

# AT&T Small Cells – District of Columbia

Enhancing our network to meet consumer demand today while preparing for the technologies and innovations of tomorrow.

September 2018



## SEPTEMBER 2018 - AGENDA

- **Overview**

- Consumer use requires innovation and growth within the District of Columbia
- MACRO Approach is no longer sufficient to meet capacity demands
- Small Cell provides an avenue to reach high density areas

- **The SMALL Cell Approach**

- Smaller Footprint, Smaller Equipment
- Smaller Visual Impact
- Smaller Coverage Radius
- AT&T's Proposed Design

- **ANC / Resident Impact & Benefits**

- Construction Timeline of 9 days
- Lane Closure on Days 6-9
- Enhanced City Wide Wifi Signal if WAP is Installed
- Enhanced AT&T Network Capacity and Coverage



# Ways to Increase Wireless Network Capacity

①

## Deploy more spectrum

- Spectrum is **not readily available**



②

## Improve spectrum efficiency

- Repurposing existing spectrum
- e.g., 3G carves for LTE



③

## Add more macro (cell sites) cells

- Optimal for low concentration areas



④

## Add more small cells

- Offloads surrounding macro sites

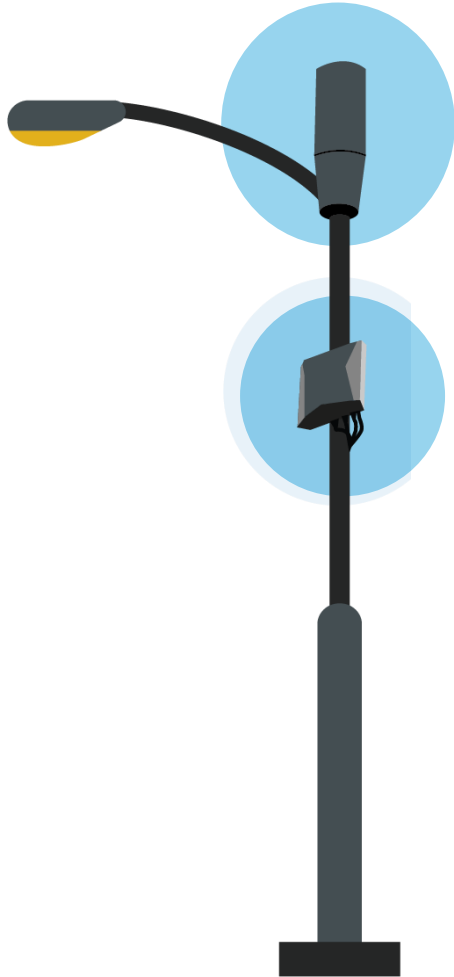


## A new network architecture is needed

Small cells are flexible, targeted network solutions that cover a radius up to 1200+ feet and can be readily deployed to specific locations, including:

- Where customers are prone to experience connectivity issues
- Heavily populated areas that need more network capacity
- Areas that can't effectively be served by a traditional macro cell

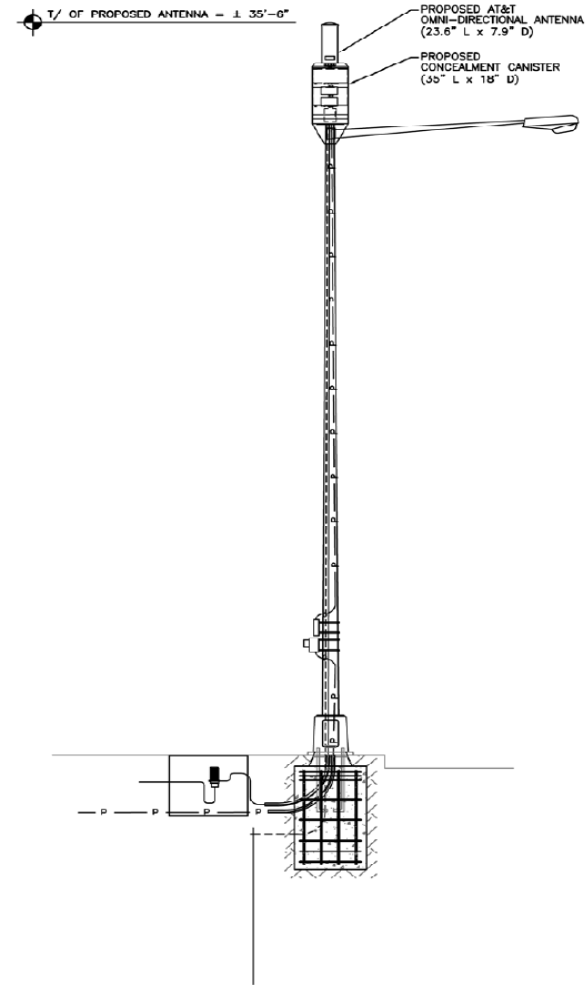
This allows us to provide a better LTE experience today while also allowing us to prepare for the technologies of the future such as 5G, smart cities and new developments in the Internet of Things (IoT).



