

Development Activities Meeting – Form to Use During DAM

This report created by the Neighborhood Planner and included with staff reports to City Boards and/or Commissions.

Logistics	Stakeholders
Project Name/Address: Small Cell Pole Replacement – 300 block of Forbes Avenue	Groups Represented (e.g., specific organizations, residents, employees, etc. where this is evident): Pittsburgh Downtown Partnership
Parcel Number(s): n/a	
ZDR Application Number: n/a	
Meeting Location: Zoom (DCP hosted)	
Date: November 15, 2021	
Meeting Start Time: 5:00 PM	
Applicant: Paul Whitley – ExteNet Systems, Inc. Matt Sturgill – ExteNet Systems, Inc.	Approx. Number of Attendees: 8
Boards and/or Commissions Request(s): Art Commission – new structure in the public right-of-way	

How did the meeting inform the community about the development project?

Ex: Community engagement to-date, location and history of the site, demolition needs, building footprint and overall square footage, uses and activities (particularly on the ground floor), transportation needs and parking proposed, building materials, design, and other aesthetic elements of the project, community uses, amenities and programs.

- Paul Whitley of ExteNet presented on the project. He described small cell antennas as “a small, compact solution to multiple wireless sites,” allowing for a string or network of sites that go through a utility as opposed to a larger site that goes on rooftops and buildings. He characterized small cells as being “more pleasing to the eye, and where people are going to see the same consistent design throughout the city.”
- P. Whitley defined a small cell as “a wireless transmitter and receiver design to provide coverage for small areas in an outdoor network.”
- P. Whitley described the project as the replacement of an existing light pole in the right-of-way with a new light pole affixed with an equipment and antenna. Everything would be mounted and out of the way, he explained, with nothing to come in contact with the public.
- P. Whitley noted that the proposed location was in front of the Tower at PNC Plaza, located near the corner of Wood Street and Forbes Avenue.
- P. Whitley said that there was just one pole with this application but that surrounding small cell sites will link to this site. He explained that that was why the sites were important, because they are part of a network.
- P. Whitley showed propagation maps — one with no small cell network and one with the “gaps” being filled in.
- P. Whitley explained that with small cell networks, engineers coordinate the network to work together to make sure there is coverage in as much physical area as possible (90-100% of a given area).
- P. Whitley showed a front view photo of the existing light pole.
- P. Whitley’s next slide showed a photo simulation and diagram of the proposed pole. 4G and 5G antennas are to be mounted on top and will accommodate multiple carriers. The carriers can tap into whether they need 4G or 5G capacity from the antenna. At the base, just a transfer with related cabling and small equipment would be present and would be concealed with what is called a “stealth design,” which P. Whitley characterized as “more pleasing to the eye as you walk by.”

- P. Whitley said that ExteNet was founded in 2002 and has deployed over 600 distributed networks across North America. He explained that in a nutshell, small cell networks would result in fewer overall cell sites throughout a city, because multiple carriers can have their antennas in one node.

Input and Responses

Questions and Comments from Attendees	Responses from Applicants
<p>Who is involved in the front end planning for something like this? For example who chooses the location and how are those sites qualified. The city/extenet, etc?</p>	<p>It starts with the radiofrequency engineers. They'll look at the colors on the map that shows the existing coverage and the holes in the coverage. Then they'll do a computer-generated model and coordinate the sites like an umbrella and fill the gap in coverage areas. They'll look at that as a blanket where all the sites need coverage.</p>
<p>The general proposal is to replace a City-standard historic light pole with a new design that has more support for 5G connectivity. This is one location you're getting approval for, but I imagine there will be other locations in Downtown. Will ExteNet will be trying to scale this model? What are you asking for this time, and are you going to be coming back for future locations?</p>	<p>This would be the proposed design for just this location. Most of the time, the light poles are pretty close to the design. They can do a site-specific design, but they try to stay consistent with the design. If there's something that you prefer at a different site, we can talk about design at a different time.</p>
<p>That is something we would feel strongly about: the limitations of various streetscape amenities, with as much standardization and following of the City guidelines as possible. What you're proposing is a bit of a different feel but is a larger footprint. Are there other menu options that you can work with?</p>	<p>P. Whitley: A lot of time and effort went into designing the aesthetics for this pole. We could work with the city continually on aesthetics. We can go back to them.</p> <p>M. Sturgill: The design we're presenting to you is what the small-cell guidelines from the Art Commission would prescribe for the city — as close to what those would prescribe. This falls a little outside of the guidelines because the base is wider, because it has both 4G and 5G. The current guidelines allow for 5G only. This discrepancy is why we're presenting to you all and going through this process and the panel of the Art Commission. ExteNet has built over 100 cells in Pittsburgh and over 100 outside of city in Western Pennsylvania.</p>
<p>That was really helpful, Matt — the guidelines for why you need to go to Art Commission. We would definitely support 5G connectivity downtown. Do you anticipate over time the size of infrastructure needed to provide the same amount of service? Is that likely? My thought is that ExteNet and other companies would be looking to deploy similar technologies downtown. Just want to mindful that it'll be kept as consistent as possible.</p>	<p>In general, I would say that yes, the footprint of the antenna and equipment will get smaller. There are people who are wireless service providers building 5G only that have a smaller footprint. Our customer for this node needs to continue to provide and expand 4G service even while providing 5G service. In the future, there will be a transition to building only 5G. There's still a significant population that still only has 4G cell phones.</p>

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<p>With the selection and replacement of acorn light poles with the double acorns, is it an option to not replace the poles and just add the 4G and 5G equipment?</p>	<p>DOMI specifically guides us to replacement of existing poles as an installation method over attaching to existing poles just to limit the proliferation of obstacles on the sidewalk. That was in early 2019. We haven't done anything else since. We've worked within the existing aesthetic guidelines, except we've come to this particular streetscape that's acorn lights, and we've been guided by the City that we can't install something that's inconsistent with the streetscape there, so we have to get approval for an acorn design that can house both 4G and 5G, and that's kind of how we got here.</p>
<p>After this installation, how much of Downtown will be covered in 5G?</p>	<p>I cannot provide exact percentages; we're not the wireless service provider. I can say that we've added 5G to all of our existing 4G nodes downtown, so that is already pretty much finished, but I can't really say how many more small-cell nodes would be needed to completely cover Downtown with 5G.</p>
<p>Say, Art Commission approves these designs, would it be your intention with the City's approval to scale this in other locations as the network warrants?</p>	<p>We act on behalf of the wireless service provider who initiates a contractual agreement to provide a small cell. So, we don't have any more locations that we're pursuing currently in downtown. But, if we did get a new contract to pursue a location, we would look at the existing streetscape and look at what types of light poles are currently present and in conjunction with the small-cell guidelines to determine what type of structure would best fit with the aesthetic guidelines. So, if we received a contract to build a small cell where the contract is acorn lights, and that contract required 4G and 5G, then yes, we would look to do this again, yeah.</p>

Other Notes

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Planner completing report: Phillip Wu