

Assess Current Broadband Infrastructure and Needs

Forward Thinking, Focused on the Future

Presented by:

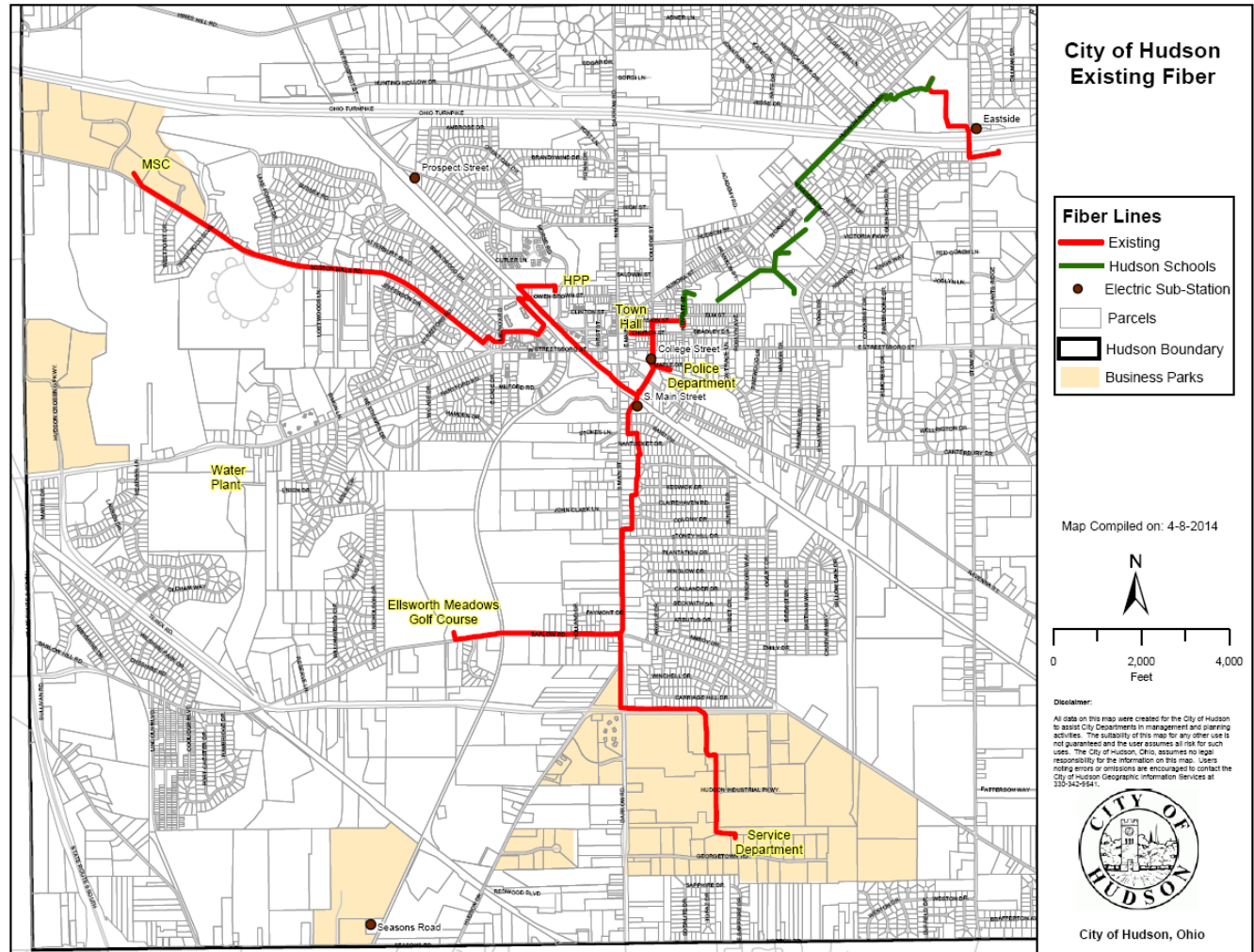
Bill Hilbish, Information Services Manager

