

Getting the Network You Want **BUILT**

A Primer on When and How to
Involve Your Contractor



For Any Community Considering Building a Fiber Network

- ◆ You know **your community needs and wants fiber**. There are lots of resources to help you get it done and get it done correctly without wasting time or money.
- ◆ The aim of this primer is to walk you through the steps you should take to **ensure you get the network you want BUILT** – on time, to spec, and within budget.
- ◆ The key to your success will be **effective engagement with your construction contractor partner to maximize** efficiency.

A 5-Point Primer for Building the Fiber Network Your Community Wants and Needs

- 1 Identify and recruit community leaders as partners
- 2 Begin with the end in mind
- 3 Get your community fiber-ready
- 4 Engage construction firms that have robust partners that can offer a turn-key solution
- 5 Communicate



Identify and Recruit **Key** **Community Leaders** as Partners

Who will benefit most from the deployment of FTTH in your community?

They need to become your champions for the network build.

- ◆ Economic Development Officers
- ◆ School Administrators
- ◆ Health Officials
- ◆ Real Estate Professionals
- ◆ Local Businesses

Bring them together and get them committed to endorsing the idea.



Begin with **the End** in Mind

Understand the degree to which your community wants to control its own infrastructure and has the capabilities to manage it.

Consider...

- ◆ Do you own a municipal utility?
- ◆ Do you have telecom subject experts on staff?
- ◆ Do you have sufficient financial resources to hire such staff?
- ◆ Would you like to own the infrastructure and hire an operator to manage?
- ◆ Do you have a trusted private partner who could deliver what you want without your ownership?

The answers to these questions will dictate what kind of network is correct for your community.



Become a **Fiber-Ready** Community

Regardless of what you decide WRT to ownership or control of the network, you need to prepare for an infrastructure build.

- ◆ You will need a seamless and expeditious system for granting access to rights of way, including streets and any poles under your control.
- ◆ All utilities must be located and identified (electric/gas/water).
- ◆ You will need a complete list of assets you currently control that can speed deployment or decrease the amount of investment needed.
 - ◆ Open ducts, open conduit, city fiber
- ◆ You will need a complete estimate of demand for the new fiber including potential customers besides residences.
 - ◆ Hospitals, Schools, Libraries, Government

