

TOWN OF PLAINFIELD

Plainfield, Massachusetts 01070

Town Office: 634-5420 • 634-5406 • Fax: 634-5683

www.plainfield-ma.us



March 4, 2019 Information Session Handouts

- Key Players for the Project
- Plainfield Broadband Capital Cost Summary
- Broadband Boosts Property Values
- Plainfield Broadband Residential Service Drop & Installation Policy Overview
- Plainfield Broadband Pricing Policy
- What about Television?

For more information visit www.plainfield-ma.us/broadband

Key Players for the Project

Plainfield Broadband

Plainfield established a Municipal Light Plant (MLP) in 2011 in order to bring high-speed Internet service to all residents and businesses in Plainfield. The Board of Selectmen named the MLP the “Plainfield Light and Telecommunications Department.”

The MLP’s primary goal is to enable broadband access to all Plainfield residences and businesses while sticking as closely as possible to the core values of local control, affordability, ubiquity, and financial sustainability.

The Board of Selectmen has control of the MLP pursuant to MGL Chapter 164, Section 55. The Board of Selectmen appointed Kimberly Longey to serve as manager of the department. Kimberly has the authority to appoint other staff (similar to how our fire department and highway department operate). The current team is:

Kimberly Longey, manager
Brian Hawthorne, assistant manager
Rebecca Coletta
Michal Lumsden
Sally Silberberg

Broadband Finance Working Group

In 2018 a broadband finance working group was established to create a plan for the construction, financing, and operations of the broadband network. The group includes:

Howard Bronstein, Board of Selectmen chair
David Kramer, Finance Committee chair
Lew Robbins, Finance Committee
Kimberly Longey, MLP manager
Brian Hawthorne, MLP assistant manager
Paula King, town accountant
Allan Kidston, town treasurer

Members of the group have met with representatives of the Massachusetts Department of Revenue and the Executive Office of Housing and Community Development and Plainfield’s financial advisors to research financing options. The group has also informed the development of the pricing and drop policies.

Westfield Gas + Electric/Whip City Fiber

Westfield Gas + Electric (WGE) doing business as Whip City Fiber (WCF) is an Internet Service Provider (ISP) based in Westfield, Massachusetts. WGE has been building and

operating commercial networks, Internet service, and dark fiber offerings for more than 15 years, and began offering residential Internet services in 2015. They are currently serving 20,000 customers in Westfield.

WGE has two roles with Plainfield:

1. During the construction of our network WGE is serving as our project manager and provides:
 - Design and engineering of our network
 - Procurement services to comply with public bidding requirements
 - Materials and labor vendor (the hub, fiber optics, and electronics are purchased from and through WGE, as is the drop and customer connections labor)
 - Construction project oversight of White Mountain Cable, the company we have hired to build the distribution network

As municipal light plants, WGE and Plainfield Broadband are working together through intergovernmental agreements. The costs of these services are part of our capital budget.

2. Once the network is built, WGE/WCF will serve as our Internet Service Provider and Network Operator, ensuring professional customer service, maintenance, and repair around the clock, with 365 day oversight of this critical infrastructure. The cost of these services is part of our MLP operating budget.

Plainfield Broadband Capital Project Revenue and Expenses as of 2/23/2019

Expenses by Vendor	Description	Sum of Expenses
Verizon	Make Ready	\$ 206,374
Eversource	Make Ready	\$ 198,082
White Mountain Cable	Network labor	\$ 714,871
WG+E	Professional Services (design, engineering, procurement, owners project management); Construction (network materials, drop labor & materials) and Hub (site work, racks and electronics)	\$ 1,028,287
Other Contractors	Precast concrete structure , Crane, Electric, Propane, other misc.	\$ 93,713
Contingency	Allowance for unforeseen costs during construction	\$ 25,575
Total Expenses		\$ 2,266,902
Expenses by Component	Description	Sum of Expenses
Design and Engineering	Data collection/route validation/pole attachment heights (pole survey); strand maps, fiber and splice design	\$ 91,605
Project Management	Procurement and construction phase oversight of network distribution and drop contractors	\$ 86,952
Make Ready	Fees to Eversource and Verizon (license application, make ready); installation of 7 town-owned poles; pole bonds FY2018, FY 2019, legal fees related to pole attachment agreement negotiation; tree clearing for town owned poles, pole application processing by WG+E	\$ 437,572
Telecommunications Hub	Site work, access road, hub structure, delivery/crane service, generator, a/c, propane, interior racks and electronics	\$ 214,553
Fiber Network	labor and materials to string fiber from hub to "curb" passing every premise	\$ 993,934
Service Drops	Labor and materials to string fiber from MST at "curb" to NID (to outside of premise)	\$ 219,400
Interior Installation	Labor and materials to connect NID to ONT and router (from outside to inside premise), standard installation, nominal interior wiring	\$ 135,983
Total Plainfield Expenses		\$ 2,180,000
Total Plainfield Expenses on behalf of Windsor (to be reimbursed)		\$ 86,901
Total Expenses		\$ 2,266,902
Revenue by Source	Description	Sum of Revenue
2015 Town Borrowing Authorization	May 2015 Annual Town Meeting	\$1,130,000
2017 Last Mile Grant	May 2017 EOHED "Last Mile" Grant Award	\$650,000
Town of Windsor	Reimburse for backbone to help Windsor reach 1/3 of their premises through Intergovernmental Agreement (allocation of make ready 112 pole and network construction in separate jacket)	\$86,901
Total Committed Sources		\$1,866,901
CapEX funding gap	as of 2/23/2019	\$ 400,000

