

Grafton County Broadband Now

Update Meeting

Session Participants

Hosted by:

01

Grafton County
Broadband Committee

Moderated by:

01

Carina Park, Town of
Lincoln

Presented by:

01

Nik Coates, Town of Bristol

02

Kevin Glynn, eX² Technology

03

Katelyn Robinson, NCIC

Bristol Broadband Now

A New Future for Bristol



BROADBAND

- ✓ RESIDENTIAL/COMMERCIAL
- ✓ MUNICIPAL SERVICES
- ✓ CURRENT UPDATES



PARTNERSHIPS

- ✓ USNH
- ✓ EX2
- ✓ HUB66
- ✓ PLYMOUTH STATE
- ✓ TENNEY MOUNTAIN

Basics of Broadband



01

Key acronyms/terms

02

Networks

Acronyms/Terms



Key terms

- ✓ **Broadband**
- ✓ **Download speed**
- ✓ **ISP/CLEC/ILEC**
- ✓ **Middle Mile**
- ✓ **Last Mile**
- ✓ **FTTH**
- ✓ **Dark Fiber**
- ✓ **Make Ready**
- ✓ **Open Access**

Networks



Networks

- ✓ Long Haul
- ✓ Middle Mile
- ✓ Last Mile
- ✓ FTTX



Construction/Equipment

- ✓ Outside Plant/Inside Plant
- ✓ Aerial/Buried/Underground
- ✓ Splicing/Terminations
- ✓ Racks/Cabinets/ONTs

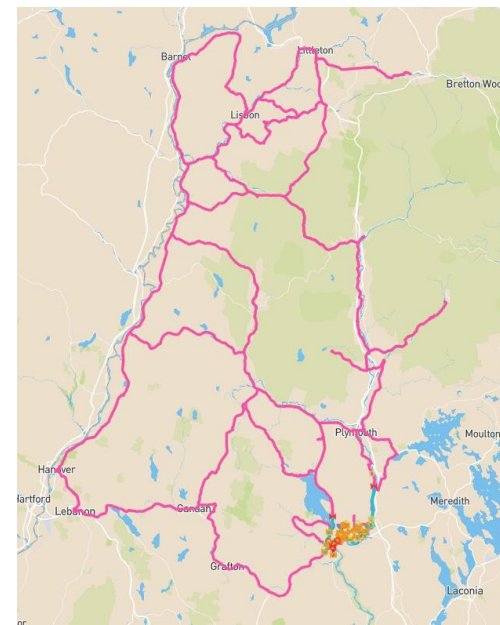
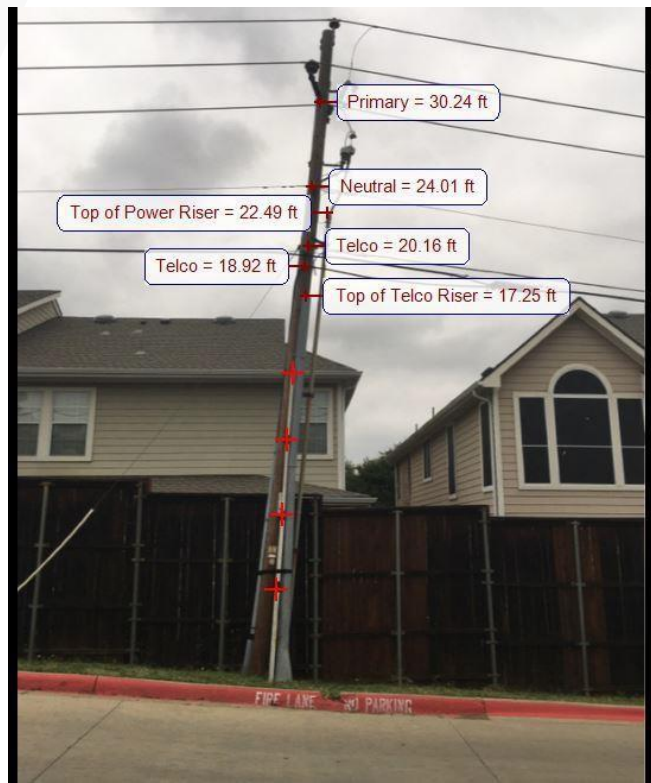


Photo credit: Cade

Can I just get a grant?

