The background is a vibrant blue with a subtle, repeating pattern of circuit board traces and circular nodes. A central black rectangular box with rounded corners contains the main text in white. The text is centered and reads: "FIBER BROADBAND TO THE PREMISE IN DOOR COUNTY".

# FIBER BROADBAND TO THE PREMISE IN DOOR COUNTY

MUNICIPAL SUMMIT

JUNE 2022

# FINLEY ENGINEERING & CCG CONSULTING

- In Fall 2021 a Broadband Infrastructure Engineering Assessment Report was funded by several municipalities, the County, and some private and nonprofit entities to determine the best broadband plan for Door County.
- The County engineering report done by Finley Engineering and CCG Consulting determined that the state of broadband in the county is negatively affecting our economic prosperity.
- An online residential survey was conducted and 81% of respondents support the idea of funding a better broadband solution.
- 22% of the Finley engineering survey respondents in Door County who took the broadband survey don't have a home broadband connection. They were asked why they don't have a home broadband connection, and 72% said that broadband is not available at their home This gives an indication that Door County might be far below the national average in terms of broadband penetration.

## WHY SHOULD WE FUND FIBER BROADBAND?

- Finley Engineering determined that a fiber design network is the best option for Door County due to our topography, it is scalable and fiber broadband will be eligible for grant funding which will be required to help build out rural areas.
- It is the best long term solution and technology choice. It will provide a future-proof network that has longevity for decades to come that will require minimal upgrades.
- The rural homes and businesses in the county have poor broadband and virtually nobody has broadband that meets (or even comes close) to the FCC-definition of broadband at 25/3 Mbps.

## WHY SHOULD WE FUND FIBER BROADBAND?

- Finley determined that 1,574 miles of fiber are needed to serve the whole county, with 1,092 miles needed to serve the rural parts of the county. The cost of the assets needed to bring fiber to the whole county is over \$130 million, with the cost for the rural areas at over \$76 million.
- It is a prioritized technology in federal BEAD funding grants which will be needed to assist and offset the cost of building out our rural areas.
- Fiber can provide symmetrical speeds (same upload and download speeds). Having symmetrical speeds is crucial to support any video needs such as telemedicine visits, video conferencing such as Zoom, and streaming services which require high **upload** speeds to support these services. Having low upload speeds creates bottle necks and buffering in these services and makes them unusable.

## FIBER DESIGN

- The network was designed using the following primary assumptions:
- The network was designed to pass every home and business in each scenario.
- The fiber would be on poles or buried in the same manner as existing utilities. ISP's across the country chose to bury their networks to lower the maintenance costs and extend the longevity of the fiber. Even in rocky mountainous areas. It is suggested to bury as much of the network as possible for these reasons.
- The network is designed to accommodate future growth.



# WE ARE BUILDING INFRASTRUCTURE FOR THE USE OF TOMORROW, NOT THE HABITS OF TODAY

## FIBER FACTS

- **Is fiber a good long term investment?** Yes
- **Can it go faster?** Yes
- **Fiber Life?** It lasts 40 to 50+ years. *35 year old fiber is in use right now.* It is being tested in areas that it was buried over twenty years ago and finally being utilized.

# WHY BROADBAND IS IMPORTANT

## ECONOMIC DEVELOPMENT

- Broadband enables local communities, regions and states to develop, attract, retain and expand job-creating businesses and institutions.
- It also improves the productivity and profitability of large, small and home-based businesses and allows them to compete in local, national and global markets. It increases quality of life, remote services and opportunities, and provides resiliency and future growth opportunities for the community.
- Broadband enables opportunities for remote work, allowing workers to live and work in locations of their own choosing. By connecting the workplace, we can better connect businesses to consumers. And new markets can increase sales and create jobs. High-speed Internet helps American businesses compete for talent and business in the global marketplace.

