

Summary Minutes
City of Sedona
Planning & Zoning Commission Work Session
Council Chambers, 102 Roadrunner Drive, Sedona, AZ
Thursday, May 18, 2017 - 3:30 p.m.

1. CALL TO ORDER & ROLL CALL

Vice Chair Levin called the work session to order at 3:30 p.m.

Roll Call:

Planning & Zoning Commissioners Present: Vice Chair Kathy Levin and Commissioners Randy Barcus, Eric Brandt, Avrum Cohen and Larry Klein. Chair Marty Losoff and Commissioner Mayer were excused.

Staff Present: Lauren Browne, Warren Campbell, Justin Clifton, Audree Juhlin, Cari Meyer, Karen Osburn, Robert Pickels and Donna Puckett

2. ANNOUNCEMENTS & SUMMARY OF CURRENT EVENTS

Audree Juhlin announced that, at the recent Volunteer Appreciation Luncheon, Commissioner Barcus was recognized for his attention to detail and preparation for the Commission, and additionally, we had our Employee Appreciation Day today and we have two award recipients amongst us. First, Karen Osburn for her leadership skills and Warren Campbell won Employee of the Year. All recipients received a round of applause.

3. Discussion regarding a recommendation to the Sedona City Council regarding amendments to the Sedona Wireless Communications Facilities Ordinance, Sedona Land Development Code, Article 17, Wireless Communications Facilities, to be consistent with changes in federal regulations.

Introduction: Karen Osburn introduced CityScape Project Manager Susan Rabold who led the two previous joint meetings, one in the summer and one in the fall, with the Commission and City Council when we started this project, and she set the stage for the development of both the ordinance and the draft of the Master Plan. Karen also explained that even though the agenda items are listed separately, they are very synergistic documents, so Susan will cover both agenda items 3 and 4 in her presentation. Karen encouraged the Commission to ask questions and introduced Jon Edwards, CityScape Engineer, who has done a lot of the mapping and technical analysis and helped draft the wireless ordinance.

Vice Chair Levin asked if agenda items 3 and 4 should be combined, and Robert Pickels indicated yes. The Vice Chair then advised the public that there will be an opportunity to speak and, if interested, they should fill out a card. Additionally, these items will come back to the Commission for a decision by the Commission on June 1st, which will result in a recommendation to the City Council.

Robert Pickels requested that the Vice Chair officially open agenda item 4 as well, and the Vice Chair did so at this time.

3. Discussion regarding a recommendation to the Sedona City Council regarding amendments to the Sedona Wireless Communications Facilities Ordinance, Sedona Land Development Code, Article 17, Wireless Communications Facilities, to be consistent with changes in federal regulations, and 4. Discussion regarding a recommendation to the Sedona City Council regarding the draft Sedona Wireless Communications Master Plan.

Presentation: Susan Rabold referenced the purpose of the Master Plan and indicated that the goal of the Wireless Telecommunication Master Plan is to facilitate the creation of an optimized wireless telecommunications environment that is efficient, capable and meets the long-term forecasted user requirements of businesses, residents and visitors in Sedona, while minimizing visual impact of the new infrastructure. Those are the goals that they are trying to accomplish through the master planning process, and make accompanying public policy that follows based on the work in the Master Plan. The Master Plan precedes work on the ordinance, because you can't regulate an industry when you don't understand what the deployment strategies have been to date and what network is in place. From that, they look at where they are going in the future, so all of the work done in the master planning process is ultimately to look at the gap analysis, knowing that the industry will want to go into those gap areas. Then, the public policy piece addresses how those gaps will be filled with the least amount of visual intrusion into the landscape and with as few of those facilities as possible.

Susan then provided a brief introduction to the wireless industry that started in the early to mid-1980s and showed slides of sample first generation devices referenced as 1G, which was the installation of low-frequency spectrum communication devices. The handset was much like a small handbag and when you got outside of your service area, much like AM and FM stations before satellite, the signal would get crackly and fade away, until you reached the service area of another tower antenna. In the early to mid-1990s, the industry started deploying the second generation known as 2G that operated in the higher frequencies. The handset looked like the Star Trek walkie-talkies and flip phones that were much smaller than the 1G, but to make these devices operate effectively they required more infrastructure – more towers on buildings or rooftops, water tanks, etc., because the Laws of Physics prevent the signal from traveling as great a distance as the 1G wireless. In flat terrain, the 1G towers could typically be from four to eight miles apart, depending on the height of the tower. The taller the tower, the farther the signal would broadcast with the low frequency spectrum used in the 1G wireless. With the 2G wireless, they operate on a higher frequency, so the signal doesn't travel as far and just by the virtue of changing that variable from low to high, they required probably a ratio of two or three sites in the same geographic area as one 1G site. The advent of 3G was to bring about operability in the handset that started to allow text messaging, email access, and use of wireless broadband, and the 3G was the introduction of broadband into the network to allow for more functions on the handset. Everyone is now pretty familiar with the new handsets coming out, such as the smartphone where you have all kinds of applications. You have access to locators, streaming video, music, media-sharing videos, and pictures, etc., and this required a tremendous amount of bandwidth. It put the existing infrastructure at capacity and, to allow the functionality of these handsets, more equipment was needed in the form of antennas closer together, closer to the subscriber base where the handheld phones, laptops watches, notepads, and other devices that use that spectrum are being used. The future is going to be 5G and that is a lot about capacity, faster bandwidth and the internet of things, including machine to machine communications, between the handsets and other machines in order to have more functionality between devices, so the industry will continue to need more facilities as we move forward.

Commissioner Cohen asked how satellite transmissions rather than towers will affect this. At least one company is beginning to do that. Susan noted that satellite has been in existence for quite a while, and there are some challenges with satellite. First, it is very expensive to launch a satellite, and if there is an issue with the satellite like maybe four years ago when the satellite went down, it affected the network significantly until they could get it repaired. Additionally, the satellite network doesn't eliminate the need for terrestrial base stations; they work in tandem, so it may bolster the network, but it will not replace the terrestrial base facilities. Jon Edwards added that the bandwidth capacity for satellite is not there. There are new technologies being tested to see if they can bring that back, but it hasn't been able to keep up with the 4G speeds, so that was the limitation.

Susan then indicated that there are three locational variables considered by the industry when siting facilities. The first is spectrum and 1G was low frequency operating in the 800 MHz range and now they are in the 700MHz range. Higher frequencies were 1900-2100 and now we are

seeing them in the 2400-2500 frequency, and with the 1G and 2G, they were one or the other, but now a lot of the carriers own spectrum in both of the spectrum ranges, so AT&T will have spectrum in both low and high frequency now, which allows them to blend the spectrums to penetrate buildings, get distance and increase capacity, which creates an issue for some types of concealment facilities. Coverage is another consideration, because most Americans are starting to use wireless handheld phones as their primary form of communications. Over 50% of American households have now eliminated their landlines, and as more households do that, it adds additional stress on the existing infrastructure. Additionally, more households have more than one wireless device, so that causes a capacity issue and a number of individuals have multiple wireless devices, like her son who has the notebook, wrist phone and smartphone, and they all talk to each other, so the more consumers blend their devices, it affects coverage and ultimately also affects the network capacity. In rural areas, you still see fewer facilities farther apart, because there aren't as many subscribers in the geographic area, but in urban densities, you will see facilities much lower and closer together, because of the way the network requires coverage and capacity for the subscribers. Regarding capacity, just to drive home the rate that the capacity is being used, between 2012 and 2013, capacity doubled and by 2018, it will go up 650%, although she thinks they will exceed that, because of the way the consumers have taken so strongly to their wireless devices. They can't keep up with the demand in their networks.

Commissioner Barcus confirmed that is next year and Susan added that we have probably already come very close to that if not exceeded it. The Commissioner then stated that percentage is based on the level in 2013, so that would be the base and it increased six or sevenfold in less than 5 years, and Susan indicated that is correct. Jon Edwards added that the capacity is limited based on each location. There is a maximum number of users that can interface with each tower or base station, so if you can have 300 users per site and have five sites, you can get five times that versus three times that with three sites, so capacity is limited by the number of sites and that is why they are closer together. Commissioner Barcus then asked if, in their assessment, Sedona is rural or urban density in the wireless telecommunications perspective, and Susan stated urban.

Susan then explained that the infrastructure typically has microwave dishes commonly used for backhaul, and a lot of times they are typically working in tandem with panel antennas, and the small boxes being added to the antennas are remote radio units, that help add capacity to the sites without having to add more facilities. Then, you have the Omni-directional whip-type antenna and this is the most common infrastructure they use. The antennas have to be mounted above ground, above the ambient tree height and above the rooftops, because trees and buildings change the way those antennas can propagate and it keeps the network from functioning at its optimum level.

