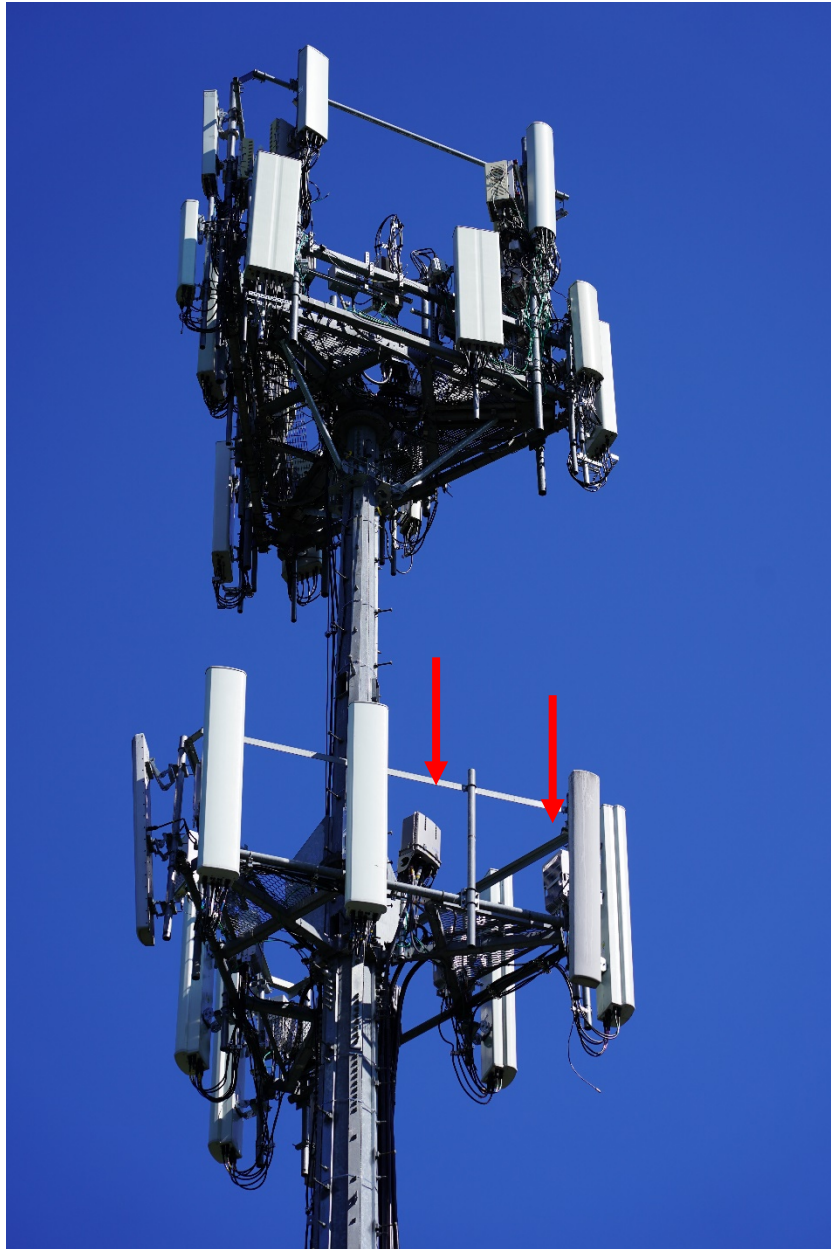


**TELECOMMUNICATIONS TRANSMISSION FACILITY
COORDINATING COMMITTEE
2020 ANNUAL REPORT**



**PRINCE GEORGE'S COUNTY, MARYLAND
ANGELA D. ALSOBROOKS, COUNTY EXECUTIVE**



Cover Photo: 5G Deployment in Prince George’s County

Prince George’s County created the Telecommunications Transmission Facilities Coordinating Committee (TTFCC) 20 years ago to encourage colocation of telecommunications facilities on existing structures while preventing adverse impact to the community as new structures are built. In the spirit of the long-held and long-term goals of the County, the TTFCC works with applicants at the beginning of the permit process to abate the visual impact of antennas and support structures while monitoring and enabling carrier deployment of the high-quality telecommunications services that the County’s residents and businesses demand.

This function is even more critical as residents face an increased need for robust and reliable networks to enable remote work and online education. That high level of demand, which may strain existing bandwidth, can lead to slower services and dropped connections.