**A grant means free money,
right?**

- Asks everyone

Covering today

- Where can I get a grant
- Eligibility, restrictions, verifications, timelines
- What grants are available
- Who can help navigate & what resources are available



Who is NCIC?

- 501c3 Nonprofit Founded in 1975
- Private Community Economic Development Organization
- Mission is to Strengthen Businesses, Communities, and Employment Opportunities
- Business Lending (Gap Lender)
- Business Assistance (Technical Assistance Grants)
- Grant Writing and Management (for Municipalities and Nonprofits)

Where can I get a grant?

- **Charitable organizations:** NH Charitable Foundation, Neil & Louise Tillotson Fund, Private Foundations
- **Federal agencies:** USDA, HUD/CDBG, EDA, NBRC, OCS, NTIA, others
- **Economic development organizations:** NCIC, Northern Forest Center, Coastal Enterprise Inc.

Where to find grant-specific details

- Federal grant agencies post Notice of Funding Opportunities (NOFO's) online via their agency website, as well as on grants.gov. State Agencies and Private Foundations will post a similar notice which may be referred to as a Request for Applications (RFA).
- Each NOFO/RFA is unique and specific to a single funding opportunity. It contains information such as:
 - Total funds available
 - Eligible entities
 - Max and min request amounts
 - Timeline/deadlines
 - Eligible uses
 - Match requirements
 - And more

Resources available

- Grants.gov: Comprehensive and searchable list of federal funding opportunities
<https://www.grants.gov/web/grants/search-grants.html>
 - NH Center for Nonprofits: Primarily Foundation and Charitable Giving opportunities <https://www.nhnonprofits.org/view/funding-alerts>
 - USA.gov: General overview of federal grant and loan process
<https://www.usa.gov/grants#item-214175>
-

Who is eligible ... it depends on the program

- Municipal and State Governments
- Non-Profit Organizations
- For-Profit Businesses (existing)
- Private citizens seeking to start a business

Eligibility, restrictions, verification, timeline

- Your classification (for-profit vs non-profit)
- Location can matter (county, census tract, opportunity zone, etc.)
- Usually specific as to how funds can be used (e.g. planning only, middle-mile only, last-mile only)
- Likely requires applicant to provide match funds, often which must be non-federal
- Funds are typically reimbursed, not advanced in a lump sum
- Likely will require periodic and/or final report(s)

“Hidden Costs” to Be Aware Of

- Environmental Reviews
- Historic Reviews
- Interim Financing Costs
- Grant Administration
- Project Management

What projects are generally eligible for grants?*

- Community and Economic Development
 - Business development, broadband expansion, community infrastructure, etc.
- Business Beautification Program
- Energy Efficiency Assistance
- Working Capital and Equipment
- Professional Services
- And more...

*Depends on business type, industry sector

Case Study: NCIC Wireless LINC



Business Structure: 501c3 Nonprofit

Need: Cell phone and internet service in the North Country of NH & Northeast Kingdom of VT

NCIC Assistance: The Wireless LINC network was conceptualized by NCIC in 2007 following discussions with incumbent providers who stated they were not postured to bring broadband to the region. NCIC secured \$5.5 Million from USDA, NH CDFA, EDA, HUD, DRED, NBRC, SBA, and Tillotson, to construct 29 sites to deliver wireless broadband service to the economically disadvantaged homes and businesses in Northern NH and Northeastern VT. The system consisted of various site configurations from equipment mounted on buildings, to installation of composite monopoles, and one very large cellular tower. The system operated on unlicensed broadband spectrum which is subject to signal interference and can be negatively affected by foliage and weather. NCIC managed the network for a number of years before entering into an operating agreement with a local provider. This created efficiencies for NCIC and placed the system in the hands of a more technically capable company, thus insuring better service for the customers.

Outcomes: At its peak, Wireless LINC served over 500 customers. Eventually, improved technologies through other service providers such as cable, DSL, cellular, and satellite were able to permeate the service area, bringing higher speed capabilities to customers – a win for the region. Today NCIC has divested the majority of the Wireless LINC assets to two providers who are working to upgrade the system's technology and grow the network. While fiber to the home is the ultimate goal of any broadband service it remains extraordinarily expensive to achieve in very rural and sparsely populated areas. Wireless broadband service can, and likely will, continue to fill service gaps for years to come.