## GOVERNMENT SERVICES

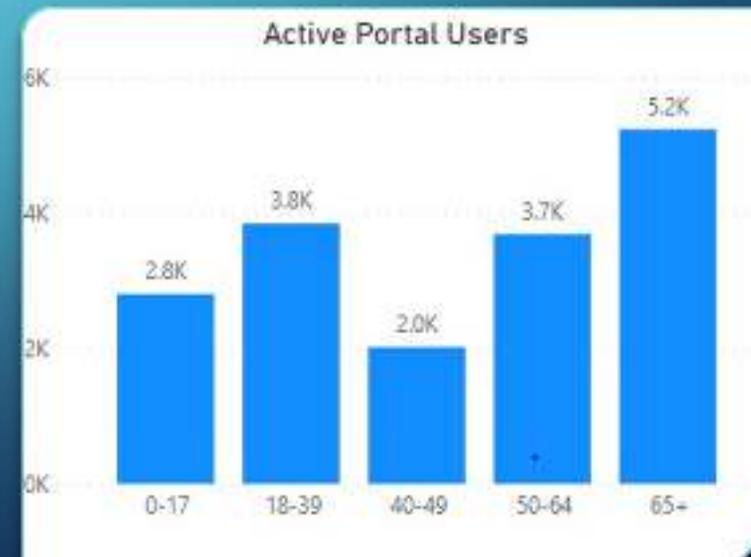
- Broadband helps government agencies improve quality, lower costs and increase transparency by improving internal operations and making it easier for residents to interact with them online. This can include a wide range of support services and civic engagement



## HEALTH CARE – INFORMATION FROM DOOR COUNTY MEDICAL CENTER

- Telehealth reduces hospital visits and cuts down hospital stay time. Hospitals with high-speed Internet save money because they have lower administration costs. And by offering telehealth, they save money while improving patient health.
- Virtual visits were trialed in 2020 but many patients ran into significant barriers due to insufficient broadband speeds to support the virtual visit.
- From March 1, 2020 to March 1, 2021, 44% of total patient portal users accessed their patient portal. From March 1, 2021 to March 1, 2022, 70% of total patient portal users accessed their patient portal. The data clearly shows that patients are more engaged in their health needs using technology. We would like to keep patients engaged through technologies, such as the portal, but are limited to what services we can provide due to limited broadband options to patients.

**Active patient portal users by age group— nearly 22k portal users total**





- Broadband enables students of all ages to participate in educational opportunities. Broadband allows students and teachers to expand instruction beyond the confines of the physical classroom and traditional school day and can provide more customized learning opportunities.
- The COVID-19 pandemic highlighted the "homework gap" and the importance of broadband access for students to participate in remote learning.
- The Internet is not a luxury, it's a necessity. Students are asked to utilize Internet to complete homework assignments, do research, apply to college or trade schools. Students who don't have access in their home are left out and left behind.



# PUBLIC SAFETY

The public safety sector relies on broadband for mission critical communications, real-time information transfer, disaster response, and interoperability of police, fire, emergency medical services and other government entities. Broadband infrastructure supports 9-1-1 systems, early warning and public alert systems, disaster preparation programs, remote security monitoring and backup systems for public safety communications networks.

High-speed Internet connects us to services we need. It helps first responders save lives. It lets us connect with our elected officials. And it strengthens our ties to our neighbors. One in four Americans get online alerts about local issues. And one in five use digital tools to stay in touch with their community



## NATIONAL TELECOMMUNICATIONS AND INFORMATION ASSOCIATION (NTIA) & FCC UNSERVED AND UNDERSERVED DEFINITIONS

### UNSERVED 25/3

- A broadband-serviceable location, as determined in accordance with the broadband DATA maps that-
- Has no access to broadband service; or
- Lacks access to reliable broadband service offered with a speed of not less than 25 Mbps on downloads and a 3 Mbps for uploads. 25/3
- And latency sufficient to support real-time interactive applications (video conferencing, VOIP, banking & financial, streaming, gaming)

### UNDERSERVED 100/20

- A location that, as determined in accordance with the broadband DATA maps is-
- Not an unserved location; and
- Lacks access to reliable broadband service offered with a speed of not less than 100 Mbps on downloads and 20 Mbps on uploads. 100/20
- And latency sufficient to support real-time interactive applications (business intelligence, e-commerce applications)