Commissioner Cohen asked if the panel antennas and the Omni-directional type are also microwave, and Jon indicated no. Microwave is a higher frequency and usually in a point-to-point location, so for the backhaul, the panel antennas talk to your phone, but the backhaul antennas are what link the entire system back to the main switchboard for the network. These towers have to connect back to the whole infrastructure with the world, so if they can't use fiber, they use microwave in remote areas like here where it is hard to get fiber to the sites, so they link one tower to the other and come back to a central location at the main offices.

Commissioner Cohen then asked if they all work by line of sight, and Jon explained that for the most part, yes. As you get into the higher frequencies, line of sight becomes more important, whereas, with lower frequencies, you can get some bending of the signal and get penetration through things like trees, but when you get up to 2,000 MHz, you have less ability to push through those obstacles. The Commissioner indicated that we have a lot of older buildings in our City and many have lead paint covered in the walls; he then asked if that affects the signal. Jon stated yes, it would; buildings themselves affect the signal, depending on their construction. He is not entirely sure what lead would do to it, but he believes it would make a difference. A lot of times 700 MHz will go through the buildings a lot better than the 2000. Susan added that is why the industry service providers are trying to own spectrum in both the high and low, so they can penetrate and have coverage as well.

Commissioner Cohen questioned if it is the low frequency coming into this room, and high frequency doesn't do that. Jon explained that they will use the lower frequencies for voice calls, because when you are talking on the phone, you are more prone to hear an interruption, but when you are texting or doing data, it sends that signal back and forth so fast you don't notice interruptions. That is why it might take a minute for the text. If that text message doesn't go through right away, it might take 20 seconds, but if you are talking, and they don't hear you for 20 seconds, you are going to notice that a lot more, so if they don't have the signal on the higher frequency, voice can be switched to the lower frequency automatically to get more reliability.

Susan Rabold explained that the antennas have to connect to ground equipment, and that is not the same equipment for the different frequencies. Coaxial cable is copper fiber that comes from each antenna down to the ground equipment, and the ground equipment is different for the different frequencies. The low frequency ground equipment shelter is much larger, because it generates more heat. The smaller equipment cabinets are typical for high frequency, because they don't generate as much heat, but you have to have the antenna mounted above the treetops and buildings, and the copper cable has to tie into the ground equipment. The antennas don't have to be on a tower; they could be on a water tank or a rooftop, but they do have to be elevated.

Commissioner Barcus asked for clarification as to what is in the ground equipment, and John explained you would have servers, circuit boards, microprocessors, small fans and electronics, etc. The Commissioner then commented that is why they need air conditioning in this hot climate, and Jon clarified that is wherever you go. The higher frequencies have a smaller wavelength, so the components used are smaller and don't generate as much heat, so if they have any fans, they are sometimes outside, but they don't really require an enclosure. The others are sometimes enclosed in a concrete building with large air conditioners and fans on them.

Commissioner Cohen asked why they are using copper wires. He didn't understand the difference between that and fiber optic, which is a glass wire that can take more heat, but transmits less electricity. Jon indicated that the newer technologies are using a lot of fiber now and a lot of the changes to the 4G are where they are taking out a lot of the coaxial lines to get more control with the fiber line. There is also less loss to it, so the newer technology is going to fiber now. Coaxial is more of an older installation, but it also depends on how complex the antenna and radios are. Commissioner Cohen indicated that fiber optics produce less heat than copper and asked if we need as big an infrastructure and air conditioning. Jon explained that the feed line going to the tower doesn't generate much heat; it is the components inside of the radios. You don't need the air conditioning for the feed lines. You are just going to see more of those coaxial lines; they are an inch or inch and a half in diameter, and while the fiber lines are a little smaller, they typically can run a lot more signal in those lines than they need for each coaxial.

Commissioner Klein confirmed that you have to have the ground equipment for the antennas to run properly and asked how many can run off of one of the ground equipment pieces. Jon explained that some antennas are multi-frequency and sometimes you could have multiple antennas per radio. Typically, it depends on the configuration, some systems are still using 2G, and in Alaska, they are still using some 1G, but 2G is being phased out and most are 3G and 4G, but as that goes down, that is less radios and that will also reduce the antennas at some point.

Susan Rabold then indicated that there are three types of non-concealed towers used by the industry. One is the monopole, which is a steel hollow pole, so the coax goes on the inside of it, which is ideal. Sometimes if you have multiple tenants on the tower, you will see coax on the outside, and they usually have to provide some bracing mechanism for structural capacity. The Monopole is also a self-support facility, because it doesn't have wires to help maintain its position. Next is a Lattice tower that is also self-supporting with a crisscross bracket, and then there is the Guy tower, which is a thinner kind of lattice with guy wires as anchors to support that facility. The Lattice and Guy towers allow more flexibility in terms of mounting locations, because the Monopole is designed with a certain number of ports to carry antenna arrays at those ports, whereas, the other

towers have a little more flexibility in terms of where the facilities can mount. Some communities prefer Monopoles and some prefer Lattice, so it is up to the community to decide which they prefer.

Karen Osburn explained that in terms of the non-concealed towers, part of the impetus for developing this Plan and the revisions to the ordinance is so this community never sees one of these within the City's boundaries again. From an aesthetic perspective, this is not what we want. We have some that exist within the community and everybody agrees they create a visual blight and are not the kind of thing we want. As you are walked through the ordinance and the Master Plan, there are specific disincentives for these and specific incentives to do something that does not look like that.

Susan then showed pictures of concealed freestanding towers, which are presently within the community, and one was a dual purpose small cell that showed the antenna array and functioning light that is in the parking lot of the Church of the Red Rocks. Susan explained that the equipment for that facility is at a lower elevation behind the landscaping. She then described a concealed flagpole tower and noted that the lines identify additional opportunities for additional antennas. She then pointed out that the antennas are flush-mounted inside with a fiberglass casing that goes over them, so all of the antennas and copper cable are contained within the flagpole, and this is located at a resort just outside of the City.

Commissioner Cohen commented that the transmission distance is different than on the tall ones, and asked what the difference is. Jon explained that the factors include the power levels, the frequency and the height. If you are at tree height or lower and at a higher frequency, it could be less than half a mile or quarter of a mile; at the lower frequency, it would go out further. Once you are above the trees, you would have more distance, but a lot of factors are involved. The taller ones will go out farther, so when you are in a community like Sedona where we are trying to limit the infrastructure, if you go too short, you require more of them so it is trying to find the best mix of amount of facilities and height, plus capacity also comes into play as we get into the newer technologies. More shorter poles will work better in the future, because the taller 100 ft. or 200 ft. towers will have problems if they are near large use areas that are dense; they won't be able to handle all of those users at the same time, while they could have maybe five years ago.

Commissioner Cohen then asked what the transmission interference with the signal or the transmission of the microwaves is by density of buildings. Is there more interference in a densely built-up area or does it make no difference? Jon explained they call the buildings, trees, etc., clutter and yes, they impact the signal. With trees, it makes a difference in the winter and summertime, but here you might not have the issue. Where the leaves fall off in the winter, you have better propagation and less impact than in the summer when the leaves are filled with moisture and knock the signal down. You don't have as much of an issue with that here seasonally. The Commissioner then wanted to know if those issues affect how many towers are needed and how they are located, and Jon indicated yes, it is like putting a puzzle together as far as where they are located and how tall they are. A 20-ft. pole might work fine in one area, if it is in an area that is level with trees and up a little bit, while a 30-ft. pole might not do as well in a valley surrounded by taller trees.

Susan Rabold referenced the macro towers and explained a macro tower is a large facility tower and the ground space is rather large; they accommodate a lot of capacity on these facilities. When you look at this other type of facility you can tell it is much smaller in size; the antenna is much smaller and it is considered a small cell serving a smaller geographic area, so it is not the same as a macro site. She then showed a macro facility that is concealed, and indicated that a lot of communities like the flagpole or "slick stick" without the flag, and they can be painted any color. They have been very effective in communities that are trying to reduce the profile of the macro tower, but a challenge is that while this tower is about 100 ft. and designed for five tenants or colocations, when AT&T owns spectrum in the low and high frequencies, they need two locations on that facility. If they were just operating in the low or high frequency, they would just need one spot, but now, if they need both frequencies antenna on that facility, they take two spots, so instead

of being for five tenants, that is reduced, and if you add perhaps Verizon that is doing the same thing, really only two service providers have maximized that facility and that is a new phenomenon.

Commissioner Cohen asked if that affects other companies besides AT&T, and Susan stated yes, and she has a slide that shows all of the different service providers in the City.

Susan stated that the good news is that the network deployed for the first generation is the framework for the second generation, which is then the framework for the third generation, etc., so they don't have to reinvent their network wheel with each new generation. They build and add onto what they already have, so you have a growing network, but the bad news for a lot of communities that are trying to limit the number of towers and antennas is that you will still have to have more to meet the increasing demand for capacity on the network.

