

Draft Zoning Text Amendments (ZTA) to Manage Telecommunications Tower Siting
Draft ZTA Summary and Explanation - July 27, 2017

GOALS

- Address the community's interest in having access to robust mobile broadband services and the evolving technical needs of the wireless industry.
- Protect the community's interest in managing commercial use of public property, maintaining attractive roads and neighborhoods, and ensuring appropriate public input.
- Ensure the County's continued compliance with federal law and any FCC rulings.

KEY ISSUES ADDRESSED

- Residents in neighborhoods with underground utilities have an expectation that new telecommunications infrastructure will not substantially alter the residential character of their neighborhoods.
 - Allowing Limited Use replacement of pre-existing streetlights with new poles that are subject to compatibility requirements and height limits will allow better service without adding more poles.
 - Allow some additional height on the widest multi-lane roads near neighborhoods.
- More antennas are needed in commercial areas, such as downtown Silver Spring and Bethesda, where concentrated use of mobile devices is straining network capacity. More antennas deployed below current rooftop heights are needed to supplement coverage.
 - Allowing Limited Use in Commercial/Retail and similar zones would allow pole replacements in downtown areas, such as Silver Spring and Bethesda.
- There are many one-story and one-and-one-half story retail buildings near residential areas that could provide suitable alternatives to installing more equipment on poles.
 - Lowering the minimum height requirement to permit antennas to be installed on buildings, will give industry alternatives to deploying more equipment on poles.
 - Limiting the size and requiring antennas to be painted or screened to match building color or design, will make antennas on lower height buildings less noticeable.
 - The prohibition on attaching antennas on detached houses and duplexes will be extended to also prohibit attaching antennas on townhouses.

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EXECUTIVE SUMMARY

- Pre-existing utility poles and streetlights in rights-of-way can be replaced as Limited Use.
 - Limited Use currently requires a Transmission Facilities Coordinating Group (TFCG or “Tower Committee”) recommendation and DPS permit, but does not require an OZAH zoning public hearing. TFCG and permitting requirements are not changed by the draft ZTA.
 - The replacement pole must be within 2 feet of pre-existing pole and must be same color or design as pre-existing pole.
 - Replacement pole height is limited to 5 feet more than pre-existing pole in most residential areas.
 - Height limit is increased to 10 feet more than pre-existing pole if the paved width of the road is greater than 30 feet, and a maximum height of 45 feet if the paved width of the road is greater than 60 feet. These additional heights are provided for technical reasons (more height is need to serve both sides of congested roadways).
 - Only small antennas are permitted (4 feet or less in height) on poles, and equipment must be at the base of poles less than 20 feet in height.
- Pre-existing parking lot lights can be replaced as Limited Use in commercial areas.
 - Similar restrictions apply; height limit is 10 feet more than pre-existing pole.
 - Purpose is to allow antennas on lights in parking lots lights in places such as Clarksburg Premium Outlet, big box commercial plazas and neighborhood fast food and retail centers as alternatives to neighborhood poles.
- Antennas can currently be collocated as Limited Use on buildings that meet a minimum height. ZTA lowers the minimum building height to 35 feet in residential areas, and 15-20 feet in commercial areas.
 - Purpose is to allow antennas to be attached to 1 and 1.5 story commercial buildings, like large grocery stores or bank branches.
 - Antennas must be painted or screened in material that matches building color or design, and the size of the permitted antenna is smaller on lower height buildings.
 - The prohibition on attaching antennas on detached houses and duplexes will be extended to also prohibit attaching antennas on townhouses.
- Antenna size limits are altered to allow slightly taller or wider antennas, but cubic foot volume limits are added, and more antenna categories are created, to allow only small antennas on poles and lower height buildings.
- Other technical changes are made to include Planned Unit Development (PUD) zones and other zones retained from the previous zoning code, in the current 2014 code. For example, a current reference to “residential zones,” would not include a residential PDU zone.

