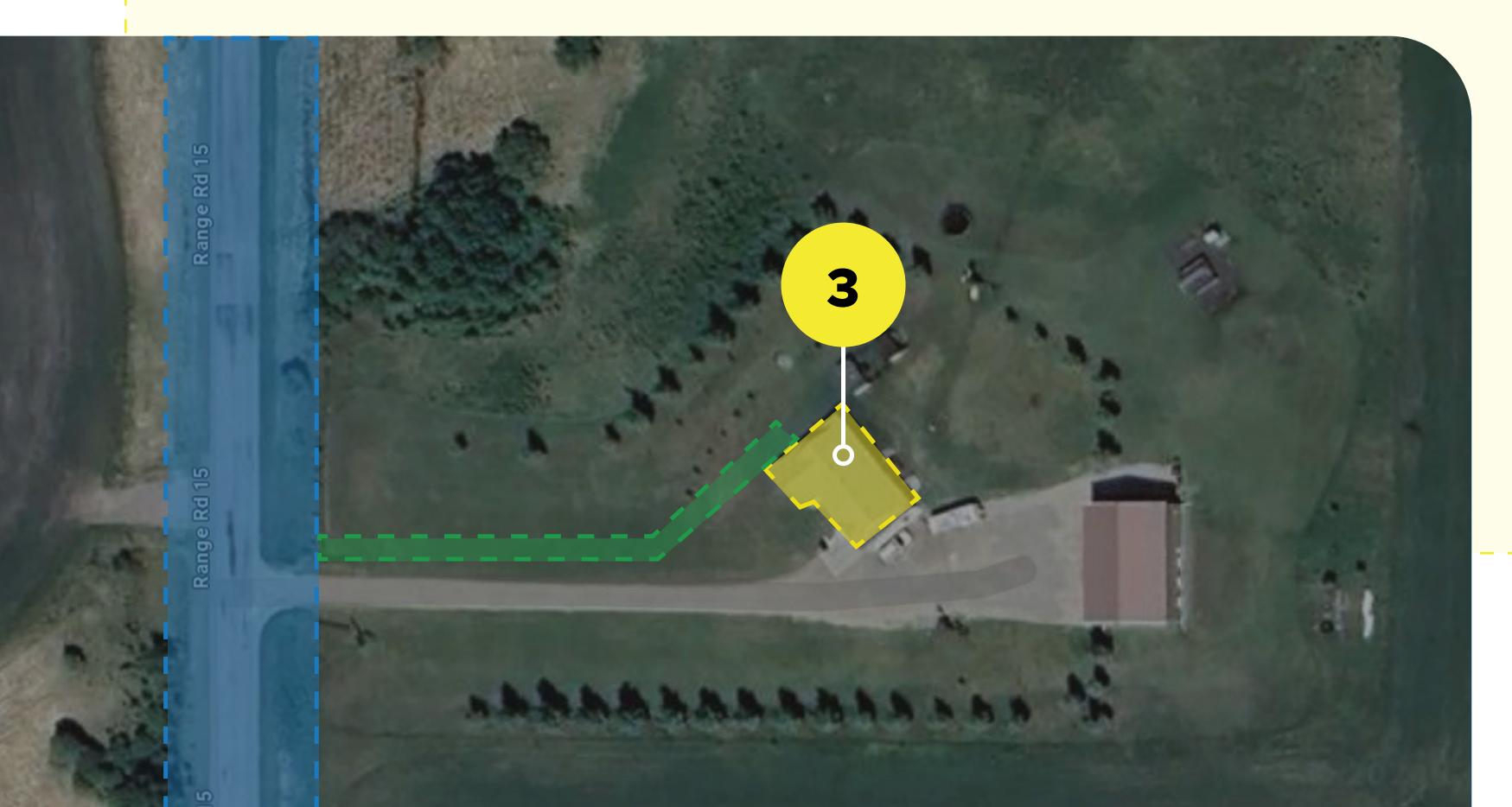
Project Construction Details

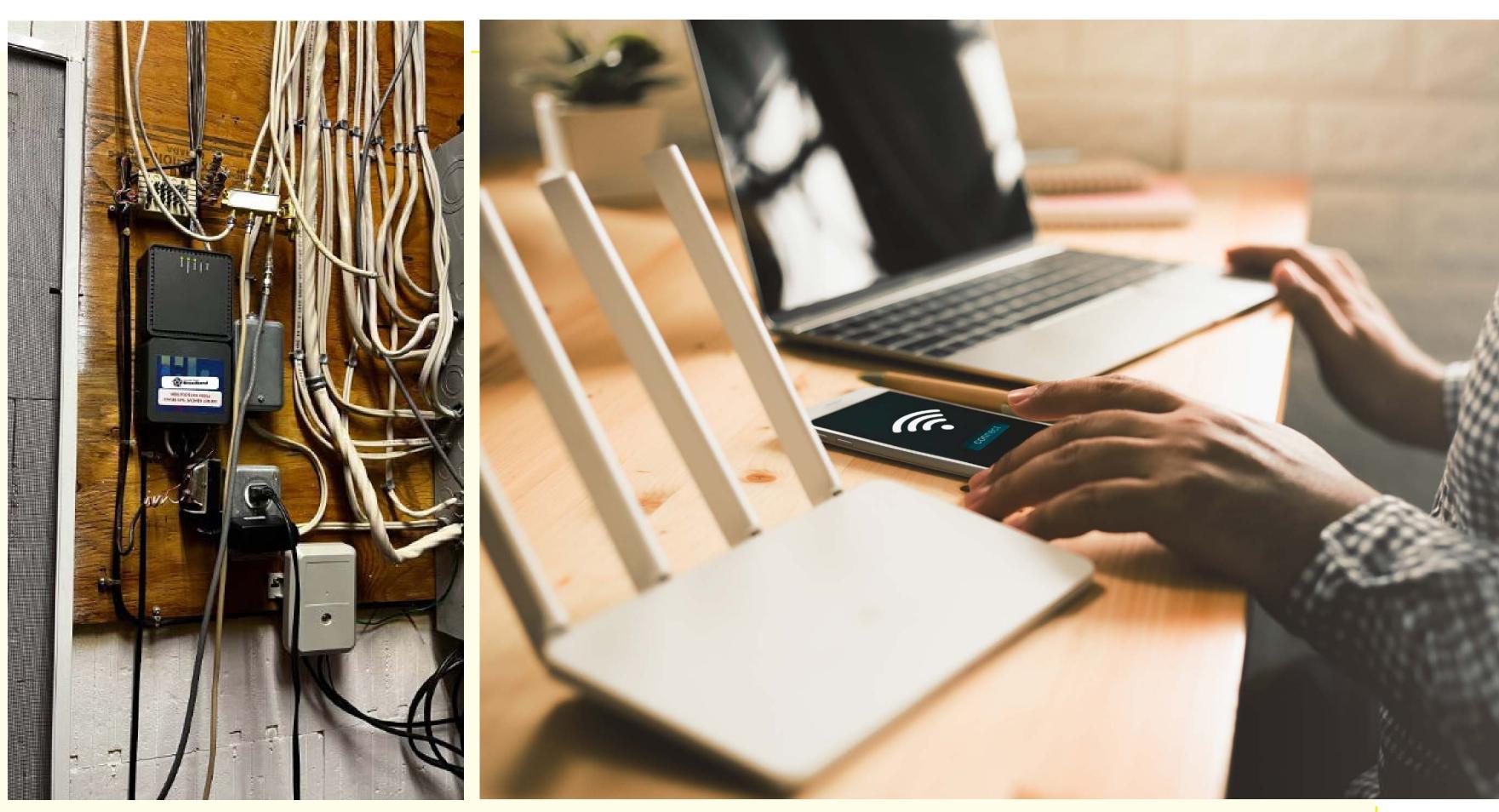
Customer Activation

3

Installation of the inside electronics and indoor fibre optic wiring to connect to the Drop Cable. This installation occurs within the Customer's home or business.