This photo depicts an example of what a small cell could look like. Actual size, shape and dimensions may vary by location.



# Design Proposal – Cobrahead Pole Replacement

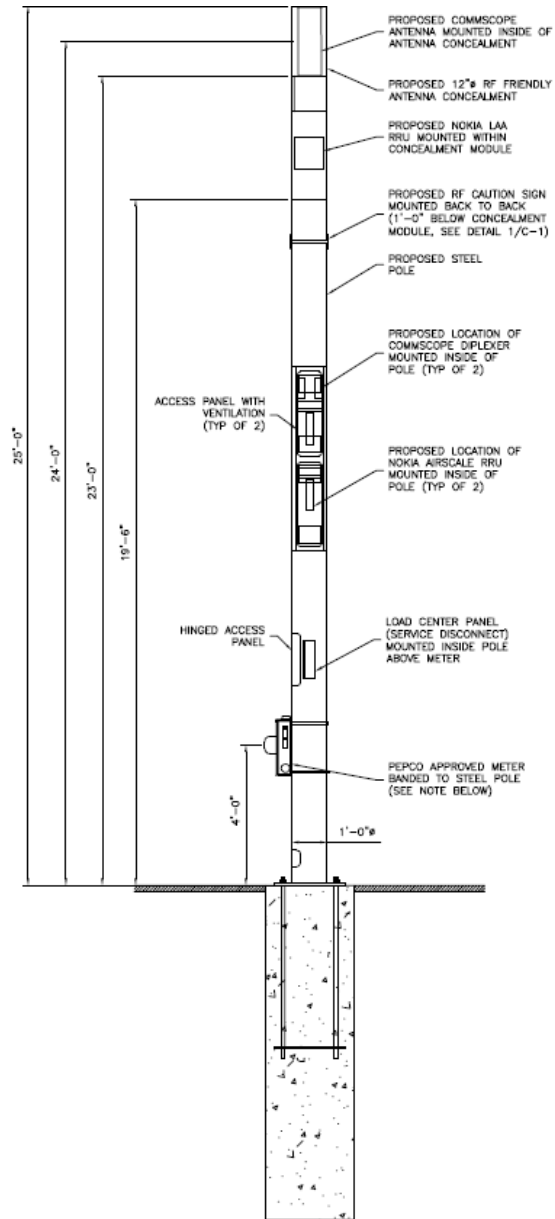


## Small Cell Design - Metal Light Pole with Top Mount Enclosure

- Equipment housed on pole. No ground furniture required



# Design Proposal – New Pole



## Small Cell Design – New Integrated Pole

- Equipment enclosed inside pole.



## Construction Timeline

### **SCHEDULE & TIMELINE for NEW LIGHT POLE INSTALLATION**

1. The pole base frame will take 1 to 2 days to install with schedule inspection prior to concrete being poured
2. The concrete will take a minimum of 3 days to cure before the light pole is installed on new base.
3. The new light pole installation will take 1 day to set, plumb, level and secure to new base.
4. The antenna and line construction will take approximately 2 to 3 days to install.