The telecommunications industry asserts that the advent of 5G will mitigate these issues for both mobile users and residents connecting laptops and desktops in their homes. The journey to this type of new wireless siting in the County has begun with carriers deploying antennas on existing macro sites (i.e., towers, monopoles, buildings). The cover photo shows a 5G-capable antenna recently added by Verizon to its existing array at 75 feet on a 100-foot monopole in College Park.

Because 5G requires a tradeoff, however—with higher speeds but less coverage area for each antenna—the industry requires more hosting structures, many of which will be used to attach Small Wireless Facilities (SWF), also commonly known as small cells. Carriers are expected to increase deployment at lower elevations on private property and in the public right-of-way.

The TTFCC anticipates this industry trend will result in an increased number of wireless siting applications submitted over the remainder of calendar year 2020 and into 2021 as carriers densify their existing networks to bring antennas closer to users.

Taking into account regulatory concerns regarding the deployment of 5G equipment and the increased density requirements for placing SWFs, Prince George’s County enacted legislation in February 2020 that addresses the potential impact of SWFs on both private and public property, including the public right-of-way. The new legislation was supplemented by a thorough *Design Manual for Small Wireless Facilities* that provides carriers with guidelines for the types of structures permitted by the County Code.

Going forward, the TTFCC believes its application review process, integrated with partner agencies within the County government, will continue to validate the County’s policy objectives. As it reviews new siting proposals, TTFCC will continue to provide value to the County government as well as both the telecommunications industry and the community.

Table of Contents

1. Executive Summary..... 1

2. Background 2

3. FY20 TTFCC Activities 6

 Minor Modification Applications 7

 Colocation Applications 8

 New Facility Applications 8

4. Administration of the Wireless Facility Siting Review Process..... 8

 Fees Collected 10

 Site Visits 10

 Electronic Applications..... 10

 TTFCC Membership..... 10

 Public Information 12

5. Future Expectations for Wireless Siting in the County 13

1. Executive Summary

The Telecommunications Transmission Facility Coordinating Committee (TTFCC) received 195 applications in FY20—a 43.5 percent decrease from the 345 applications received in FY19.

Of the 195 applications received, only six were for new structures. Five applications were for colocation on an existing structure. The majority of the applications received—184—were minor modification applications to add antennas or otherwise change existing antenna arrays; most of those were administratively approved by the TTFCC Chair as permitted in the County Code.

The level of minor modification applications reflects the wireless carriers’ continued efforts to upgrade their networks for service—primarily in areas inside the Beltway, where higher concentrations of antennas are located to serve residents, travelers, and businesses. The table below shows the number of antenna sites and monopoles (permitted by the Zoning Code up to 100 feet high in residential areas) in the County by Council District.

Table 1: Number of Antenna Sites and Monopoles by Council District

Council	Building	Light/ Utility Pole	Monopole	Tower	Water Tank	Total
1	21	1	23	32	0	77
2	30	4	9	34	1	78
3	31	0	18	3	0	52
4	21	0	34	22	3	80
5	21	5	51	12	2	91
6	11	0	29	30	1	71
7	21	2	17	6	0	46
8	21	4	22	17	5	69
9	13	40	52	52	1	118
<i>Total</i>	<i>190</i>	<i>16</i>	<i>255</i>	<i>208</i>	<i>13</i>	<i>682</i>

The TTFCC collected approximately \$xxx in application, annual report, and resubmittal fees during FY20. The County’s costs for TTFCC activities, excluding indirect County staff time, were \$304,656. These costs were expenditures for outside services provided at the County’s request by the designated Telecommunications Transmission Facility Technical Consultant, which presently is Columbia Telecommunications Corporation.

