



Google Fiber | Rollingwood, TX

Sasha Petrovic, GM - Southwest Region

What is Google Fiber?

Google Fiber (GFiber) is an Alphabet company that brings fast, reliable, fairly priced internet to homes and businesses across the United States.



We believe in going beyond.

Going beyond Expectations

Our mission is to deliver fast, reliable, fairly-priced and open internet service – using the best technologies, methods and people to accomplish that.

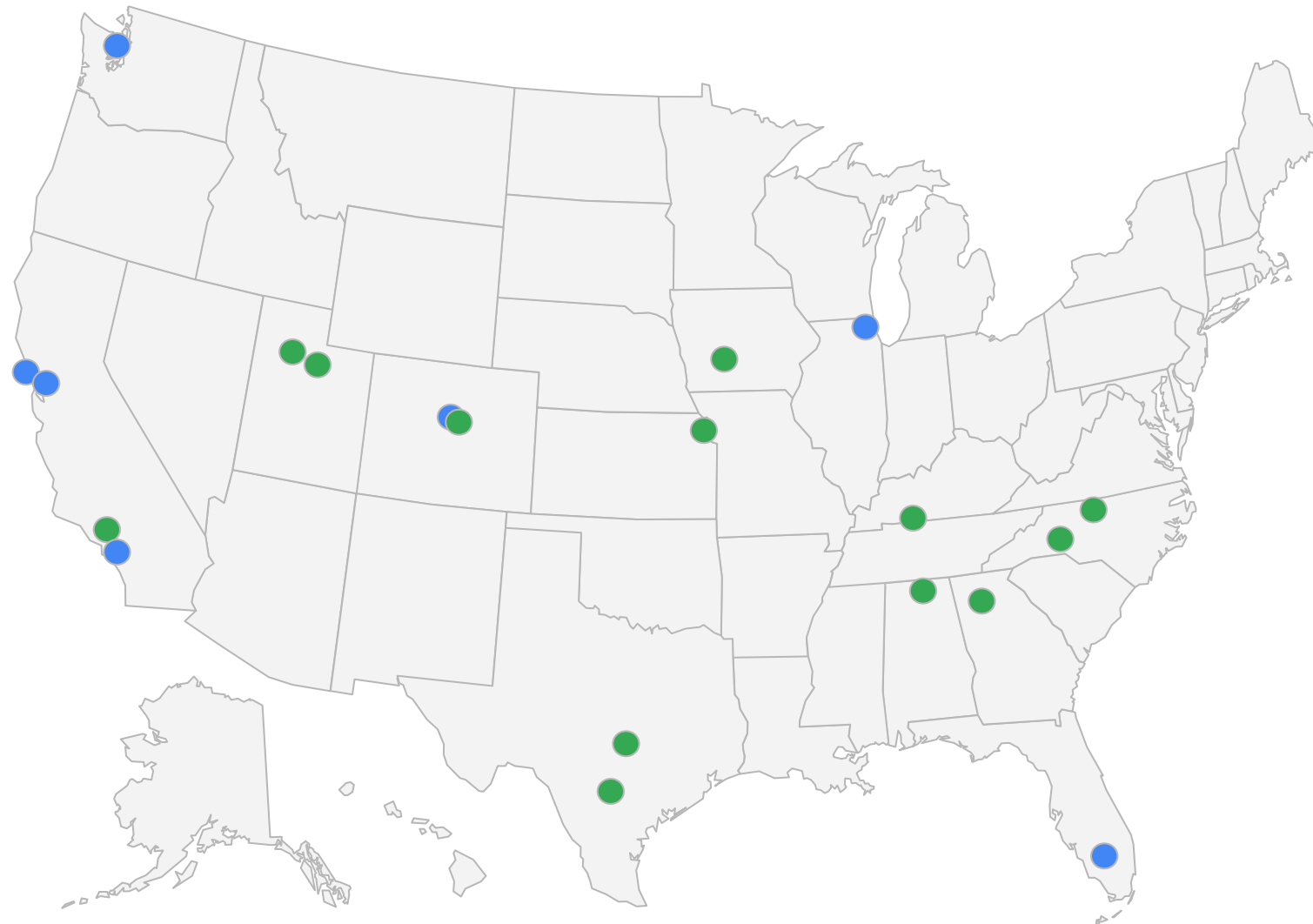
Going beyond the Basics

Internet truly matters to people, and their experiences with internet truly matters to us. So we set the bar high for every aspect along the way - customer service, pricing, transparency, reliability, speed and innovation at every turn.

Going Above and Beyond

