

Below are links to information about microtrenching and a couple pictures.

[http://www.intelcomservices.com/products/fibre\\_optic/microtrenching.htm](http://www.intelcomservices.com/products/fibre_optic/microtrenching.htm)

[http://www.teraspan.com/system/files/u11/Australia\\_Cover\\_Story.pdf](http://www.teraspan.com/system/files/u11/Australia_Cover_Story.pdf)

[http://www.teraspan.com/system/files/u6/YDig\\_TeraSpan.pdf](http://www.teraspan.com/system/files/u6/YDig_TeraSpan.pdf)

**Traditional Fibre laying technique:**

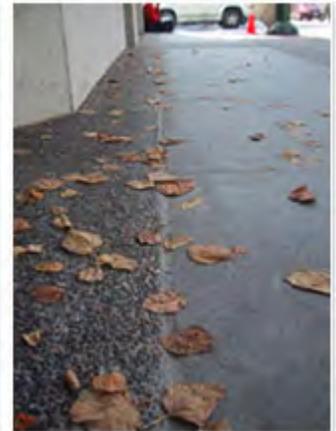


**TeraSpan Microtrenching technique:**

During installation



After installation



<http://fiberinfrastructure.blogspot.com/2006/08/microtrenching-continued.html>

Talked with [Teraspan](#) of Vancouver about their product for microtrenching to lay optical fiber. Some takeaways:

- Cost is claimed to be approx US\$100/meter, including materials, in city settings, such as LA or San Francisco
- Their installation arm is called HP.
- Their cable reels are 4.2km.
- In terms of installation speed, 100 meters in downtown SF could be done in a day.
- They install 6 inches down in hard surfaces. Deeper in soft surfaces.

<http://www.bizjournals.com/sanantonio/stories/2003/03/31/focus5.html>

Laying cable under a city street through traditional means requires trenches that may be several feet wide and deep, often creating traffic detours for days, if not weeks, at a time. The cost of conventional digging methods can range from \$75 to more than \$100 per foot.

Micro trenching technology, however, involves the creation of a shallow trench in the sidewalk or street asphalt, which is typically one-quarter of an inch wide and two to

six inches deep. The layer of road base is not even touched. Using this method, a crew can lay as much as a thousand feet of fiber per day.

[http://www.ccvillage.org/UserFiles/File/October9\\_2006\\_Final\(1\).pdf](http://www.ccvillage.org/UserFiles/File/October9_2006_Final(1).pdf) (from p 6)

#### Presentation by RCN: Micro-Trenching

Mr. Biddle introduced Stephen Mascaro and Tony Anderson of RCN who described the process of micro-trenching. A synopsis of their description of the process follows:

- Micro-trenching is a new technology that allows utility companies to take fiber optic cables to the individual neighborhoods by using fiber optic cables that are placed underground within the roadbed.
- This technology minimizes disrupting sidewalks, driveways and street trees.
- Micro-trenching is performed using a saw that looks like a large circular saw which can make a trench into either concrete or asphalt.
- A five-inch (5") deep incision is cut into the surface of the roadway, approximately twelve inches (12") off the curb and gutter. Crews are able to trench one block per day, approximately 500 to 1000 linear feet per day, laying the fiber optic cable inside the trench as they go along.
- At-grade access vaults are proposed for placement in the public rights-of-way on the house side of the sidewalk. As residents order services, the connections are made from these vaults to the respective houses. The vaults range in size from 24" x 18", 24" x 24" or 24" x 38" and have a green plastic top. Each vault would be able to serve several homes.
- Trenching, cable installation and roadway repair all occur in the same day.
- Micro-trenching is the least obtrusive method currently used.

Other microtrenching pictures:













