NEK Community Broadband

## From Make-ready to Business Plan

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Finance Committee
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The weight of your decisions

- 10 Years ago, where the state had millions of dollars to spend on broadband, it was spent on a private company and on technology that didn't work - Vermont was in a very similar position today, **do we want to go down the same path again** giving it to organizations who are not accountable? Or do **we choose the path of public accountability with the CUD's**?

- The house has spent a significant amount of time investigating this, the **Governor has bought into the community focused approach** - doubling down on CUD's with his proposed $250mm.

- Small state ISPs face the same challenges that CUD's will face with construction - access to constructions crews, make-ready delays, etc

- It's important to recognize that the mom and pop(husband & wife) ISP's aren't going to build any faster than CUD's and **won't expand beyond their territory in the next 5 years or maybe ever**. When will they ever get to the last mile in Victory, Vermont? A regional approach is needed - the CUD's are doing this.

- Delaying funding will mean **delaying fiber connections to an estimated 8247 passings** in NEK
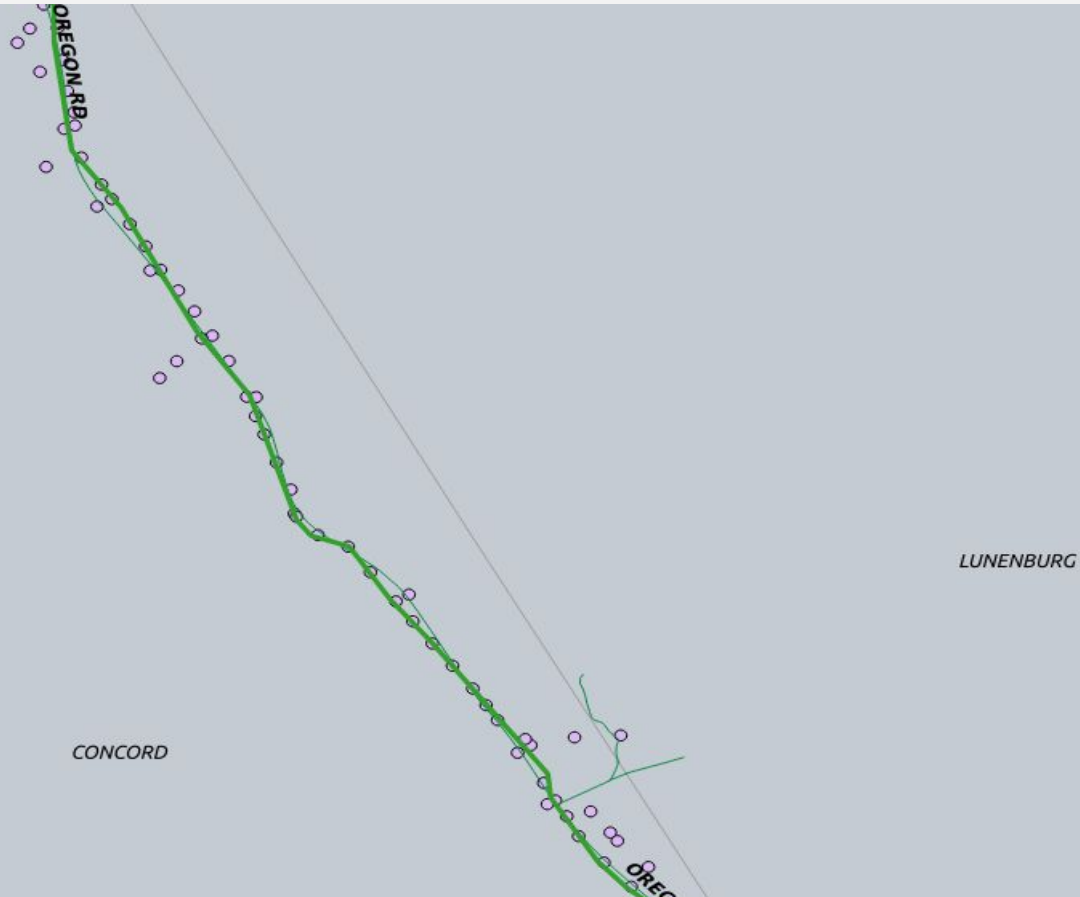
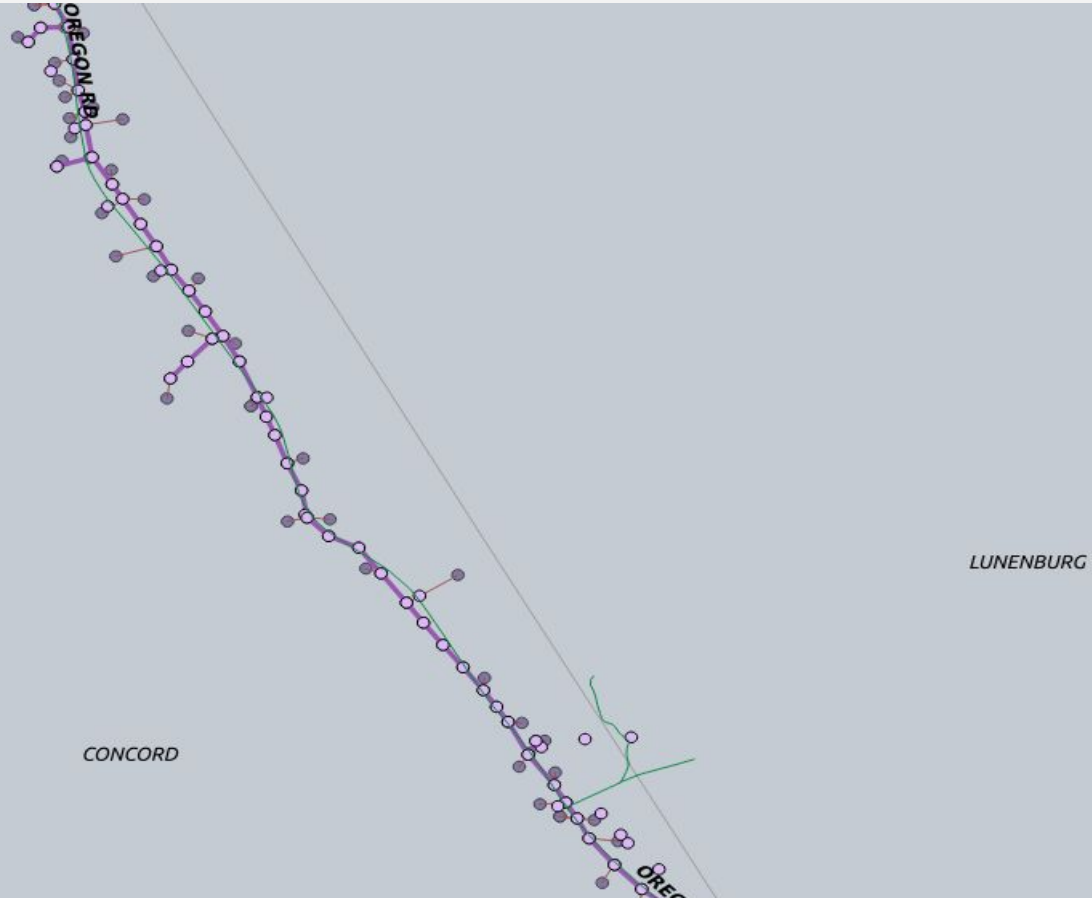# **Step 1 -** Start with Pole data to start the make-ready process
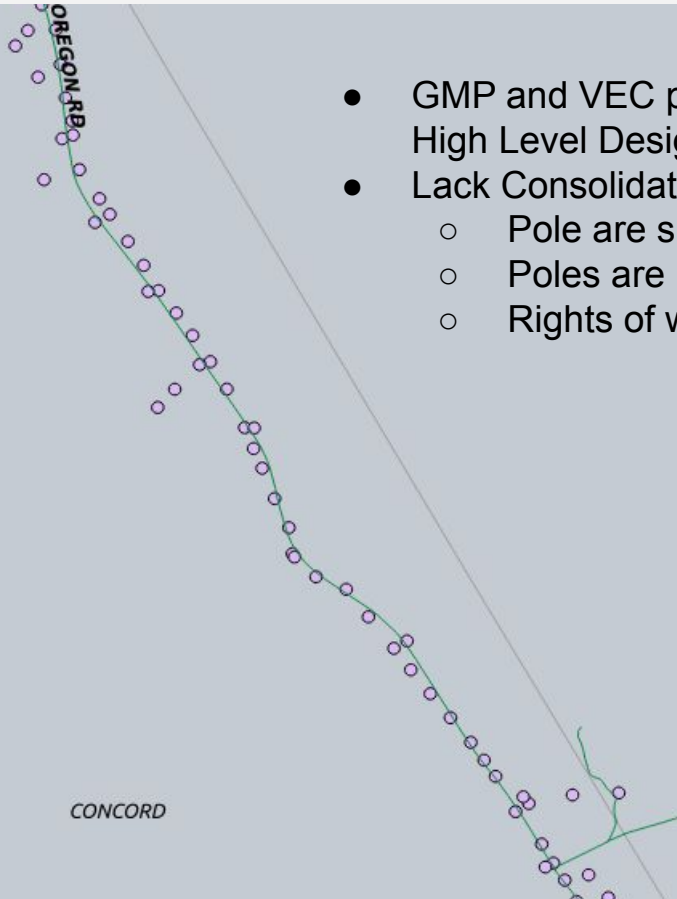
- GMP and VEC pole data is 99+% linear accuracy. Adequate for High Level Design.
- Lack Consolidated pole data, however we avoid them
  - Pole are short (35 feet)
  - Poles are in tough shape (old)
  - Rights of way are overgrown