Case Study: Town of Lyndon



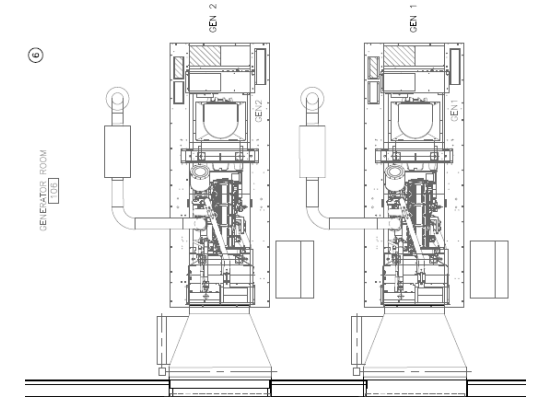
Business Structure: Municipality

Need: Wifi connectivity in the downtown, as well as technology-related technical assistance for local businesses

NCIC Assistance: Assisted the Town in securing \$133,827 from two USDA Rural Business Development Grants (two separate FY requests) to: 1. Conduct a Broadband Fiber Feasibility Study for Lyndon & Surrounding Communities; 2. Design and Construct a Downtown Wi-Fi Network; and 3. Offer Small Business Technology-based Technical Assistance Grants to Downtown Businesses. The Town provided \$14,165 of in-kind match and \$9,413 in cash match.

Outcomes: In total, 21 businesses were provided technology-related technical assistance. This support positively impacted 58 FTE jobs and 87 PT jobs. Plans were designed for downtown wifi. Four individual host sites volunteered to provide access to property for the installation of Wi-Fi Network equipment and donated access to internet and utility services to power the network. On Town Meeting day in 2020, a total of 27 communities in the Northeast Kingdom voted to form a Communications Union District (CUD). Today, all NEK communities are part of the CUD, known as NEK Community Broadband. The CUD plans to install 2,400 miles of fiber over the next 5-7 years and has already secured \$40 million in State ARPA dollars to do so. They continue to seek additional grant funding

Case Study: Weeks Medical Center



Business Structure: 501c3 Nonprofit

Need: Funding to support distance learning and tele-medicine as well as a new biomass system to support heating and cooling at the newly constructed facility

NCIC Assistance: Assisted with grant writing and management of a \$180,010 USDA Distance Learning and Tele-medicine grant and a \$250,000 Northern Border Regional Commission Grant.

Outcomes: Wood boiler installed, conference rooms fully outfitted with equipment, and 6 Nursing Homes connected virtually to Weeks services. Weeks created 11 new jobs; increased patients served from 19,000 in 2017 to over 27,000 in 2020; improved energy efficiency – air emissions testing shows, on average, 99.999% Boiler Combustion Efficiency; improved access to tele-health and tele-learning with over 1,400 patients seen virtually between April and September 2020 and over 100 employees taking advantage of virtual education opportunities.

Who can help?

- Northern Community Investment Corporation (NCIC)
- Small Business Administration
 - Small Business Development Center (SBDC)
 - Center for Women and Enterprise (CWE)
 - SCORE
- Regional Planning Commissions
- Economic Development Organizations
- Regional Development Centers
- Private Contractors

Contact NCIC:

- Grants for businesses, municipalities, and non-profits: Katelyn Robinson, krobinson@ncic.org (802) 748-5101 ext 2027
- Technical assistance and micro grants for small businesses: Aimee Quimby, aquimby@ncic.org (802) 748-5101 ext 2019
- Loans: Aaron Krone, akrone@ncic.org (802) 748-5101 ext 2021



Working collaboratively to support, enhance, and promote sustainable economic development opportunities and policies, sensitive to the unique needs of the diverse regions of New Hampshire.

