

# Antenna Guidelines Update

Information Presentation

National Capital Planning Commission

# Background

Antenna guidelines were first adopted in January 1988 and most recently updated in 2001.

**Purpose** - to protect the skyline, historic resources and scenic character of the nation's capital and provide a safe environment.

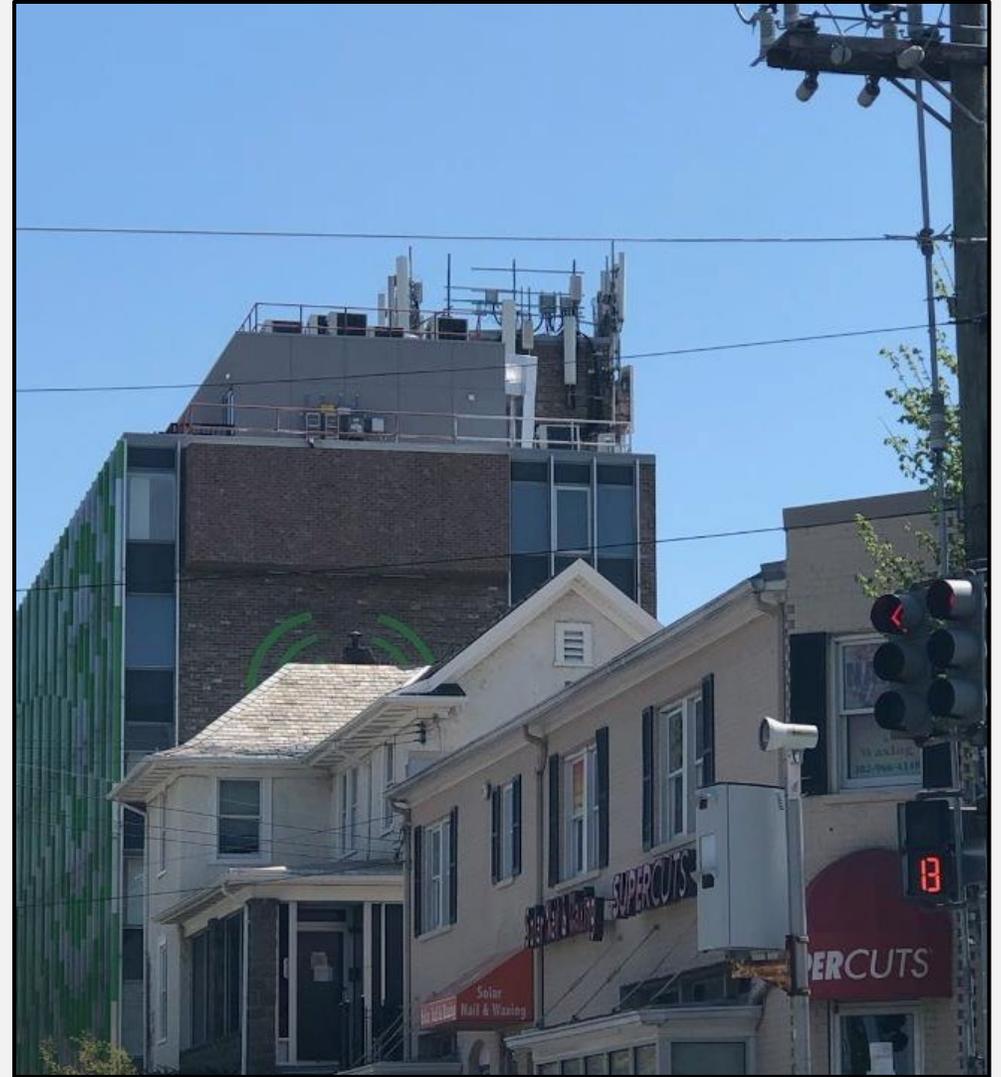
**Current Context** - significant advances in technology, in addition to an increased demand for multiple types of telecommunication infrastructure.

The technological advances and other changes necessitate an update to the existing guidelines.



# Issues – Existing Guidelines

1. The current guidelines do not discuss the **different antenna types** that have emerged over the past couple of decades (e.g. small cells, temporary antennas).
2. The **criteria for evaluating installations is too vague** and does not adequately address location, color, cumulative effects, or priority viewsheds.
3. The **current review process** does not differentiate between temporary, permanent, and small cell review which is needed due to varying installation timeframes.



# Issue #1 - Different Antenna Types

## Permanent

- Either free-standing or on a building.
- Approvals for 5 or 10 years
- Installations are for the public telecommunication network or for secure federal government communications.



