



# Municipal Broadband Roadmap





## Overview

*Remember why a smart city?*

*Remember what is a smart city?*

*Components of a “smarter” city?*

*Potential digital infrastructure initiatives?*



- economic restructuring -  
- online retail and entertainment -  
- climate change -

***Major technological, economic and  
environmental changes have  
generated interest in smart cities***

- aging populations -  
- urban population growth -  
- pressures on public finances -

**Traffic**



**Parking**



**Housing**



***Littleton is impacted by changes such as the urbanization of the population***



***A smart city* is a community vision to integrate data and technology to improve the efficiency of services and manage city assets**



**What makes smart cities smart?**

*Collect data (facts, truth, evidence) – real-time*

*Analyze data (automation) – real-time*

*Modify service delivery – real-time*

**Real-time data-driven decision making!**



## Six Components found in most Smart Cities

- *Smarter Transportation* -

- ***Smart Digital Infrastructure*** -

- *Citizen Engagement - Smart & Big Data* -

- *Data Visualization - Leadership & Vision* -

# Intelligent Transportation Systems (ITS)



**Potential Digital Infrastructure Initiatives**



2013  
Voter Authorization  
SB 152

2015  
Council Goals,  
Developed  
Fiber Master Plan

2016 – 2018  
FIBER BACKBONE CONSTRUCTED

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Goals:  
Improve City Operations  
Connect Community Anchor Institutions  
Pursue Economic Development Opportunities  
Explore Fiber to Home & Business Opportunities

2014 – 2015  
Phase 1: Asset  
Inventory/Opportunity  
Assessment

2016  
Backbone Designed,  
Cost Estimated &  
Funding Budgeted

Next Steps: 2018 & Beyond  
Pursue Additional Opportunities:  
City Efficiency, Community Anchor Institutions,  
Economic Development, Public/Private  
Partnerships and  
Fiber to Additional Homes & Businesses

*Potential Digital Infrastructure Initiatives*



**ARTICLE 10**  
**UNDERGROUNDING OF OVERHEAD FACILITIES**

§10.1 Underground Electrical Lines In New Areas. The Company shall, upon payment to the Company of the charges provided in its tariffs or their equivalent, place all newly constructed electrical distribution lines in newly developed areas underground in accordance with applicable laws, regulations and orders.

§10.2 Underground Conversion At Expense Of Company.

A. Underground Fund. The Company shall budget and allocate an annual amount, equivalent to one percent (1%) of the preceding year's Electric Gross Revenues (the "Fund"), for the purpose of undergrounding existing overhead distribution facilities in the City, as may be requested by the City, provided that the undergrounding shall extend for a minimum distance of one (1) block or 750 feet, whichever is less, or as may be mutually agreed by the parties. Except as provided in §6.8.F, no relocation expenses which the Company would be required to expend pursuant to Article 6 of this franchise shall be charged to this allocation.

B. Unexpended Portion And Advances. Any unexpended portion of the Fund shall be carried over to succeeding years and, in addition, upon request by the City designee, the Company agrees to expend amounts anticipated to be available under the preceding

***Potential Digital Infrastructure Initiatives***



# Broadband, Property Values And Economic Growth

FALL 2016 | [www.bbcmag.com](http://www.bbcmag.com) | BROADBAND COMMUNITIES | What Fiber Broadband Can Do For Your Community | 19

## 2014

Fiber to the Home Council Americas releases a study finding higher per capita GDP in U.S. metropolitan areas in which gigabit internet is widely available. Infrastructure investment, job creation, entrepreneurship, productivity gains and companies relocating to or expanding in gigabit cities are all elements of this growth.

**R**ecent studies continue to show that access to high-quality broadband boosts property values and contributes to economic vitality.

## 2016

Michael Render of RVA LLC surveyed MDU residents in the U.S. and Canada to find out what they would pay for access to ultra-high-speed, reliable broadband.

Fiber access increases residents' satisfaction with their homes and appears to reduce churn, helping building owners and operators maintain high levels of occupancy and provide a quality living environment.

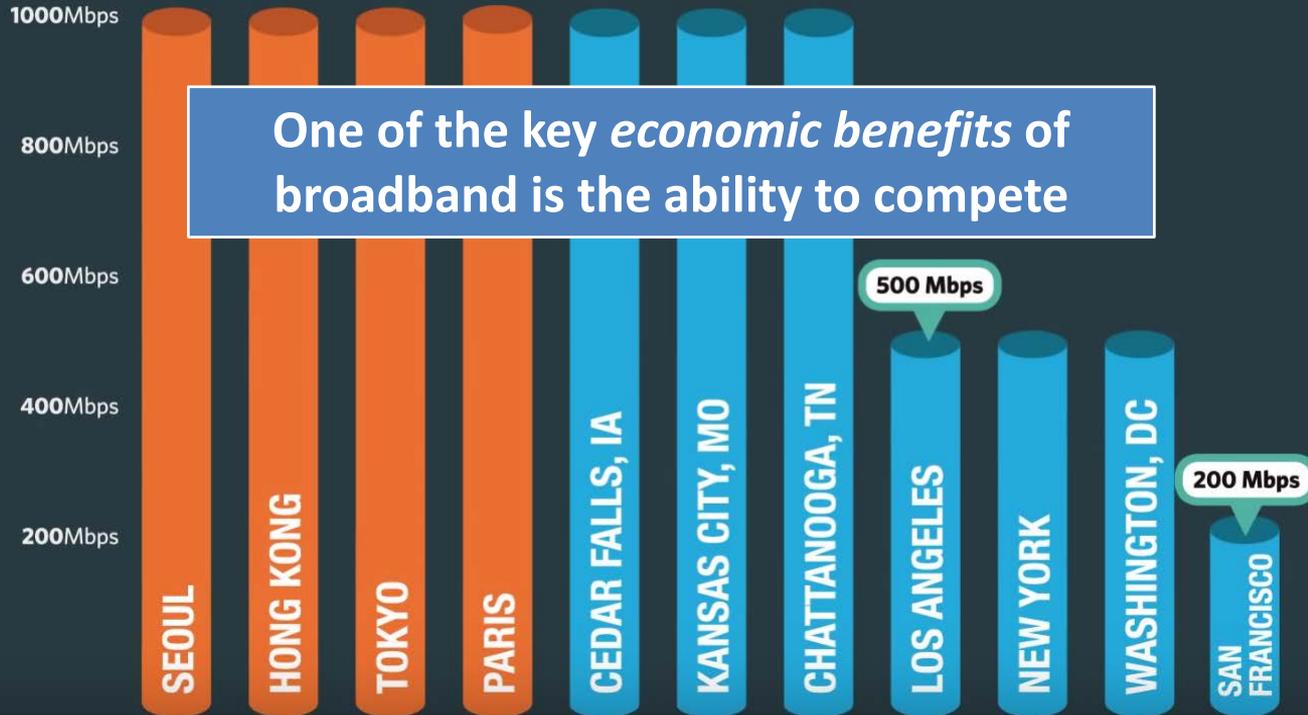
## 2015

FTTH Council Americas finds that access to fiber to the home increases a home's value by up to 3.1 percent. Using the National Broadband Map and a nationwide sample of real estate prices from 2011 to 2013, the study's authors investigated the relationship between fiber-delivered internet services and housing prices.

*Potential Digital Infrastructure Initiatives*



# INTERNET DOWNLOAD SPEEDS BY CITY



*Potential Digital Infrastructure Initiatives*



*Questions?*