- Infrastructure is placed in private property during this phase
- Cables and equipment are mounted within the home or business using:
 - Standard power and hand tools
 - Ladders
- Electronics are mounted near existing power and telecommunications wiring





- Impact to building may occur including:
 - Exterior to Interior duct entry
 - Equipment held to wall boards or walls using screws
 - Flexible duct used to house fibre cable
- All pieces are in place to turn on your new internet!



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How to Get Connected

The more people who sign up, the stronger the business case for expansion—and the more the network thrives. A well-used network keeps costs lower, attracts service providers, and ensures long-term sustainability.

Today

Sign Up & Stay Informed

- Go to market.cwcbb.ca and sign up!
- Signing up keeps your household informed as construction progresses.
- Your demand helps shape where the network expands next.

June 2025

UBF-Funded Construction Begins

- Construction starts in already funded areas.
- If your area isn't currently funded, showing strong demand helps attract investment for future builds.



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Mid 2025 – Early 2027

Service Activation & Installation Begins

- When an area is ready, signed-up residents will be notified to choose a service provider.
- Choosing a provider starts the installation process. A technician will visit your home to physically install fibre and connect your service.
- For full details on installation steps, see the "Project Construction Details" boards.
- Construction for UBF-funded areas continues into 2027.

Beyond 2027

The Network Keeps Growing

- Expansion won't
 stop in 2027!
- Future phases will be based on demand and funding availability.