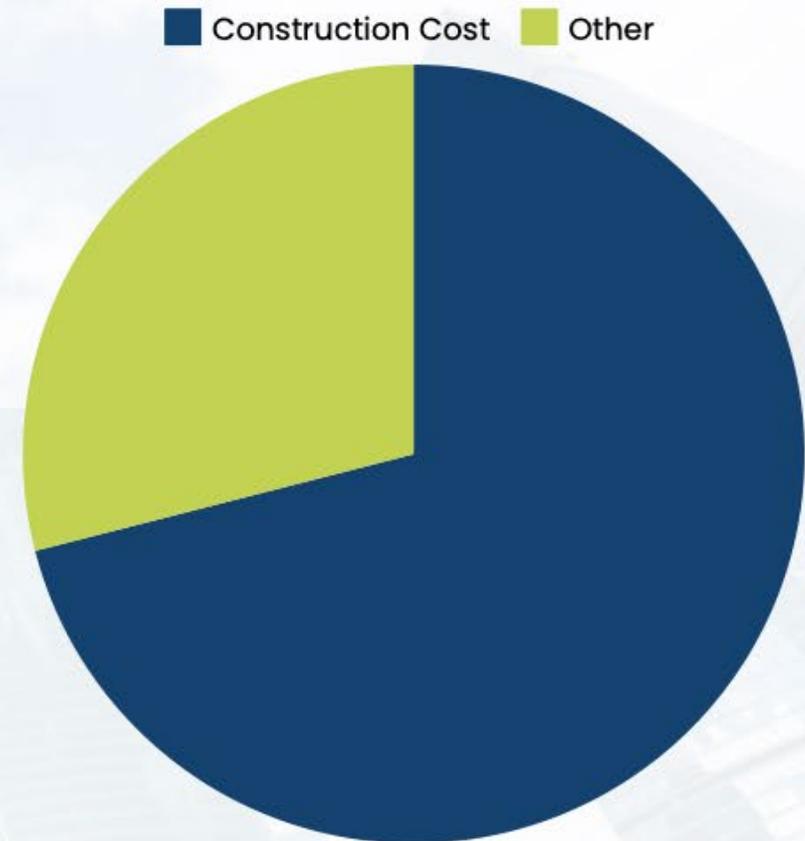


Construction Work is 70-80% of Your Build Cost

A highly qualified construction company **with strategic partners** can save you significant amounts of money and time.

- ◆ Many construction companies today are engaging partners to provide end-to-end “turn-key” solutions.
- ◆ Community/ISP will be provided with costing and management that incorporates all aspects of the network build – engineering, electronics, and testing.
- ◆ Enables you to only have “one throat to choke.”

Company must be totally dedicated to the concept of Safety First – for their teams and the community.



Meet with Construction Firms that Can Offer a Turn-Key Solution

Your business case must include projected demand, costs and funding BUT in the race for funding (public or private), entities are submitting requests often based on “high-level designs” that have not been vetted by “boots on the street.”

Designs that have not been vetted can lead to a faulty cost picture of the build.

Underestimation due to:

- ◆ Missed difficult terrain such as rock
- ◆ Unforeseen impediments such as:
 - ◆ Historical and environmental

This results in:

- ◆ Delays
- ◆ Cost overruns
- ◆ Unhappy stakeholders



An Experienced Highly Qualified Contractor can...

- ◆ Ensure your business case contains all relevant and accurate costs.
- ◆ Meet the requirements that will be demanded by federal funds.
 - ◆ Sufficient bid bond capacity – insurance on the build
 - ◆ Operational expertise
- ◆ Serve as a SME in addressing questions about the build from:
 - ◆ Local Government Officials
 - ◆ Citizens
 - ◆ Funding authorities
- ◆ Have the financial capacity to manage and protect your build.
- ◆ Understand and communicate the kinds of situations that arise during a build and cause delays and knows how to get back on track.
- ◆ Amass sufficient resources to ensure your build does not slow down due to material or labor shortages.

The Key to All Good Deployments: Communications

- ◆ There are always going to be hiccups.
 - ◆ Flower beds torn up
 - ◆ An unmarked utility broken
 - ◆ Weather delays
- ◆ BUT the key is to **COMMUNICATE, COMMUNICATE, COMMUNICATE.**
 - ◆ Weekly updates with your construction manager.
 - ◆ Use the construction executive to explain issues in city and community meetings.
- ◆ Make your construction company the “one throat to choke”, but more importantly, **your partner on the front lines** getting things done.

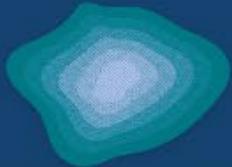
States and Localities Need to Consider Clustering Their Builds

To attract qualified contractors, states need to understand the cost to initiate service.

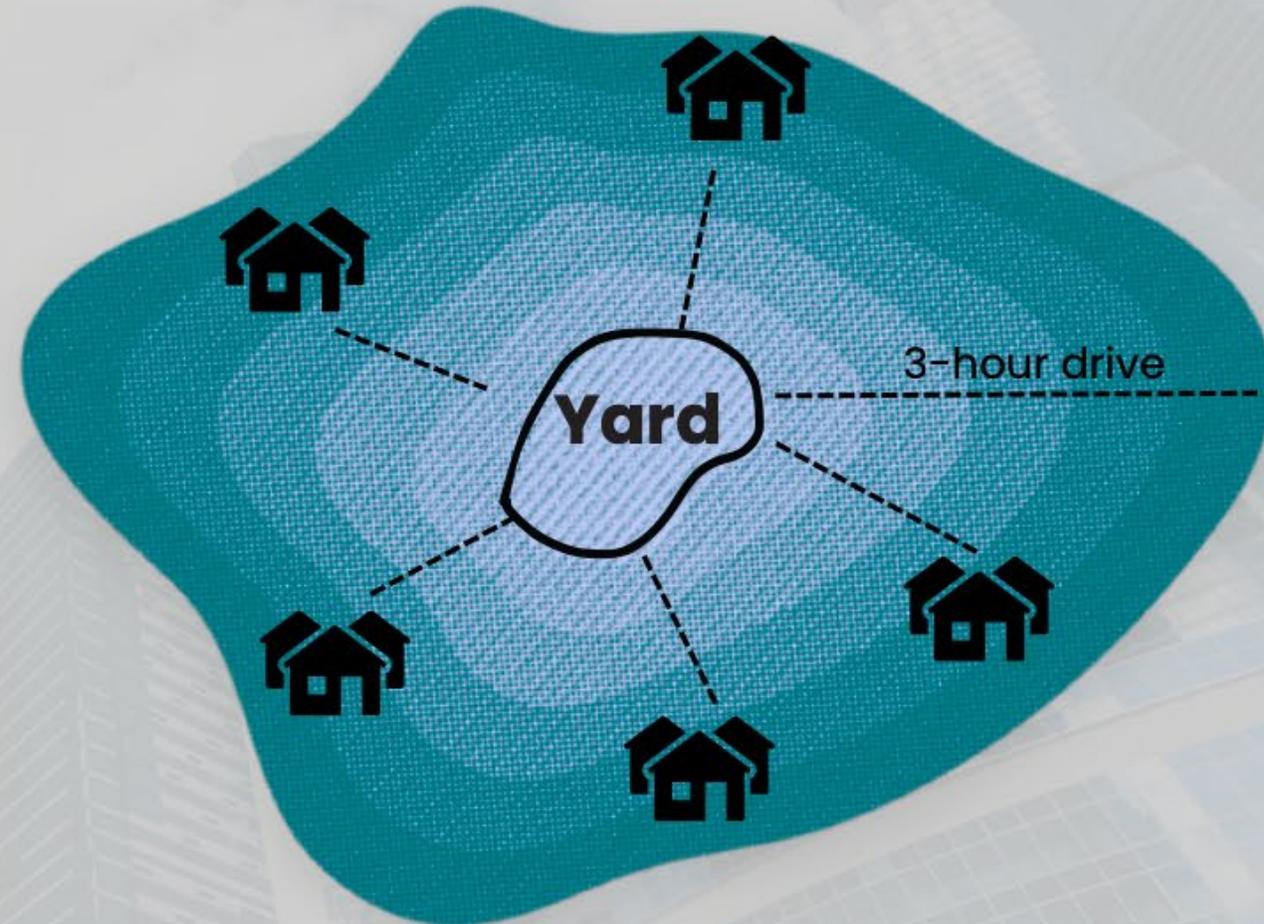
- To set up a yard with necessary equipment and materials runs close to \$1 Million.
- To keep crews employed, contractors need to get them constantly on the job and paid.



Potential Sub-Grantees



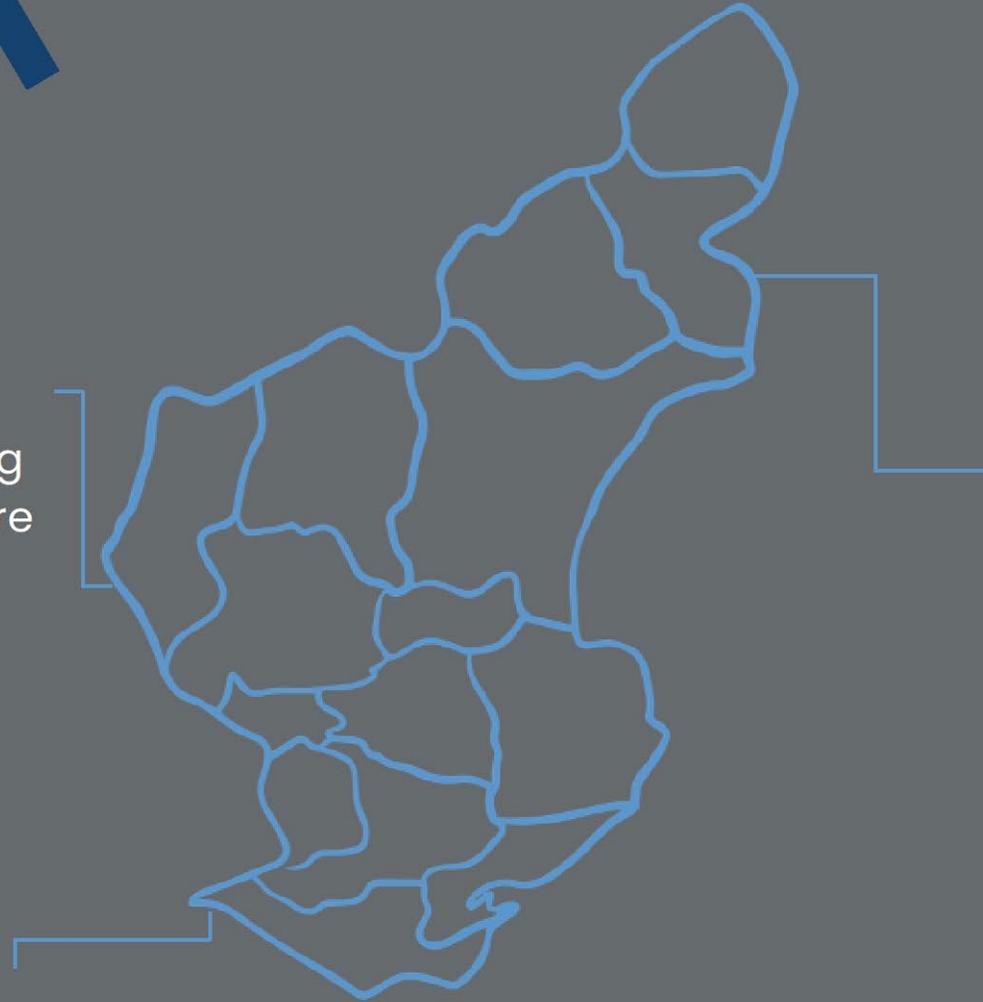
**3-hour Radius (Drive)
from the yard**



The Benefits of Clustering

One yard can serve multiple builds: eliminating replication of multiple store and warehouse facilities.

Large contractors will hire local, ensuring local talent after the bid to continue to service the project.



Will be able to attract construction firms capable of meeting funding financial requirements:

- Sufficient bid/performance bond capacity.
- Ability to meet weekly payroll requirements – even with reimbursement upon completion requirements.



States and Localities will need to Share Operations & Maintenance Resources for Sustainability

◆ Communities should be incentivized to share resources such as operations and maintenance –

- ◆ Small builds will not be able to afford dedicated resources.
- ◆ Truck rolls, emergency crews, customer care, NOC.

◆ In addition, contractors should be incentivized to use local labor in their builds for long term continuity and work force development.