Susan indicated that in terms of what this looks like when they start to look at the City of Sedona in the Wireless Master Plan, they do theoretical mapping, and it is theoretical, because while they can go to the different locations and catalog who is there, they don't have proprietary information about power densities, the type of antenna, and there are a lot of variables, but they can theorize what that coverage looks like. They aren't trying to predict the quality of the coverage; they are focusing on where they don't see the coverage being very good or not at all, because that is what they want to plan for in the future. They build into the mapping process the variables of terrain, clutter, such as trees and buildings, and the subscriber base, including tourism traffic counts and as much data as they can collect, and that is built into their modeling.

Susan explained that people ask about the minimum number of towers needed to cover their geographic area, and when they talk about high and low frequencies, it is pretty abstract, so they use root mean square (RMS) maps to demonstrate what it would look like. If Sedona was flat and you didn't have a large number of subscribers, for the low frequency facilities at an elevation of 50 ft., you would need 3 towers or three antennas mounted on a tower or rooftop or water tank. She then pointed out the location of that antenna and the search area, which means that the tower and antenna could go anywhere in that area. Using the low-frequency modeling, you would need about three in the general areas identified to cover the City, but just by changing the frequency, you end up needing 13 to cover the same geographic area.

Susan pointed out that they know Sedona is not flat, so when you turn on the terrain and add the topographic variable to the same scenario, you can see how the coverage area becomes distorted. The grey areas show where there is no coverage, and the only way to fill that gap is to add more infrastructure. Then you have more facilities, so you have more coverage, but you can see how areas still show up with no coverage. Coverage and quality of coverage are two different things, so they use a color variation to demonstrate superior, average and acceptable coverage. The yellow is considered superior. The closer you are to the antenna, the better the coverage, the better the signal and the better the capacity, and the yellow is considered in-building, so you would have coverage inside and outside the building and in your vehicle in that yellow area, but as you move away, it starts to turn green, which is considered average or outdoor and in-vehicle coverage. You won't have very good in-building coverage in the green area; you might have some, but not near as good as in the yellow area. When you get into the darker shades of blue and purple, that is your pedestrian or outside, which is an unpredictable area where you won't have coverage indoors and limited coverage outside. Again, the grey area will not have any coverage. You also see little spots, and that is because of the terrain and the way the hills grasp a little bit of coverage. Jon added that is when you have a line of sight point to the antenna.

Commissioner Cohen asked if population makes a difference, and Susan stated yes it does, and this takes into consideration the population density, because the more people you have on the network, the less coverage area you have. The Commissioner then commented that if we didn't have 300,000 tourists a year and just our 10,300 citizens, we could use a different system, and Jon stated that you wouldn't have a capacity issue, so you could go with fewer sites.

Susan Rabold said that they visited all of the existing inventory and you had a total of 22 antenna support structures in or around the perimeter of the City, and they include the sites on the perimeter of the City that have an impact on the City's jurisdictional boundary; otherwise, it would be an incomplete snapshot. There are 16 in the City and 6 on the perimeter, and the inventory includes the facilities that are used for personal wireless communications or microwave. They did not include any hot spots that might be used for businesses or wireless broadband or microwave for transmitting data like they noticed on some of the medical buildings, restaurants and car dealerships that have microwave links that talk to the banks. This was just for the purpose of wireless communications as we have discussed for wireless handsets, laptops, etc. She then showed a list of the current wireless service providers that own frequency in the geographic area. Some have deployed networks and some have not, but they are all entitled to deploy if they choose to do so, by virtue of the fact that they own the frequency and by federal law, they are allowed to build here. Many providers do not own the tower or building; you have vertical real estate owners. For example, American Tower, Crown Castle, SBA and the Sedona Fire District own towers, and they lease the space on the towers to the service providers. It is rather uncommon to find a service provider that owns the facility they attach to for the antenna. It is expensive to do that and they would rather invest their dollars in deploying their network rather than owning and managing the tower or building.

Susan indicated that as far as the existing wireless infrastructure, they found one concealed base station, which is an antenna on a building, and you have six non-concealed base stations, two concealed towers, two Monopoles that are non-concealed, seven Lattice and four Guy towers. When they could determine the heights of the facilities, they ranged from 25 ft. to 190 ft., with the average height of the infrastructure for personal wireless service facilities being 30 ft., so they used 30 ft. as the base for the Master Plan and mapping. Most of the taller towers are either outside of the City's jurisdiction or they are used by the Fire District or they are a broadcast facility. If they had taken the average of all of the towers, it would have skewed what the industry was using as their elevation, so when they looked at just the average height for the wireless industry, they also found that on some of the towers at the Fire District and on County land where they have multiple tenants, the lowest mounting elevation was around 30 ft., so they felt comfortable with the 30-ft. threshold. She then showed a map of the locations of towers or rooftops that have personal wireless service facilities on them, as well as other towers such as radio towers. She then showed pictures of the inventoried towers and base stations, and she pointed out the macro towers and their size compared to the base station equipment. The base stations are facilities where antennas are mounted that are not on towers.

Commissioner Barcus asked if the numbers on top of the pictures correspond to the map on the previous page, and Susan indicated yes, they do. She then identified the facilities used for public safety and pointed out the two broadcast towers, the base stations with private mobile radio use, which were included because those facilities could be expanded and they have microwave, and microwave facilities were included as well as other types of towers and the one small cell.

Commissioner Cohen asked if the cost of the various towers affect the discussion, and Susan stated no. She then explained that population density is a very important variable, because it tells them where the industry is going to want to go as a priority. They typically use the U.S. Census data as their baseline to determine by census block where the density is, but that was not very accurate for the scenario here, because many of your census blocks go well outside of the City's boundary, so the way the census block is designed, it spreads that density out over the entire geographic area of the census block, and since the census blocks are so big, it makes it look like the downtown area has minimal population and we know that is not the case, so they gathered data from the Chamber of Commerce, specifically the annual report to the City of Sedona from October, and used that data as more current and accurate data. They also took into consideration the peak tourist seasons and the commuter traffic from those who travel from outside of the City's limits into the workplace, and that is depicted on the pixelated map that hones in on where the highest population of subscriber bases are found in your boundary. She then pointed out where you have your peak season, and during peak workforce hours over 5,000 people in those geographic areas

at your peak times, and then it spans out to less than 100 in the yellow areas, and the areas that are not covered at all are even more sparse.

Commissioner Barcus asked if the picture would exclude vehicles on the roadways in the City, because it seemed that the way you explained it, it was more aligned to where people are in or near buildings. Susan indicated that is right; they don't have a way to necessarily mark trip ticks throughout the day all along the corridor. We know that along the corridor is going to be a high profile area during the tourist season, but this takes into consideration the lodging and restaurants, and . . . the Commissioner then interjected that it is housing, lodging, restaurants, stores, and places where people work and recreate and shop and do other things. Susan indicated yes, and stated that for the final draft she thinks she is going to have mapping make these purple along the corridors, because that is a more true representation of the traffic at the peak season – that was a great observation and it triggered in her mind that they need to change that a little, but yes, that was based on the collected data they had for where people were working, playing, staying, eating and shopping, etc.

Commissioner Barcus then stated that since we don't have any large event areas like a 20,000-seat arena, etc., we don't have to worry about those things like you might have to in other communities. Susan agreed and indicated likewise for learning institutions, because if you have large learning institutions like colleges and trade schools, we have to accommodate for those in a different way.

Commissioner Cohen asked if we are just talking about the City of Sedona or beyond to the Village, etc., in terms of the boundaries of the coverage, and Susan stated no, this is just the City of Sedona.

Vice Chair Levin referenced the large blue block on S.R. 179 and asked if that is the Chapel with the high-density dark blue color, and Susan stated she was not sure; however, Commissioner Brandt stated that it is Poco Diablo, and Susan noted that they have a site on their rooftop.

Susan indicated that the blue area identifies where they know the industry is going to want to go, so they want to look at that in comparison to the theoretical propagation maps. These maps are taking into consideration the existing facilities that have personal wireless service equipment on them, and when they build in the factors of terrain, vegetative cover, population density and future growth, this is what they see as a snapshot in terms of where the coverage is and where it is not. Ideally, you want to maximize the use of all of your existing facilities, so even though you may not have personal wireless service equipment on all of the tower locations now, they wanted to see how it would improve the coverage area, if all existing facilities were maximized before any new facilities were built, and that is what the map shows. Something that was very interesting, and they played with it for a number of weeks, was that they couldn't figure out why one area was showing so much coverage when there were no existing facilities with personal wireless equipment on them, and they found that is the result of the equipment on Schnebly Hill, because with all of the rock walls around the area, the signal is coming in and bouncing off of the walls to create like a little micro climate for coverage, and they had never seen that before, but when they turned those sites off, that disappeared, and they were trying to determine if they should leave them in the inventory, because they are considerably farther outside of the boundary, but if you remove them, it distorts the view.