Better Broadband Boosts Home Value: Got Fiber?



The FTTH Council just released a study showing the positive correlation between home prices and fiber-delivered Internet, adding increased property value to the already long list of fiber's benefits.

Access to fiber adds **3.1%** to the value of a home.

The Fiber Effect
Access to fiber in your neighborhood
raises the value of your home by
1.3%



The Speed Effect
Being able to get speeds up to one
gigabit boosts the value another
1.8%

Put another way: that's an additional \$5,437 for the sample median home price or like adding

A full fireplace.



Half of a bathroom.



Or a quarter of a swimming pool!

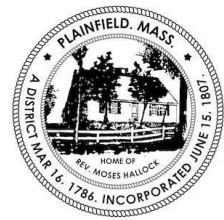


The Gigabit Effect
Homes where one Gbps is
available...



...have a transaction price over
7% more than similar homes
where 25 Mbps or less is
available.

Source:
Molnar, G., Savage, S., & Sicker, D. (2015). Reevaluating the Broadband Bonus: Evidence from Neighborhood Access to Fiber and United States Housing Prices.



Residential Service Drop and Installation Policy Overview (As of March 1, 2019, subject to change)

The Plainfield Light and Telecommunications Department, a Municipal Light Plant and a department of the Town of Plainfield, is constructing a fiber optic network in order to provide Internet and telephone service under the name Plainfield Broadband. In order to maximize the opportunity for townspeople to take service, Plainfield Broadband anticipates offering subsidies for installation costs, including connecting to the exterior of the home and installing wiring and equipment inside the home. See the image on the next page for examples of the equipment. This overview is a summary of the detailed drop policy available on our website.

NOTE: This policy is predicated on the Town of Plainfield securing sufficient local, state and/or federal resources to complete the entire \$2.18M project as designed. As of 3/1/2019 we have a capital gap of approximately \$400,000 related to the distribution network construction (the part passing every premise) which is impacting our ability to implement this drop policy as envisioned by connecting every premise. See our website for more information and important 2019 town meeting dates.

Step 1. Connecting from the distribution network to the exterior of a residence

Plainfield Broadband will subsidize the cost of connecting to the exterior of existing homes for only those homeowners who complete and return a Property Access Form by the following deadlines:

Residence Type	Deadline to respond	Maximum amount of subsidy
Homes that have poles on private property that are more than 180' apart require construction of a network extension. MLP will contact homeowners by certified mail by 2/15/2019.	4/15/2019	Cost of network extension plus up to \$2500 for exterior work.
All other homes	6/30/2019	\$2500

This subsidy will cover the connection costs for all but a few homes in Plainfield; the total exterior cost for most homes will be less than \$300, which includes the installation of a cable from the curb to the home and a network interface device (NID) on the outside of the home (usually near the electric meter). This exterior cable and equipment is referred to as a "service drop." The maximum subsidy for service drops is limited to \$2500 per tax parcel, even if more than one premise (e.g., a home and an accessory apartment) is located on a single tax parcel. The amount of the subsidy will be further limited to the cost of the most expedient way of connecting the home to the network. If the homeowner requests a more expensive method or path, the homeowner will have to pay for any additional costs.

Step 2. Installation of interior wiring and equipment

Plainfield Broadband will also pay the first \$375 of interior installation work for each occupied residential *premise* for customers who sign up for Internet service by **6/30/2019**. A signup feature will be available on the Plainfield Broadband website by 3/30/2019. This installation includes an optical network terminal, or ONT (usually in the basement), a jumper from the exterior NID to the ONT, interior wiring from the ONT to a wall jack

(usually centrally located on the first floor), and a WiFi router plugged into the wall jack. The ONT and the router need to be in a location with an AC outlet nearby. If the customer requires or requests more complicated interior installation work (e.g., running cable for a router on the second floor), the customer will have to pay for any additional costs.