LUNENBURG

Thank you GMP and VEC for sharing pole data!

CONCORD

OREGON RD

Step 3 - Add the hardware

Step 4 - Develop the system-wide cost estimate

Inputs include:
- Make Ready Costs
- Construction Labor
- Technical and Administrative Support Labor
- Traffic control
- Fiber mileage and counts
- Materials, including
  - Construction support
  - Hubs
  - Splitters
  - Repeaters/amplifiers
  - Back-up power (Generators, battery back-up)
  - Cabinets
  - Splice Enclosures and Termination Boxes

Step 5 - Repeat throughout the entire system

NEK Broadband's
High Level network
design for 57 towns
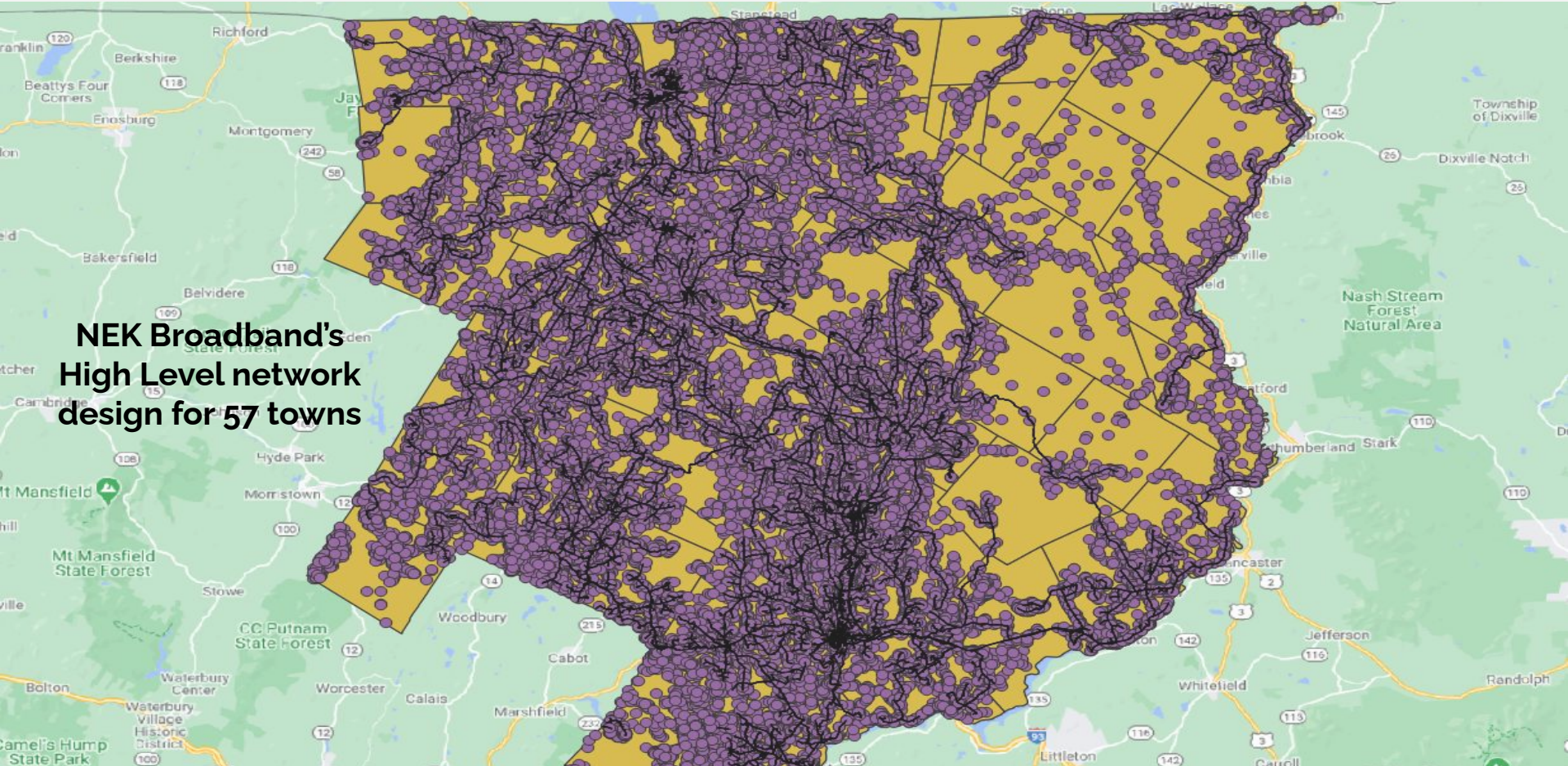
Step 6 - Develop the Business Case