Susan indicated that when they looked at emergency management responders' need to have access to people with wireless handsets, because if more and more people are transitioning from their landlines to handheld phones and you have a lot of tourists in the area using handheld devices, they are seeing the need for public safety to have more access and wireless coverage for their network, and when they take all of that into consideration plus how 5G is going to need more facilities, they estimate that over the next 10 years you are going to need between 17 and 25 new facilities, and that will be a combination of a few macro sites and mostly small cells and even smaller facilities with 5G, which they anticipate being called 'nodes'. She doesn't have an example of those, because they haven't been deployed yet and 5G is another year to 18 months out from deployment. Approval was recently given to do test markets, and they are trying to stay abreast of

that in terms of what the equipment will look like, but it will be smaller and centered around the residential areas, and it will look more like the one at the Rod Rock Church and even smaller.

Commissioner Brandt referenced the far west area within the City, just past the high school, and indicated that the second map has far less coverage than the first map, so he was wondering if the maps were reversed, but other places show more in-fill in the second map, and when you are driving there is sometimes a dead zone there. Susan stated that she would have to look into that; that is a good observation, so she will look into why that is like that. Susan then added that under either scenario the area is without coverage, but ideally, what the industry is going to be after and what ideally what you are going to be experiencing is that the industry is going to want it to be as close to the yellow and green as possible, and the only way to do that is to fill in with those facilities.

Vice Chair Levin asked how far into the presentation we were and Susan indicated about half-way, but the rest will go faster. Vice Chair Levin the asked Commissioners to limit comments a little, so that the public will have an opportunity to make comments as well, because it has been an hour, and we have had an excellent opportunity to speak and clarify. Susan added that if the Commissioners have questions later to feel free to email them to Karen and they can be forwarded to them for response.

Susan then indicated that in regulating the in-fill, there are parameters that are in place by federal and state law that you have to follow to regulate the industry. The first is the Telecommunications Act of 1996, and the most important part is that it preserves local zoning authority, so you can regulate the industry in terms of how they look and their heights, setbacks and landscaping, but you cannot discriminate against the service providers, so you may like the footprint of the low frequency buildout more, but you can't say that you only want low-frequency spectrum providers in Sedona. You have to allow both low and high-frequency spectrum providers to deploy their network even though that means that the high frequency requires more facilities. You cannot have any language in your ordinance that has the effect of prohibiting any of the service, so for example, you can't have a separation or say you don't want facilities to be closer than a mile apart, because that won't work for the network buildout plans. You have to allow them to deploy and develop according to their design standards. If you are going to deny a request, it has to be in writing to the industry, so you must allow the providers to deploy their systems and act expeditiously on the request. Your standards cannot exceed or undermine those of federal law and the Act enabled the Federal Government to use federal property rights-of-ways and easements for new infrastructure, which has set the precedent for the use of public property for infrastructure. Additionally, you cannot regulate the lighting; those are exclusively requirements by the FAA and the FCC. You can require that the tower has to be lit and that they consider doing a white strobe by day and a red by night, but if it is required to be lit, you have to allow it. Also, you cannot regulate radio frequency (RF) emissions, and she will let Jon speak to that.

Jon Edwards explained that is a big topic of controversy in a lot of communities, and studies have been published, but it has come down to when you have the controversies, the Federal Government has stated that the government has determined that it is not harmful, and therefore, any regulations have to be held under their jurisdiction, and they don't want local communities or non-federal jurisdictions to limit the buildout based on RF emissions, so it is a federal standard and a federal regulation that if there is an issue, if a citizens' group has a concern, then they have to take it up with the Federal Government, and that is the way that has been passed out from the Federal Government; they tried to put some more streamlining on that to allow it to not be a controversial issue. You still have that in many communities, understanding that people still believe it is a health concern, but the Government has said that a local community can't regulate based on that, and the reason they said that is they came out with a bulletin that was redone in the mid-90s by the Office of Engineering Technology (OET), and the OET Bulletin 65 details the requirements that the facilities are required to meet, and you can ask for a statement that they will comply with these regulations, and many times if it is something that is going to be questionable, they will have a study done or you can request a copy of their study that they have done to make sure it is in compliance. Many times they review those studies as a consultant to ensure they agree with it, but

if there is an issue with that study or regulation, it has to be reported to the FCC and they have to take it under their arm. Susan then added that a local government cannot regulate the RF emissions nor can it be grounds for denial of their entry or buildout of their network.

Vice Chair Levin indicated that since this is an issue that she believes the public is concerned about, she wondered if the City Attorney wanted to add anything to the consultant's presentation. Robert Pickels indicated that they have done a great job in outlining it, and he would simply add that the courts have determined that this is an area where Congress intends to occupy the field, and therefore as described, the FCC has exclusive authority in making these determinations, so there is very little that we can do at the local level. Jon Edwards then added that the OET Bulletin 65 does have regulations and requirements on what you can and cannot do. They base it on the type of antenna, the power levels, the distance from the ground and where the public is, so the only time that we see potential concerns are on building rooftops where the antennas are close to where the public is or someone could get on the rooftop, but the way the antennas work is that with RF emissions, the closer you are to the antenna, the more hazardous it can be, and he is talking about within feet. Once you get more than 15, 20 or 30 ft., there is no concern based on their bulletin, so with towers that are 100 ft. tall, you don't have concerns, because you are far enough away. The shorter ones, the 20 and 30-ft. poles, have the antennas designed to send the signal outward and the downward signal is very reduced and very low, so it can be anywhere from 5% to 15% of the actual signal, and at that point, when you get within a few feet, even sometimes down to inches, directly below the antenna is when it gets to be an issue. In those cases with the smaller cells, they make sure the antennas are well above somebody's head, and the only concern would be if the antenna is where you were looking right at it, as opposed to being 10 or 20 ft. in the air. It is a proximity thing based on the antenna and direction in how you are looking at the antenna, but the only time they have seen a facility even close to getting to that limit was on a building rooftop where someone could get right in front of the antenna and look at it and touch it. The bulletin is about 100 pages long and has regulations on how they determine what is safe and isn't safe.

Susan Rabold indicated that most recently, they have the Spectrum Act, specifically Section 6409A of the Middle Class Tax Relief Act, which is now referenced as the Spectrum Act, and it has in it that a state or local government may not deny and shall approve any eligible facility request for modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station. Basically, they have said that any structure built for the sole purpose of the equipment, as a tower, and any other facility that an antenna could possibly mount on, whether it be a light pole, a utility pole, a building rooftop, etc., are now called based stations, and an eligible facility is one that has been approved by the local government for construction, and if they want to install on that as a colocation, you have to allow it by right, and only by use of a building permit – no other special hearings can be held. They have to be allowed to just get a building permit for that colocation, provided they meet the definition of non-substantial change. She then showed two examples of towers and the example of the base station, because it was a tenant mount on one of the rooftops, and she explained that if you have an eligible facility in the right-of-way and they want to expand that facility, they can increase the height of that existing base station by 10 ft. or 10%, whichever is greater. If they exceed that amount, they have to come in and you can review it, but if they fall within that parameter, you have to allow it. If it is outside of the right-of-way, then it is 10% or 20 ft., whichever is greater. For example, if you have a 150-ft. tower, 10% would be 15 ft. and if you add 20 ft., it would be 170 ft., so they could increase the height of that existing tower to 170 ft., and you have to allow it by right. She then showed an example of the base station and explained that if the original base station height is 30 ft., 10% would only be 3 ft., and 10 ft. would make it 40 ft., so that existing antenna on that rooftop is allowed to be increased to 40 ft. without any review, except coming in for a building permit. That is what Congress enacted through Section 6409A and what the FCC has recently written a Report and Order about.

Commissioner Barcus referenced his question from last year and asked if that is a one-time only or is it a successive option for the cell companies. Susan stated that at that time, the Report and Order had not been issued, but it has now, and they have clarified that it is cumulative once, so if

they only go 5 ft., when they could go 10 ft., they could come in and still go the other 5 ft., but once they hit the threshold of that maximum, they are done. The Commissioner then commented that this only pertains to existing . . . and Susan interjected eligible facilities, and the Commissioner continued to say structures that have been permitted by the local jurisdiction, our City, and Susan stated that is correct as it relates to the Report and Order. The Report and Order also has width standards and as long as they meet the width within that eligible facility definition, you have to allow it. The other factors are that they cannot exceed four new equipment cabinets, they cannot excavate outside the existing compound area, and if the site is concealed and they do an addition that defeats the concealment technique, then that is a substantial change and not allowed, which was something the FCC brought clarity on since we last met. Susan added that it also has to continue to comply with any zoning conditions of Conditional Use Permit or special exceptions; if they don't meet those, then they are outside of that parameter. Susan then summarized that if they meet all of those criteria, you have to allow it.