# 6 STEPS TO GETTING YOUR COMMUNITY CONNECTED



## STEP 1

### CREATE A COMMITTEE

- This could be part of an existing committee, or a new ad hoc committee
- Include a variety of stakeholders including residents, businesses, and anyone who has subject matter expertise
- Establish purpose and goals



## STEP 2

### IDENTIFY BROADBAND NEEDS

- Conduct a community survey and gather speed test data, utilize the County survey and publicize the survey through many channels
- Survey data is **CRITICAL** in determining funding availability
- Update your Board regularly
- Present to the public at municipal Board meetings, ensure you are including your residents and businesses. Start to compile letters of support.



## STEP 3

### SELECT AN ISP PARTNER

- Town/Village/City Board can help determine any criteria they want.
- Meet with the ISP's and have them answer your criteria
- Create a contract and services agreement with your ISP

# 6 STEPS TO GETTING YOUR COMMUNITY CONNECTED



## STEP 4

### ENGINEERING ANALYSIS

- Utilize the County Finley engineering report as a baseline
- ISP partners can manage this process for ground level engineering
- Utilize County provided information to assist in this process



## STEP 5

### EXPLORE FUNDING OPTIONS

- State Funds – WI PSC grants
- USDA Reconnect – announced Fall 2022
- Federal BEAD funding release Fall 2023-Spring 2024 based on WI PSC information
- County contribution is \$25 per address for each Township with participation factors



## STEP 6

### INFORMATIONAL FUNDING OPTIONS

- Local Funds- ARPA funding
- Local Funds – Local tax levy
- State Funds – Board of Commissioners of Public Lands
- National Funds- Connect Humanity
- National Funds – Broadband.money
- ALL FUNDING INFORMATION IS PURELY INFORMATIONAL

## CREATING A COMMITTEE

- Must be sanctioned by your Town/Village/City Board
- Could be part of an existing committee, e.g., plan commission, or a new ad hoc committee
- Include a variety of stakeholders including residents, businesses and anyone who has some subject matter expertise
- Establish purpose and goals; i.e. speed requirements, monthly costs, system cost, funding goals, municipal requirements
- Work with the municipal clerk/administration to coordinate all logistics. Agendas and record minutes.



## IDENTIFY BROADBAND NEEDS



- Conduct a community survey and gather data to establish a baseline and scope the problem (use the County provided survey and recommended speed test)
- Include both residents and businesses and encourage them to take the speed test multiple times at different times of the day
- Publicize this through many channels, e.g., municipal website, community association, email lists, HOA's local media
- Update your Board regularly
- Present to the public at municipal Board meetings

## SELECT AN ISP PARTNER



- Municipal Board can help determine any criteria they want.
- There is shared municipal criteria to assist with this
- Meet with the ISP's and have them answer your criteria
- Create a contract with the ISP
- Create a services agreement with the ISP, this articulates services the municipality will receive in return for their public investment in the FTTP network
- ISP partners have grant writers on staff
- ISP partners are part of the US Affordable Connectivity Program

# ENGINEERING ANALYSIS

- Utilize the County Broadband Infrastructure Engineering Assessment Report done by Finley Engineering & CCG Consulting
- ISP's can assist in this process for ground level engineering or through their fiber engineering departments with engineering software.
- This will help establish the cost of materials and labor for construction
- Costs and processes will vary by ISP
- County provided E-911 maps will assist in the engineering process
- County provided address lists will assist in cross referencing with your E-911 map for location verification
- County provided road mileage which includes the municipal and state highway roads, will assist in engineering process (this does not include private roads)

