CROWN CASTLE

# An innovative installation process for a city on the cutting edge.

From Hollywood productions, to Silicon Beach tech, to large sports franchises and venues, Los Angeles has a wide variety of businesses it must empower, retain and attract. And as the second largest city in the country, LA has millions of citizens that need to always stay connected, especially as more and more people work from home. A robust fiber and small cell network is crucial to bringing better coverage and capacity to the communities of LA and enabling cutting edge technologies like 5G and smart communities. By working closely with city officials, we developed a flexible approach to finding a sustainable, cost-effective and fast way to provide the connectivity Los Angeles needs.

**Name**
## City of Los Angeles

**Size**
## 24 route miles of fiber

**Solution**
## Microtrenching

### The Need

The City of Los Angeles knew it had to improve its communications infrastructure to be ready for the future—especially in preparation for events such as the 2028 Olympics and the completion of the Rams SoFi Stadium. City officials also needed to change the way they approached construction to mitigate further damage to road conditions, in accordance with a new ordinance. This made it more difficult and costly for Crown Castle, wireless carriers, internet providers, construction companies and even municipal utilities to build in the right of way. It also halted work across every industry and prevented us from laying the hundreds of miles of fiber necessary to meet the Mayor's goals to increase connectivity and be a leader in 5G. Under the new regulations, companies and municipal utilities needed a way to deploy infrastructure and cost effectively manage construction. And since LA is a major municipality, there were a number of stakeholders who needed to be consulted along the way. Most importantly, any deployment had to maintain business continuity and minimize disruption to the everyday lives of residents.

> " This public private partnership has been a win-win for the City of Los Angeles. Using creativity, technology and innovation to tackle this infrastructure challenge will result in long-term benefits for all Angelenos.

**KEVIN J.**
President of the Board of Public Works, City of Los Angeles

## The Solution

By collaborating with city officials to best understand the municipality's needs, we landed on microtrenching as an efficient solution for strengthening the fiber footprint in Los Angeles and providing better wireless coverage through fiber-fed small cells. We then conducted a real-life demonstration that highlighted the advantages of microtrenching. These include speed of deployment, decreased waste and reduced disruption to businesses and commuters—including less impact to on-street parking, critical for a city like Los Angeles. Favorable results from the microtrenching demonstration led the city to pass an ordinance allowing this technology to be used. One example of the early success: We were able to lay about 3,000 feet of fiber in LA in the span of a week—a distance that would have taken a month or more using traditional methods. The quality of the reinstatement was better than the city could have imagined, with 20x the pressure rating of other, undisturbed parts of the road.

We deployed 24 route miles of fiber throughout Los Angeles. In order to do this effectively, we created a collaborative coalition of crucial partners to represent various aspects of the city, including stakeholders from the city and local business leaders. And since microtrenching was new for the city, we worked with inspectors and other key parties to define a streamlined review and approval process.

## The Impact

> We estimate the use of microtrenching will save Los Angeles thousands of man-hours of construction—resulting in less disruption to traffic and business.

> Los Angeles approved the use of microtrenching as a solution to lay fiber and other substructure telecom infrastructure in the right of way, ushering in a new way of working that utilities, internet providers and other industries can now use moving forward.

> The city will continue to experience benefits including increased sustainability, faster deployment times, better safety for underground utilities, restoration of streets to near-original condition and less disruption to traffic flow and businesses.

> Taking a consultative and fact-driven approach, Crown Castle was able to establish a standardized process for deploying infrastructure that the city can continue using.

> The fiber we are deploying supports small cells and towers throughout the city, which improves wireless coverage and capacity for residents.

> By installing more fiber and implementing strong connectivity goals, Los Angeles is strengthening its position as an innovative, future-forward city. Additionally, it's enabling the LA public works department to become a thought leader on microtrenching and help other cities improve their connectivity infrastructure.

> More businesses throughout Los Angeles will be able to take advantage of our enterprise fiber network. For example, we're already using fiber to bring expanded network connectivity to school districts, hospitals, media companies and more.

## Why Crown Castle?

We have more than 30 years of experience building, designing and maintaining communications infrastructure in communities of all kinds, from dense urban centers to residential neighborhoods.

### Stability
We are the last owner of our networks, and an S&P 500 company with a history of building and operating infrastructure around the country.

### Partnership
We work closely with community members, government officials and our customers to design and build solutions that meet their unique connectivity needs.

### Innovation
With our unique network of communications infrastructure, we are helping municipalities drive innovation by serving as the foundation for today's most transformational technologies.

CROWN CASTLE

Crown Castle owns, operates and leases more than 40,000 cell towers and approximately 90,000 route miles of fiber supporting small cells and fiber solutions across every major US market. This nationwide portfolio of communications infrastructure connects cities and communities to essential data, technology and wireless service—bringing information, ideas and innovations to the people and businesses that need them.

For more information, please contact 1-877-486-9377 or visit **CrownCastle.com**