City of Cambridge
Broadband Feasibility Study Kickoff

Aaron Paul
Chris Campbell
Mike Hernon
Paul Fahey

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Agenda

- Introductions
- Project Process
- Schedule
- Alignment of Goals
- Guidance on Early Steps
  - Community Engagement
  - Survey Method
  - Survey of Infrastructure.
  - Internal Analysis

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Project Process

Review of what we promised in the proposal

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Assist City Staff

- Our goal is to assist the City staff in successfully delivering on this project.

- This task includes briefings at bimonthly task force meetings

- Ad Hoc support throughout the project

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Community Outreach

- Whether in a Boston neighborhood or in an Appalachian City, community outreach for broadband projects has consistently shown:
  - Residents and small businesses are well-aware of the potential for broadband and are able to leverage access when available and affordable
  - Some government or institutional jump-start is generally required, but
  - Sustainability must be assured and built-in from the start
  - Successful projects have a vision, a strategy, and a way of promoting them

Three Goals

Inform
Ensure the broader community is aware of the current effort and what the vision is.

Be Informed
Learn of needs and priorities. Assess interest and capacity

Gain Support

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Outreach Strategy

- Program must be planned to ensure the outreach goals are met in a timely and efficient manner.

- We will work with the city and the task force to develop the outreach strategy while leveraging our experience, lessons learned and best practices.

- While the broad outlines on outreach are known a number of details will need to finalized.

Plan Components

Key Stakeholders
Potential anchors
Communities of Interest
Documentation
Web Portal
Meeting types, number, locations, schedule, agendas
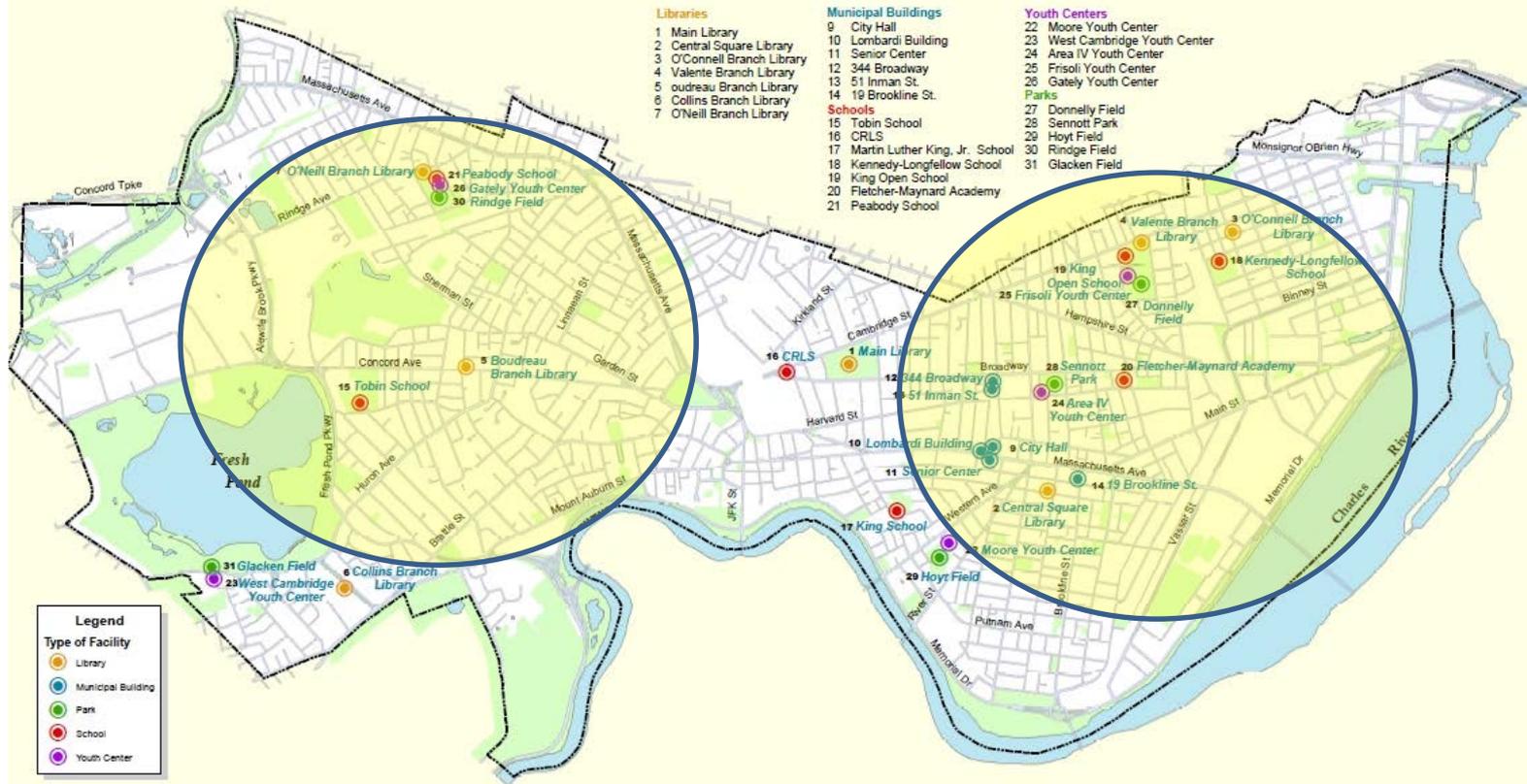
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Four Step Process