April 22, 2014



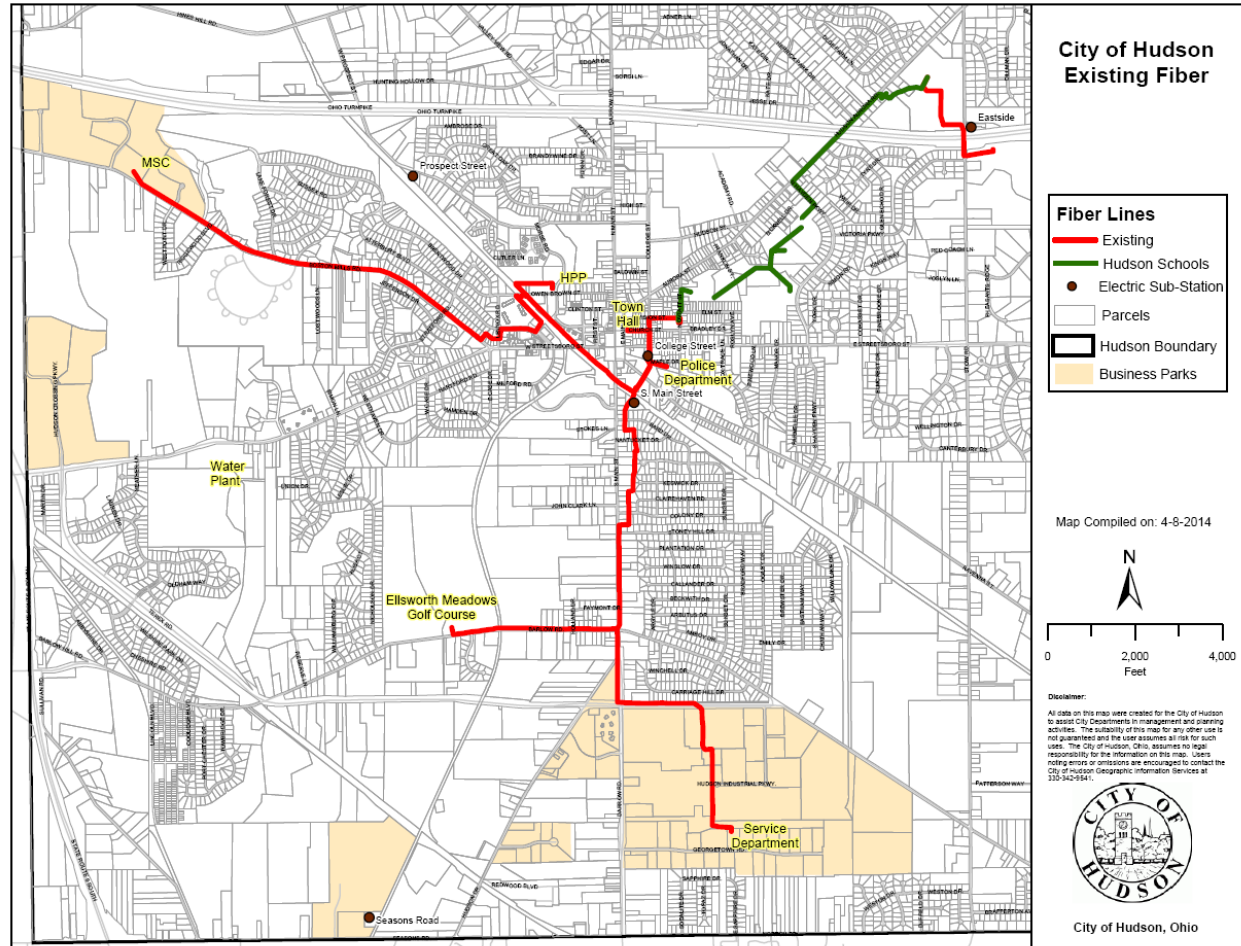
Current Broadband Infrastructure and Future Needs