Commissioner Cohen referenced the right-of-way and asked if the roundabouts are right-of-way, and Karen Osburn explained that she doesn't think there are any roundabouts in the City's right-of-way. All of the roundabouts are on ADOT's right-of-way, and Susan will talk about the new Arizona legislation that also allows providers to be in the right-of-way by right with no public process and just with a right-of-way permit that has to be processed within 20 days. The thing that was exempted in this legislation was state highways, so the portion of S.R. 89A in Uptown is owned by the City and that is the City's right-of-way, but the rest of S.R. 89A and S.R. 179 is all ADOT's and that would be exempted from this right. All city streets; however, are subject to this new legislation.

Susan Rabold provided the cross-reference to that legislation, which was signed by the Governor on March 31, 2017, and noted that it is promoting the use of the right-of-way by the wireless industry for purposes of colocation. CityScape maintains that it has to be an eligible facility first before it can be collocated upon; therefore, their position is that you would still have to review the request as a new base station or a new tower in the right-of-way, and the colocation that the state addresses will only apply to those new eligible facilities once you have approved them. She doesn't know if that was the intent, because she doesn't think they thought it through perhaps from that perspective with the laws and definitions that the FCC put in place in the Report and Order, so the interesting thing to see is what happens as this comes about, but that is their position that they are advocating, because you want to avoid at all cost the examples that CityScape has encountered with other clients with infrastructure in the right-of-way.

Susan then showed a slide that by definition is a small cell, and they don't think that is appropriate for the right-of-way, so they want to avoid those types of infrastructure in the right-of-way, because once something like that gets built in the right-of-way, it can be increased by 10 ft. or 10%, whichever is greater, so they want to ensure this is addressed in the most advantageous way as possible for the City. She also showed other examples of scenarios in the right-of-way of other clients, and she explained that in one example, they are trying to demonstrate that instead of building a new pole, they should have done a drop and swap for one, and in another example, they actually rerouted the sidewalk to go around the new infrastructure instead of working out a better option for that sidewalk. Commissioner Cohen asked if that city make the company that owns the tower pay for the reworking of the sidewalk, and Susan indicated that she did not know, but she would hope so.

Susan Rabold explained to put this all into a zoning ordinance, they first wanted to look at how the City could have the most control over how the infrastructure is going to look going forward, and that would be by being the landlord. If you are the landlord of where the industry locates their infrastructure, you can have the utmost control of what it looks like, where it is placed and how it is maintained, so the interest was to see if the City owned property in locations where those gaps were, and they found that 20 of the 42 city-owned properties could be used as potential in-fill locations by the industry. She then showed the Gap Analysis that shows in yellow to blue, the coverage from the existing personal wireless service facilities and indicated that the purple tones are from those existing towers that presently don't have wireless facilities on them. The reddish-

orange color identifies how you could maximize fill-in from your public city-owned properties, and the yellowish-orange is showing where there are no present existing facilities and where they anticipate that the industry would want to go to cover the thoroughfares and the centers of population density.

Susan provided slides of the lands that were stricken from the list, because they either they were in an area where they didn't see a gap or where staff and appointed and elected officials thought the sites were unacceptable. She then showed a list of the potential properties that could be considered as meeting those objectives and noted that some of those parcels are contiguous to each other, so that is really all one site, although they are individual parcels. They made recommendations on perhaps the type of infrastructure that could go on those properties to be as least obtrusive as possible, and all of the public lands are recommended for concealment-only facilities. None of the recommendations are for anything other than a concealed facility, so no non-concealed facilities are being recommended, and they considered how the property was being used and what might work there. They used the small cell concealed facility light pole a lot in the analysis, because it is a facility that you already have in the community. For example, on one of the properties that is mostly undeveloped, they thought that if you had a facility close to the trailhead, perhaps a small cell as shown would be appropriate, but if you went farther into the property, a faux tree might be more appropriate, because it would blend in more.

Susan explained that the idea is not to put the facility in the middle where everyone can see it and identify readily that it is there. The goal is to have it as close to existing vegetation or structures as possible, so it blends in the most. Another property has a parking lot and park, and she used this as an example, because leading into this parking lot are utility poles, and depending on how the state and the City ultimately determine how the poles can be used, the industry is going to want to use those poles, and ideally, she doesn't think you want them to use those poles, because they could increase the height by 10 ft. once they are there, and you would have more control if you had the infrastructure either in the parking lot area as a light standard or just inside the property outside of the parking lot as a faux tree, and there is an existing structure for collection of weather data, so possibly a location in that vicinity might be a location or more to the left where you have taller trees and might be able to blend in a faux tree to provide service into that gap, and there is a gap there, so as we get closer to 5G, they are going to want to get into residential areas, and because they can't get into residential areas, they start using the rights-of ways, and it is cheaper for them to deploy. She is not saying she is for that, she is just the messenger letting you know that this is what you are up against, and one way to address it is to promote the use of your properties as the first tier and put the burden on them to demonstrate why they can't follow that.

Susan stated that is what led to the Draft Siting Preference, which is the crux of the entire draft ordinance. All of the development standards that follow are really ancillary to this part of the ordinance, so ideally, what you want to see is what came back based on all of the public input from previous meetings, the voting that took place online, and the voting of the elected and appointed officials; they did not manipulate the data for their purpose. They took what they heard from you and the community and put it into this list, and when the industry wants to deploy, the first thing the ordinance says is that they have to put in a concealed base station, and that would be a concealed antenna on an existing building or rooftop outside of the right-of-way. The second option would be to put in a concealed collocation on an existing concealed tower or base station. The third option would be to replace an existing non-concealed tower with a concealed tower, then you have some leverage in getting some of your non-concealed towers changed to something that is concealed. If you are going to have to have a new facility, you want them to change out one you already have to be something else. The fourth option would be a concealed tower for small cell outside of the right-of-way. Underneath each option, there are a, b and c, etc., and the city-owned property identified in the Master Plan, the city-owned property not identified in the Master Plan, and other public properties are all first before private properties, because as the landowner, you have the opportunity to control and micromanage how the site looks and where it goes. The fifth option would be a concealed base station for a distributed antenna or small cell in the right-of-way, but parallel to these principal arterials, minor arterials collector, and lastly, the local roadway. The sixth

option would be the concealed tower for the small cell node parallel to the right-of-way, and the seventh option is for a concealed Macro tower. The eighth option is colocation on an existing non-concealed tower, because you don't want to see those expanded, and the ninth option is a non-concealed tower outside of the right-of-way, with the preference of a Monopole, Lattice and Guy, and then a private Monopole, Lattice and Guy. If the industry came in after the ordinance is approved and if this draft siting is approved, and they wanted to put a Monopole on a property, they would have to demonstrate why they couldn't do one of those other options and it would be quite a challenge, and in tandem with this is the process. The industry wants speed to market, so if you allow the infrastructure that you like the most to have a quicker review process and you have laid out the criteria, and they follow that criteria, it would be approved administratively. If they deviate from any of the criteria, they would have to go through a longer process with a public hearing or if they proposed a type of facility that wasn't ideal, then they would have to go through a public hearing, and since they want speed to market, if you lay out what you want to see the most and they follow it, then they are more inclined to take that path.

Vice Chair Levin asked Audree if that would mean an administrative Conditional Use Permit, and Audree stated that it would mean approval at the administrative level; it would not come to the Planning and Zoning Commission.

Susan then explained that the Permitted Use Table identifies what would be allowed in those zoning districts and with which process. For example, N means not permitted, C is a Conditional Use Permit and A is an administrative permit. Basically, anything outside of what the Master Plan has in terms of pre-qualified sites with the type of infrastructure is pretty much a Conditional Use Permit, so you are maximizing your leverage to have control on what the industry installs and where it goes with this process. The rest of the development standards that address heights, structural integrity, mounting, coloring, screening, placement, signage and sound from those sites all tie-in to achieving the goal of what she just mentioned. The height that is presently in the ordinance is 30 ft. for small cell, and they went with that, because that is your average height, and secondly, they can increase that by up to 20 ft., which would make the maximum 50 ft., unless you as the landlord say no, and you would be able to control that.

Susan indicated that is how all of this has come together at this point. Vice Chair Levin confirmed that concluded Susan's presentation and commented that it was very thorough and it was appreciated.

Vice Chair Levin opened the public comment period at this time and asked that comments be limited to two minutes.

Jamiss Sebert, Sedona, AZ: Ms. Sebert indicated that she came to learn and understand what the mailing request was all about, and thanked them for their questions and the presentation. She didn't have any more questions to ask.