NOTE:

1. PEPCO has agreed in concept to work with County on language to make replacement utility poles subject to height limitations, but to not restrict PEPCO’s ability to increase pole height for electrical needs.
2. Additional language is being drafted to ensure the height increase for pre-existing poles can be used one-time and to replace damaged poles, and cannot be used to perpetually increase pole heights.

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**NEW SIZE LIMITS – ANTENNA AND EQUIPMENT, REPLACEMENT POLE HEIGHTS, AND
MINIMUM BUILDING HEIGHTS (when attaching antennas)**

- Except as noted below, antennas and equipment can be installed on traditional tall towers, roofs or building facades on buildings 35 ft or taller in residential detached and rural residential areas, and on buildings 20 ft or taller in Commercial/Residential, Employment, Industrial, or Planned Unit Development zones.
- Panel antennas, a maximum of 9 ft tall and 9 cu ft (allows requested 8 ft 9.2 in x 20 in x 7 in antenna and smaller), can be installed on tall towers and rooftops.
- Box antennas, a maximum of 4 ft long and 46 cu ft (allows requested 39 in x 48 in x 47 in), must be painted or screened the same color or design of a building. They must be placed at least 15 ft above ground, and can be placed on tall towers, building roofs, and on the side a building.
- Small antennas, either a maximum of 4 ft tall and 15 cu ft enclosed in a canister (allows requested 4 ft tall, 15 in diameter canister), and maximum 2.5 ft tall and 2.5 cu ft enclosed on small panels (allows industry small panels), must be painted or screened same color or design of building. They must be placed at least 15 ft above ground, and can be placed on tall towers and building roofs, on the side a building at least 15 ft tall, and on replacement poles.
- Pre-existing streetlights, utility poles, and parking lot light poles in commercial areas can be replaced with a new pole as a Limited Use if the new pole is within 2 ft of the pre-existing pole, the wiring is inside the pole (or in a conduit on wooden pole), the equipment is painted the same color or design as the pre-existing pole, the pre-existing pole is removed within 10 business days of installation of the new pole, and the height of the new pole is:
 - [Typically the pre-existing pole must be removed and a stronger and taller replacement pole installed, to support antennas and equipment.]*
 - No more than 5 ft taller than pre-existing pole where paved distance between curbs in a right-of-way is less than 30 ft.
 - [Where the shortest 14-ft streetlight exists, a new pole could be up to 19 ft.]*
 - [Where the taller 27-ft streetlight exists, a new pole could be up to 32 ft tall.]*
 - No more than 10 ft taller than pre-existing pole where paved distance between curbs in a right-of-way is 30 ft to 60 ft.
 - [More height is granted for technical reasons, to allow a stronger signal to reach both sides of 6 lane roads, and where more traffic congestion means more simultaneously connected mobile devices in vehicles.]*
 - No more than 45 ft tall where the paved section in a right-of-way is greater than 60 ft.
 - No more than 45 ft tall on private property in commercial retail, employment, industrial zones.
 - [Utility, street light, and parking lot light poles on private property are permitted to be replaced in 3 commercial areas so that parking lot lights can used to host antennas as Limited Use.]*
 - No setback requirements for replacement of pre-existing poles, because pre-existing streetlights and parking lot lights may have been installed without meeting a setback limit.

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- Additional language will be submitted as an amendment to ensure that the height increase can be used once and for damaged poles, but not to perpetually increase the height of poles.