# Issue #1 - Different Antenna Types

## Temporary

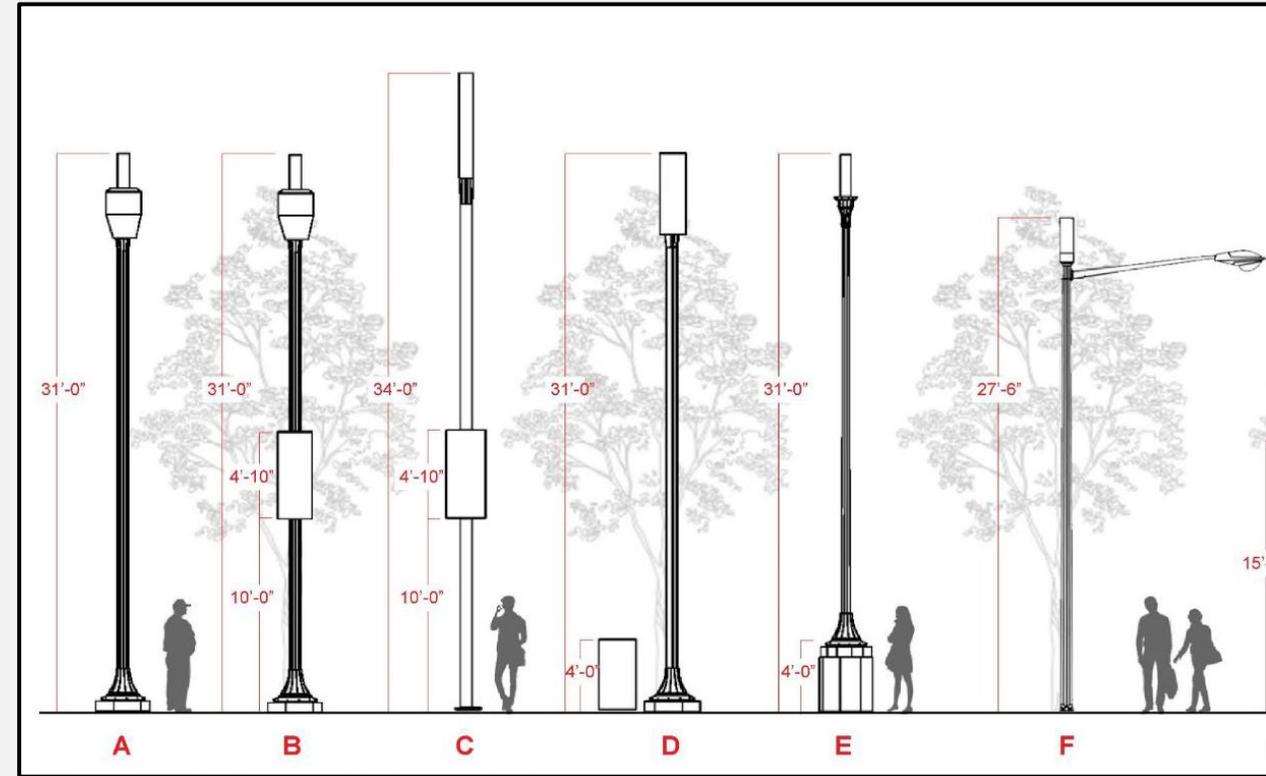
- Usually installed for a specific event.
- Temporarily augment the existing telecommunications system.
- Installed for less than 30 days.
- Installed on the roof, side of a building, or in the public-right-of way.
- Cell-on-wheels (COW) or cell-on-light-truck (COLT).
- Short duration does not permit NCPC review.



# Issue #1 - Different Antenna Types

## Small Cell

- Smaller, low-power cell antennas
- Attached to existing streetlight poles or placed on new poles.
- An emerging, integrated telecommunications system for deploying the 5<sup>th</sup> generation, or 5G, networks.
- Installations on public rights-of-way are regulated by the District government.



# Issue #2 - Criteria Changes

Update the criteria the Commission uses to evaluate siting, material, visibility, and safety.

1. The existing guidelines do not appropriately address several issues:
  - a. Visibility of antennas
  - b. Small cells
  - c. Lighting
  - d. Screening
2. Mast/tower materials criterion are not necessary
3. Changes to existing categories