Scott Newth, Sedona, AZ: Mr. Newth stated that he moved here 10 years ago to enjoy the beauty of Sedona and its naturalness and take advantage of the views. The last thing they want is some piece of machinery or equipment obscuring their views – that is why they moved here, so they would ask the Planning Commission to take that into great consideration, as to how high or obfuscating one of these potential towers would be.

Dee Kellogg, Sedona, AZ: Declined the opportunity to speak.

Patricia Steiner, Sedona, AZ: Ms. Steiner stated that if she were sitting where you are sitting, she lives as close to a proposed site as that door, outside the back of her patio, and she also lives in a high-density area in a condo. She drove by one of the smaller poles at the church to see what it looked like, because in the picture it really doesn't look bad, and at the church it was almost like they did some airbrushing on the photo, because it was much bigger. It looked bigger and it had been painted brown. Bottom line, it is very close to where she lives, she lives in condos, so there

are multiple people that would be looking at it and living close to it. The site is 160 Panorama in the Northview subdivision, and it is very low, right next to an arroyo. It is residential only, and there are commercial areas near them that might be more appropriate than in her face.

Randy Smith, Sedona, AZ: Mr. Smith indicated that it doesn't make sense to put cell towers in the Sugarloaf Park. We are lucky enough to have this park that has a real wilderness flavor to it and sort of hauls all of the tourists from Enchantment and all over up there; they are not wanting to see cell towers up there either. On that lower left-hand side is Buena Vista, and he lives at the end of that street, and you have other infrastructure issues going on there that have not been brought up. He knows that last year, you put that parking lot in it and that is really a great thing, but he would like to ask the City Administrator how high a telecom wire needs to be over the top of that.

Karen Osburn stated that is probably a more appropriate question for the Engineer; it depends, each site is different. Mr. Smith stated that he thinks it is supposed to be 18 ft. if trucks go underneath there, and Ms. Osburn clarified that he means a utility wire. Mr. Smith repeated that he thinks it is supposed to be 18 ft.; it is about 2½ ft. short – no big deal. The big deal is that there is 6½ ft. of Buena Vista that is on his property and on the property to the east, so the telephone poles sit in the middle of the right-of-way, and he thinks you need to straighten that infrastructure out before you start putting more infrastructure in there, because the way it sits now, if he wanted to build a wall 6½ ft. in the middle of Buena Vista, he could do it, so he wants you to consider that.

Karen von Merveldt-Guevara, Sedona, AZ: Ms. von Merveldt-Guevara stated that she lives on the lower end of Andante and is an Alternative Healthcare Practitioner and is trained as a western medical doctor. She also is an international member with the American Academy of Environmental Medicine and what disturbs her with the whole approach is this is a great presentation and thank you for putting this together, but the point is what does not get put into consideration here is the people that are in-between these towers. We are living antennas, and what has been said that the FCC regulations are basically what gives the base to the decision making was from 1996. We have 2016, it is 20 years later. There are enough medical papers out there – proof that this is not without consequences. What is the regulation based on? The FCC is based on the thermal impact of these radio frequencies on living matter, and there is no such thing as an understanding of the ionization impact and the collateral created by EMF plus RF plus electricity, which has a direct impact on ion channels in the body – your heart is geared by that, your whole body is geared by that. You are frying people. She gets these patients in and works as a health consultant; she gets those who have fallen through the cracks everywhere, and they can tell you that people that are high in calcium, fibromyalgia, people that have thyroid issues and who doesn't have that these days, Hashimoto's, etc., is a Calcium-Potassium ratio-dependent issue. Calcium is highly conductive. Silver is the highest, Copper comes next, then Gold, and then Calcium. Your body is responsive to our air frequency no matter what the FCC decided before 1996 . . . (audio unclear), but we should not leave that out of our vision that if we agree with this without any attempt to possibly change something, we are okay with our autistic neighbor's child getting fried, with our neighbor that has an autoimmune disorder getting in trouble with this. We cannot switch off these towers like we can our wi-fis at home at night, which is a constant recommendation she gives her patients. She knows we are kind of in a bind here, because we are dependent on electronics, but on the other hand, as long as we as people have somewhat of a hand on what we expose ourselves to, it is quite different than living in an environment where we have no hand on what is happening with us.

Vice Chair Levin advised Ms. von Merveldt-Guevara that her time was up.

Carol Snyder, Sedona, AZ: Ms. Snyder indicated that she lives in West Sedona and has lived in the area a total of 14 years, and from the VOC, she moved here 1½ years ago. The last time she attended one of the City meetings, she wanted to contest that the City wanted to choose which garbage company she could go with and thank goodness that got voted down. With regard to this, she couldn't agree more with the last lady and the lady that will follow who is a registered nurse and will be talking about that. There are wonderful studies you have shown here; have you done any

studies on brain cancer or how it will affect people healthwise? She has Hashimoto's Thyroiditis, so she is one of the ones that lady just talked about, and we get 300,000 tourists here, but they come and go, and we who are here to be affected by this, and don't tell her that this is non-ionizing radiation – she just doesn't trust that coming from a company that wants to make a lot of money from this. The tourists come and go, but one of the beautiful towers you are talking about will be about 500 ft. from her house, and that really upsets her. She is here for the beauty and everything, and she is wondering about property values, especially in West Sedona and the Sedona area – what is going to happen to their property values? She should have stayed in the Village of Oak Creek, so she could be safe from this type of thing that you are putting through. She knows we all use cell phones; she has a cell phone and her friends have smartphones, and they are doing just fine thank you very much. Now that means that your company is here to make money, and to make money from Sedona, and she is surprised that more people aren't here, especially from the homeowners' association that she just attended.

Vice Chair Levin advised Ms. Snyder that her time was up, and Ms. Snyder thanked the Commission for letting the people give their opinions.

Dewerd Akers, Sedona, AZ: Mr. Akers indicated that he lives in the Sugarloaf area where they are talking about siting, and he would like to give you some petitions from the neighbors, actually from the area just immediately in their neighborhood – 289 signatures against the Sugarloaf posting, and he would like to ask a couple of things that don't seem to have been discussed. Susan, it looks like we are considered urban; however, that base does not seem to be based on population, but on tourism, as seems to be everything in this town. That map should be laid over existing population, not tourism corridors. We have plenty of structures here now; he runs his business on the Internet out of his home in Sugarloaf and he does just fine. Yes, he uses a landline at times in order to hold a signal, because he is inside a concrete structure and he does just fine. You folks talk about the beautiful Ponderosa pine in Flagstaff, but he doesn't know if any one of you has been up there to see that atrocity; it looks like something out of Wally World. It is a tinsel town Christmas tree with an infrastructure and a building around it that is about half the size of this room. And, the one that is at the church, if you stand near those fans, you can't hear the traffic going by and that is right on the highway, so he implores you -- number one, we are not going to stop. You have 300 in your hand and that is just from our neighborhood, and we are going to get tourists coming to the Sugarloaf Trail – we are not done, and the fact that you put this letter out to six houses in the neighborhood on the fourth of this month for a hearing on the 18th – none of us knew about this prior to that, and not one person within a two block region got any notification on this, so it was very poorly done by the City and by the company you hired in order to present this to the City, and without notifying the people in the regions affected by these 20 properties is unforgivable.

Vice Chair Levin acknowledged receipt of a petition and indicated that this petition of signatures would be turned over to staff.

Leslie Brock Fulton, Sedona, AZ: Waived the opportunity to speak.

Kevin Okie, Sedona, AZ: Mr. Okie indicated that he couldn't explain the health concerns as well as Karen, so he will not attempt to redo that, but you can look in the L.A. Times from last year and find articles that show that 5G exposure to rats caused increased rare brain tumors and heart tumors at the levels that are federally allowable, over the course of two years, so just point your finger and choose who you want to get cancer if you allow this essentially. He runs on the Sugarloaf Trail three to five times a week, and he lives just below it and would hate to see it marred by a cell phone tower. He loves the natural beauty of this town and doesn't want it destroyed in any way. He works in IT and you talk about the needs of the infrastructure, but trust him when he says that the users of cell phones in this town are not power users; they just don't use that much data and he doesn't think they would know how to download multiple apps and get really crazy about using their computers as hot spots. It just doesn't happen so much here, so okay we have 1,000 tourists a day coming into town and classifying us as urban, okay. He gets 6 MB/s in download speed on his phone as it is, right in his area, so he doesn't see the need for more coverage. Rather

than just lying down and finding what 20 sites for 20 towers can be constructed, he would prefer to see the City fighting and finding out how we can stop this rather than accommodating it and making it look nice. How can we go about not having it constructed, how can we fight it and what precedents are there for that? A lot of people in this town would like to see the City standing up against it. In Arizona, we think for ourselves even if the government tells us that it is safe. There are strong lobbies that fund the research that shows it is safe.

Vice Chair Levin advised Mr. Okie that his time was up.