2. Background

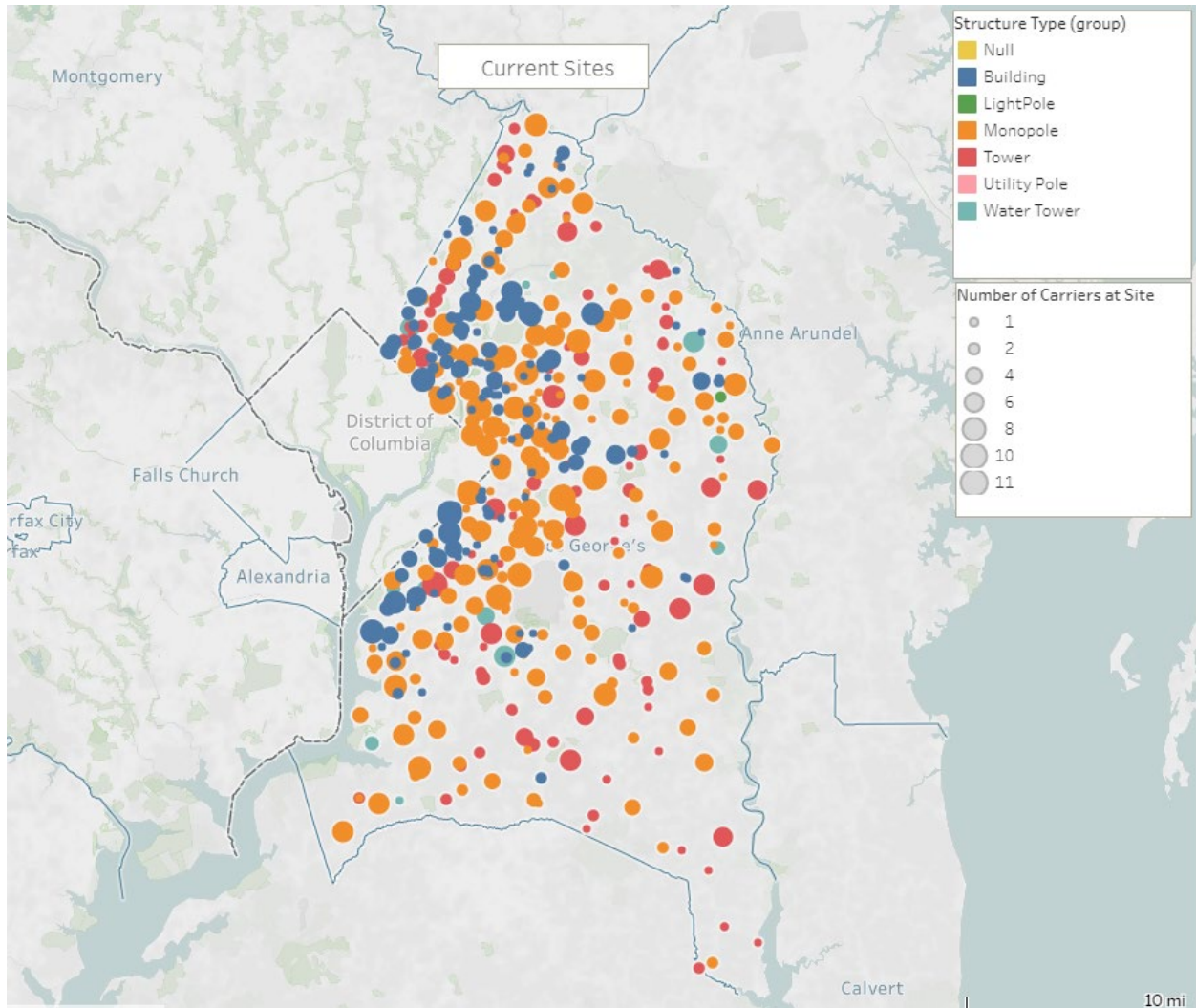
Since the TTFCC’s inception in 2000, the Committee has received 3,994 applications and carriers have placed antennas at 682 locations in the County. (Most locations support multiple antennas.) Antennas are mounted on five types of structures in the County—monopoles, buildings, lattice towers, water towers, and light or utility poles. The following table shows the number of each type of antenna siting:

Table 2: Antenna Sitings by Type of Support Structure

Type	Number
Monopole	255
Building	190
Tower	208
Water Tower	13
Light/Utility Pole	16
<i>Total</i>	682