# Issue #2 - Criteria Changes: Visibility

## Visibility of antennas

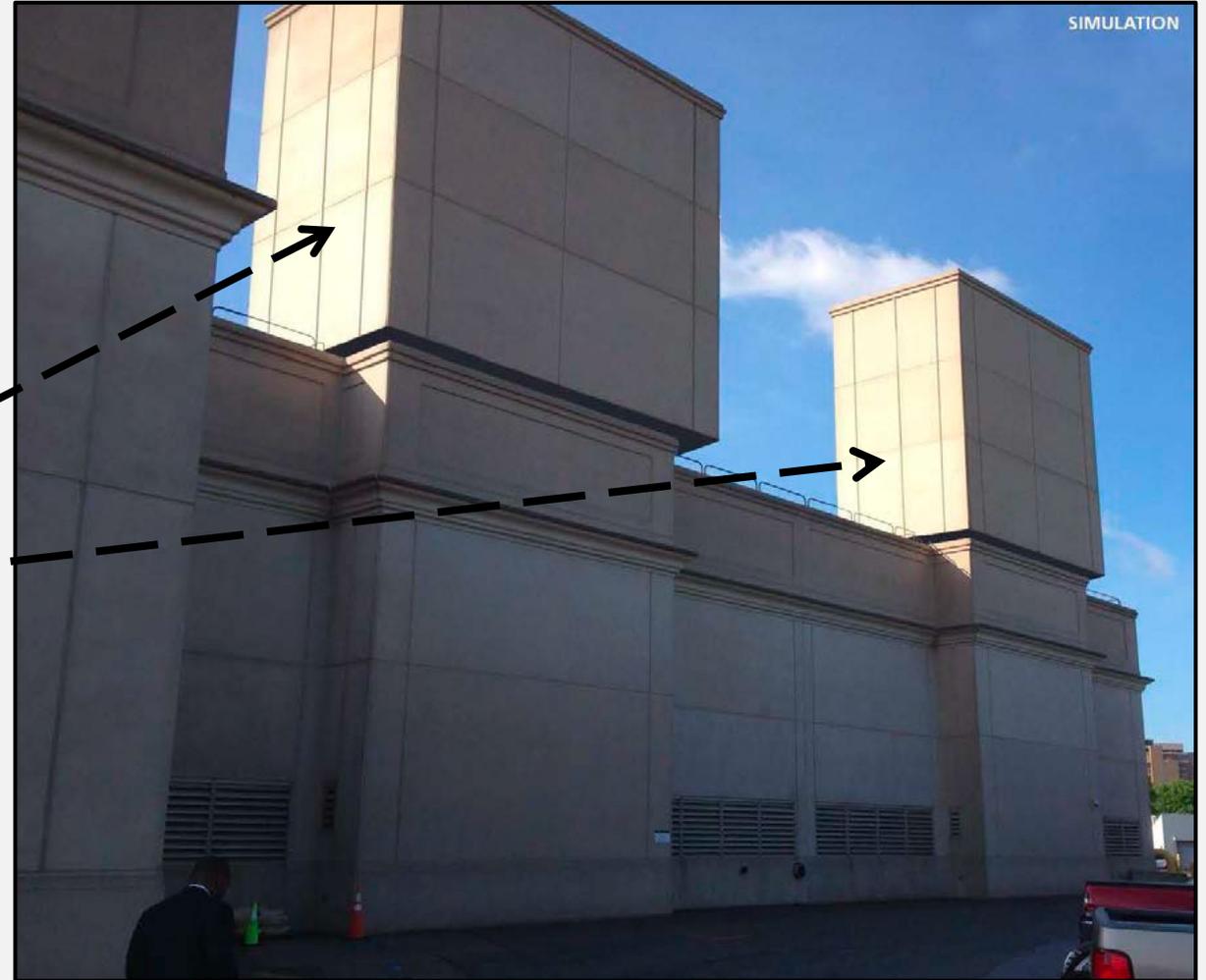
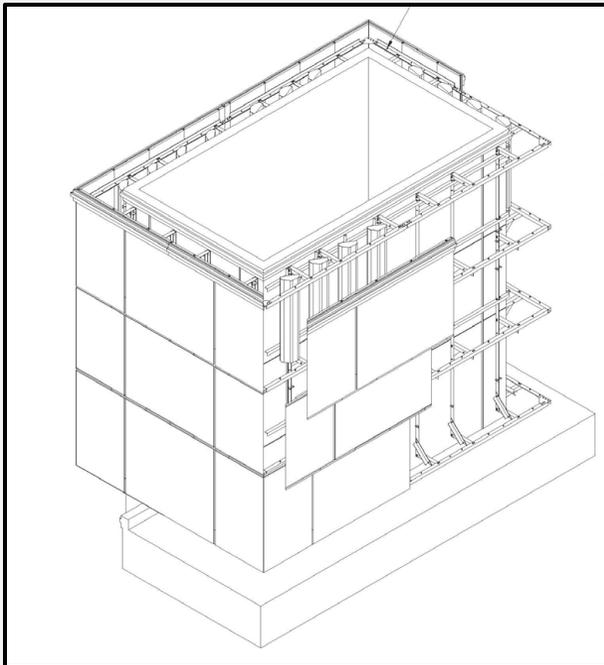
- Color to blend in with building
- Screens can be used
- Placement and location are important to reduce visibility of antennas