There's always room to make things even better. So we're expanding the places we deliver internet, investing in new technology and always looking for ways to do things better that make a difference for our customers, for our teams and in our communities.

You can find us here.



● Google Fiber metro ● Webpass metro

Google Fiber

Atlanta, GA
Greater Austin, TX
Charlotte, NC
Huntsville, AL
Kansas City, KS/MO
Lakewood, CO
Nashville, TN
Orange County, CA
Great Phoenix, AZ
Provo, UT
Salt Lake Valley, UT
San Antonio, TX
The Triangle, NC
West Des Moines, IA
Westminster, CO

Webpass

Chicago, IL
Denver, CO
Miami, FL
Oakland, CA
San Diego, CA
San Francisco, CA
Seattle, WA

Zoom into 78746

Signed West Lake Hills ROW

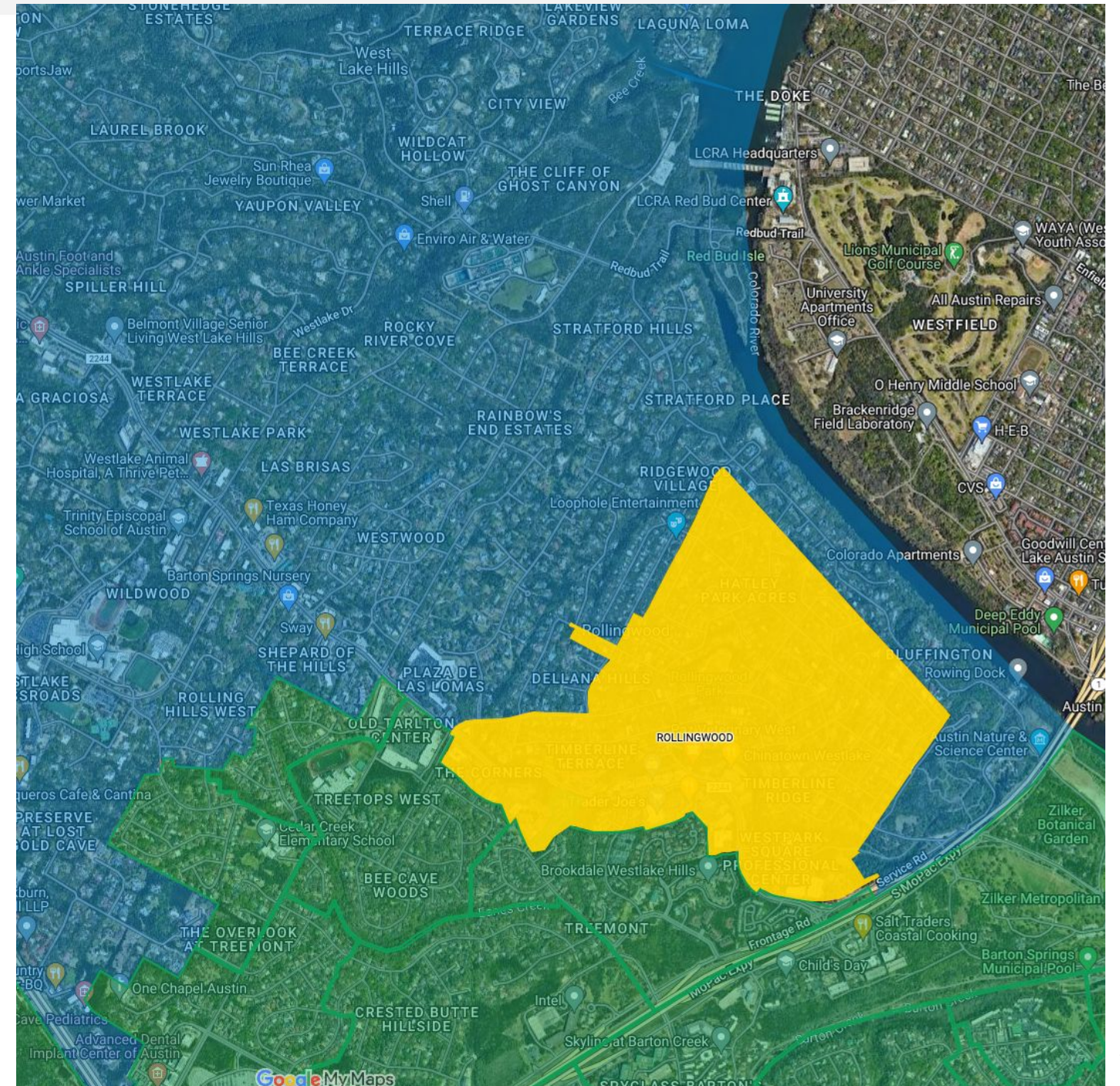
On March 8th 2023, Mayor Linda Anthony signed a Non-Exclusive Public ROW License Agreement with Google Fiber with unanimous City Council approval.