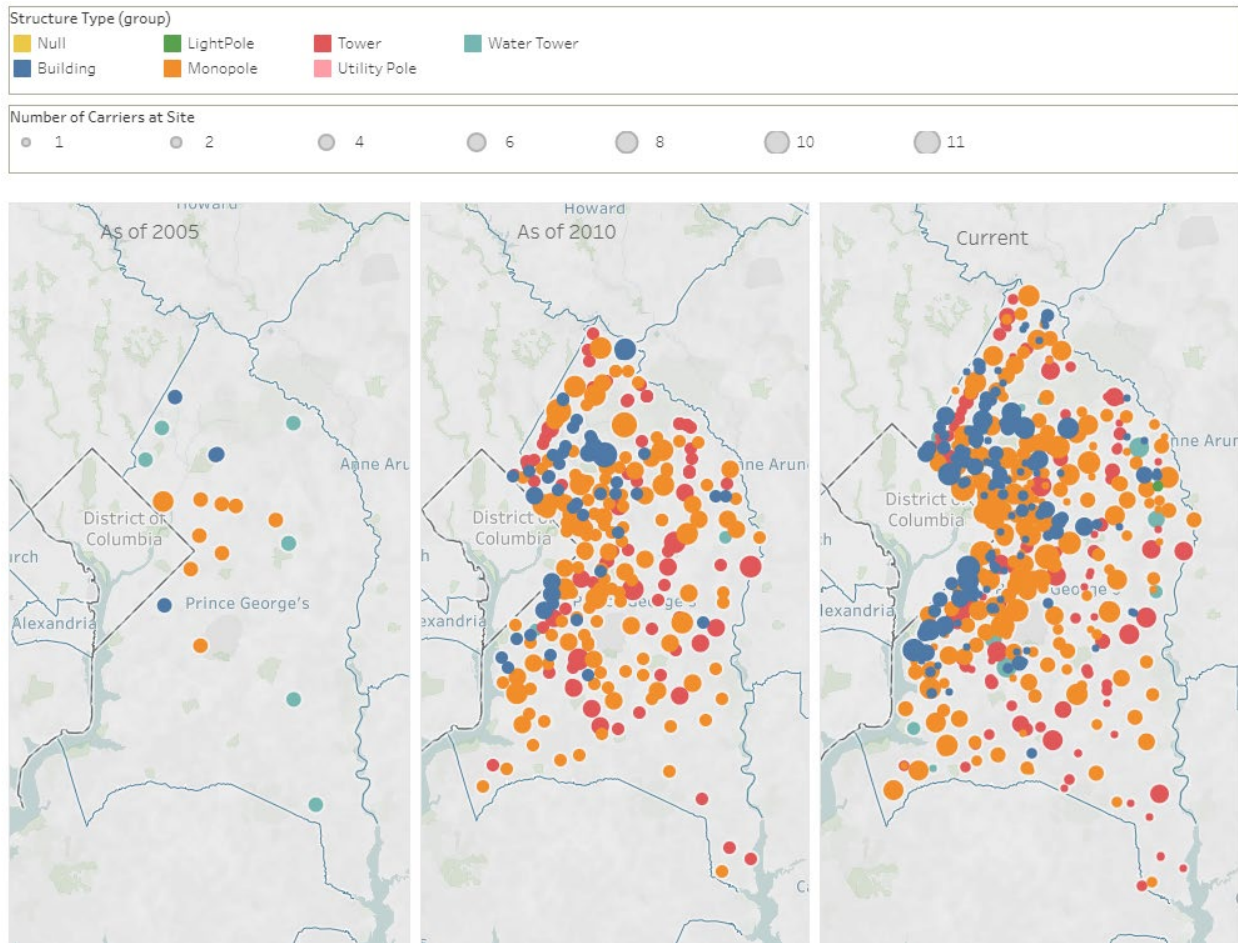
The map on the page below illustrates the locations of antenna sites by type of support structure.

Figure 1: Map of Antenna Sites by Type of Support Structure



Over time, the number of structures supporting multiple carriers' wireless facilities has grown. The maps below show the number of locations as well as the number of colocating carriers in 2005, 2010, and presently.