- Outreach Strategy
    - Who, what, where
- Outreach Content
    - Brief, FAQs
- Execute
    - i.e. hold the meetings
- Analysis and Report

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Potential Meeting Locations

Outreach Next Steps

- Integrate today's input and:
  - Complete the strategy
  - Complete the content
  - Identify locations and dates
  - Execute

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Document Existing Service

- Step 1 - Conduct a randomized survey of City residents and businesses to determine:
  - Internet usage stats (provider, cost)
  - Satisfaction level
  - Interest in a new service provider
  - Shift from TV provider to "over the top" content
- Step 2 - Conduct desktop analysis independently of survey
  - Identify service providers
  - Determine offerings
  - Validate service offerings through interviews

Your Opinion
- ☑ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

comcast

verizon wireless

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City Infrastructure Assessment

Existing City telecommunications infrastructure and services provide a foundation for future initiatives

Data Collection Targets

Municipal Networks
Leased Services
Fiber and Conduit
Contextual Data

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Assessment Process

- Understand the networks the city has now

- Understand how these are currently serving city needs

- Targeted inspection physical of underground fiber and conduit facilities

Objective

Assess available capacity available for leveraging to provide a broader public benefit

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Defining the Service Gap

What you have

Infrastructure Assessment

+

**Service Levels/
Carrier Offerings**

← GAP →

What you want

Community Outreach

+

Resident and Business Survey

=

Broadband Standard

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Network Engineering and Cost Estimates

Example – Block Island, Rhode Island

Capital Cost	$4.3M
Operational Cost	$355k-$652k
Speeds	1 Gbps
Who Pays	Private, Public or Hybrid