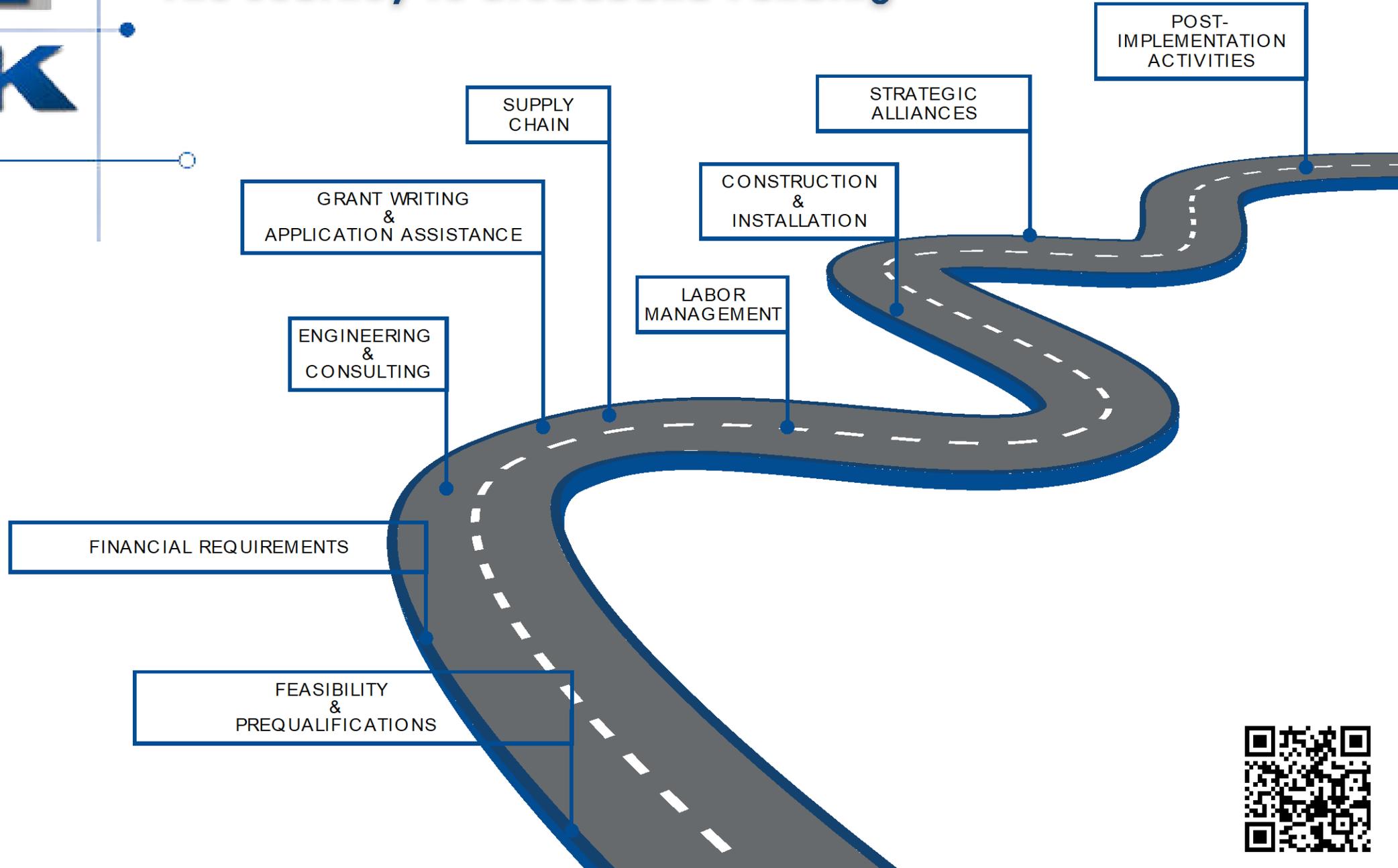
- ◆ Local labor can ensure quicker permitting, location of buried utilities, etc.
- ◆ Trained labor remains in community after build for moves/adds/changes/maintenance.

Reach Out to Others

- ◆ There are numerous resources available for assistance:
- ◆ **Government agencies** such as NTIA, Rural Utilities Services, State Broadband Offices, State NGOs such as MERIT, Blandin Foundation, etc.
 - ◆ Use their information to identify others who might also want to build in your area.
- ◆ Critical are **other communities** who have already achieved what you want.
 - ◆ You can find them through similarly situated trade associations such as NECA (if you are a COOP), NTCA (if you are a small rural telephone company), Fiber Connect, AAPB (muni utility).
 - ◆ They can tell you how they achieved fiber deployment and most importantly...who helped them build the network and how that worked for them.



The Journey to Broadband Funding



Thank You.