Filling in 78746

We're looking to fill in areas in and around West Lake Hills as part of this expansion build. This primarily includes areas of unincorporated Travis County.

Lack of competition

There are areas that have only 1 internet provider, leaving residents without choice.



What we offer.

Residential

1 Gig **\$70/mo**

- Up to 1 gig downloads and uploads
- Mesh Wi-Fi network included
- 1 TB of free cloud storage

2 Gig **\$100/mo**

- Download speeds of up to 2 gigabits
- Uploads up to 1 gigabit
- Wi-Fi 6 mesh network included

5 Gig **\$125/mo**

- Up to 5 gig download and uploads
- Wi-Fi 6 mesh network included

Commercial

1 Gig **\$100/mo**

- Up to 1 gig downloads and uploads
- Wi-Fi 6 router
- 99.99% uptime¹

2 Gig **\$250/mo**

- Downloads of up to 2 gigs/uploads up to 1 gig
- WiFi 6 router mesh Wi-Fi extenders
- 99.9% Service Level Guarantee²

All of our plans include:

- Mesh Wi-Fi network capability
- No data caps or annual contracts
- Free Professional Installation/No installation fees
- 24/7 customer support

¹99.99% reliable connection based on 2021 and 2022 average annual uptime reliability excluding commercial power outages and planned maintenance

²Terms and exclusions apply. See Service Level Agreement for details.

Recognized as an industry leader.



Customer Satisfaction

Reader's Choice Award;
Favorite ISP



Customer Service

#1 ISP in the American
Consumer Satisfaction Index



Speed

Fastest internet provider in the
country

But don't take our word for it.

“I have loved having you guys for the last couple of months, I can't find anyone else who can deliver this speed and consistency.”

Denz, MO

“Hey @googlefiber, you're the greatest ISP I've ever had.”

Pilioka, KC

“Thanks @googlefiber that's the best customer service I've ever had. Fixing a problem that wasn't your fault hours after I call. Love this service.”

Michael J., NC

Supported locally by a team of industry experts.