OTHER ZONING CHANGES

- Telecommunications towers are allowed as a Limited Use in the Agricultural, 2 of 3 Rural Residential, 3 of 4 Employment, and all Industrial zones. The ZTA would allow replacement poles as a Limited Use in the areas where telecommunications towers are not currently allowed as a Limited Use (other than as an Accessory Commercial Use attachment to a building), that is, in the Residential, Rural Neighborhood Cluster, Neighborhood Retail, Commercial/Residential, and Planned Unit Development zones.
[Planned Unit Development (PUD) zones are holdover zones carried over into the current 2014 Zoning Ordinance.]
[Replacement poles – subject to height limits, would be allowed in residential neighborhoods with underground utilities or aerial utilities, and in urban downtowns.]
- Where a carrier cannot reach agreement to use pre-existing structures, a conditional use, requiring a zoning public hearing, continues to be allowed in Residential neighborhoods. The ZTA retains the 1 foot for 1 foot of height setback, but removes the 300 ft setback requirement.
[There are streets with underground utilities on which the streetlights are not owned by the County. If a carrier cannot get permission from the streetlight owners to use the pre-existing poles, the conditional use process remains. However, new poles could not be placed in the right of way if the 300 ft setback remains. The 1 foot for 1 foot setback requirement remains and would have to be met for a conditional use.]
- The minimum building height required to install antennas on roof or facade is lowered to 35 ft in residential neighborhoods and 15-20 ft in commercial areas. The current height requirements are 50 ft in residential neighborhoods and 35 ft in commercial areas. Many commercial one-story and one-and-one-half-story buildings, such as large supermarkets and neighborhood banks, could be good locations to place antennas if the minimum height is lowered. Some anomalous tall buildings in residential neighborhoods can be used if minimum building height in residential neighborhoods is lowered.
- Placement of antennas remains prohibited on detached homes and duplexes. ZTA expands prohibition to also prohibit placement of antennas on townhouses.
- New towers in Employment zones must meet 1 foot for 1 foot setback when abutting Agricultural, Rural Residential, and Residential properties. Planned Unit Development zones are not part of these categories and are added to this list to ensure the same setback must be met when abutting Planned Unit Development zones.
- Replacement poles are permitted as a Limited Use in Planned Unit Development zones. Site plan and development plan amendment will not be not required.

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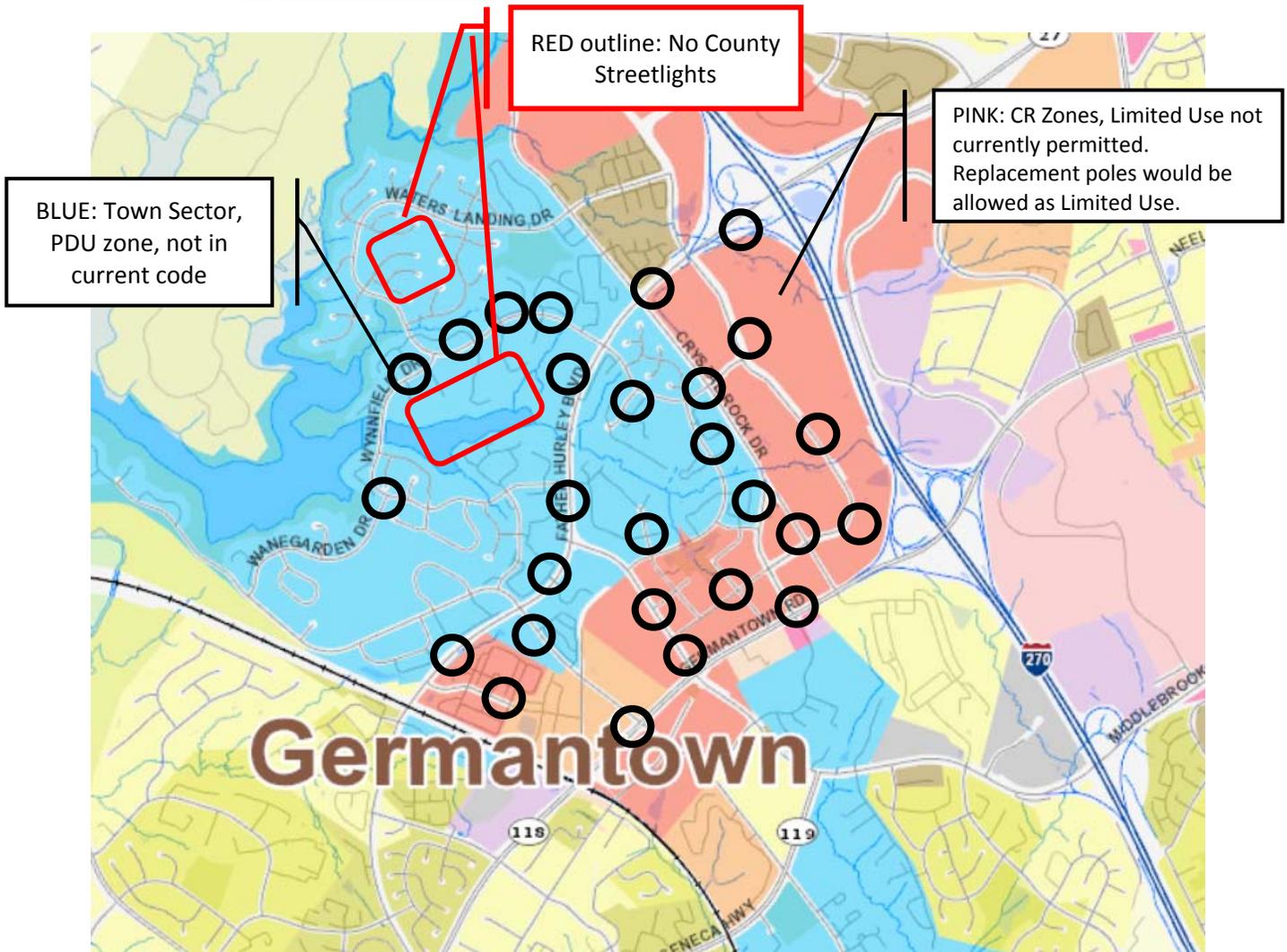
TECHNICAL AMENDMENTS