Images showing samples of equipment. The exterior Network Interface Device on the left is 8.6" wide by 7.3" tall. The Optical Network Terminal in the bottom right is about 3" wide by 6" tall, and is usually wall-mounted in a basement location. The WiFi router in the top right is about 8" wide by 7" tall, and is usually located in the center of the first floor to provide the best WiFi signal throughout the home.



Pricing Policy (As of March 1, 2019, subject to change)

Plainfield Broadband's policy for setting service prices relies on several key goals:

1. Set prices to cover the operational costs of providing service, no more and no less.
2. Avoid frequent changes in prices, especially increases.
3. Avoid additional hidden fees. Keep pricing as simple and straightforward as possible.

Plainfield Broadband is partnering with Whip City Fiber to provide Internet and telephone service over the fiber-optic network that will be under construction soon. Broadband connections are expected to be available in 2019.

For residents who sign up for service before June 30, 2019, most installations will be at no upfront cost to the property owner. *NOTE: This policy is predicated on the Town of Plainfield securing sufficient local, state and/or federal resources to complete the entire \$2.18M project as designed. As of 3/1/2019 we have a capital gap of approximately \$400,000 related to the distribution network construction (the part passing every premise) which is impacting our ability to implement this drop policy as envisioned by connecting every premise. See our website for more information and important 2019 town meeting dates.*

Pre-subscriptions will be starting soon. Be sure to [sign up for our e-mail](#) list so you will be the first to be notified.

How much will residential service cost?

Residential broadband service will be available for \$85/month, which includes Wi-Fi and provides speeds up to one gigabit per second (about 200-500 times faster than DSL) and may be also be suitable for some home-based businesses, consistent with our terms of use ([stay tuned](#) for details). [Premier Phone Service](#) will be available for \$13/month, plus the minimum required federal and state government fees and taxes. It includes unlimited local and long-distance calling, including to Mexico and Canada, and offers great international rates. You can keep your current phone number, and it includes call waiting, caller ID, call blocking, and voicemail.

How much will service cost for businesses?

Please contact Plainfield Broadband for information about enterprise-level broadband services. Costs are dependent on number of users, the service level agreement needs of the business and other factors. [More information will be coming soon.](#)

I'm not a year round resident in Plainfield. Is there a seasonal service plan?

Plainfield Broadband must pay to maintain our network all year round, and it is not cost-effective for us to offer seasonal service.

Is there an activation fee or a deposit required to sign up?

There is no activation fee and no deposit required. We are a town-run enterprise, not a big satellite or cable company. We trust you.

Is a long term service contract required or a cancellation fee?

No contract is required for service. If you cancel your service, your account will be charged for the cost of your WiFi router until it is returned. Once it is returned, the account will be credited.

How will I be billed?

Whip City Fiber will issue electronic invoices to the email address you provide. You must provide an email address to sign up for service. There is no option for paper bills. This is to ensure costs of operating our network are as low as possible (plus it saves trees!).

Bills are due upon receipt. There is a 10-day grace period, after which time your account will be deemed in default, service will be terminated, and a reconnection fee may be charged.

How do I pay my bill?

You must pay your bill electronically to our internet service provider - Whip City Fiber. Payment can be made either through electronic fund transfer from your bank account (the .8% processing fees is included in your monthly internet price) or you may pay by credit card (credit card payments incur an additional 3% processing fee, which will be added on top of the monthly internet price).

We encourage you to use automatic payments from your bank account. This saves you and the town money and ensures you don't miss a payment which could result in service disconnection. You will have the option to pre-pay your account if you so choose.

Payment by cash or check is not an option due to the costs involved. We hope you are already accustomed to automatic bill paying for other household expenses.

What about television? Do I need to keep my DirectTV or other provider?

No! Look soon for more information on how to "Ditch the Dish" (that's the hilltown equivalent of "Cut the Cord"). All the television you watch today is available as broadband streaming services, and many people end up spending less money each month when they pay for just what they want. We will have workshops on everything you need to know to get started.

I have Verizon now, what do I need to do?

If you are a current Verizon Digital Subscriber Line (DSL) please DO NOT cancel your service until your connection to Plainfield broadband is confirmed. You risk losing your existing internet connection if you cancel your account. Also, if you are planning on "porting" your existing telephone number to the new premier telephone service, you will need to keep your Verizon service until Verizon completes that process (as long as 3-4 weeks after requested). If you cancel your Verizon service early, you run the risk of losing your telephone number.