Proven

+30M feet of fiber built and maintained in Texas

Competent

Senior Leadership has over 45 years of combined industry expertise

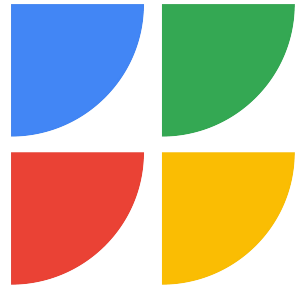
Trusted

Operating in over 10 municipalities including Austin, San Antonio, Round Rock, Travis County, etc

Devoted

Entire team is based in the greater Central Texas region. Living, working and contributing to the communities we serve





Rollingwood, TX - Google Fiber Journey



ROW License / Deployment Method

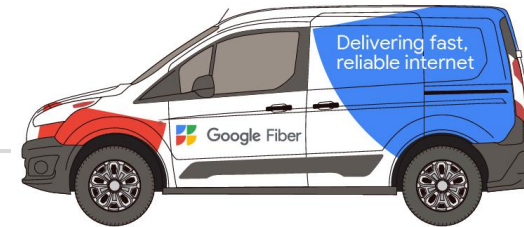
Align on ROW license terms and deployment methods



Design / Permit / Network Construction

Coordination with city/county
Fiber Design
Permitting
Community Communication
Fiber Network Construction
Multi-dwelling Construction
Restoration

Targeting primarily underground construction for Rollingwood



Customer Fulfillment

Sales
Service Drop (private property)
In-Home Installation



**Know what's below.
Call before you dig.**

Network Maintenance, Repair, Relocations

Proactive Maintenance
Reactive Maintenance / Repair
Utility, Infrastructure Project
Coordination
Relocation

Proactive relocations to avoid future infrastructure conflicts

Close coordination with the city starts HERE!



and CONTINUES!



**Our process
is different.**

Design

Goal: Build the widest possible footprint to serve the greatest number of customers.

Impact: Deployment along a significant portion of ROW.

Communicate

Goal: Ensure that the community is familiar with the deployment and knows how to contact us.

Impact: No surprises and any issues are resolved quickly.

Construction

Goal: Utilize a proven toolkit that maximizes speed, minimizes disruption and is restored properly.

Impact: Reduced impact to ROW and roads, while increasing safety, lowering risk exposure and community disruption.

How we design/build our networks.