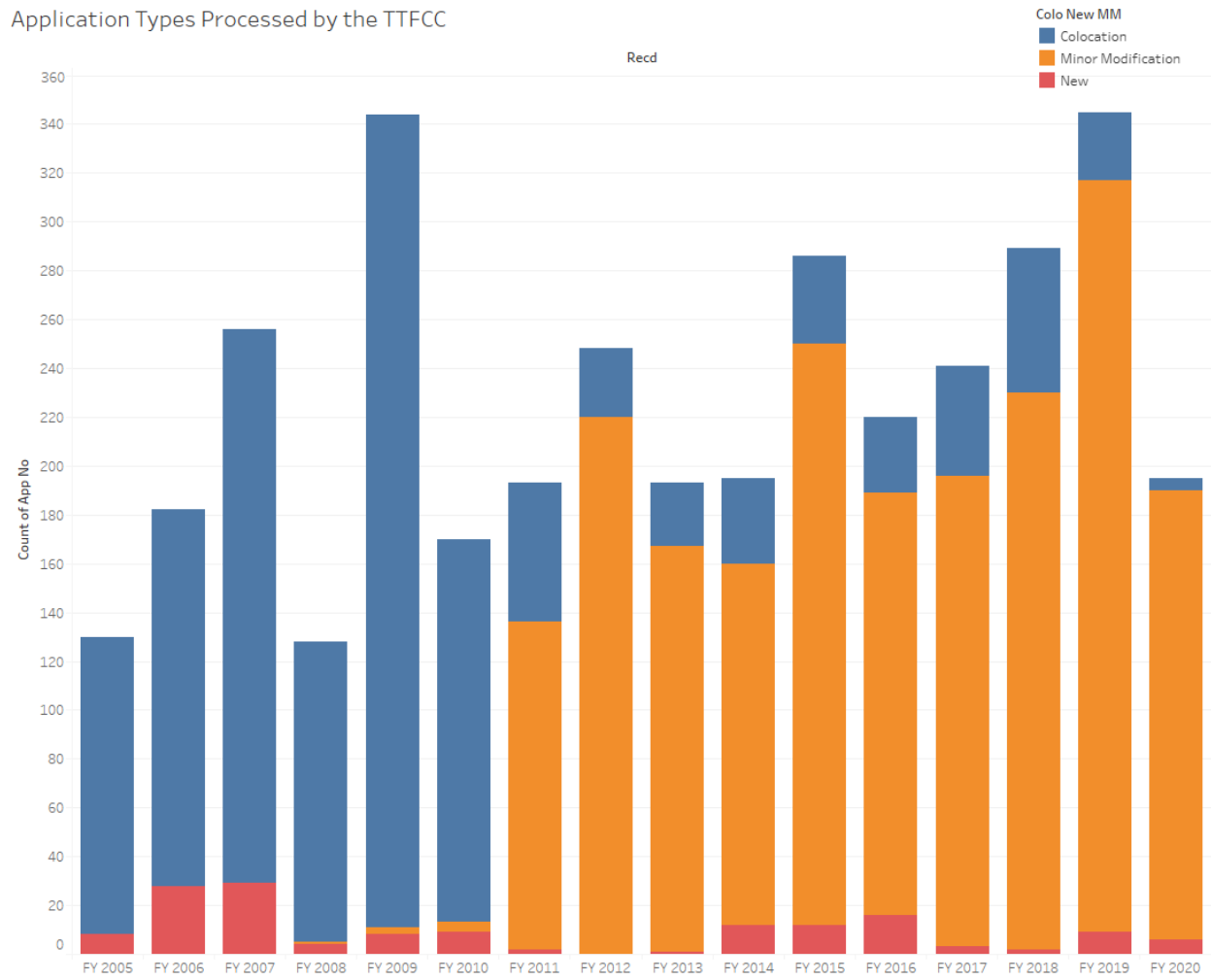
Figure 2: Growth Over Time of Structures Supporting Multiple Antennas



The trend toward minor modification applications reflects the carriers' preference for upgrading existing antenna arrays to add capacity in their existing service areas as opposed to expanding their coverage areas with new antenna sites (either through collocation or by building new towers).

The Committee took action on 152 applications in FY20. The chart below shows the application types (i.e., new site, collocation, or minor modification) for FY20 and the prior 15 years.

Figure 3: Applications Processed by Type (FY05 – FY20)



The TTFCC partners within the Department of Permitting, Inspections and Enforcement (DPIE) to ensure that the review and permitting of building and roadway projects complies with federal and local regulations.

Prince George’s County accepts applications for wireless siting in the public right-of-way under regulations that address the number, size, and type of devices, as well as the height of the structure, which cannot be over 50 feet.

