



CATENARY STRUCTURES CASE STUDY

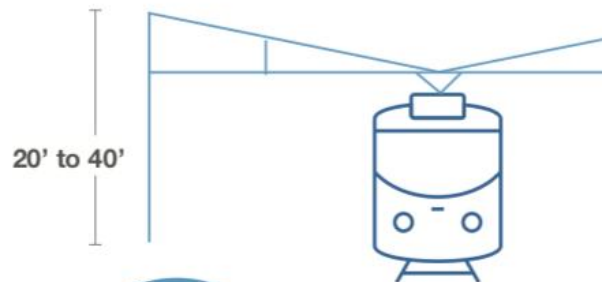


Overview

Finding suitable locations for small cells in dense urban areas is an on-going challenge for wireless service providers. Existing catenary structures supporting railroad electric systems provide the latest solution, especially in small polygons.

What is a catenary structure?

Trains collect their electric current from a two-wire system of overhead lines. Steel "catenary" structures located every 200 to 300 linear feet act as support for the contact wire with the train. These stout structures easily accommodate small cell antennas and associated equipment.



Leasing on a catenary structure

CitySwitch has streamlined the entire development process as noted in the diagram below.



Presence in **72** of the top 100 MSAs (Metropolitan Statistical Areas)

Turnkey development cycle time: **6-9** months for catenary structure/small cells

Zoning

Locating a small cell on a catenary structure will result in a faster zoning and permitting process than most traditional small cells.



Key cities with catenary structures

- New York
- Philadelphia
- Boston
- Baltimore
- District of Columbia
- Richmond
- Atlanta
- Chicago
- Cleveland

Construction

CitySwitch has partnered with several railroad-approved general contractors to ensure a safe, efficient and cost-effective construction installation process from start to finish.