- History
- 2014
- Future Plans and Needs



History

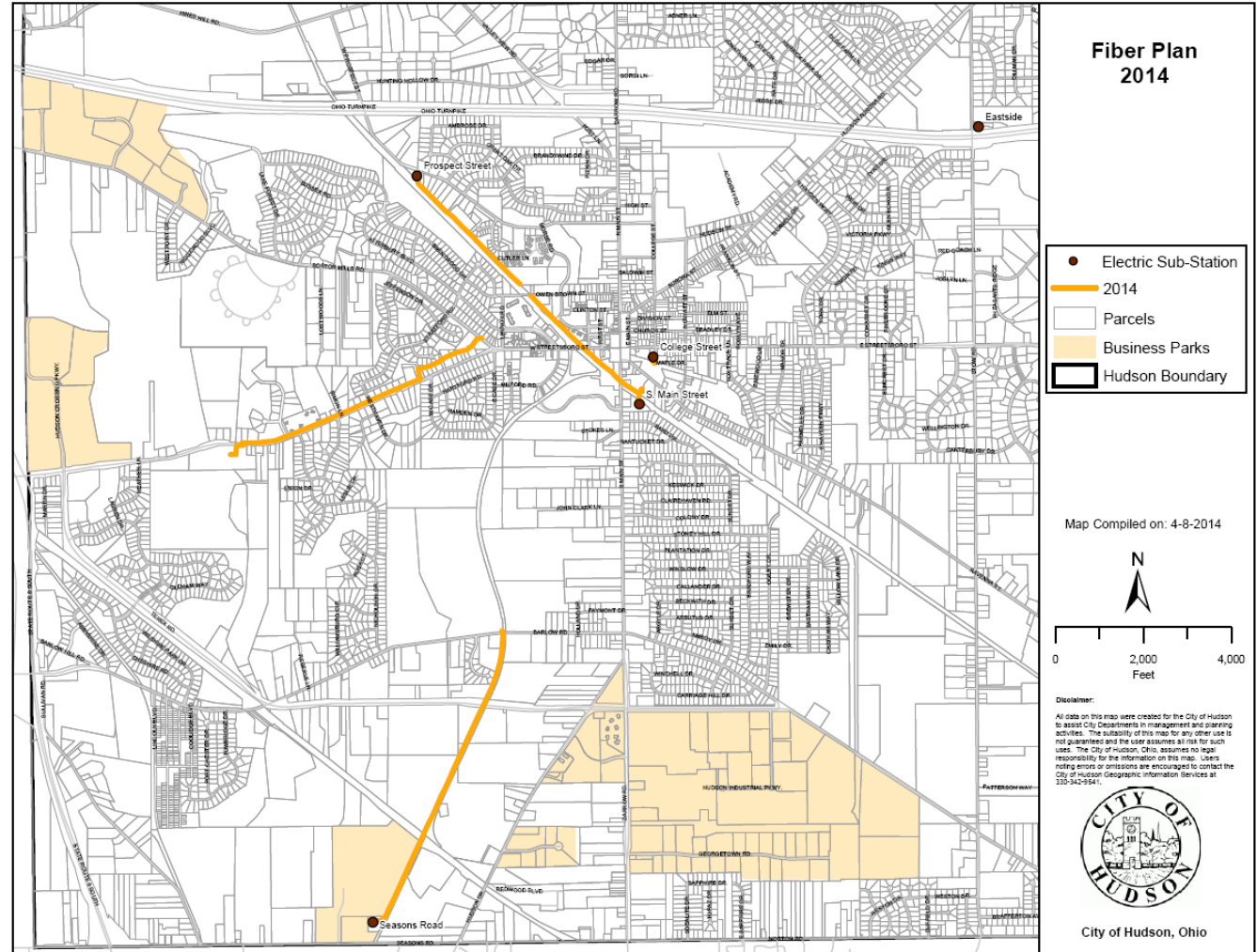
- 2004- Fiber from Police to Evaporator Works
- 2005- Fiber from Police to Hudson Elementary (Provides internet access thru Neonet)
- 2006- Fiber from Police to Townhall (Phone, city network and internet access)
- 2006- Fiber from Police to Service Department (Georgetown Road)
- 2008- Fiber from Police to the Electric Department (Owen Brown Street)
- 2011- Fiber from Police to Ellsworth Meadows (Barlow Road)
- 2012- Fiber from Police to Hudson Cable TV and Parks Department (Stow Road)
- 2014- Fiber from Police to Water Plant (303)
- 2014- Connect fiber to all electric sub-stations (Except East side)



2014

2014 Fiber Projects (ongoing)

- 2014- Fiber from Boston Mills Road to Water Plant (303)
- 2014- Connect fiber to all electric sub-stations (Except East side)
- 2014- Increase fiber strands (48) from Evaporator Works to Owen Brown Street



Future City Fiber Needs-The Proposal

In the next 5 years, we propose to ring the city with 144 strand single-mode (long-haul) fiber. This will allow secondary routes for our existing fiber and compliment any plan for future growth and expansion around the entire city; to include broadband to the industrial parks, traffic control, cameras, and possible community internet access/VOIP phone services.

