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ENG-036-18

MEMORANDUM

To: Township Committee

From: Engineering Department

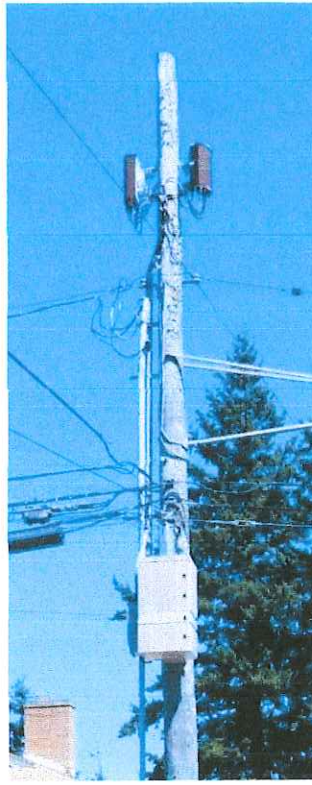
Date: March 19, 2018

Subject: Proposed Ordinance Regulating Wireless Facilities in the Township's Right-of-Way and Master License Agreement

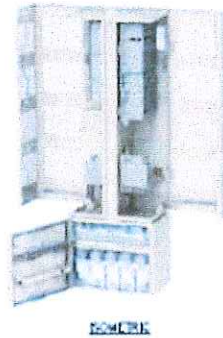
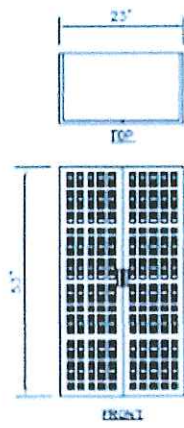
As you are aware, the Engineering Department has received several applications from wireless providers to install wireless facilities within the Township's Rights-of-Way (ROW). It is our understanding that the Township Committee anticipates introducing a new ordinance in order to facilitate the processing of applications and master licensing of these facilities on or about March 21, 2018. Please accept this memorandum in regards to recommendations related to certain siting issues related to these facilities which have been included in the draft ordinance that will be considered by the Township Committee.

By way of background, wireless providers seek to place small cells within the ROW to better expand available wireless broadband capacity. In most circumstances, these facilities will include a small antenna on the top of an existing pole or a new pole erected just to house a small cell (Wireless Pole) and a wireless cabinet. The wireless cabinet can be placed on the pole (Pole Mounted Wireless Cabinet) or on the ground (Ground Level Wireless Cabinet).

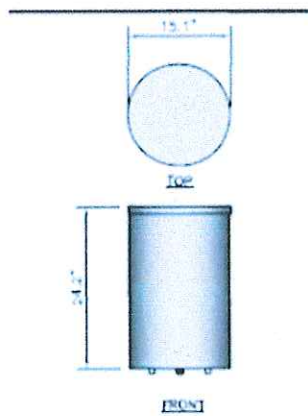
For the Committee's review and consideration, below are several examples of such installations. This includes a photo of one of several poles recently installed along Mendham Road through Peapack Gladstone, Chester Township, Mendham and Bernardsville.



DIPLEXER DETAIL (FUTURE)
P/N: FDAP5002/1C-3L
NOT TO SCALE



*BATTERY CABINET NOT INCLUDED





Cumberland County



Mendham Road – Peapack Gladstone

The Engineering Department has discussed various issues related to the administration of applications for these facilities in the ROW. These issues include potential zoning conflicts, siting issues, varied safety issues and impacts to Township facilities needed to ensure that the rights of the public to pass and repass are preserved. Accordingly, these proposed facilities require authoritative review to ensure that they will not impact the welfare, health and safety of the public in the ROW. The system set forth by the proposed ordinance would require that any entity seeking to place wireless facilities in the ROW must first enter into a Master License Agreement with the Township.

Small cells and Pole Mounted Wireless Cabinets can be relatively unobtrusive. Under the proposed ordinances, these installations need only receive site specific supplemental licenses for every site they wish to place a small cell or Pole Mounted Wireless Cabinet. This office has studied the safety, ROW management, aesthetic and visual impacts of small cell equipment, and Pole Mounted Wireless Cabinets and is comfortable making certain recommendations to the Township Committee related to where these facilities should be sited based on the standards set forth in the proposed ordinance.

Ground Level Wireless Cabinets and Wireless Poles are treated differently under the proposed ordinance. From a safety, ROW management, visual impact and aesthetics perspective, of particular importance is the placement of Ground Level Wireless Cabinets and Wireless Poles along the ROW. As represented in the schematic above, the small cell node (antenna) itself is relatively small, only about twenty-four (24) inches in height and fifteen (15) inches in diameter. The cabinets, on the other hand, are around fifty-five (55) inches tall and twenty-three (23) inches wide. Given the size of these cabinets, their presence on the ground, as opposed to on the pole, can have a number of unintended consequences for the Township's ROW.

As provided in the pictures above, Wireless Poles can also be quite large and take up a lot of room in the ROW. Unlike traditional utility poles used to distribute electricity and wireline telecommunications services, which are by their very nature set down at regular intervals, Wireless Poles can be placed anywhere. Generally, existing utility poles in the Township are placed approximately one hundred (100) feet apart. Without having some regulation on where

Wireless Poles can be placed, it is conceivable that multiple Wireless Poles can be placed within one hundred (100) feet. And, as will be discussed below, this too can have a number of unintended consequences for the Township's ROW. With limited space in the ROW the Township must be conscious that an unlimited number of users cannot occupy the ROW. We currently have Southeast Morris County MUA, PSE&G, JCP&L, Verizon Fios and telecommunications, AT&T telecommunications, Algonquin/Texas Eastern, Spectra, Infinity Cable, Morris County MUA, storm and sanitary sewer facilities located underground and overhead at various locations. It should also be noted that some utilities have multiple pipes and/or conduits for extra future capacity or transmission lines to convey increased volume for distribution. Adding wireless facilities, without some reasonable regulation thereof, to the ROW has the potential of overloading this limited space and would, consequently, prevent the Township from receiving access to robust wireless service.