Equipment Shelter

- Serves 40-60k Homes
- Placed on Leased or purchased land

Backbone Routes

- Connects shelters
- Lease fiber where possible

Trunk Routes

- Shallow trenching
- Horizontal Directional Drill
- Aerial

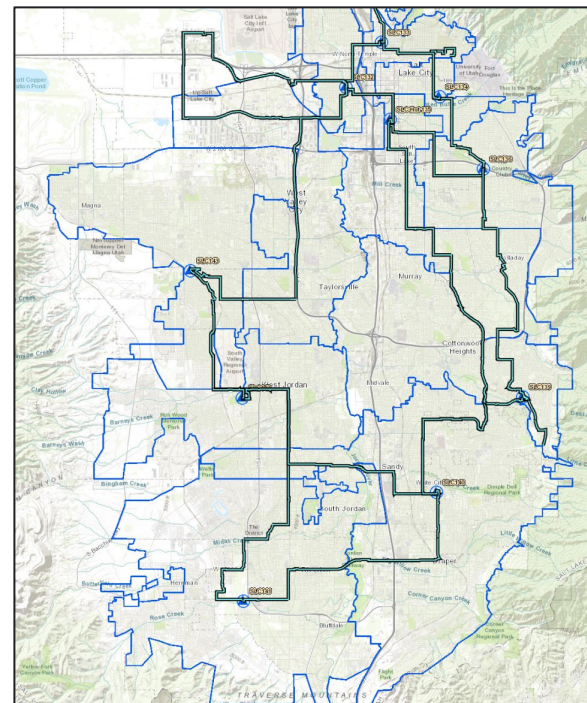
Distribution Routes

- Shallow trenching
- Horizontal Directional Drill
- Aerial

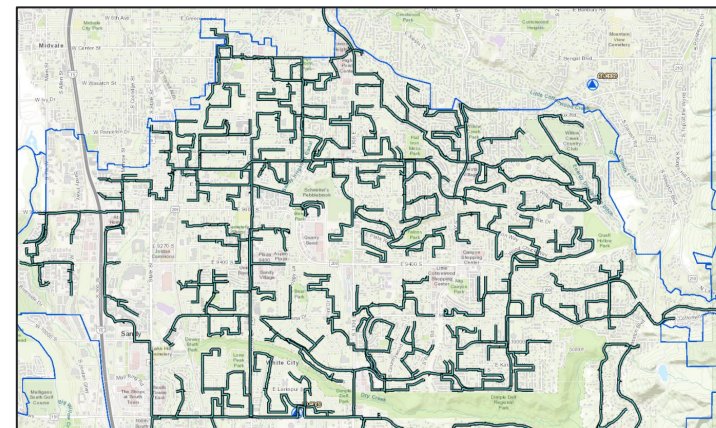
HUT Location



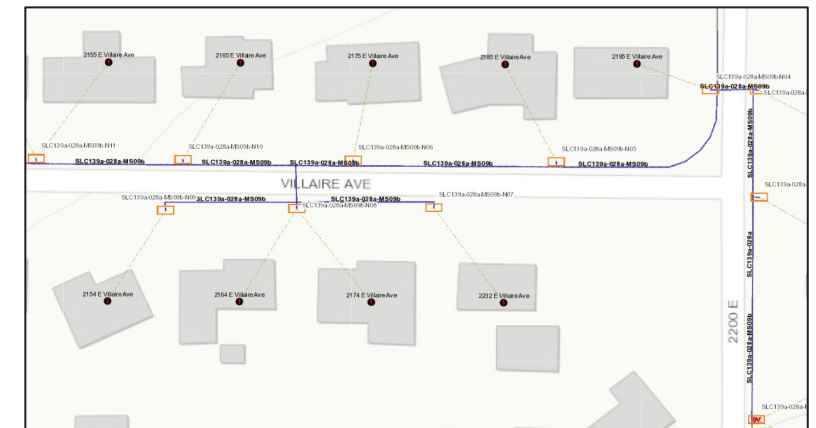
Backbone Routes



Trunk Routes



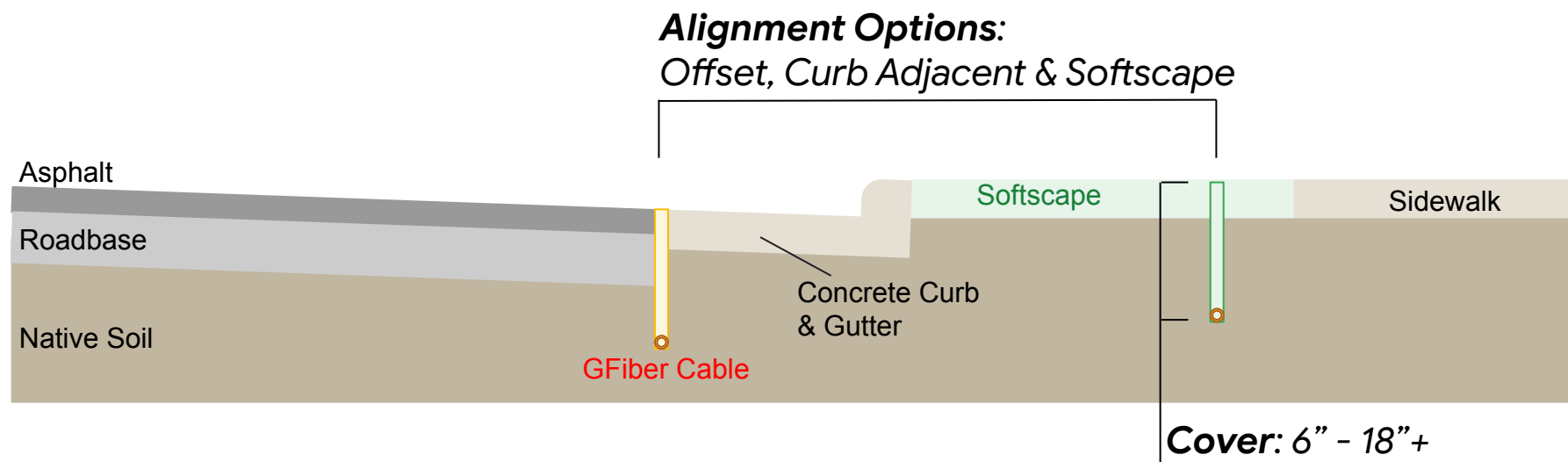
Distribution Routes



Shallow Trench Method - General Approach

Description: Shallow trenching is an outside plant (OSP) underground fiber plant construction methodology that consists of placing cables or duct directly into a narrow and shallow trench in either hardscape (e.g., in the asphalt roadway) or softscape.