The high level design contemplates the following.
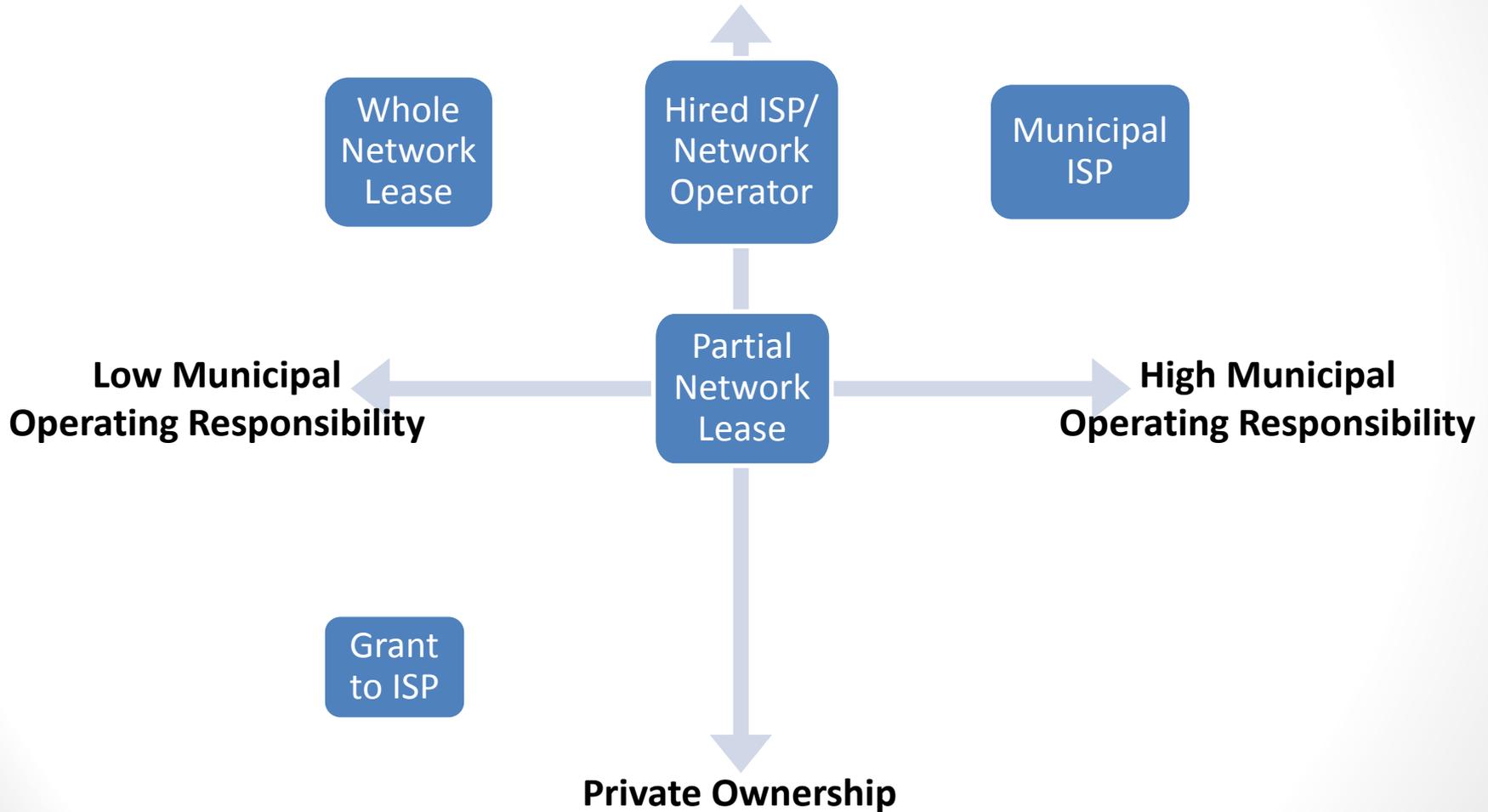
1) Strand mileage
2) Strand count
3) Head end gear and electronics
4) Premise installation
5) Make ready (if aerial)
6) Engineering and Design Costs
7) Professional services including legal and site acquisition

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Business Models: Options

Regulatory and Public Policy Analysis

- Analysis of:
    - Viability of financing sources
    - Structural limitations
    - Barriers to network deployment
    - Assessment of operational risk to the network owner

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Schedule

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Cambridge Massachusetts Broadband Plan

Task	August, 2015	September, 2015	October, 2015	November, 2015	December, 2015	January, 2016	February, 2016
Assist City Staff	X	X	X	X	X	X	
Engage the Community							
Outreach Strategy	X						
Execute		X					
Analysis and Report			X				
Document Existing Broadband Service							
Develop Survey Materials		X					
ID Survey Contractor			X				
Perform Survey, Analyze Results				X			
Internal Analysis of Service	X						
Inspect Telecommunications Infrastructure		X					
Define Service Gap			X				
Network Concepts				X			
High Level Cost Estimate				X			
Review Business Model Options				X			
Regulatory & Public Policy Analysis					X		
Draft Report, Review and Final					X		
Results Presentations						X	

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Goal Alignment

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Goals for the Study

We plan to produce strategies that accomplish the following

- Bridging the "Digital Divide" serving housing authority locations

- Broadband for home educational purposes

- Improved small businesses access to high quality broadband

What else should we consider

- ?

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Guidance on Next Steps

Immediate Steps

Task	Goal	Need
Community Engagement	Conduct two successful public meetings to understand community attitudes toward broadband. Conduct in September.	1) Set dates 2) Meeting locations 3) List of stakeholders and points of contact
Survey Method	Conduct randomized survey of Cambridge businesses and residents to determine service providers, satisfaction levels, broadband usage trends, and willingness to pay for new services. Compile results in three months	1) Committee to review script and survey questions. 2) Data set of 4000 phone numbers including cell phone numbers 3) Decision on survey audience
Infrastructure Survey	Assess fiber optic capacity into target regions and determine costs of bridging service gap.	1) Any data on City fiber networks 2) City IT manager and point of contact for fiber data 3) If possible Verizon and National Grid contacts for accessing man holes
Internal Analysis	Determine service offerings, pricing, and speeds from public, private, and residential customers	1) Contacts for outreach including representatives from: 2) Business 3) Government / Education 4) Universities

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Onward!