Make sure your home is counted

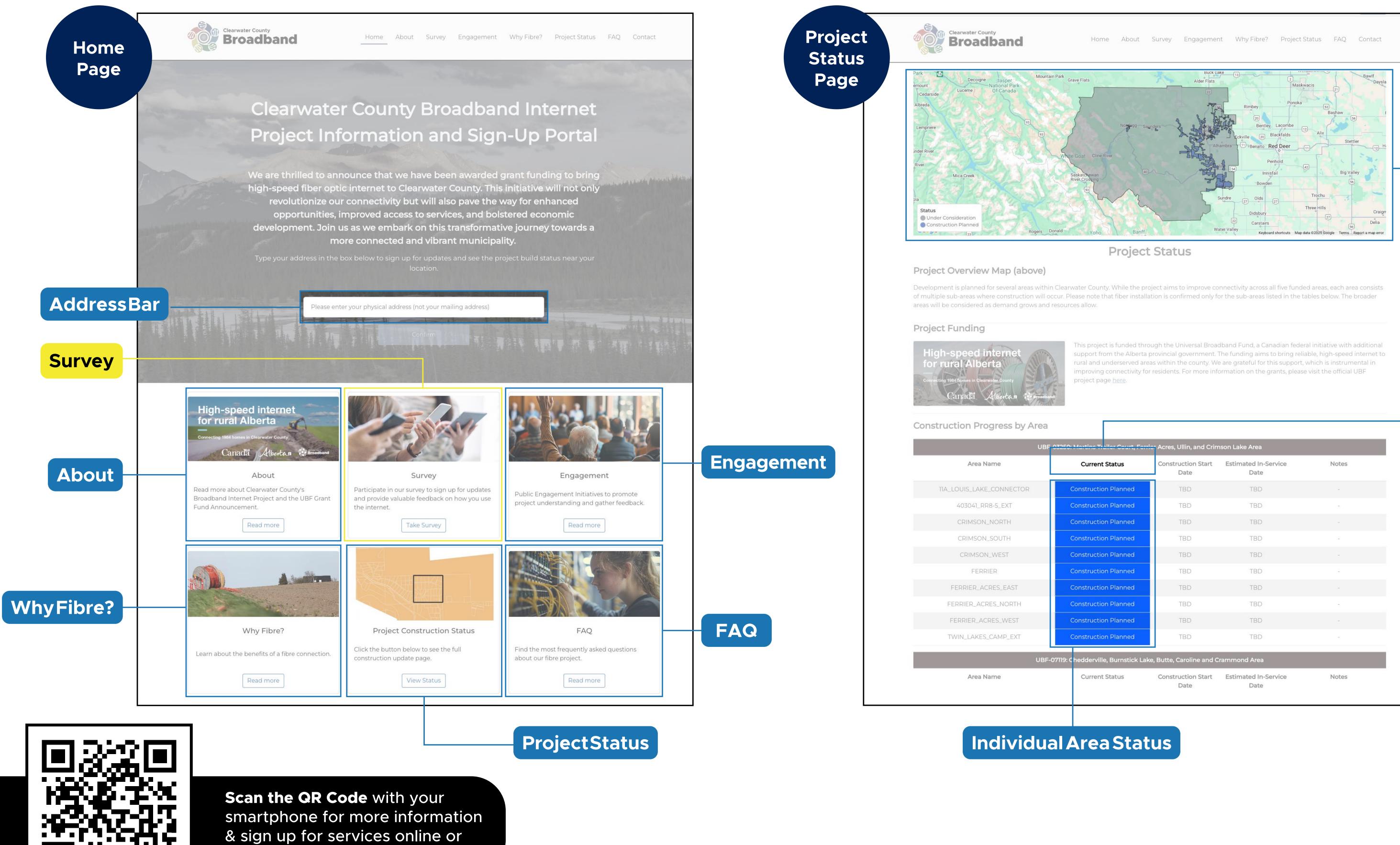
Sign up today at market.cwcbb.ca



Why Use the Marketplace?

- The Clearwater Broadband Marketplace creates a level playing field for service providers.
- Instead of calling around, you can compare all available providers, services, and pricing in one place.
- Stay informed about service availability in your area. The marketplace keeps you updated as construction progresses.
- Your demand helps shape where the network expands next. High demand in an area allows us to build a strong business case for future expansion whether through private investment, public funding, or partnerships.
- Signing up includes a short survey, which tells us what services residents want most and helps us approach the right service providers.
- Service providers look at demand when deciding where to offer services.
 Signing up signals that your area is a viable market.

Online Information & Sign Up Portal



go to: market.cwcbb.ca



curt, Ferrie	Acres, Ullin, and Crim	nson Lake Area	
IS	Construction Start Date	Estimated In-Service Date	Notes
nned	TBD	TBD	2
nned	TBD	TBD	-
nned	TBD	TBD	5
nned	TBD	TBD	2
nned	TBD	TBD	-
nned	TBD	TBD	2
nned	TBD	TBD	-
nned	TBD	TBD	-
nned	TBD	TBD	-
nned	TBD	TBD	-
nstick Lake,	, Butte, Caroline and C	rammond Area	
IS	Construction Start	Estimated In-Service	Notes

Clickable Project Overview Map

AreaStatus Updates

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One-time Connection Fee

\$1,500*

Standard

For up to 100m drops, plus actual cost per metre (\$14) for each metre > 100m.

* this fee represents a harmonized fee that is equitable for premises looking to connect on the network footprint regardless if they were funding eligible.



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Early Adopter

For up to 100m drops, plus actual cost per metre (\$14) for each metre > 100m. **Available during construction.**

Underground Solutions



\$399

Connection fees for larger **businesses** will be considered on a case-by-case basis, considering cost recovery.

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Questions & Answers



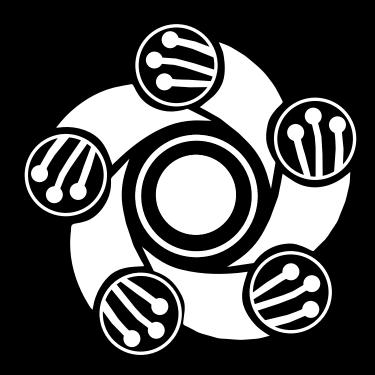


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Clearwater County Broacband

Thank You for Attending!



Stay informed: Visit our website for project updates and more information.

Get involved: Take the survey online

Questions: Our team is happy to help!

We appreciate you taking the time to learn about Clearwater County's Broadband Project.

Your input and engagement are essential as we work toward improving Broadband access for our community.



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