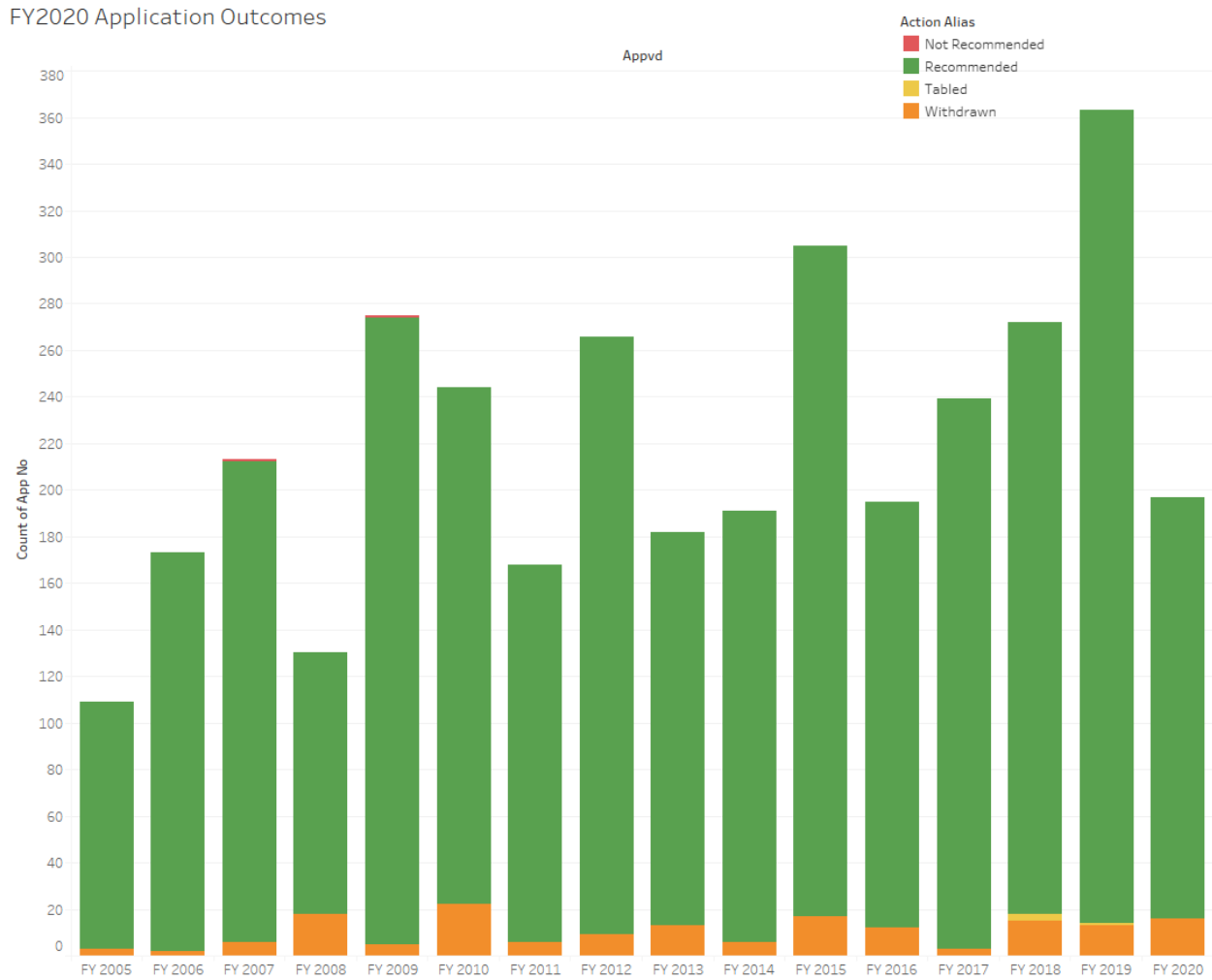
3. FY20 TTFCC Activities

In FY20, carriers and infrastructure companies filed 195 applications for TTFCC review. The TTFCC reviewed most of those applications, as well as applications carried over from FY19.¹

The chart below illustrates the applications that received a disposition following submission to the TTFCC in FY20 and the prior 15 years. The potential outcomes for an application are: recommended by the TTFCC, not recommended by the TTFCC, subsequently withdrawn by the applicant, or tabled due to administrative issues. Circumstances leading to a withdrawal may include the applicant filing in the wrong jurisdiction, submitting the wrong type of application for the proposed scope of work, or not responding to requests for information (RFI) submitted by the TTFCC in response to an incomplete or inaccurate application.

¹ For a variety of reasons, applications are not always reviewed in the fiscal year in which they are filed. Some of the applications reviewed in FY20 were filed in FY19; similarly, some of the applications filed in FY20 will be reviewed in FY21.

Figure 4: Applications Processed by Type of Outcome (FY05 – FY20)



Minor Modification Applications

Of the 195 applications received by the TTFCC in FY20, the vast majority—184—were to modify an existing antenna array. These included applications to replace existing antennas, add new antennas to an existing array, add additional transmitting equipment, and add electrical generators.