Deployment “Toolkit” Variables: While we consider many variables in each application of our Shallow Trench deployments, the most important considerations are **Alignment** and **Cover**.



Deployment Principles

Lifetime
Survivability
Constructability
Repairability

Benefits of shallow trenching

Reduced impact to ROW and roads

- Elimination of bore pits and reduced open excavation
- Smaller roadway intrusion for potholing
- Faster restorations in ROW and roadways
- Decreased footprint in yards and softscape

Avoids existing facilities (reduced utility strikes)

- Reduced depth virtually eliminates utility strikes
- Repair of any damaged utilities less impactful due to shallow nature

Increased safety and reduced risk exposure

- Reduced crew size in work zones
- Reduced duration in worksite

Reduced community disruption

- Faster speed through neighborhoods
- Minimal traffic impacts



Shallow trench method - Sealant & waterproofing

When we apply sealant:

- To ensure **Lifetime & Survivability** Principles, we waterproof trenches when:
 - The trench has created a **new joint** in the roadway (e.g. offset from curb-line)
 - Needed to prevent water penetration and potential formation of potholes
- Restoration approach is a large cost driver for Shallow Trenching

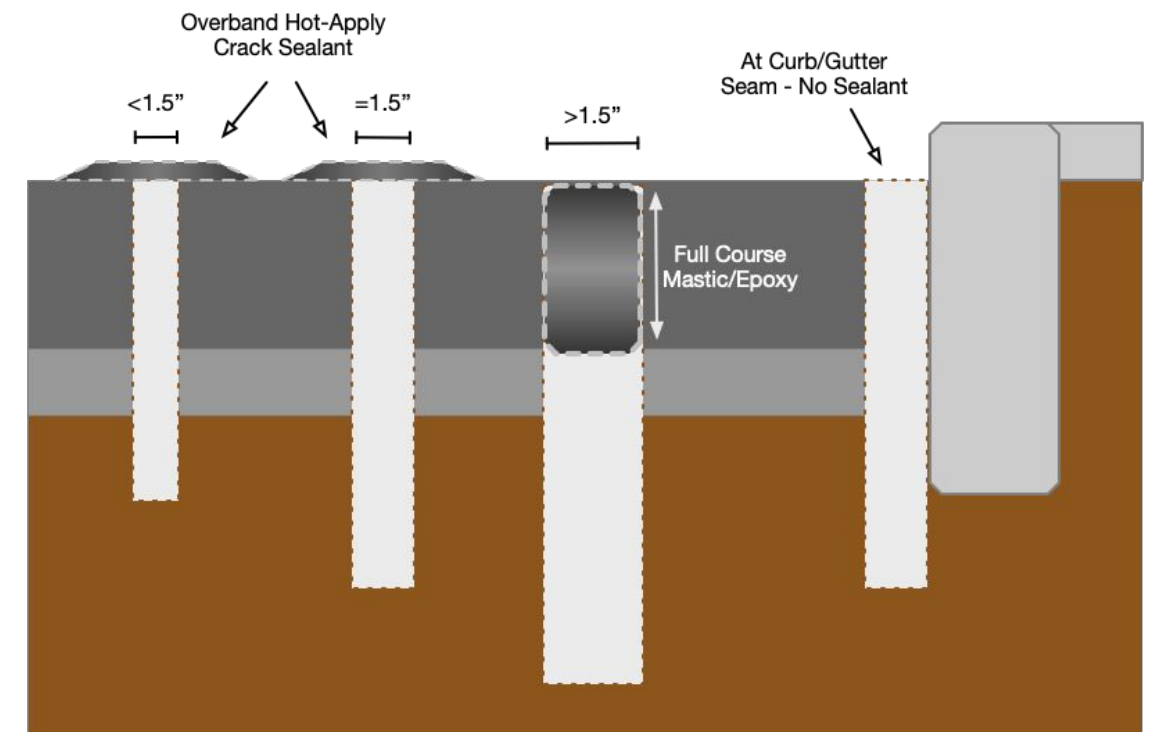
What we do: Two elements determine if / what we do:

1. Location:

- If in an asphalt/asphalt running line - **must be sealed & waterproof**
- If at existing joint between curb/gutter & roadway, **sealing is optional**

2. Trench Width:

- **Width ≤ 1.5 "** - treated like a "crack" with an **overband** of crack sealant material
 - Meets ASTM D6690 Type II for 50% extension
- **Width > 1.5 "** - treated like a small trench with a "**full course sealant**" application of a mastic or epoxy material



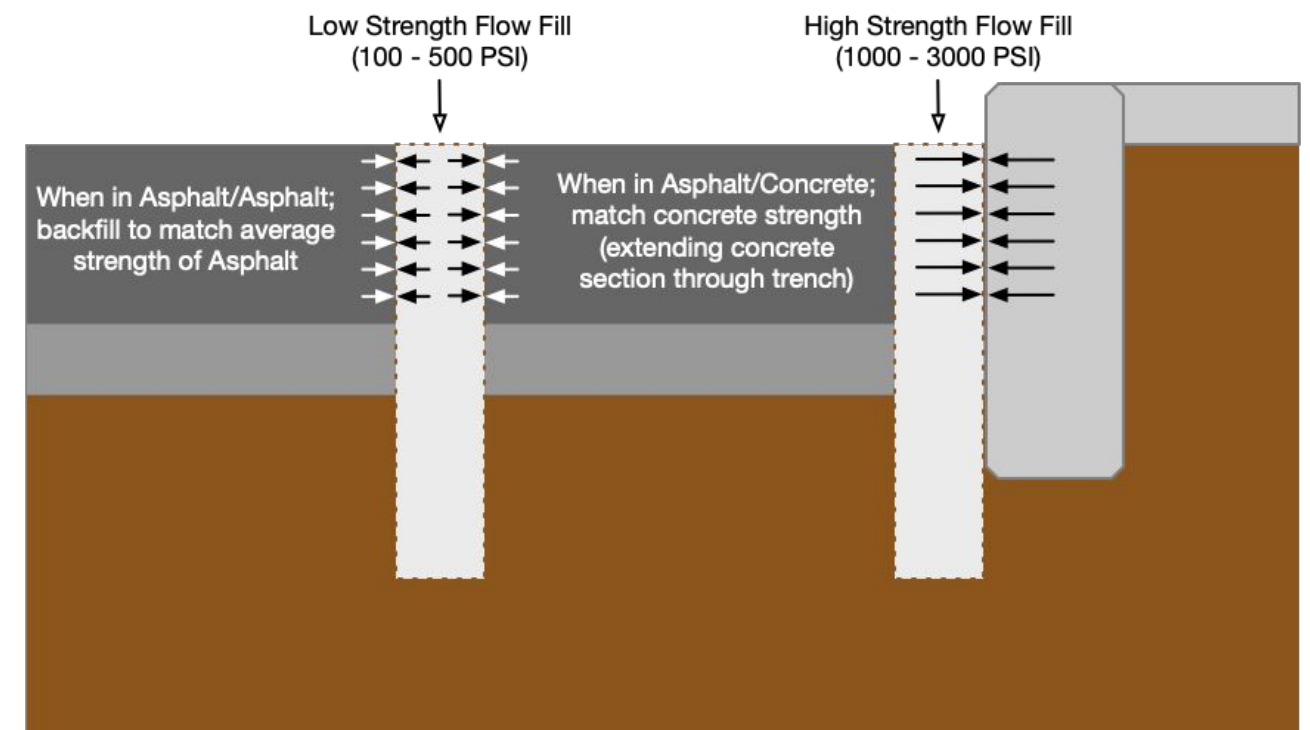
Shallow trench method - Backfill

Backfill Philosophy:

- We want to mimic the material characteristics of adjacent elements as much as possible; discontinuity in material properties causes the stiffer element to fail;
- **Low Strength Flow Fill: 350-1000 PSI**
 - Higher PSI than typical city-spec for Flow Fill; normally designed for large utility trenches
 - Harder to set-up in narrow trench; heat loss to surface area is much higher than typical
- **High Strength Flow Fill: 1000-3000 PSI**
 - Mimic typical curb/gutter concrete mix strength

What we do:

- Determined by the strongest adjacent element
- **Curb/Gutter Adjacent:**
 - Use of High Strength Flow Fill to mimic the curb/gutter;
 - Acts as an extension to the curb/gutter
- **Asphalt-Only Running Line**
 - Use of Low Strength Flow Fill to match average asphalt strength (varies with temperature).



FAQ

Frequently Asked Questions:

- Q: What is the cost to the city?
 - There is no cost to the city. Each city has their internal process to support permitting and inspection; that might have additional costs associated with a fiber deployment.
- Q: How do you solve for infrastructure project conflicts (i.e. wet utility work, road and sidewalk work)?
 - In the engineering phase we work with the city to understand the planned projects, design the network to minimize conflict and then have a full team dedicated to relocation work for any future work unforeseen during the initial construction phase.
- Q: Who pays to relocate your fiber?
 - GFiber pays for any for city related relocation projects (e.g. capital improvements, road, sidewalk, wet utilities)
- Q: How do you notify the public?
 - We work with the city to find the right communication strategy. This often includes, at minimum, signage, door hangers, an 800 number for residents to call with questions.
- Q: Does the agreement give open access to the ROW to GFiber?
 - No, we design and submit detailed permit drawings for review and approval before any construction commences.
- Q: What about the impact to the roadway, curbs, sidewalks etc?
 - We have worked to develop our deployment methods and material to minimize impact to the roadway. However, our license agreement includes a commitment to restore any damage that may have resulted from our deployment.
- Q: How is the city compensated for the access to the ROW?
 - Terms are outlined in the ROW license agreement and include a fee as a percentage of customer revenue.
- Q: What deployment method will be used?
 - We use a toolkit of construction methods that are designed to maximize the number of homes/businesses that we can reach and serve. The construction tool kit is comprehensive and includes shallow trenching, softscape, horizontal directional drilling and aerial.
- Q: How long will this project take?
 - There are a number of different factors that can influence the pace. Historically, we have constructed between 10k and 40k households per year.
- Q: What about landscaping, irrigation lines?
 - We are committed and bound by the license agreement to restore and repair anything impacted during construction. Fortunately, our deployment toolkit is generally less intrusive than typical construction methods.
- Q: What is the long term impact to our roadway, curbs and sidewalks?
 - We have worked hard over the last 10+ years to find the right formula that allows us to deploy the network quickly, cost effectively and with minimal short term and long term impact to the community infrastructure.
- Q: Do you have contacts in other cities that we can talk to in order to hear how your deployment has gone in their city?
 - Yes, we can provide some references in existing markets.

Thank you.