# EXPLORE FUNDING OPTIONS – GRANTS



- STATE FUNDS – WI PSC GRANTS FUNDED THROUGH FEDERAL FUNDING TO BE RELEASED FALL OF 2022
- [HTTPS://PSC.WI.GOV/PAGES/PROGRAMS/WBO.ASPX](https://psc.wi.gov/pages/programs/wbo.aspx)
- THE WI PSC GRANTS THAT CAN BE APPLIED FOR IN OUR AREA WILL INCLUDE PROGRAMS ESTABLISHED UNDER IIJA (BEAD, MIDDLE MILE, & DIGITAL EQUITY), TREASURY, FCC
- USDA RECONNECT GRANT WILL BE ANNOUNCED FALL 2022
- MANY GRANTS REQUIRE MATCHING FUNDS WHICH WILL BE OUTLINED IN THE GRANT REQUIREMENTS. THE SUGGESTED MATCH FROM THE MUNICIPALITY IS 40%, TO PUT YOU AT AN ADVANTAGE.
- WHEN GRANTS ARE ANNOUNCED AND OPENED THERE IS TYPICALLY A 8-12 WEEK WINDOW TO WRITE AND APPLY

# EXPLORE FUNDING OPTIONS- INFORMATIONAL LOCAL FUNDS



- ARPA FUNDS
- LOCAL TAX LEVY
- STATE FUNDS – BOARD OF COMMISSIONERS OF PUBLIC LANDS
- <https://bcpl.wisconsin.gov/Pages/LoanProgramHomePage.aspx>
- CONNECT HUMANITY  
<https://connecthumanity.fund/>
- BROADBAND.MONEY
- BUSINESS CONSTITUENTS- LOCAL BUSINESS DONATIONS
- BLENDED FINANCE
- YOUR ISP PARTNER WILL HAVE FUNDING CONTRIBUTIONS TOWARDS THE PROJECT THAT MAY BE IN THE FORM OF HARDWARE, LABOR, ENGINEERING COSTS, ETC.
- E-RATE FUNDS – LOCAL
- County contribution is \$25 per address for each Township with participation factors including; the Town is also a partner in the project, the project is for (FTTP) Fiber to the Premise, the project is designed to be scalable, the projects must be obligated by the end of 2024.

## COUNTY BROADBAND WEBSITE

- [Fibernetdoorcounty.org](http://Fibernetdoorcounty.org)
- It is currently under construction and being built out
- It will have study information, educational material, and any pertinent information compiled in one user friendly place
- The County Survey will launch from here
- The WI Public Service Commission website and survey will launch from here
- Contact information for the County Broadband Coordinator
- Any information that is important and beneficial to our community regarding broadband

# JESSICA HATCH

## BROADBAND COORDINATOR- DOOR COUNTY

920-746-2289

[jhatch@co.door.wi.us](mailto:jhatch@co.door.wi.us)

- Coordinate, support and establish the broadband plan and vision of Door County FiberNet with municipalities, and not control the local governance of the project.
- Work cohesively with the County Broadband Advisory Committee and find ways to assist with challenging work for the municipalities
- Work with the Internet Service Providers (ISP's) in implementation of FiberNet.
- Help the communities in project development, grants and implementation in collaboration with the ISP partners.
- Build partnerships by working with various stakeholders like the FCC, WI Public Service Commission, WPS, etc.
- Build partnerships, collaborate, and coordinate and track activities and policies across all County departments related to Digital Equity.
- Leverage the transferability of best practices to make this work approachable.
- Utilize lessons learned from current broadband committees that have shared their work.