- Current law references antenna size, but most antennas are enclosed – either to protect from the elements or for aesthetics – in a panel, canister, or box shaped enclosure. ZTA changes will:
 - Apply size limitations to the combined volume of the antenna and its enclosure.
- Current law limits antennas to sizes that prohibit providers from using more powerful or efficient antennas. The technical trade-off is more smaller antennas are needed if taller, more powerful, antennas cannot be used. ZTA changes will:
 - Keep a fixed height limit but make the height limits slightly larger than now permitted.
 - Add a volume limit to give some flexibility about width and depth while maintaining an overall size cap.
 - Create size limits for different types of antennas, and generally only allowing the smaller-sized antennas on poles and buildings.
- Current law uses the term “small cell.” Small cell is a marketing term, that does not tie to any technical requirement or definition or specific technology. Providers requested to deploy “small cells” on 76-ft tall poles and 27-ft tall poles, and could mean an antenna 1.25 cu ft in volume, or 46 cu ft in volume. ZTA changes will:
 - Eliminate term “small cell” and specify whip, panel, box, small antennas enclosed in a canister, and small antennas enclosed in a small panel.
 - Because of evolving antenna and equipment technology, a separate recommendation will be provided to suggest reviewing antenna and equipment size limits every three years.
- Current law allows very large equipment cabinets, *e.g.*, 560 to 1400 sq ft and 12 to 14 ft in height, because it was designed to allow equipment to support 100 ft towers. Antennas must have equipment to convert an analog wireless RF (radio frequency) signal to a digital IP (Internet Protocol) data packet that travels through fiber. It is hard to disguise this equipment when mounted on very short poles. The equipment should be aboveground to allow air-cooling and avoid installing noisy fans. Some providers can use equipment installed in the base, at least one provider cannot. Some providers are also experimenting with wireless transmission as an alternative to IP data in fiber.
 - Equipment for small antennas is limited to 12 cu ft (fits 6 ft x 2 ft x 1 ft) and further to 2 ft wide if on a pole (3 ft x 2 ft by 1 ft).
 - Leveraging separate DOT requirements for use of County streetlights may be the best path to encourage equipment manufacturers to make attractive streetlights with sufficient ventilation for equipment in the base.

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SUPPLEMENTAL EXHIBITS

ZONES source <http://www.mcatlas.org/zoning/>



Black circles indicate some locations where one provider is seeking to replace current utility poles or streetlight poles.