Revisions were made to the County Code in 2008 to permit the Chair of the TTFCC to administratively approve minor modification applications, allowing the applicant to apply for a building permit without having to wait for the next TTFCC meeting, at which the full Committee makes a recommendation on each application. This procedure was updated with new legislation in February 2020, which allowed the same administrative approval for micro-wireless facilities and cells on wheels (COWS).

Colocation Applications

In FY20, the TTFCC received five colocation applications seeking to place antennas on existing structures where the carrier does not currently have antennas. Like minor modification applications (which are to upgrade a carrier's existing antenna arrays), these colocation applications represent the carriers' ongoing focus on adding capacity to their current 4G networks and enabling 5G deployment.

One of these applications included a height extension to an existing monopole in Fort Washington. Height extensions are not uncommon and can be a suitable path for a carrier to collocate on an existing structure.

New Facility Applications

The TTFCC received six applications to construct new light poles or monopoles between July 1, 2019 and June 30, 2020.

An application was submitted to construct a 160-foot monopole in an O-S-zoned parcel adjacent to and owned by the Baden Volunteer Fire & EMS Department. The application was on behalf of Verizon Wireless; as of this writing, it has not been presented for discussion to the Committee members, pending corrections, a community meeting, and submittal of additional documentation by the applicant.

AT&T Wireless has applied to construct a 37-foot light pole on a private retail parking lot within the City of Laurel. This application is also pending corrections and additional documentation.

AT&T Wireless applied to construct a 26-foot light pole in a parking lot owned and used by American Legion Post #275 in Lanham. This application was reviewed by the Committee at the August 2020 meeting and recommended. This structure will support 5G-capable antennas.

In May 2020, AT&T Wireless submitted three applications to replace Pepco poles in the right-of-way. Two are in the Hyattsville area (Council District 2) and the third is in Temple Hills (Council District 7). These applications are pending corrections and additional documentation, including clarification of the intended height of the structures.

4. Administration of the Wireless Facility Siting Review Process

The TTFCC was created in 2000 to “promote the appropriate and efficient location and collocation of telecommunications transmission facilities to minimize adverse impacts on other land uses in the County. The Telecommunications Transmission Facility Coordinating Committee shall, among other things, evaluate the esthetic effects of locating multiple telecommunications transmission facilities in a single location or on a single structure.” [County Code Section 5A.161]

The County Code requires that the TTFCC shall:

- (1) “Review the siting of each proposed telecommunications transmission facility;
- (2) Evaluate the technical rationale of proposed locations;
- (3) Recommend alternative sites and techniques where appropriate to mitigate the visual impact of the proposed and alternative site and provide a copy of the recommendation to the council member in whose district the telecommunications transmission facility is to be located;
- (4) Recommend provisions governing removal of the proposed telecommunications transmission facility at the end of its useful life, including the posting of a bond or other financial guarantee;
- (5) Facilitate public participation in the telecommunications transmission facility siting process; [and]
- (6) Report annually to the County Executive and/or the County Council [or] and as requested on siting policy issues.”

To assist the TTFCC in its review of applications to place wireless telecommunications facilities in the County, a Telecommunications Transmission Facility Technical Consultant was established to:

- Maintain a database of telecommunications facilities
- Provide information
- Serve as a technical resource to the public and interested carriers and agencies
- Review applications
- Evaluate the technical need for the facility
- Recommend alternative locations where appropriate

Fees Collected

Costs for the work of the TTFCC are funded in part by TTFCC application fees established in 2008. Those fees are as follows:

\$2,500	TTFCC Application for a new tower, monopole, or support structure
\$1,500	TTFCC Application for a colocation on an existing structure
\$500	TTFCC Application for a minor modification to an existing facility
\$250	Modification or revision to a TTFCC Application
\$500	Annual Master Plan update

The TTFCC collected approximately \$231,251 in application fees during FY20. The County's costs for TTFCC activities, excluding indirect County staff time, were \$304,656. These costs were expenditures for outside services provided at the County's request by the designated Telecommunications Transmission Facility Technical Consultant (Columbia Telecommunications Corporation). These services included an engineering review of each submission for compliance with County and Federal Communications Commission (FCC) regulations. Many applications required multiple submissions due to errors by the applicants.

Site Visits

While an application for a new site requires a site survey by the Technical Consultant, it is the County's policy that all existing sites also be visited and photographed once per year. To track the progress of each of the hundreds of submissions and the status of the site surveys, Columbia Telecommunications Corporation developed and populated a database that captures updates regarding sites and applications in real time.