## WHY DO WE HAVE TO CHALLENGE THE CURRENT MAPS?

- THE CURRENT COVERAGE MAPS ARE DATA THAT HAS BEEN SUBMITTED BY CARRIERS AND COVERAGE BY CENSUS BLOCK TO THE FCC AND THE WI PSC.
- THIS DATA IS OVERSTATED AND INCORRECT AND NEEDS TO BE CHALLENGED IN ORDER FOR OUR AREA TO QUALIFY FOR GRANT FUNDING.
- UNDER THE CURRENT CENSUS BLOCK COVERAGE MAPS, IF A CARRIER PROVIDES SERVICE TO ONE RESIDENT IN THAT CENSUS BLOCK, THEY CONSIDER THE ENTIRE CENSUS BLOCK SERVED. THIS INCORRECT DATE IS IMPACTING PROVIDERS DESIRE TO BUILD OUT AND PROVIDE SUFFICIENT SERVICE AND SPEEDS IN OUR AREA. IT IS ALSO IMPACTING ANY GRANT FUNDING FROM BEING AWARDED IN AREAS APPLYING FOR PARTNERSHIP GRANTS WITHOUT PROVIDING CHALLENGE DATA TO PROVE THE MAPS ARE INACCURATE.
- BY PARTICIPATING IN THE COUNTY SURVEY AND SPEED TEST TO COLLECT MORE ACCURATE LOCATION AND SPEED TEST DATA, WE CAN CHALLENGE THE EXISTING MAPS AND PROVE A MAJORITY OF OUR COUNTY IS UNSERVED. THIS WILL ASSIST IN DETERMINING OUR GRANT FUNDING QUALIFICATIONS FOR OUR COUNTY MUNICIPALITIES.
- BY ALL COUNTIES IN WISCONSIN PARTICIPATING IN SPEED TEST AND DATA COLLECTION IT WILL ASSIST IN WISCONSIN QUALIFYING FOR LARGER AMOUNTS OF BEAD FEDERAL GRANT FUNDING.
- OVERALL AS A COUNTY AND A STATE WE NEED MORE SPEED TEST DATA TIED TO LOCATIONS TO PROVE OUR NEED AND DETERMINE OUR QUALIFICATIONS.

# SPEED TEST, SPEED TEST, SPEED TEST

YOU CANNOT HAVE ENOUGH SPEED TEST DATA. RESIDENTS AND BUSINESSES SHOULD BE ENCOURAGED TO TAKE MULTIPLE SPEED TESTS AT DIFFERENT TIMES OF THE DAY TO SHOW THE DIFFERENCE BETWEEN AT THOSE TIMES.

**YOUR MUNICIPAL SURVEY DATA WITH MULTIPLE SPEED TESTS WILL BE ESSENTIAL TO THE COVERAGE MAP CHALLENGE PROCESS. IT WILL DETERMINE IF YOUR MUNICIPALITY IS UNSERVED OR UNDERSERVED WHICH WILL PRIORITIZE YOUR FUNDING AVAILABILITY. THE COVERAGE MAPS THAT HAVE BEEN REPORTED BY THE ISP'S ARE OVERSTATED AND INCORRECT. THE FCC WILL BE PRODUCING NEW COVERAGE MAPS THIS YEAR, AND THERE WILL BE AN OPEN PUBLIC CHALLENGE TO THOSE MAPS. IN ADDITION TO THAT, YOU WILL NEED TO CHALLENGE THE CURRENT STATE COVERAGE MAPS AND PROVE THAT YOUR MUNICIPALITY DOES NOT HAVE THE COVERAGE THAT IS REPORTED AND PART OF THE WI PSC COVERAGE MAPS.**

CONGRATULATIONS FOR MAKING IT THROUGH

THANK YOU FOR YOUR TIME!

THIS IS A LOT OF INFORMATION TO TAKE IN

WE CAN SLOW DOWN AND BREATHE 😊

WE HAVE TIME TO PLAN

I'M HERE AS A RESOURCE SO PLEASE REACH OUT

QUESTIONS?

# County of Door Broadband Internet Survey

The County of Door is partnering with municipalities in actively exploring ways to get better broadband internet service to residents and businesses. This survey is designed to help us understand the current service and the level of interest for improved service. Your responses are confidential. Only the summarized data will be shared in reports. The survey takes less than 5 minutes. Your voice matters and will influence state and federal funding for your municipality and up to date data is essential. An important note about how to respond to the survey: If you have more than one property – residence or business – please complete the form once for each property.