Coos Economic Development Co. (CoosEDC)
www.coosedc.org
603-788-3900

Grafton County Economic Development Council (GCEDC)
www.graftoncountyedc.org
603-536-2011

Mt. Washington Valley Economic Council (MWVEC)
www.mwvec.com
603-447-6622

Wentworth Economic Development Co. (WEDCO)
www.wedco-nh.org
603-5694216

Belknap County Economic Development Council (BCEDC)
www.bcedc.org
603-524-3057

Capital Regional Development Council (CRDC)
www.crdc.nh.com
603-228-1872

Strafford Economic Development Corp. (SEDC)
www.sedcnh.org
603-749-2211

Monadnock Economic Development Co. (MEDC)
www.monadnock-development.org
603-352-4939

Regional Economic Development Center (REDC)
www.redc.com
603-772-2655

Coastal Economic Development Co. (CEDC)
www.coastaledc.org
603-929-9244



Middle Mile Updates



Middle Mile Network

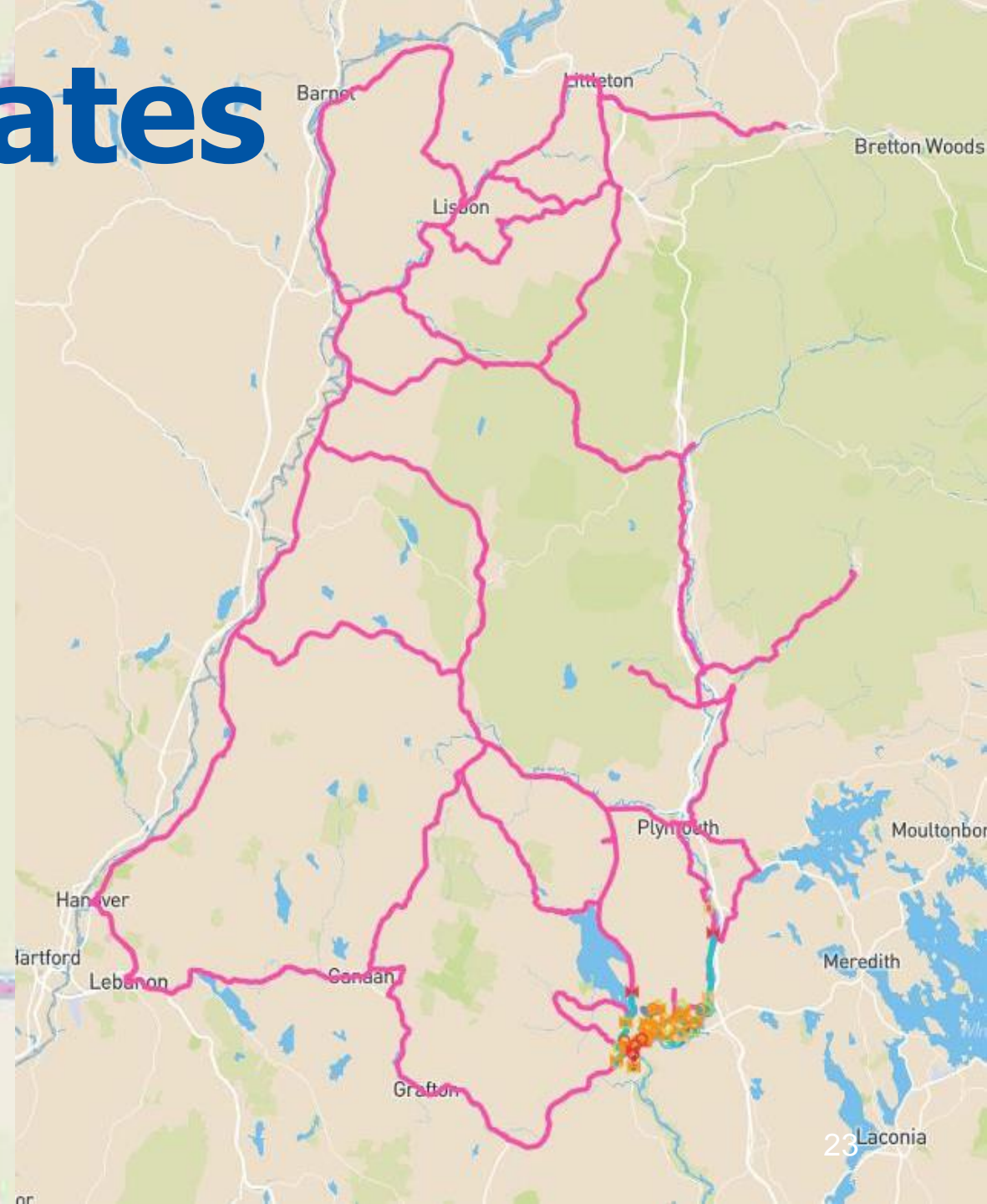
- ✓ 335 miles
- ✓ 39 proposed head end connections
- ✓ USNH
- ✓ Middle Mile and Last Mile design