Kimberly Lillyblad, Sedona, AZ: Ms. Lillyblad indicated that she probably lives less than 100 ft. away from a proposed site and she absolutely does not want it. She lives in an old historic property, and she does not use a cell phone that much and would actually like to learn how to use it less. She would like to see the world learn how to use these systems less, not more. Start protecting our humans and not our destructive behavior. When you put that by her home, you are going to create an upset in her life. She is standing in front of you, does she mean anything to you, because she lives where the birds are singing and the creek is going by, and now you are going to inundate her with something that she wants less of in her life. That's why they live in Sedona. The tourists come here, because they want to get away from all of that. They don't want more of it. Let's protect this as a natural preserve Sedona. Let's stop adding what the rest of the world is doing wrong and coming here to get away from, and let's protect our natural space and protect our citizens, and she loves what the man before her said, let's figure out how to stop this, and let's start as our community, let's be a leader for the entire world.

Sema Kelly, Sedona, AZ: Was not present when called to speak.

Madeline O'Callaghan, Sedona, AZ: Ms. O'Callaghan referenced the first Buena Vista slide and indicated that is her land and it is on Farmer Brothers, not on Buena Vista. The piece of land right next to the trail is city land. There is something else going on in that area that is further impacting them, and that is that there is planned in that area a sediment basin as part of the drainage program. More drainage will go under Little Elf; it is a problem area, and there is a large sediment basin going in up there as well, so she is wondering if that isn't enough impact for the Sugarloaf area without adding more to it. And, she is not going to be very popular in the room at this point, but this is something that she has been thinking about. If we do not want to depend on the money that the tourists bring us, then step up to the plate and pay property taxes.

Jean Griesenbeck, Sedona, AZ: Ms. Griesenbeck indicated that besides some of the concerns about the transmissions, she hopes that isn't the final hope for the concealment of the tower. It was a tree that absolutely didn't look like it belonged in our area, so hopefully, there will be a better camouflage for that tower.

Allyson Thorn, Sedona, AZ: Ms. Thorn expressed thanks for the presentation and all of the questions that were very helpful in understanding this situation. She wanted to ask about the current existing towers that have been built; she is new to the area and she was surprised that given the beauty -- she grew up in Phoenix and had been to Sedona a couple of times, but it was before some of the infrastructure was put in at the Sedona airport. She knows you might not have the jurisdiction over that area, but she wondered if anyone attempted to fight that, was there any attempt or can there be any attempt to fix what is already there that is kind of an eyesore for all of the visitors that we are talking about? She sees a lot of them go up to the sunset point or whatever that place is at the top of the airport, and they probably can't ignore those things, so is there anything that could be done?

Vice Chair Levin explained that the Commission is unable to respond to questions during the public comment period, so she would encourage her to either talk with staff or the consultant after the meeting and perhaps they can help with that question.

Christine Carroll-Weprin, Sedona, AZ: Ms. Carroll-Weprin indicated that she lives in West Sedona and thanked Susan and Jon for their presentation and thanked the Commission for their time and patience. She has a tremendous amount of concerns and two minutes does not allow for all of them to be put forward, but mostly, it is health above all else. That is the most important thing for us all to always address in our lives, because how do we do anything without that? There are many of us who are suffering from Hashimoto's Thyroiditis, her being one of them, and she spent eight months this year in bed, so she is of course concerned about further problems with EMFs and RFs and our bodies trying to handle that -- our central nervous systems trying to handle all of that. And yes, we are very adaptable, but are we that adaptable and do we want to put it to the test? There are other countries who have already done the research, who are already banning extensive use of cell towers, and there is an Act, called the Parents' Act, that is parents against cell towers, and in France, Sweden, Germany and in all of New York City, there are stipulations, there are boundaries and various things in place to help protect high density areas. We really need to do our research on this. You are our hired and appointed officials, so you represent them, you work for them, so as one of the constituents in your area, she is asking for your help. Please let us know what they can do, whether they need to go to their Congressmen, directly to the FCC, or to whomever, please put it out there, put it in the papers or whatever way you want to put it forward, but they need to know what they can do to fight this, because this is not okay.

Vice Chair Levin advised Ms. Carroll-Weprin that her time was up.

Thomas Brennan, Sedona, AZ: Mr. Brennan indicated that he was appreciative of this meeting and of all of the Commissioners and city staff. He understands there are a lot of upset people and it can be at times uncomfortable having that much upset energy directed at one, so thank you. This is a really deeply controversial issue. He lives in the Buena Vista – Sugarloaf area and about five houses from the proposed site. He was pretty upset that he didn't get a notification; actually, one of his neighbors came to his home and told him about it and that is the only way he found out about this meeting or the proposed site. It is a really serious issue and should be taken seriously, and an effort to notify people should be taken seriously and be very thorough, so that is one thing. He understands that wireless is really happening, and his family members in their 20s and 30s are fully integrated with their cell phones. Nonetheless, the people here have addressed two things, one is the health issues; he will be brief about that. It is well documented and pretty much unequivocally and scientifically proven that the proximity with which a person's residence is in regard to an RF transmitting antenna, is directly proportional to the likelihood that that person will have certain kinds of cancers, and that is pretty consistent in study after study -- same result, so it is not something that can be argued about, except of course by government regulation that tries to deny it, and that is what exists, and industry representatives who try to deny it.

Vice Chair Levin advised Mr. Brennan that his time was up.

Janine Jennings, Sedona, AZ: Ms. Jennings indicated that she just closed on a house on Farmer Brothers Drive five weeks ago, so that is going to be her primary home. They were very surprised and very shocked about the cell tower issue. She had one question, which wasn't answered, and that was who is driving this? Is it the tourists or the residents saying that we need more cell capacity or is it the industry itself saying that they need to install these and charge more and get more services out there? She really doesn't give a hoot about the telecom industry, and she agrees with some of the other people here that the cell coverage is just fine. She also had a very hard and sharp civic lesson today, when she read through the information that was provided, and thank you for all of the background stuff, but it appears that our Federal Government and our representatives in Washington have taken away a lot of our local rights to make decisions on a local government basis. Here in town, we don't have a right to say, "No, Verizon you can't do this" or "No, Sprint you can't do this", but what she doesn't understand is how much they can do. Do we need to give them new sites, or can we turn to them and say you have some sites, so you need to work with those sites, so that is a question. The other thing is that health issue. She understands that the way it stands now, the Federal Government has said there is no health issue, but that is like saying the Emperor has no clothes. Many, many people and health organizations believe it is a

health issue, and whether it is or isn't, it is believed that it is an issue, and number one, it affects your property values to have your house near a cell tower, and the other thing that happens is since they have taken away our ability to say, "No, we don't want these cell towers, because of our health and the health of our people", it puts a responsibility in your hands as to who is going to have the cell towers near them and who is going to suffer the injuries from those cell towers – that is your responsibility now, so the government has taken away your ability to say no, you don't want these because of health purposes. You have to have them and it is up to you now to pick the places where it is going to be, and that is a tough decision.

Vice Chair Levin indicated that Ms. Jennings's time was up.

Kirk Landaers, Sedona, AZ: Mr. Landaers indicated that you are taking pictures of his front yard shared with all of the people who come to Sedona to see that. You covered his pretty little stone parking lot with asphalt, slap enough, and now you want to put up cell towers, drainage pits to attract mosquitoes and what not. Why can't you leave Sugarloaf alone? The Mayor is the Mayor sitting right there. He doesn't want to repeat a lot of the stuff that has already been said that is very important, but since you've got two properties that impact him and his neighbors directly, what is all of this theoretical stuff. The 650% increase in use; what does that mean? We're already obviously, from your own information, being bombarded from Schnebly Hill. Improve what is here, don't put any more crap doodle. How big do you want Sedona to be; we're already affecting the quality of life here, and if you aren't aware of that, like the other lady said, who is driving this debacle, 5G? It is not allowed in probably three-quarters of the world at this time, so why do we need it? It is a bunch of crap doodle. Save Sedona, save Sugarloaf. Thank you.

Stephen Stobinski, Sedona, AZ: Mr. Stobinski stated that he is a 27-year resident in Sedona, and he is not worried about health problems, he is probably 'roboticized' anyway, so he really doesn't care. The only thing he cares about is getting better wi-fi reception in the Chapel area. He is on Fox Rd and in an ancient river channel, so basically in a hole. He can barely get one bar; he has to use Verizon, because it is the only thing strong enough out there, and he has tried every other service over a period of years and it has been awful. He knows that there is a problem with like city property out there, and they should put up something else, but the Chapel itself is owned by the church and the land is owned by the Forest Service and Yavapai County. He doesn't know if there is any land up there that could be used by the City, but he wishes something would happen in that regard. He just wishes it was part of your Master Plan.