Electronic Applications

On August 1, 2019, the TTFCC began requiring applications to be submitted electronically using Prince George's County's existing online Permitting and Licensing System. Prior to implementation, the TTFCC offered in-person training for applicants. The development of this new process has been part of an effort within DPIE to accurately track each type of wireless application and ensure that FCC "shot clock" requirements are met by all responsible parties.

The change from a paper to electronic system benefits both the applicants and the TTFCC as it allows for timely tracking of fees, deadlines, and the disposition of individual applications.

TTFCC Membership

The current TTFCC members are:

TTFCC Chair/Coordinator

- Michelle Lyons, Administrator of Boards and Commissions,
Prince George's County Department of Permits, Inspections and Enforcement

TTFCC Vice-Chair

- Clarence Moseley, Permits Supervisor, Permits and Licensing Division,
Prince George's County Department of Permits, Inspections and Enforcement

TTFCC Members

- Lakisha Pingshaw, Broadband Manager,
Prince George's County Office of Information Technology
- James Stepowany, Acting Planning Coordinator, Permit Review Section,
Maryland National Capital Parks and Planning Commission
- Nathaniel K. Tutt III, Administration,
Prince George's County Council
- Vincent Curl, Facility Supervisor, Maintenance Department,
Prince George's County Public Schools
- Jared Miller, Engineer I/II, Site/Road Permit Section,
Prince George's County Department of Permitting, Inspections and Enforcement
- Hadi Quiayum, Chief, Traffic Engineering & Safety Division,
OEPM/Department of Public Works & Transportation

Additional support to the TTFCC is provided by:

- Joseph Ruddy, Associate County Attorney
Prince George's County Office of Law
- Columbia Telecommunications Corporation, TTFCC Technical Consultant

Public Information

The Committee's website (<http://www.princegeorgescountymd.gov/693/Telecommunications-Transmission-Facility>) features public information about the TTFCC, including (once the material is approved by the County Council) a Master Plan map illustrating carriers' proposed locations for new antennas based on the annual information the carriers provide the County.

In addition, the County has required that a carrier seeking to construct a new tower or monopole in the County send a public notice to property owners and community organizations within 1 mile of the location proposed for the structure. The carriers are also obligated to notify the TTFCC Chair of any meetings that are subsequently held in response to those notices.

The legislation passed in February 2020 requires this procedure for applicants seeking to construct SWFs in the right-of-way.

TTFCC meetings are generally held on the third Wednesday of each month. All meetings are open to the public. However, in the event that all applications in a given month have been administratively approved, the Chair may choose not to hold a meeting. There were seven such months in FY20.

5. Future Expectations for Wireless Siting in the County

The map below illustrates the location and number of future antenna sites planned by the carriers based on the Annual Plan updates they filed with the County in August 2020 and the preceding year. Cumulatively, there are a total of 540 future sites listed by all carriers. As the map illustrates, the TTFCC expects to receive a significant number of applications in the future.

Given the County's growing population² and a range of industry trends (including increased capacity demand for machine-to-machine communications), Prince George's County will likely see an increase in all types of carrier applications:

- Minor modifications
 - Age, obsolescence, and development of new types of antennas lead carriers to modify their equipment on existing sites; this includes initiatives by the major carriers to develop dedicated data networks for public safety
 - The ongoing goal to increase capacity is expected to lead carriers to seek relatively low-height mounting sites for 5G deployment in a variety of areas
- New and/or replacement towers and monopoles
 - As carriers adapt to emerging technologies and strategies, it is expected that some older structures will be replaced, and new locations sought
- Colocations
 - New colocations on existing buildings will continue to be encouraged as a reasonable strategy to meet carriers' coverage and capacity needs

It is expected that applications that qualify as SWFs under the FCC's definition will also increase, reflecting the above-stated trends. While Prince George's County had permitted a relatively small number of SWFs, they have all been on private property.

The legislation passed in February 2020, as well as the County's new Design Manual, provide applicants with the guidelines and procedures to successfully site their desired 5G SWFs while considering FCC requirements unique to SWFs.

² State of Maryland Population Growth Rates, <http://msa.maryland.gov/msa/mdmanual/01glance/html/pop.html> (accessed August 2020).

Figure 5: Sites Proposed in Carriers' Annual Plans (FY20 and Beyond)