# Issue #2 - Criteria Changes: Visibility

## Visibility of antennas

- Color to blend in with building
- Placement and location are important to reduce visibility of antennas
- Screens can be used



# Issue #2 - Criteria Changes: Visibility

## Visibility of antennas

- Color to blend in with building
- Placement and location are important to reduce visibility of antennas
- Screens can be used, but are not always effective



# Issue #2 - Criteria Changes: Challenges

## Challenges

1. Priority viewsheds
2. Cumulative visual impacts of multiple service providers on a single building

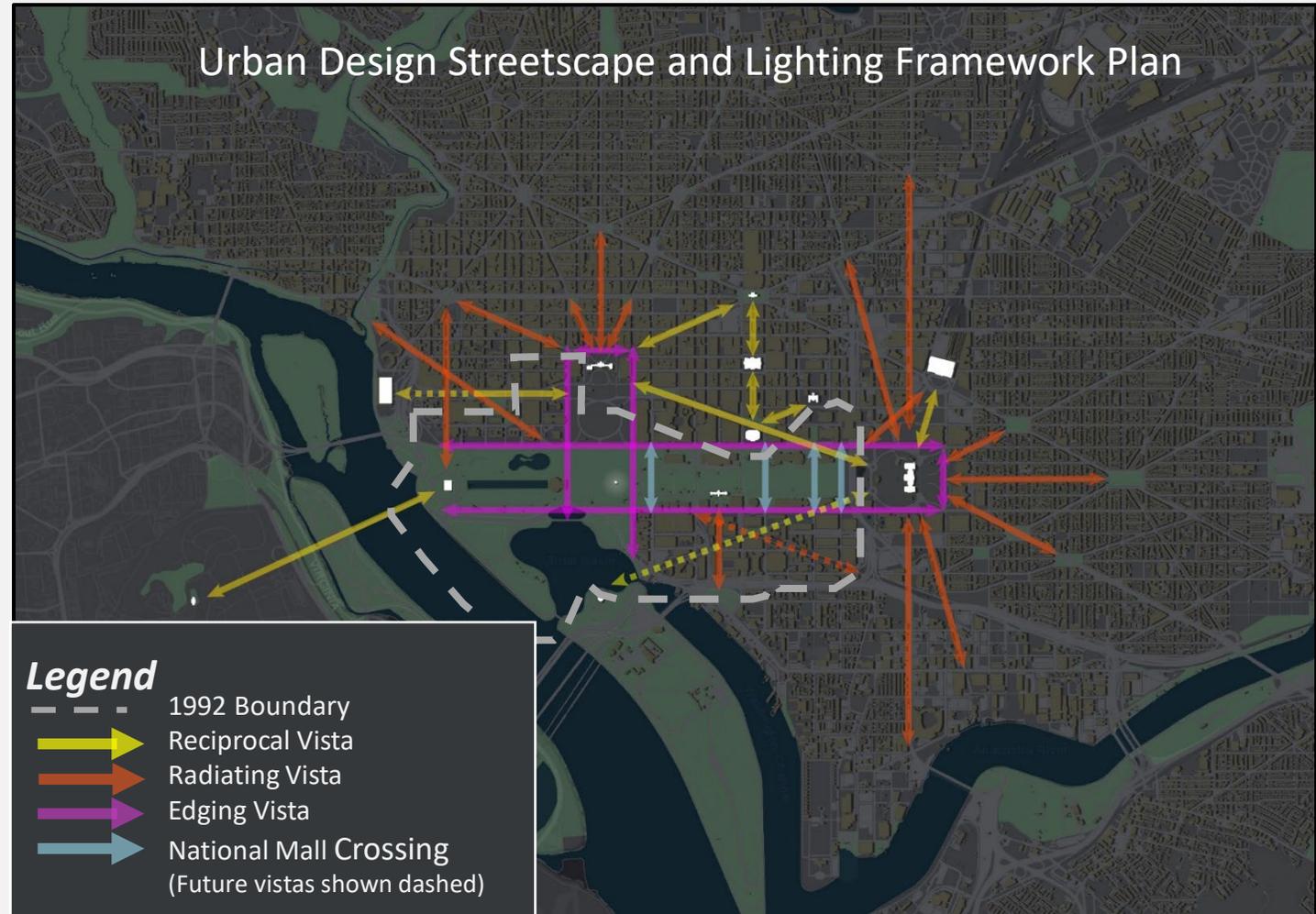


# Issue #2 - Criteria Changes: Priority Viewsheds

## Priority Viewsheds

Key concerns –

- Where are the priority areas/views?
- Should there be additional criteria to protect these priority areas/views?
- Are there other ways to ensure these areas/views are protected?