Engineering

- ✓ Phase 1 – 110 miles
- ✓ Pole Survey
- ✓ Construction/design drawings
- ✓ Pole Applications
- ✓ Phase 2 – Funding request to County in February

Photo credit: Cade Overton / Town of Bristol



Last Mile Updates



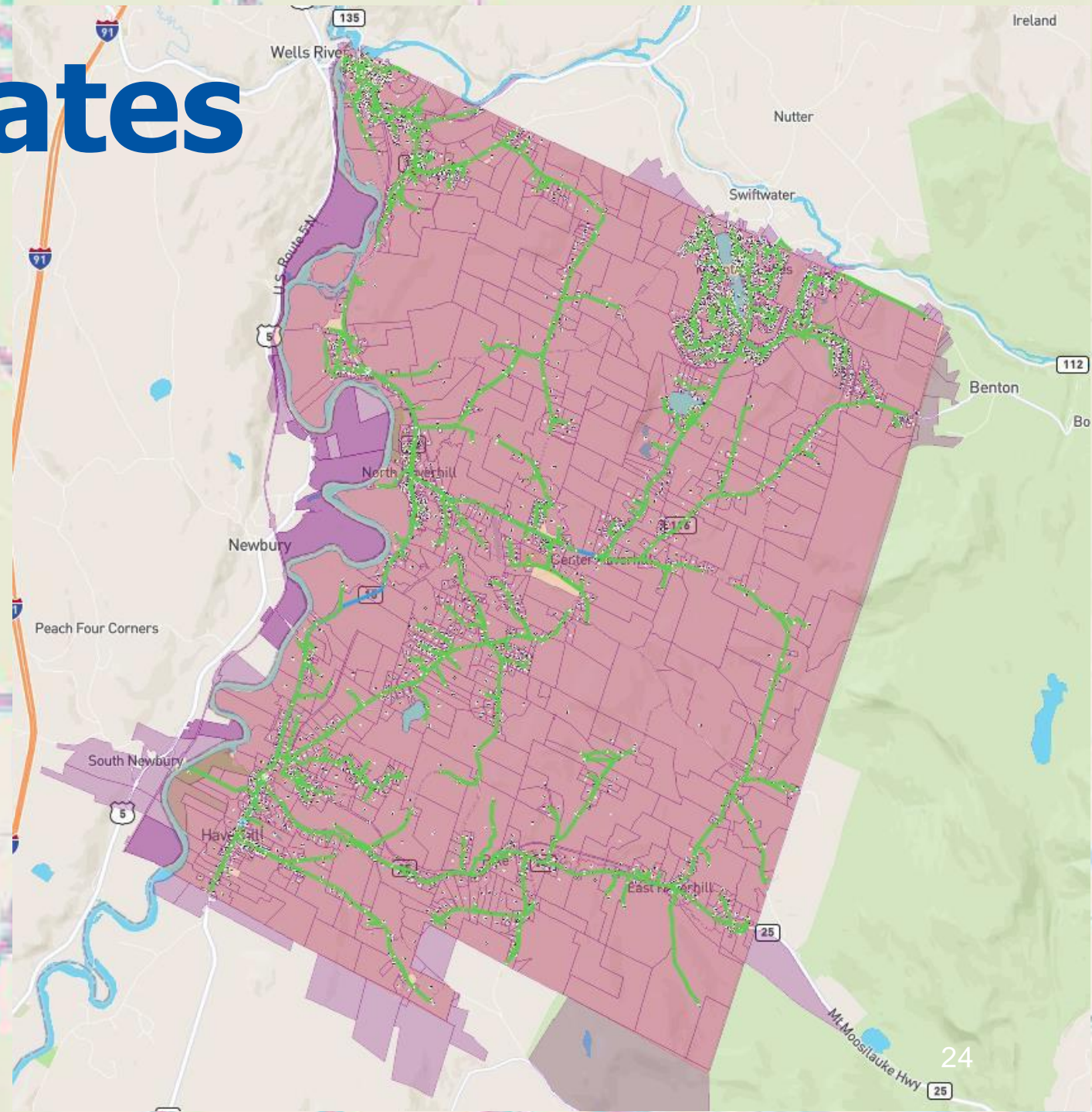
Last Mile Design Support

- ✓ Access grant funding
- ✓ Early town support
- ✓ “Shovel ready focus”
- ✓ Full town/fill in gaps