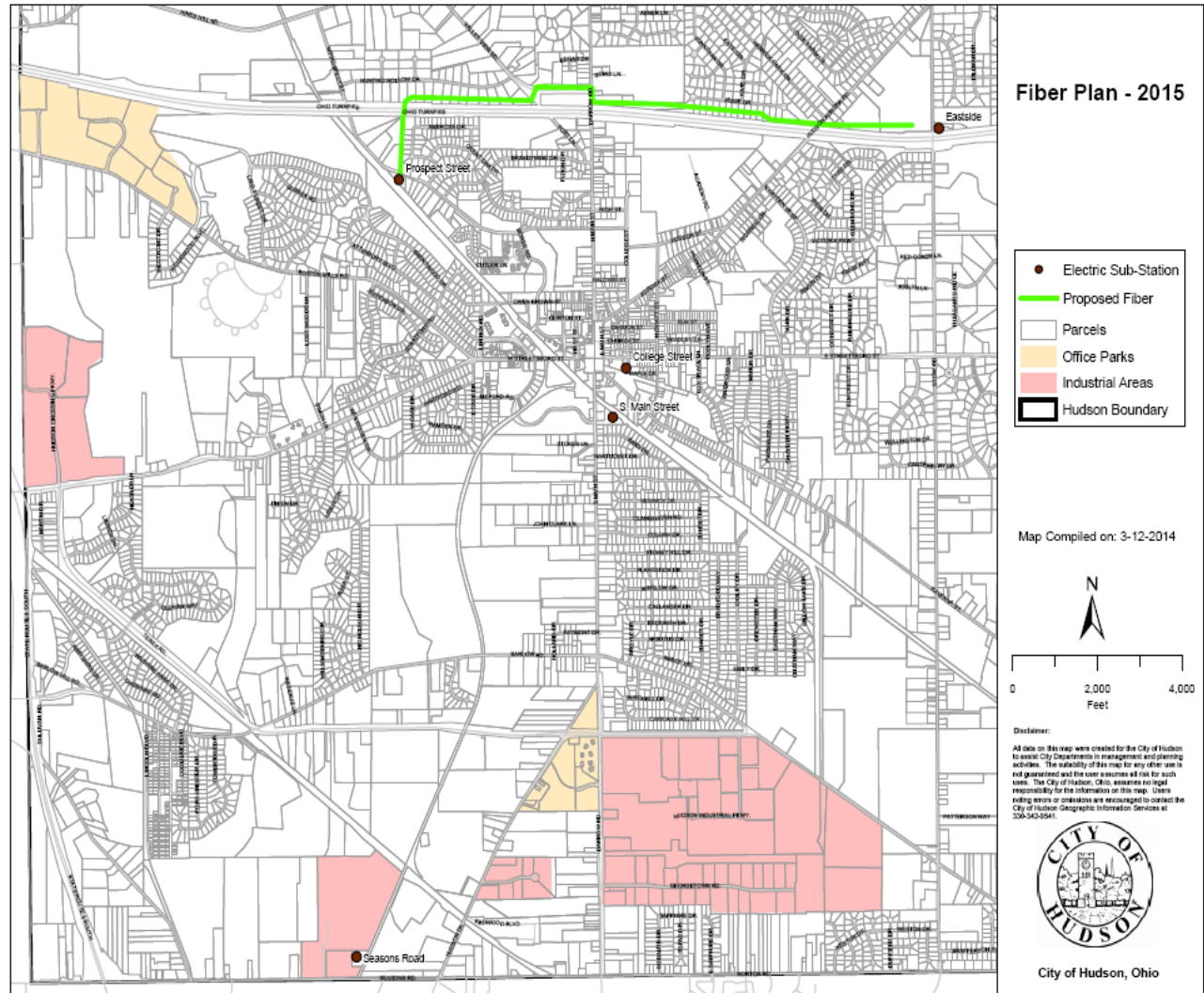
The plan was developed in partnership with the City of Hudson Electric department. The design was broken down into five separate projects over a five year period to reduce the costs by using the Electric Department for labor.

The “fiber loop” will provide the city with a solid redundant backbone that will allow for projected future growth. Additional fiber lines will be added as necessary to connect to the loop via splicing to connect to the broadband data stream.

This fiber loop is the foundation of any future fiber/broadband needs anywhere in the city.