- RED AREA: The ZTA would allow pole replacements as Limited Use in commercial areas – currently, new antennas can only be placed on buildings in commercial areas. Providers need more antennas at lower heights provided by poles to supplement antennas on higher height rooftops. It can be infeasible to attach antennas and obtain power supplies for them on building facades.
- BLUE AREA: The 2014 zoning code created new zones, but some zones are retained from the old code, *e.g.*, Planned Unit Development (PDU) zones, and these retained zones are not covered by references to the new zones.
 - Replacement poles would be permitted in rights-of-way in Planned Unit Development zones and other residential and commercial zones.
 - Deployment in commercial areas requires 1 foot for 1 foot of height setbacks when abutting residential areas. Same setback would apply when abutting Planned Unit Development zones.

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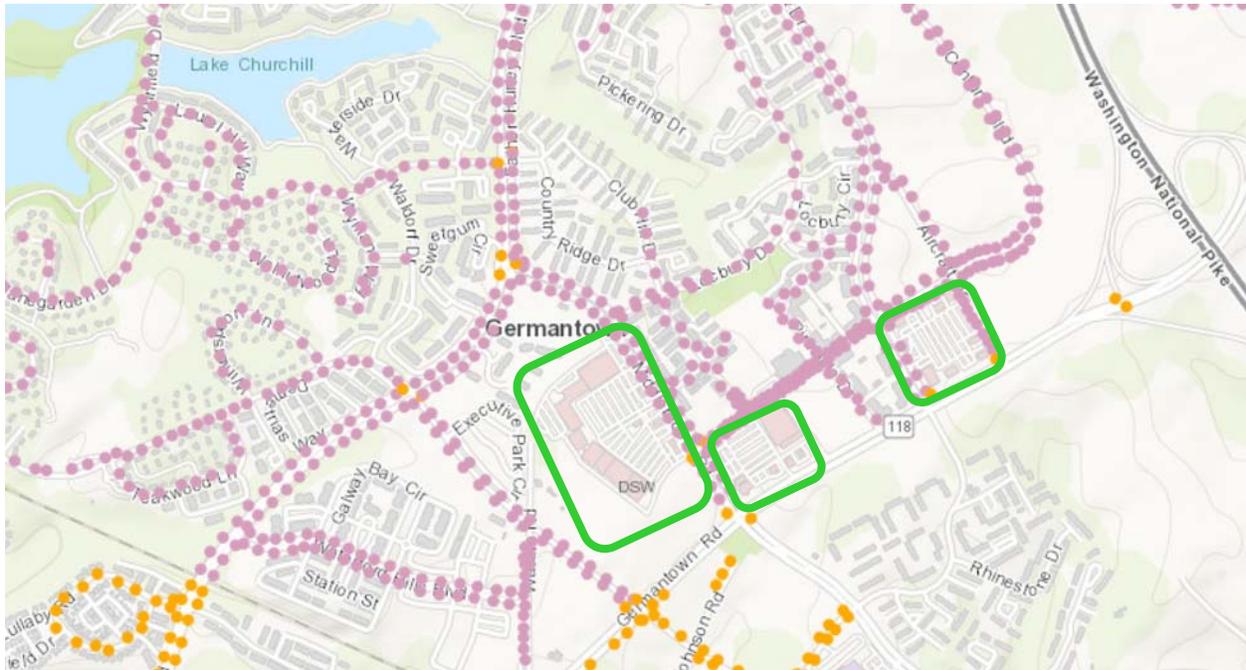
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STREET LIGHTS, source <http://mcgov-gis.maps.arcgis.com/apps/View/index.html?appid=c6899430e2f0423d9ea3beb3d3cae23c>

Limited use in commercial zones and replacement of parking lot streetlights in commercial zones is needed to allow antennas to be placed in parking lots.

PURPLE AND YELLOW DOTS: These are County-owned streetlights. There may be no preexisting streetlights to use as replacement poles near small retail centers.

GREEN SQUARES: These parking lots can provide more opportunities to place poles in residential areas.



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EXAMPLE OF BIG BOX COMMERCIAL AREA: CLARKSBURG PREMIUM OUTLET

GREEN SQUARES: Parking lots