Inputs include:
- Number of passings (density)
  - Residential
  - Commercial
  - Enterprise (Large Commercial and Industrial)
- Take rates (vary by densities)
  - Over 20 per mile
  - 15 per mile
  - 10 per mile or less
- Take rate growth rate (time expected to achieve take-rate)
- Expected revenue per customer (passings time take-rate)
- Customer service costs
- Administration and Overhead
- Debt Service
- Bandwidth costs (connections to outside fiber networks)
- Field support costs

The Phases

This approach gets every home and business connected to fiber.

Phase 1 - year one & two

Build asset base with grant funds. Key foundation for all CUDs. The CUD picks areas that will provide solid financial performance.

Phase 2 - year two & three

Leveraging Phase 1 assets, borrow up to 40% of the asset value to extend the reach of the network.

Phase 3 - year four

Go to the bond market to build the rest of the network

(NEK Community Broadband in now in Phase one and is in the process of filing make-ready applications).
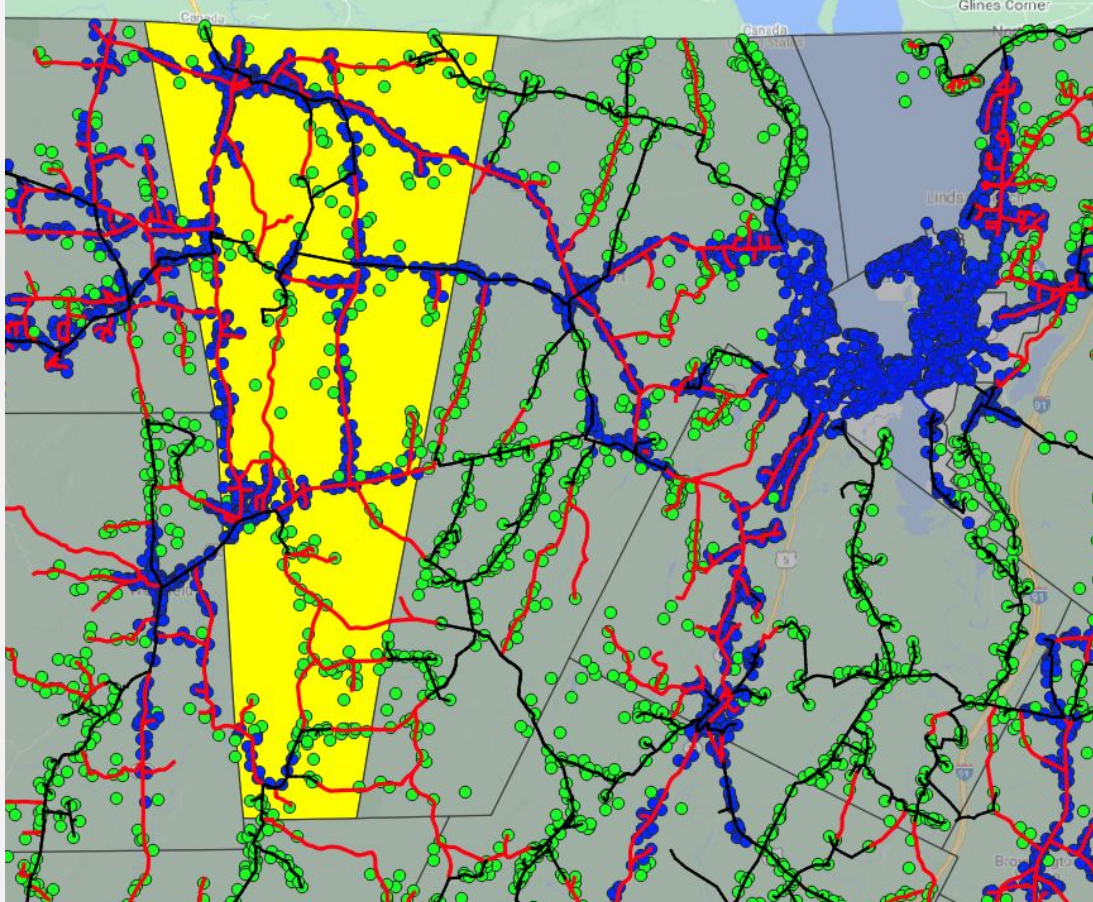
Without proposed funding in H.360 or from the Governor's proposal - CUD's do not pass go do not collect $200 - do not get passed phase 1