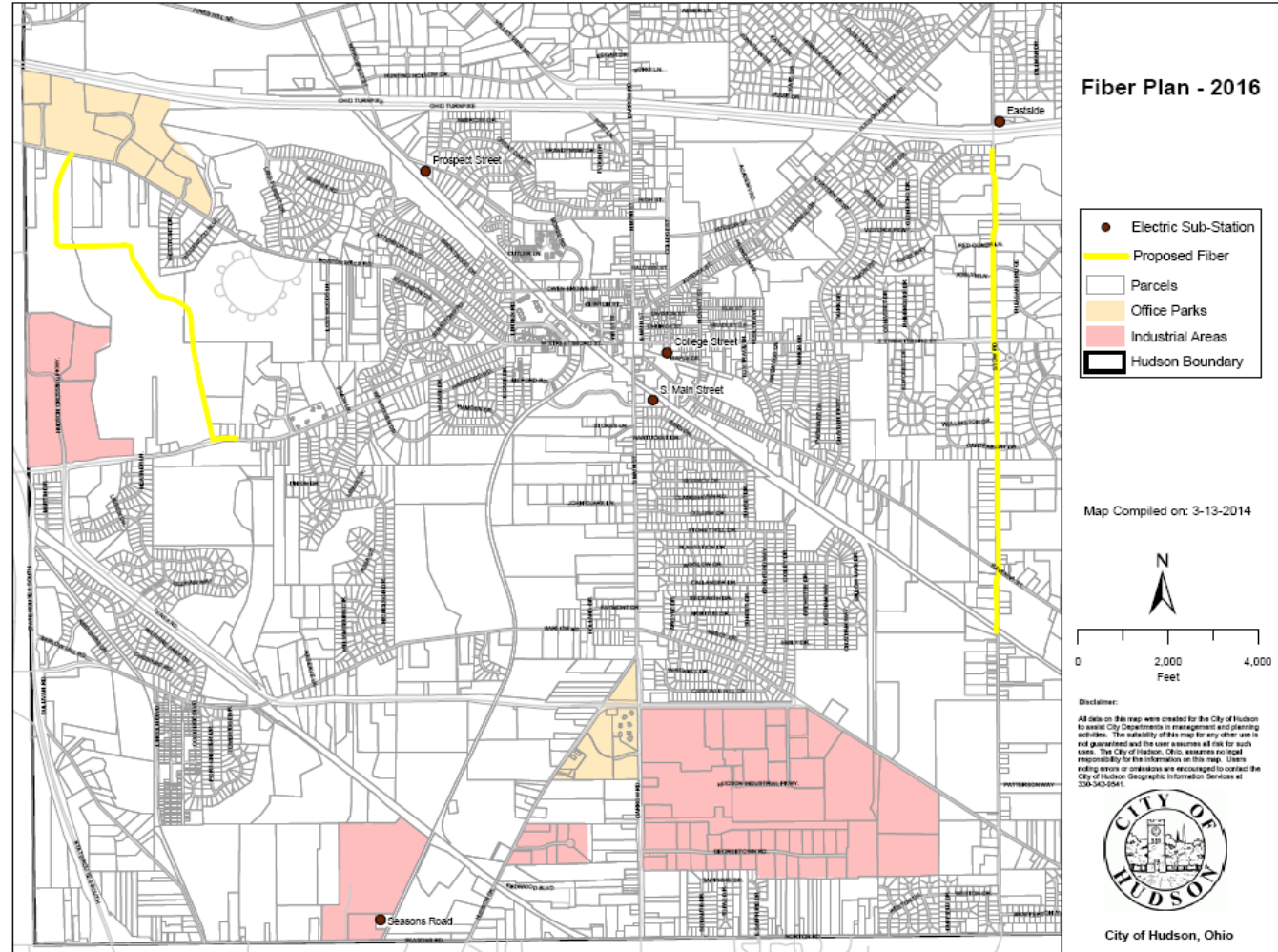
Phase 1 Year 2015

- 15k feet of 144 Strand fiber from Prospect Substation to East Side Substation
- Costs for fiber/splicing and hardware @\$47,000.00