# Issue #2 - Criteria Changes: Cumulative Impacts

## Cumulative Impacts

### Key concerns

1. Is there a tipping point when there are too many antennas on one roof? How is this determined?
2. Is there a rooftop-wide strategy for addressing this concern?
3. What is the impact on cell service if antennas are set back farther from the edge?

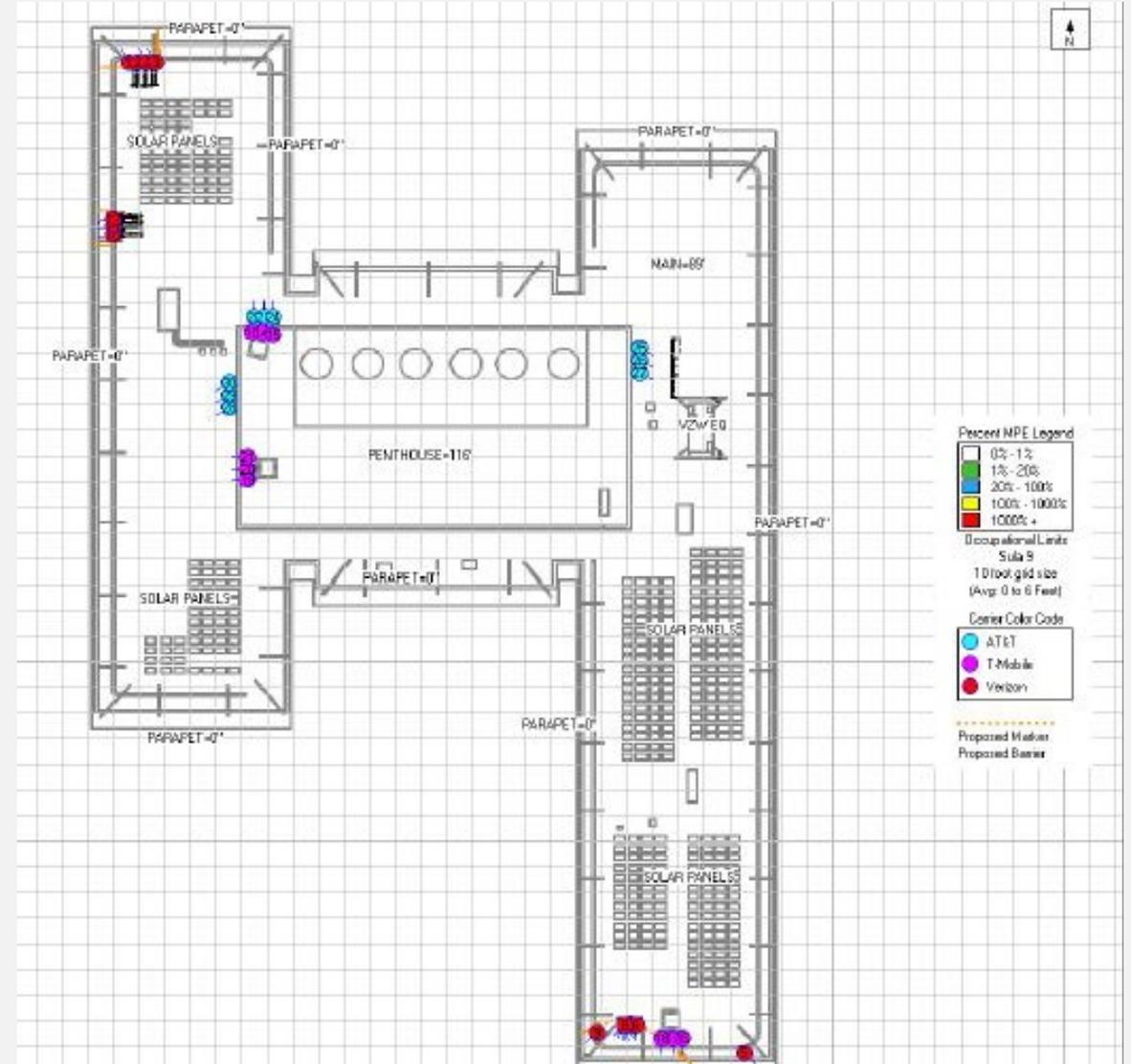


# Issue #2 - Criteria Changes: Cumulative Impacts

## Cumulative Impacts

### Key concerns

1. Is there a tipping point when there are too many rooftop antennas?
2. Is there a rooftop-wide strategy for addressing this concern?
3. What is the impact on cell service if antennas are limited on certain buildings?