Broadband Project Timeline
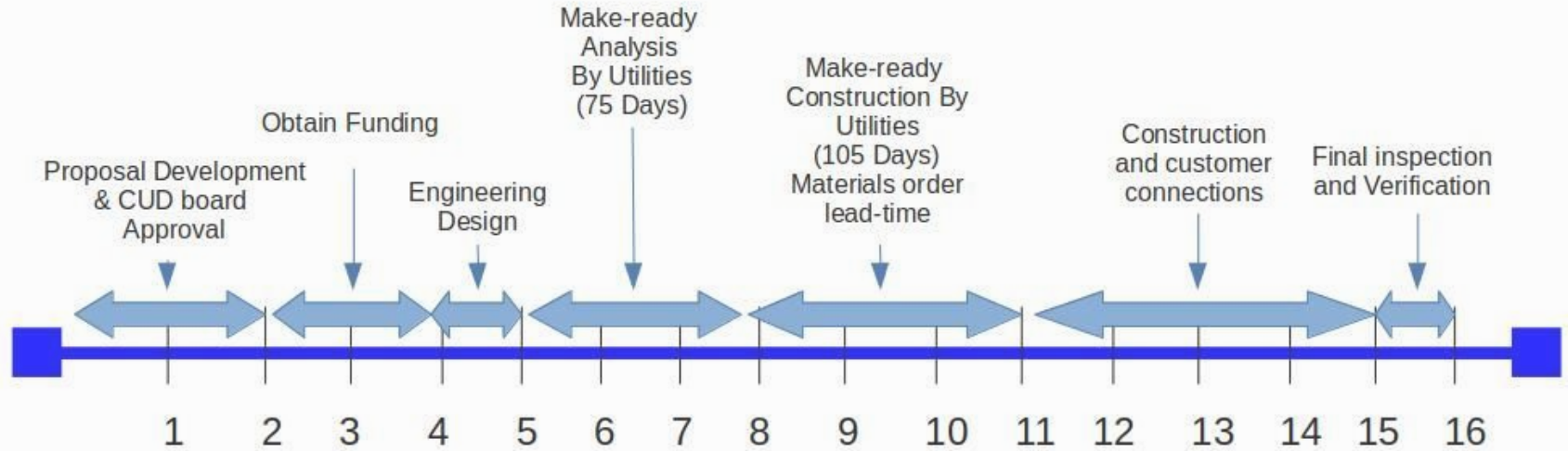
16 Month Period

Overbuilding Cable Has To Happen

The highlighted area above shows a typical town in the CUD. The Blue dots represent addresses currently served by cable.

The CUD has to string fiber through these already served areas to get to the un-served (Green) addresses. This means lots of fiber miles to serve few addresses.

This is the impact of "cherry picking" by legacy providers. We must stop this or we will not achieve our goals.

Summary

- Fiber optic is the only technology that is future proof. All others don't even come close!

- VT's other 8 CUDs have learned from ECFiber's history. What took ECF ten years to do, we can now do it under three.

- The CUD's goals it to get every address connected. By definition, private developers cannot do this. (the current system of pleading with private, unaccountable ISPs to reach the un/underserved hasn't worked. Why would we assume that would change now? Keep doing what you've been doing, and you'll keep getting what you've got.)

- The VCBA has an important role. It is about coordination, sharing resources, and propagation of best practices.

- Affordability is tremendously important. What is the affordability model in place with incumbent providers with service to 75% of VT residences? The answer is they don't have one.

- As we address this challenge, I recommend we do it right and address the challenge with a long-term, future proof solution. Fiber To The Premise is the only future-proof solution.