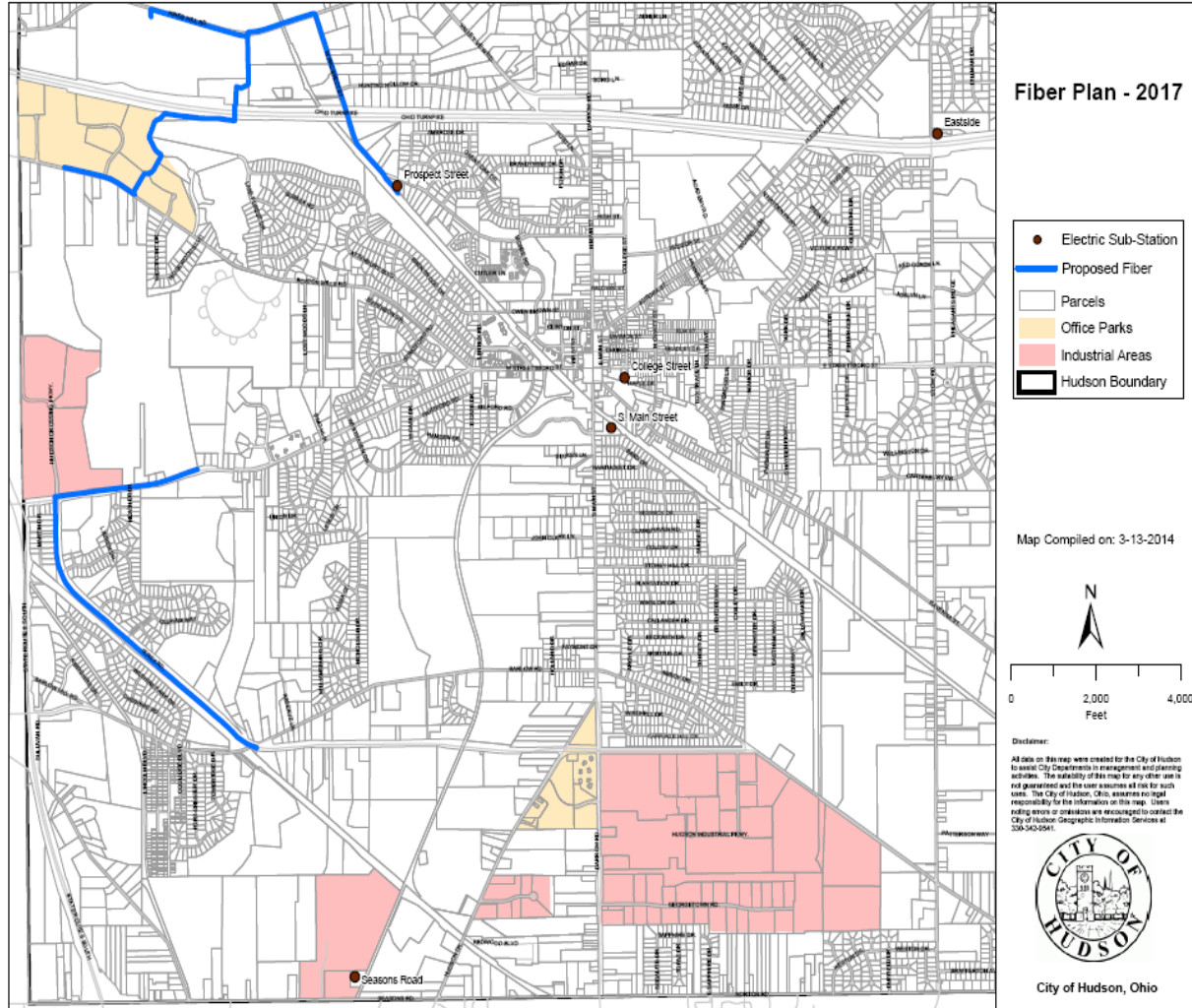
Phase 2 Year 2016

- 144 strand fiber from Water plant to MSC (overhead) @\$5,000
- 144 strand fiber (underground) from Water Plant to MSC @\$26,000
- 5.5k 144 strand fiber from Stow Rd to Ravenna @\$17,000
- Total=@\$48,000