High Level Designs

- ✓ Funded by County and CDBG
- ✓ 39 towns across the County
- ✓ Desktop Design/integrate Middle Mile
- ✓ Cost Estimate



Last Mile Samples

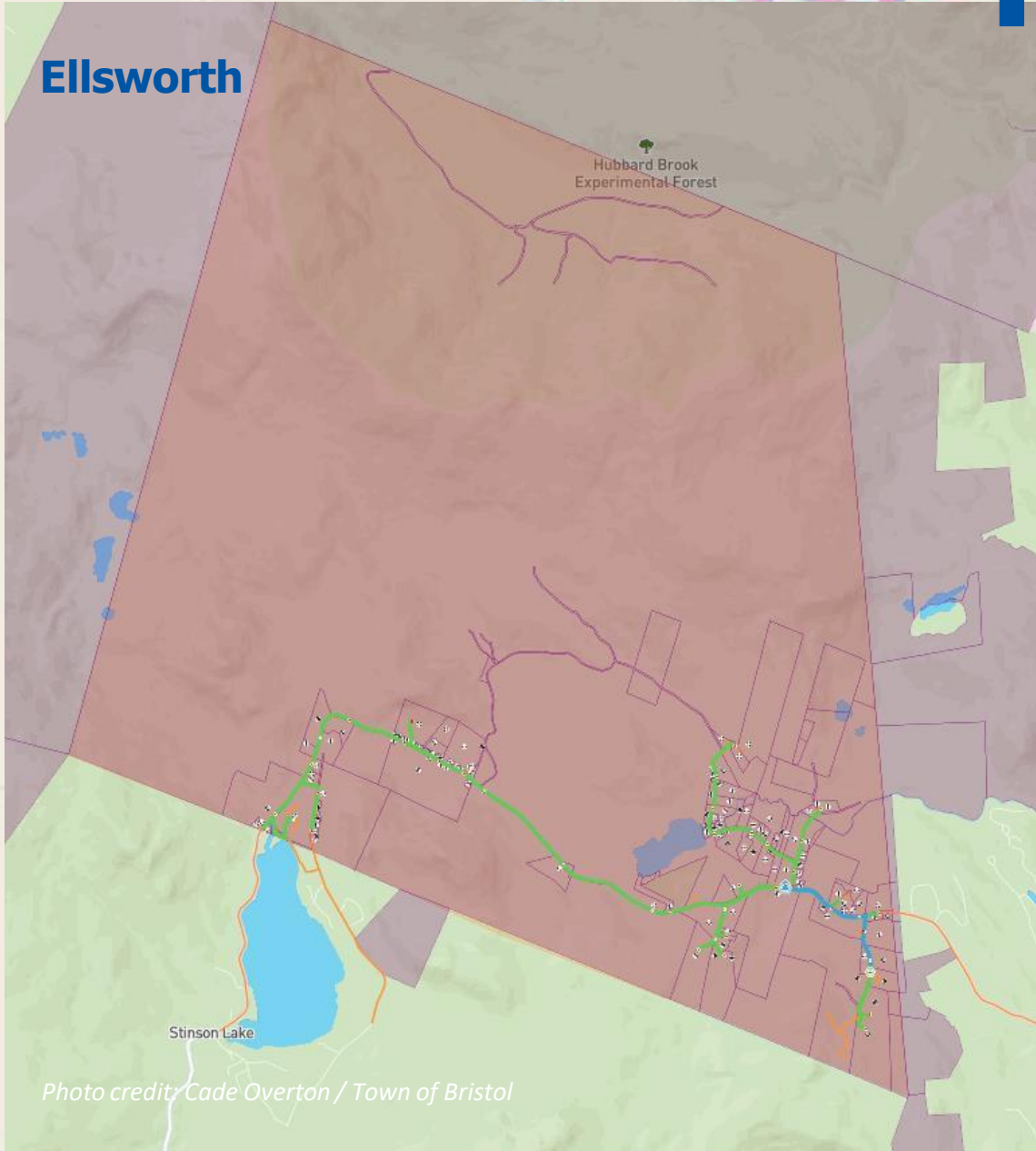
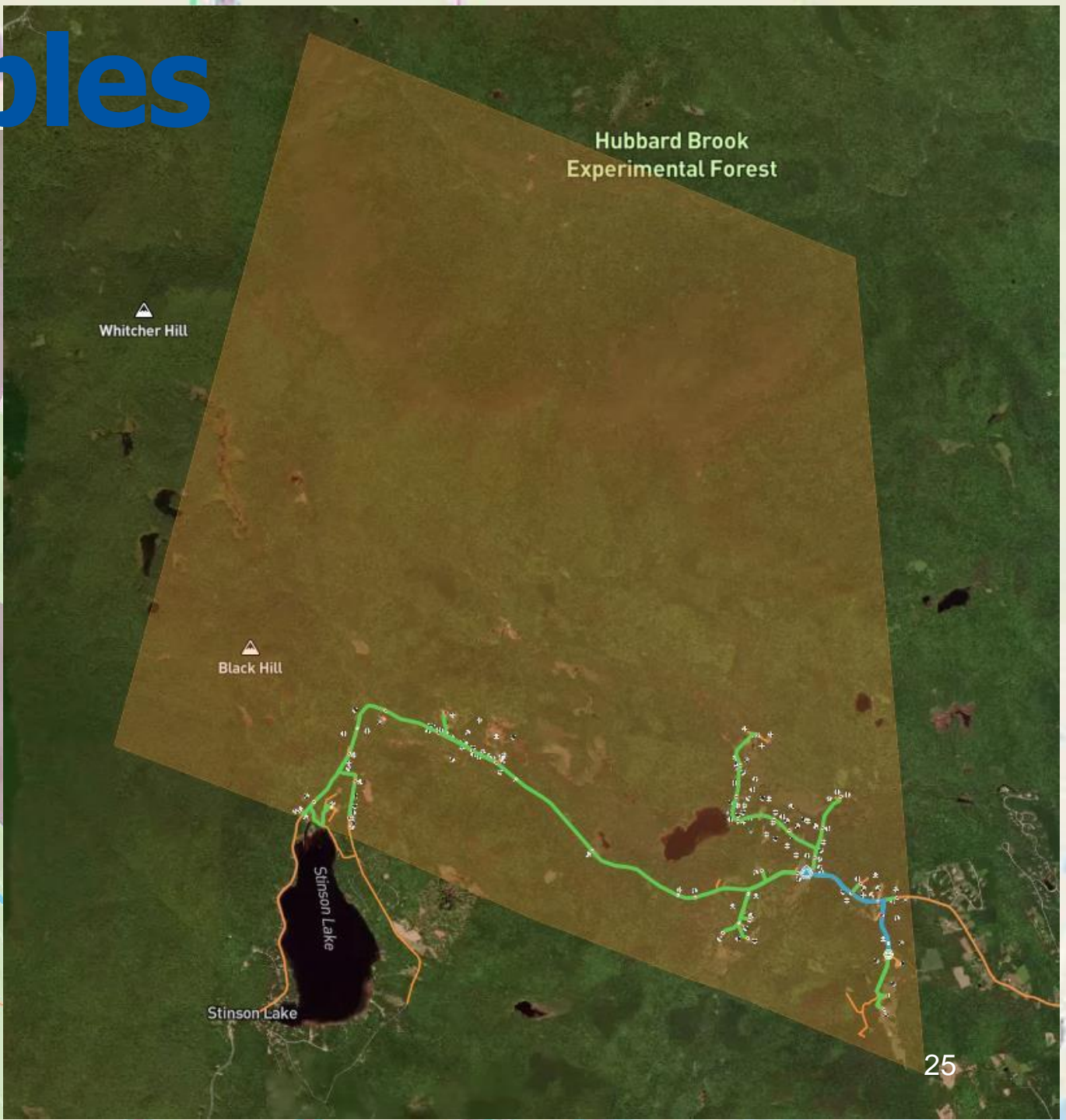


Photo credit: Cade Overton / Town of Bristol





Grafton County Broadband Now

Questions?

Contact Info

01

Nik Coates, Town Administrator, Town of Bristol
603.744.3354, x-3 / townadmin@townofbristolnh.org

02

Katelyn Robinson, Director of Economic Development, NCIC
802.748.5101, X-2027 / krobinson@ncic.org

03

Kevin Glynn, Northeast Regional Director, eX² Technology
732.668.9995 / kglynn@ex2technology.com