# Issue #2 - Criteria Changes: Small Cells, Lighting, and Screening

## Small Cells

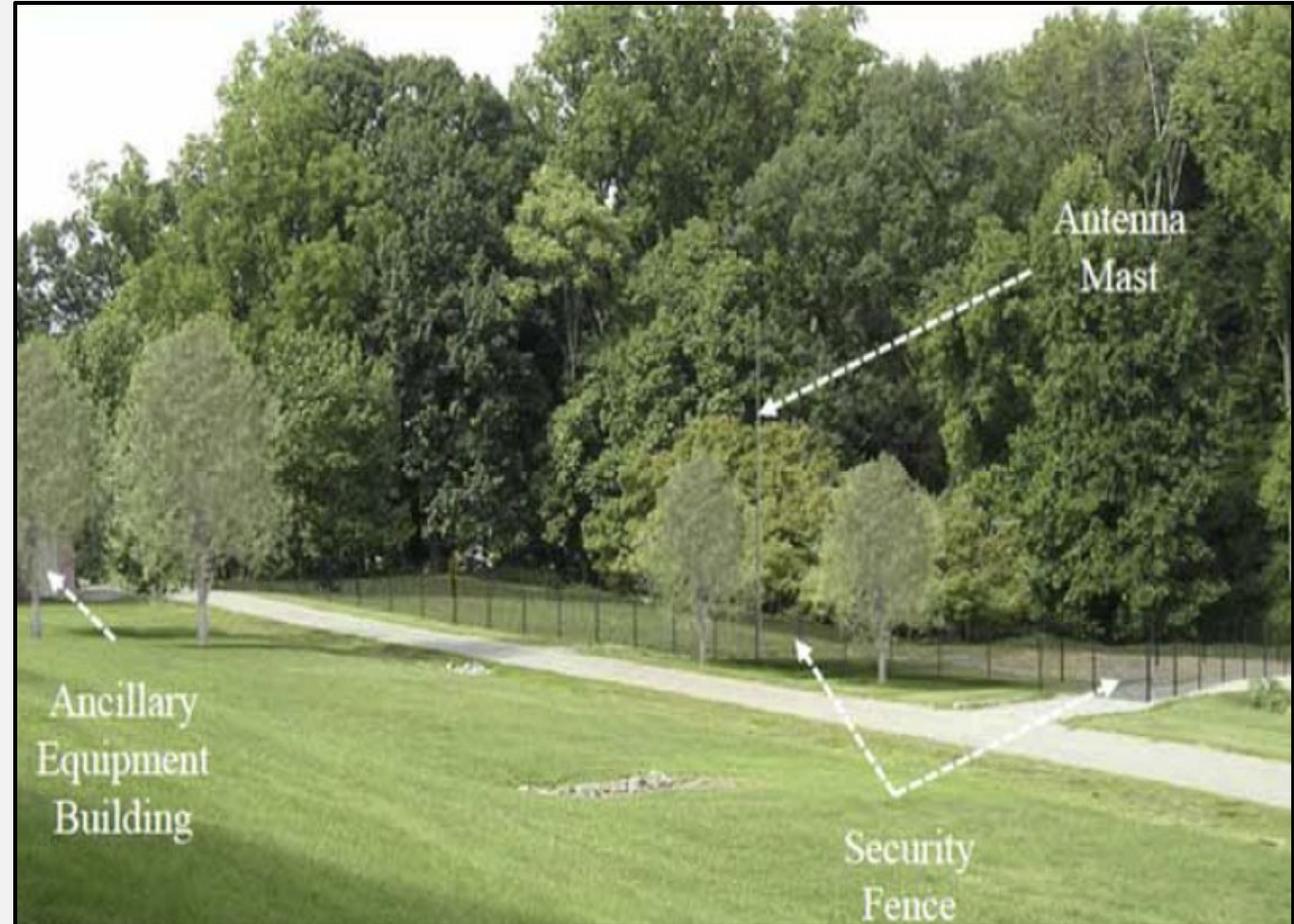
Need to include small cells in criteria.

## Lighting

Clarify criteria pertaining to illumination in existing criteria.