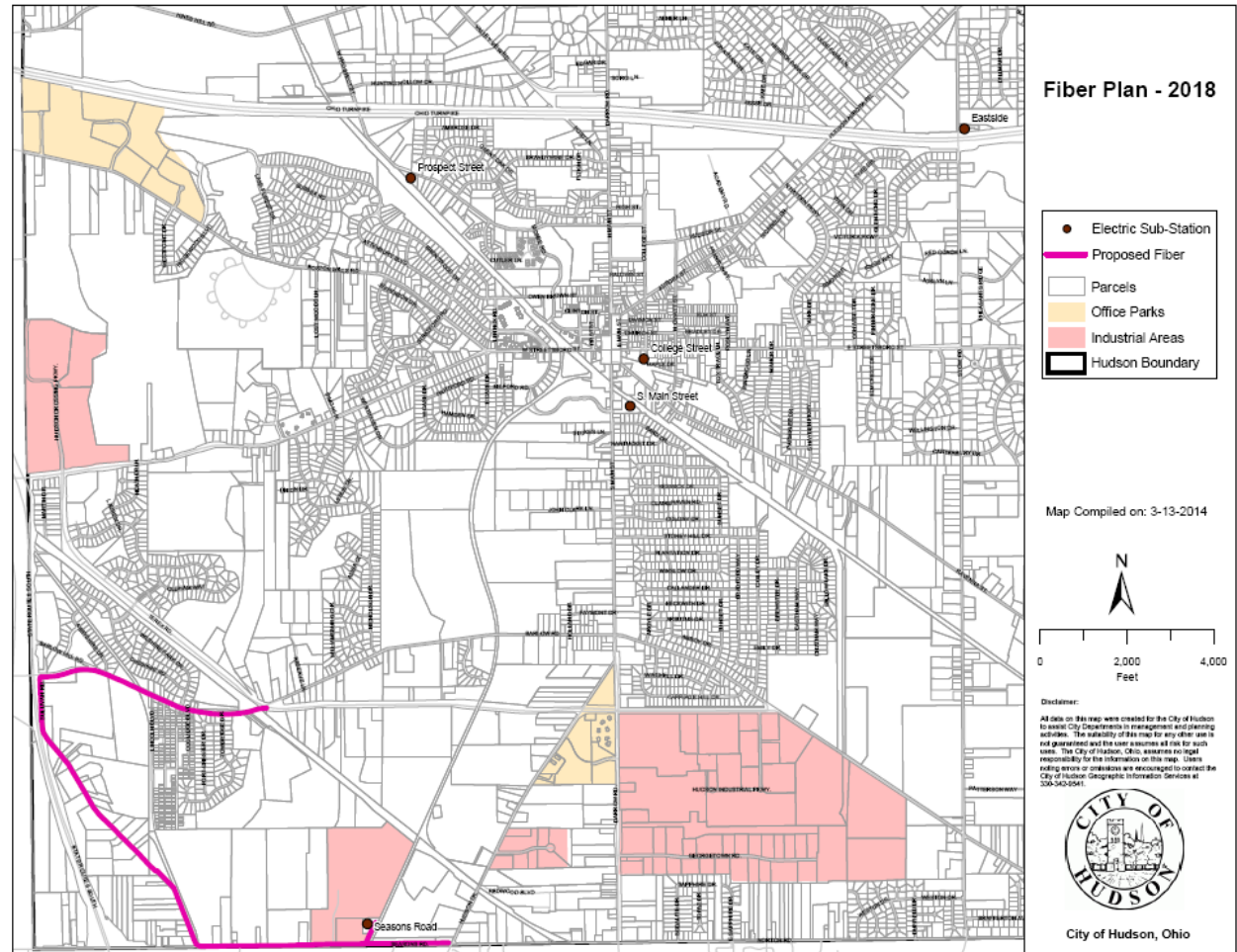
Phase 3 Year 2017

- 144 strand fiber Prospect Hub to YDC aerial @\$31,000
- 144 strand fiber MSC to YDC aerial @\$13,000
- 144 strand fiber (underground) from MSC to YDC @\$9,000
- 144 strand fiber Terex Rd to Water plant @\$12,000
- 144 strand fiber aerial down Terex Rd @\$13,000
- 144 strand fiber for underground Terex run @\$1000
- Total=@\$79,000



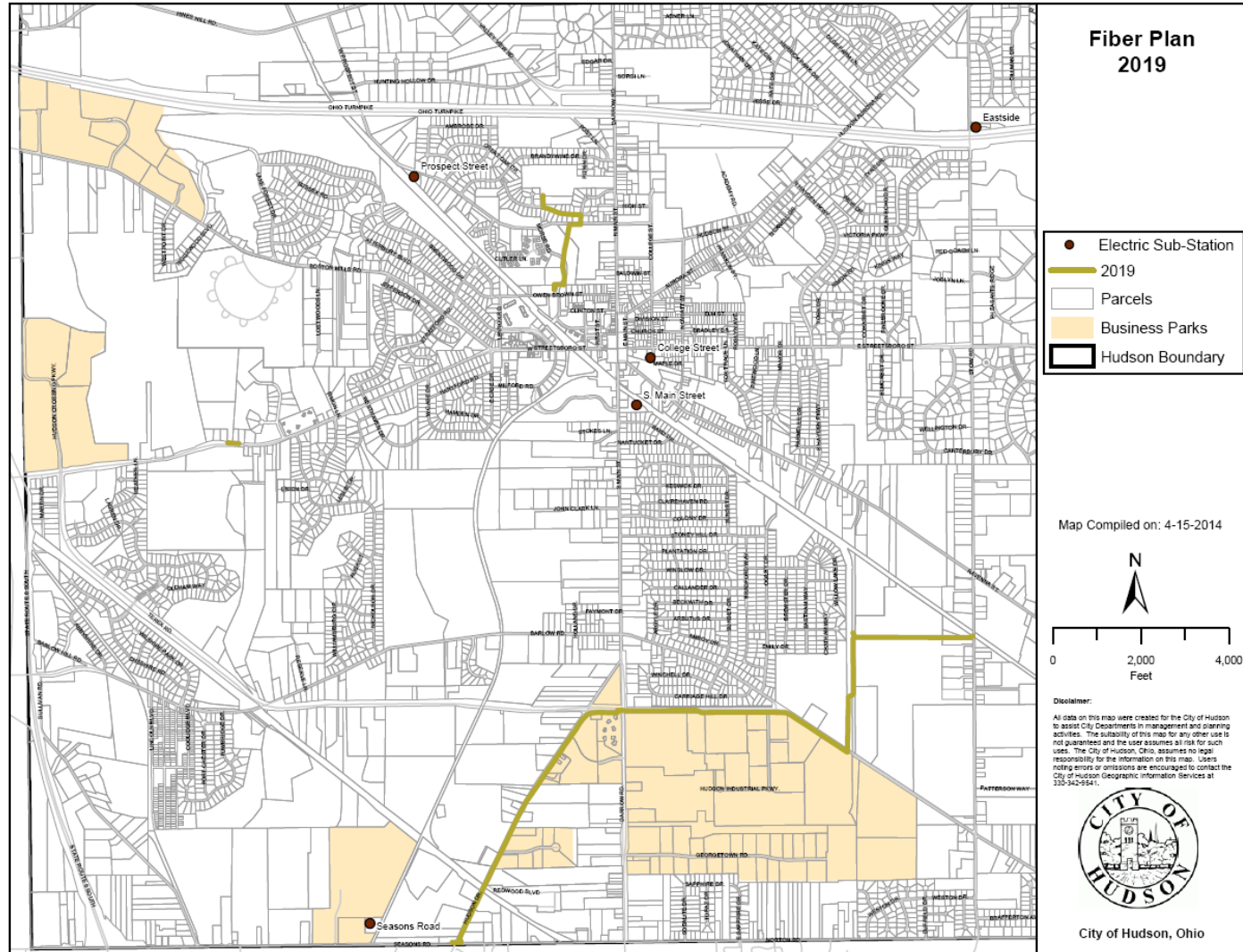
Phase 4 Year 2018

- 17.5k 144 strand fiber from Terex Rd to Seasons Rd @ \$52,000
- Total = @ \$52,000