Kristina Paley, M.D, Sedona, AZ: Dr. Paley indicated that she is a West Sedona resident and she is a practicing Medical Doctor. She obtained her medical degree from Karnool Norsti Medical College, and in addition to her residency training, she also has a Fellowship in Cutaneous Oncology, so she wanted to present to the board with several studies that have been done in a number of countries, including Israel, Germany, Great Brittan and Brazil, that have shown that people who had died within 1,500 ft. of these towers developed cancers at a much higher rate. If you ask her how high the rate, in one very well-controlled study, they showed that the average cancer rate was one in 600 people, and for people that lived next to the cell towers was about eight in 600 cancers in one year. This is quite significant, because when you talk about radiation of any kind, you typically you don't see effects of radiation until 10 years later after the person has been exposed, so to see such a spike in the cancer rate that was repeated over years, it is quite significant, because it is just a test over one year. When you are thinking about this, and thinking about inviting these towers, think about yourself and people around you. Do you want to do this to our citizens? She doesn't want to see any more cancer than she sees already. Thank you.

Paul Kelson, Sedona, AZ: Mr. Kelson expressed thanks for the informative presentation. He found out about the meeting by accident; he lives across the street and across the field from the top right-hand picture, which doesn't show the house that is right out of view in the lower right corner, and there is another house right up top. You can barely see them in the A-1 picture; you can see a house in the lower left corner and you can just barely see a house right outside the yellow boundary

half way out. One of those homeowners was here, but the other one isn't, so they are in direct site and very close, and it is right outside of the picture, so he wanted to point that out.

Michael Sanders, Sedona, AZ: Mr. Sanders expressed thanks for their patience, the informative presentation and their thick skin at times. Everybody in the room can agree that trust between the City and all of its residents will make for a better community, and trust is fostered through transparency and communication, so as this progresses, which everyone understands now is largely in federal jurisdiction, it would be worth additional administrative effort and he would be happy to volunteer his time and get a coalition if one is needed to help with messaging to residents, who are within immediate proximity to these potential sites. The effect on property values is well documented and the effect on health is well documented despite FCC claims, and several of us might want to sell our homes if sites within 50 ft. of our houses are erected, so that is his request and he is willing to volunteer his time to help communicate to the community, so they can take appropriate action on their behalf.

Vice Chair Levin closed the public comment period and thanked the public for their civility and for providing their points of view and concerns. She also indicated that they would have another opportunity on June 1st, when the Commission will take action or not or modify the recommendation to the City Council. There is no City Council date set at this time.

Summary Discussion:

Commissioner Klein indicated that he appreciated the comments about health, and he personally thinks that cancer is environmental and we certainly have a lot more of it than we did 50 years ago, but as he understands what is in the materials, we are governed by what the Federal Government has decided, which is that this isn't a health risk, so although he may not agree with that, it is his understanding that we are not able to say we are not going to allow a cell tower, because of health reasons. He then asked if that is correct and Robert Pickels stated that is correct. The Commissioner then indicated that he wanted to acknowledge that he is concerned about all of the health issues, and he kind of agrees with what the people have said, but he also realizes the limitations that we have, given the federal law. Also, given what some of the people have said about their concern about the cell towers being placed so close to where they live, is it possible to look at using some alternative sites that wouldn't be as close to residential neighborhoods or is that not feasible, because it won't provide the coverage that is potentially needed to provide adequate cell coverage?

Susan Rabold explained that you don't have of use city-owned properties as an option. The challenge is the industry wants to get into residential, and as much as you may want to direct them into another path, if you don't allow them into residential somehow, you begin to have the effect of prohibiting service, which you cannot do under the Telecommunications Act of 1996, so they are trying to come up with strategies that allow you the maximum control over how the infrastructure is deployed, and right now, since you have recently had your House Bill enacted, it opens up your right-of-way where you are not going to have the control at all over how many of those sites are used and what they look like, so trying to be proactive on how to channel the industry away from access to all of those utility lines was the point in trying to look at these other facilities. This is just a draft and it is in your hands as to how you direct it, but their task was to show that to you, and they don't work for a service provider; they don't provide service or own towers and they do not build towers or find towers for the industry. They work only for local governments to bring to you the facts and parameters that you have to work with and to try to help you come up with solutions.

Commissioner Brandt referenced Little Elf as an example and asked if it is correct that if Little Elf was removed and a carrier or tower creator saw that was a great need, and the City said we don't have facilities there, they could put it in the right-of-way. Susan explained that they are trying to prevent that from happening. They think that was probably the intent of the House Bill, but they are relying on the most recent FCC documentation from the Report and Order as the backbone definitions, to try and treat their definition of 'eligible facilities' as the precedent for not having that happen.

Karen Osburn added that while CityScape, which is a national firm, has made the interpretation and feels confident in their interpretation of what an 'eligible facility' is, our understanding of what the industry lobbied to the Legislature and in working with the League of Arizona Cities and Towns is that it was their intent that by right with a 20-day right-of-way application, any provider can locate either on an existing pole within a city right-of-way or erect a new pole within a city right-of-way with no public hearing, no public process – just with a simple over-the-counter application, and if there is push back on this sticking point, we are also fairly certain that the Legislature will come back and clarify the language to allow that, so while we would be hopeful that would not be the case, we do not believe that.

Commissioner Brandt then stated that the answer then is yes, that if we took it out of the Master Plan, they could just say that is a great place, regardless of the Master Plan. He also thinks the health concerns are an issue and as the energy comes into this room, it should be continued perhaps not with the Master Plan but with petitioning the FCC, the Federal Government, and the state -- Sedona should be on the forefront of these issues. We want to create a Master Plan that tries to guide the situation, but if our hands are tied as to whether it can be done or not, we try to do the best we can – that is what we are here for.

Commissioner Barcus echoed what Commissioner Klein and Commissioner Brandt said about where we need to go. Being a volunteer on the Commission is not as much fun as he expected, but it is important for everyone to realize that we do not have a Master Plan at all; we have no plan for cell towers. We have applications that the companies can make and in 20 days the City has to act, and that is a Federal statute. Now, with the state's modification, it gets even messier, so the whole effort as he understands it, is that once we come up with a Master Plan, we can guide things and provide incentives to the companies if they choose to come. If they don't choose to come, then it is a non-issue, but if they choose to come, we can provide incentives to have them put facilities in places where we think is best for everyone in the community – everyone in this room and the thousands of people who are not in this room today. Without a Master Plan, they will just do what they want to do based on the laws that are currently in effect, so what we are hopefully coming up with, with this Master Plan that we will recommend to the City Council for review, is to manage an unmanaged situation. Vice Chair Levin added not only for siting, but also design.

Vice Chair Levin indicated that information on the proposed Wireless Master Plan and the proposed revisions to the Land Development Code are on the website, and if you feel you were overlooked in the mailing, it may be a problem with County property records, so you may wish to stay and talk with staff to make sure your contact information is in the city offices. Karen Osburn added that she wanted to clarify for the Commission she does have the map of the 300-ft. radius, and the list of all of the contacts. There were almost 500 letters sent for the 20 sites; 39 letters for the Sugarloaf site, and at SedonaAZ.gov/wirelessmasterplan, there are all of these documents posted plus a video and slide show on the website to provide additional information, and there is also an opportunity to register for additional notifications, so you can fill out your email address and we will send updates on all of the subsequent meetings.

Vice Chair Levin closed agenda items 3 and 4 at this time.

- 4. FUTURE MEETING DATES AND AGENDA ITEMS**
 - a. Thursday, June 1, 2017; 3:30 pm (Work Session)**
 - b. Tuesday, June 6, 2017; 5:30 pm (Public Hearing)**
 - c. Thursday, June 15, 2017; 3:30 pm (Work Session)**
 - d. Tuesday, June 20, 2017; 5:30 pm (Public Hearing)**

Audree Juhlin indicated that the next meeting is Thursday, June 1st at 3:30 p.m. in this room, and although it is a work session, it will be agendized for action on the wireless communication public hearing. The following meeting is Tuesday, June 6th at 5:30 p.m. also in this room and that is regarding the Residence Inn proposal for Marriot. We do not have anything on Thursday, June 15th or Tuesday, June 20th agendas at this time.

5. EXECUTIVE SESSION

If an Executive Session is necessary, it will be held in the Vultee Conference Room at 106 Roadrunner Drive. Upon a public majority vote of the members constituting a quorum, the Planning and Zoning Commission may hold an Executive Session that is not open to the public for the following purposes:

- a. To consult with legal counsel for advice on matters listed on this agenda per A.R.S. § 38-431.03(A)(3).
- b. Return to open session. Discussion/possible action on executive session items.

No Executive Session was held.

6. ADJOURNMENT

Vice Chair Levin called for adjournment at 6:05 p.m., without objection.

I certify that the above is a true and correct summary of the work session of the Planning & Zoning Commission held on May 18, 2017.

Donna A. S. Puckett, *Administrative Assistant*

Date