From a safety perspective, the Township must ensure that drivers who use the ROWs will have unfettered sight access across the ROW. This is particularly important as it regards to sight triangles along intersections and driveways where approaching vehicles must be able to see oncoming traffic. Additionally, drivers must be able to see clearly what is approaching the roadway from the adjoining ROW. It's important to make sure that the ROW does not become so cluttered with Wireless Poles and Ground Level Cabinets, that sight distance becomes limited. Issues regarding safety can also exist below ground wherein minimum separation distances are required to be maintained between facilities such as gas, electric, water and sewer, and as such can further reduce available area within the ROW.

From a ROW management perspective, it is necessary to manage how facilities are placed in the ROW because such areas have only a finite amount of space. The Federal Highway Administration has acknowledged this problem by stating, "[as] demand for the finite space in existing ROW increases, the difficulty and cost of adding new utility facilities and relocating existing utility facilities also increases. Just as significant is how utility service interruptions may add to public discontent with overall highway construction. It is therefore essential for planners, designers, and builders of street and highway projects to avoid unnecessary utility relocations..."Federal Highway Administration, Avoiding Utility Relocations, <https://www.fhwa.dot.gov/utilities/utilityrelo/2.cfm> (accessed March 7, 2018). It is important that the Township manage its ROW and encourages wireless companies to use existing poles and to not add additional facilities (Wireless Poles and Ground Level Wireless Cabinets) onto the ROW. In this way, the Township can ensure that, going forward, there is adequate space for all wireless companies and all public utilities to provide service to Township residents. This office notes that the Federal Telecommunications Act specifically preserves the Township's authority to "manage the public Rights-of-Way." 47 U.S.C. 253(c).

In regards to ROW management, this office wishes to stress the rational basis upon which the Township is differentiating its treatment of Wireless Ground Cabinets and Wireless Poles versus how other facilities are sited. As stated above, existing utility poles are placed, on average, roughly one hundred (100) feet away from one another in the Township. This is so because, as a technical requirement, the holding up of existing electric and other wireline systems only require a pole every one hundred (100) feet. Wireless Poles, on the contrary, would only carry wireless facilities and could, very easily, fill up an entire ROW. Similarly, while ground level electric and traffic light cabinets may be similar to Ground Level Wireless Cabinets in size, their impact is, by their very nature, much more limited. For instance, a traffic light cabinet will only exist near a traffic light. A Ground Level Wireless Cabinet installation is not so limited. Rather, Ground Level Wireless Cabinets must be placed alongside every Pole Mounted Small Cell Equipment

installation to the extent that a company cannot place such a cabinet on the pole. Taken to its logical extension, Ground Level Wireless Cabinets, like Wireless Poles are substantively different than existing facilities in the ROW and could, if unregulated, quickly fill up same. Consequently, it is necessary for the Township to regulate the siting of Ground Level Wireless Cabinets and Wireless Poles more strictly than other existing facilities.

Lastly, there are also certain aesthetic concerns that are raised by Ground Level Wireless Cabinets and Wireless Poles. Ground Level Wireless Cabinets are large facilities. Their unrestricted presence will significantly disrupt the viewscape. The presence of new poles raises identical concerns. These concerns are particularly acute in residential areas. There is also a greater potential impact to quality of life for residents if new poles are allowed to be constructed in the Township right of way where utilities are required to be constructed underground. See Residential Site Improvement Standard (5:21-4.12).


Given these safety, ROW management and aesthetic concerns, our office proposes that Ground Level Wireless Cabinets should be prohibited in residential zones and only be permitted, as a conditional use, in non-residential zones¹. New poles should be prohibited in residential zones and, likewise, made a conditional use in non-residential zones. The conditions for placement of Ground Level Wireless Cabinets and Wireless Poles in non-residential zones, as represented in the draft ordinance, sets forth reasonable size and distance limitations and imposes camouflaging requirements.

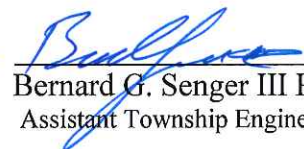
Our office notes that, pursuant to the draft ordinance, a denial under the aforementioned standards for Ground Level Wireless Cabinets and new poles can be appealed by way of D1 variance relief. Consequently, in residential areas, where a Wireless Pole is required or if a Ground Level Wireless Cabinet is necessary, Zoning Board approval would be required.

It is the goal of this proposed ordinance to provide a permitting mechanism that both expedites the adoption of new wireless technologies into Morris Township but also promotes safety, ROW management and the aesthetics of the Township.

Please let us know if you have any questions or require additional information.


James R. Slate P.E.
Township Engineer


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Assistant Township Engineer


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Assistant Township Engineer

cc: Mayor and Township Committee
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Cathy Amelio, Township Clerk
Steven Warner Esq. Planning Board Attorney
Richard Oller Esq., Zoning Board Attorney
Paul Phillips, Township Planner
Edward Purcell Esq., DiFrancesco Bateman Kunzman Davis Lehrer & Flaum, PC

¹ "Non-residential Zone" means the B-11, OL-5, OL-15, OL-40, I-21 and CEM zones.
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