Phase 5 Year 2019

- 20k 144 strand fiber from Stow Road to Season Rd. @\$50,000
- 3.75k 24 strand fiber burial for Cemeteries @\$11,000
- 375 feet fiber for underground Water to MSC fiber @\$1,000
- Total= @\$62,000

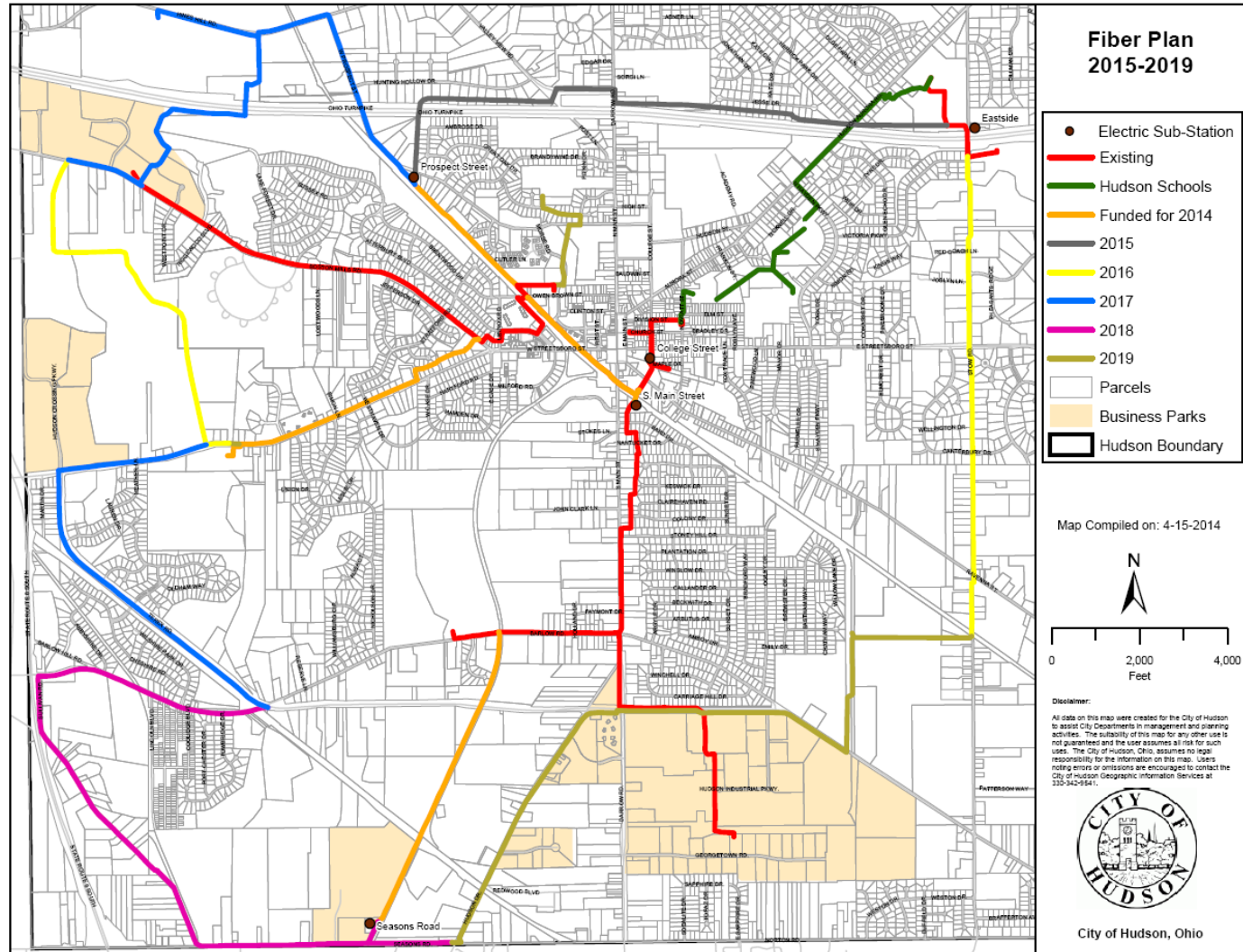


2004-2015 City of Hudson Fiber

Total Costs (2014 Dollars)

- Phase 1=@\$47,000
- Phase 2=@\$48,000
- Phase 3=@\$79,000
- Phase 4=@\$52,000
- Phase 5=@\$62,000

Grand Total for hardware=@\$288,000



The Municipal Broadband Debate: Should Towns Build Fiber Networks?

My primary objective in this assessment was to determine the future needs for the city and its employees. This plan lays out the “foundation” for any future fiber needs, for both the city, its citizens and businesses.