## Screening

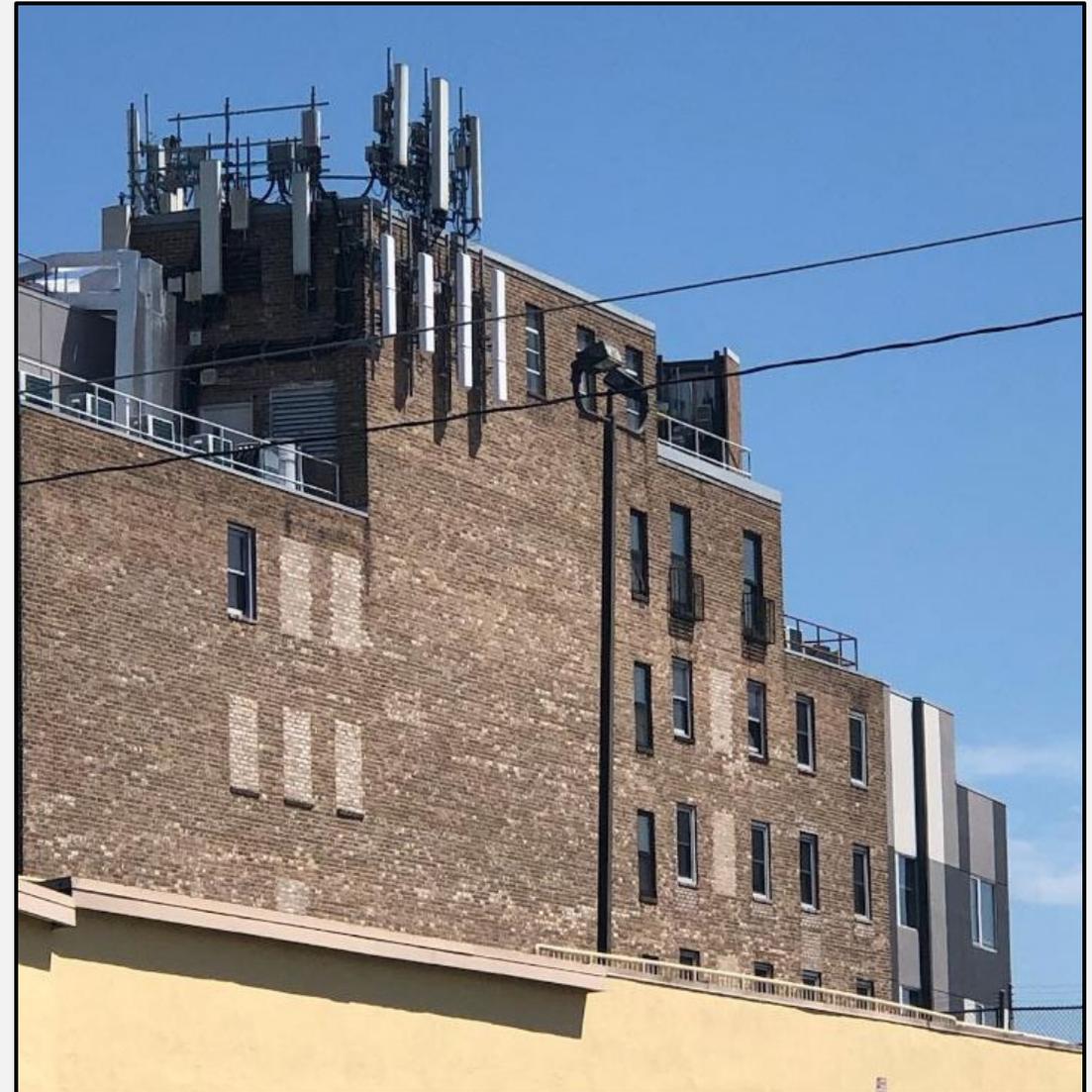
Clarify criteria regarding safety fences and screens.



# Issue #3 - Review Process Changes

## Review Process

1. Small cells
  - Describe process for small cell antennas and related infrastructure on District rights-of-way.
2. Temporary antennas
  - Determine that these antennas should not require NCPC review.
3. Delegations
  - Include both send and receive antennas.
4. Review exceptions
  - Include both send and receive antennas for replacements and renewals.



# Antenna Guidelines Update - Summary

Changes under consideration:

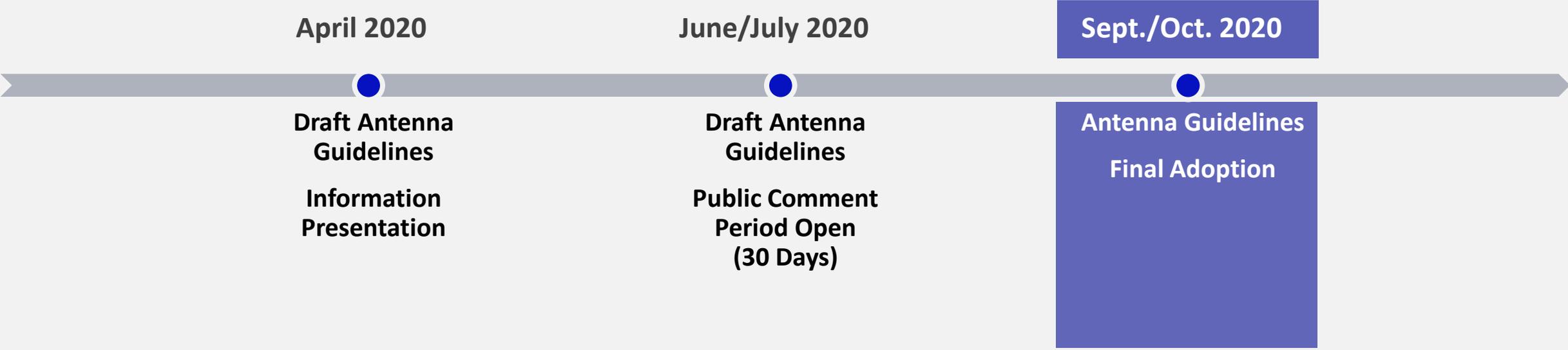
- Different antenna types
- Criteria for evaluating installations is vague
- Current review process