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\* Required

1. What best describes your location type? \*

*Mark only one oval.*

- Home
- Business
- Farm
- Multi-unit Residence (e.g., apartment, condominium)

2. What is the address of the location you are referencing for this survey? \*

\_\_\_\_\_

3. How many months a year are you at this location? \*

\_\_\_\_\_

4. What is your current DOWNLOAD speed at this location? You may test your speed at this link. If you do not have internet service, enter a zero. You may run a speed test at this website: (INSERT MLABS SPEED TEST LINK HERE> After you take this survey please follow up and take speed tests multiple times at different times of the day. This data will directly impact your municipalities qualification for federal funding. \*

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5. What is your current UPLOAD speed at this location? You may test your speed at this link. If you do not have internet, enter a zero. You may run a speed test at this website: (INSERT MLABS SPEED TEST LINK HERE> \*

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6. What is the primary way you receive your internet at this location? \*

*Mark only one oval.*

- I cannot get internet service at this location
- DSL connection (i.e., copper wire, local examples are Frontier, AT&T, and CenturyLink)
- Fixed wireless (involves an antenna mounted to your roof or tower, a local provider is Door County Broadband)
- Cellular (involves using a "hotspot" device from a provider like Verizon, AT&T, T-Mobile, US Cellular or Cellcom)
- Satellite (involves a satellite dish installed on your roof or property, providers include HughesNet, Viasat, and Starlink)
- Cable (a local provider is Charter Spectrum)

7. What do you currently pay per month for your internet service? \*

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8. Is your internet service bill part of a bundled package, e.g., internet, landline, and TV)?

*Mark only one oval.*

Yes

No

9. Do you use a landline telephone (not a cell phone) at this location? \*

*Mark only one oval.*

Yes

No

10. What is your current TV service at this location? \*

*Mark only one oval.*

Satellite (e.g., Dish TV, Direct TV)

Cable (e.g., Charter Spectrum)

Streaming (e.g., Youtube TV, Hulu Live, Disney+, Apple TV, Fubu, etc.)

TV antenna (traditional roof-mounted or indoor)

11. Do you use cellular telephone service at this location? \*

*Mark only one oval.*

Yes

No

12. How satisfied are you with your cellular service at this location? \*

*Check all that apply.*

- Very Satisfied
- Satisfied
- Neither Dissatisfied or Satisfied
- Dissatisfied
- Very Dissatisfied

13. If you have bundled services please indicate what you have at this location. \*

*Mark only one oval.*

- Internet
- TV
- Landline telephone
- Cell phone
- I do not have bundled services

14. How many devices at this location require internet access? Include in your count the number of laptops, desktop computers, tablets, smart phones, gaming consoles, TV streaming (e.g., Roku, Chromecast, Fire sticks, Apple TV, Smart TV's), WiFi enabled appliances, lighting, security or medical devices. \*

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15. What internet SPEED would you like to have? The municipalities expect to have download and upload speeds that match (symmetrical) which is important for many uses today like video chats and meetings. For context, at 100 Mbps, a two hour movie downloads in 1 MINUTE. At 1000 Mbps, a movie downloads in 6 SECONDS. Write a number in megabits per second (Mbps). \*

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16. What internet SPEED would you like to have for upload? The municipalities expect to have download and upload speeds that match (symmetrical) which is important for many uses today like video chats with family, virtual telemedicine visits, video conference calls such as Zoom, work from home, and small business owners.

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17. What price are you willing to PAY PER MONTH for the internet speed you said you would like to have? Write in a dollar amount (\$). \*

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18. How LIKELY are you to subscribe to the broadband internet service at the speed and for the price you are willing to pay? \*

*Mark only one oval.*

- I would definitely subscribe
- I would be very likely to subscribe
- I may subscribe
- I would not subscribe
- I don't know

19. Please let us know about why broadband internet is important to you. Please provide examples of what is is like not having broadband internet service at this location and what it would mean if broadband internet access was available. If you have internet access, please provide examples of how you, your family, or your community currently use it or would use it if were faster and more reliable. These examples are helpful as the municipalities complete applications for helping with state and federal funding of broadband internet service. Your voice and your stories matter!

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20. If you have been financially impacted by poor internet service, please describe how. If you have specific dollar estimates of the impacts please describe those. This information can be used to support state and federal applications for funding broadband internet service. Your voice and your stories matter!

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21. Privacy Statement \*

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