What about Television?

Ditch the Dish!

You can watch the all shows and sports you want using high-speed Internet without a satellite dish, and you may save money over what you are paying now. Plainfield Broadband will make amazing TV possible, but we're not selling subscriptions to it. You will subscribe directly with TV providers.

Most people in Plainfield today use one of two methods to watch television:

Free over-the-air (OTA) television using an antenna. A great deal and a good way to get local TV programming. Many folks in the higher elevations in town have good reception of stations from Springfield, Hartford, and Albany; locations in the river valleys may have poor reception. You can find out what you might be able to receive and which direction to point your antenna from your exact location with the mapping tools at www.fcc.gov/media/engineering/dvtmaps or www.antennaweb.org/ Address.

Subscription satellite television using a dish and satellite box or smart TV. Although you can keep your satellite subscription if you wish, with our high-speed Internet connection, you can **ditch the dish** and still access all of the shows, sports, and movies that you want, often at significant cost savings. To do this, you need two things:

- *streaming device* to replace your satellite box
- *streaming service* to replace satellite subscription

Step 1. Streaming Devices

If you already have a "smart TV" or a game console that supports streaming TV, you may be all set. If you have an older TV, you will need to buy an inexpensive streaming TV device such as a Roku, Apple TV, or Amazon Fire. Your smart TV or streaming device connects via WiFi to your new broadband Internet connection, replacing your satellite box and satellite dish. Streaming devices give you access to dozens of streaming services or channels; some are free and some require monthly subscriptions. These devices also support pay-per-view services on many of these channels for watching the latest movies or shows.

Step 2. Streaming Services

Just as you may now subscribe to a satellite TV service, you will need to choose one or more streaming services to get access to the channels, shows, and sports you want to watch. There are many options, but there are a few basic types of streaming services. You can subscribe to all of them, none of them, or any combination:

Live TV streaming services. Shows are streaming all the time, and you can check the schedule to see what is on when. These are the most similar to satellite TV subscriptions. In fact, you can even purchase one of several streaming packages from DirectTV that are very similar to what they offer over their satellites.

On-demand streaming services. You decide what to watch and when. These services usually offer a combination of original content and a catalog of movies and shows from other networks. Netflix, Hulu, and Amazon Prime Video are the big three right now, but there are dozens of others, many of them free.

Premium channels. Services like HBO and Showtime are available as well. You can either subscribe directly or add them to many of the Live TV or On-demand streaming services.

(over)

Wow, that's confusing!

Here are a few examples of what you might want. These are just examples, and for any of them there are different devices you can choose and many other TV services you can add.

"I don't watch much TV, I just want to get the local news."

A \$25 DTV antenna may be all you need, assuming you live in a place with good reception. You may already have this, in which case you don't need to change a thing.

Monthly TV cost = \$0

"All I care about is Game of Thrones and True Detective, and I have an ancient TV with no HDMI."

\$35 Roku Express+ streaming device
\$14.99/month HBO NOW subscription

Monthly TV cost = \$14.99

"I want to watch some of those new on-demand shows and a few movies. My TV is pretty new, but not a Smart TV."

\$40 Amazon Fire TV Stick streaming device
\$8.99/month Netflix
\$5.99/month Hulu
\$12.99/month Amazon Prime Video

Monthly TV cost = \$27.97

"I hate advertisements and don't care about live TV. I want 4K Ultra HD for my new 55-inch Smart TV. What can I get that has no ads?"

\$8.99/month Netflix
\$11.99/month Hulu Ad Free
\$12.99/month Amazon Prime Video
\$11.99/month YouTube Premium

Monthly TV cost = \$45.56

"I am all about the sports. I want them all. Also, I love live TV. And I like to record stuff to watch it later."

\$120 Amazon Fire TV Cube DVR streaming device
\$49.99/month Playstation Vue Core gives you ESPN, NFL Network, NBA TV, MLB Network, and 90+ other channels from BBC America to Food Network to USA
\$10/month Playstation Vue Sports Pack adds NFL Red Zone and 11 more sports channels

Monthly TV cost = \$59.99

Netflix: *ad-free original content and other TV shows and movies*

Hulu: *original content and other TV shows and movies*

Hulu Ad-free: *ad-free original content and other TV shows and movies*

Amazon Prime Video: *ad-free original content and other TV shows and movie, plus free Prime shipping on orders from Amazon*

YouTube Premium: *ad-free movies and music*