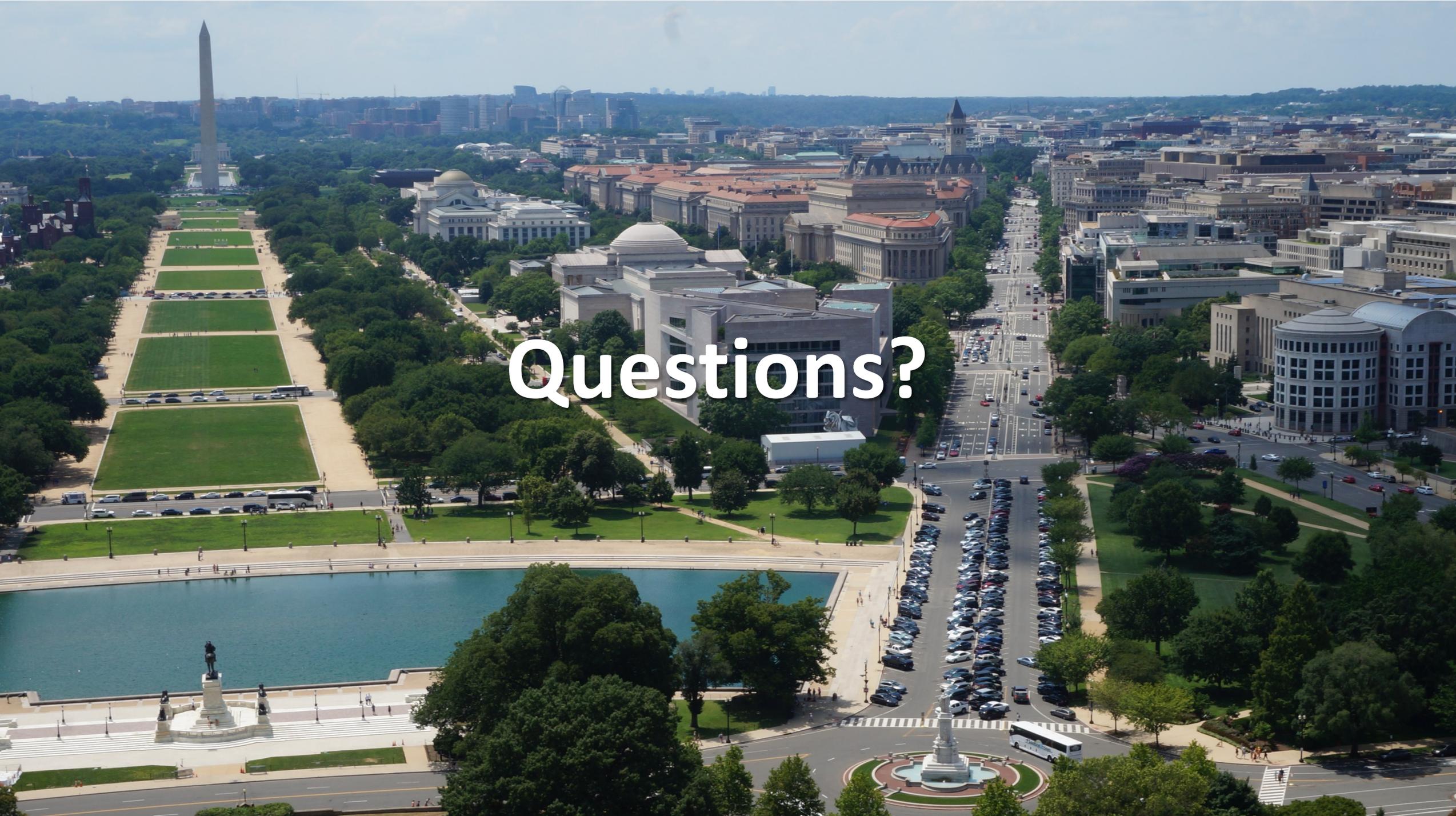
Challenges

1. Priority viewsheds
  - Where are the priority areas/views?
2. Cumulative Impacts
  - Is there a tipping point when there are too many antennas on one roof?



# Project Review Timeline





Questions?