



AGENDA REPORT SUMMARY

Meeting Date: December 12, 2023

Subject Los Altos Downtown Wireless Connectivity

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Reviewed by: Nick Zornes, Development Services Director
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Approved by: Gabriel Engeland, City Manager

Initiated by:
City Council

Environmental Review:

The City Council action authorizing the review of the proposed project is exempt from review under the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15061(b)(3). Subsequent action taken during the review of the proposed project will be analyzed separately under CEQA.

Policy Question(s) for Council Consideration:

- Does the City Council wish to provide direction for staff to pursue any of the following options to improve wireless connectivity in Los Altos and specifically downtown?

Background:

- Residents and businesses have expressed a desire for greater mobile connectivity in the downtown triangle due to poor cellular reception.
- The City Council could update sections of the Municipal Code to allow for wireless infrastructure to more easily be located in Los Altos.

Summary:

- Los Altos Municipal Code sections 11.12 and 14.85 both govern wireless telecommunications facilities.
- Public Wi-Fi was thoroughly reviewed, and staff does not recommend attempting to establish a network downtown

Staff Recommendation:

City Council should discuss the potential changes in this staff report and provide direction.



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Purpose

Improve wireless connectivity through a multi-pronged approach.

Background

Currently, the downtown triangle and surrounding neighborhoods have poor wireless connectivity. The poor connectivity affects the City's ability to attract visitors downtown, the ability of residents to conduct normal activities, and businesses to conduct regular business activities.

At a previous meeting, the City Council directed staff to explore what the City can do to improve wireless connectivity moving forward. This direction allowed City staff to explore the many available options across a wide variety of policies. This report reviews options for the City Council to consider.

In preparation for this report, City staff has met with several stakeholders, including cellular companies, commercial property owners, telecommunications professionals, nonprofit organizations, and residents.

Discussion/Analysis

Private Cellular Coverage

There are two sections within the Los Altos Municipal Code that provide regulations on wireless telecommunications facilities: 11.12 and 14.85.

Los Altos Municipal Code 11.12 provides guidelines for all aspects of wireless facilities in Los Altos. Los Altos Municipal Code 14.85 only provides guidelines regarding the location of telecommunications facilities.

Currently, the City does not have clear regulations regarding tower installations and colocation of wireless facilities on towers as either stand-alone structures or on downtown buildings. Because regulations regarding wireless facilities, including tower regulations, are unclear or prohibit placement, small cell wireless installations are the primary option for cellular companies to provide connectivity to customers. The application of small cell infrastructure is not the preferred approach for telecommunications companies to provide primary cellular service to customers. Instead, small cell infrastructure should be used to connect "gaps" in coverage.

Small cell wireless installations are suboptimal for installation downtown. Small cell wireless installations cannot function properly within downtown due to building heights that prevent cellular service from carrying throughout the area. Additionally, small cell wireless installations do not have backup battery storage capabilities so they will not be powered during any power outages.



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City staff recommends making changes to the Los Altos Municipal Code, sections 11.12 and 14.85 as follows:

- Clearly delineate what the development standards are for wireless telecommunications facilities and incentivize their installation on downtown buildings that would otherwise not meet current height requirements.
- Provide clear guidelines regarding tower installation deployments in certain areas.
- Clean up language to align regulations with that of the state and federal government.

Making these recommended changes may incentivize cellular companies to install facilities in and around downtown thereby improving cellular service in that area.

Public WiFi

City staff connected with several different organizations and professionals to explore the possibility of a publicly available WiFi installation for the downtown core. At the conclusion of these meetings, staff is not recommending the installation of downtown wi-fi due to concerns about coverage, reliability, accessibility and security.

The major concerns regarding publicly available WiFi for Downtown Los Altos were captured in the meetings with companies that provide wi-fi solutions, and are captured here:

- WiFi has been referred to as a band-aid solution that will not cure the issues that need to be addressed through improved cellular installations. According to the experts, the City should address the cellular connectivity issues and then identify if WiFi is still required after visitors are able to utilize their cellular devices through their providers. It may be more practical and feasible to install a different system once the landscape is clear.
- Many cities and organizations have varying experiences with the installation of WiFi. There is no perfect solution and experience, according to municipalities.
- WiFi requires electrical capacity and conduit space for installation. Only streetlights downtown currently have electrical conduit, but the electrical grid cannot sustain the WiFi routers and the conduit does not have space for more cables.
- The cost and resource allocation for initial installation and on-going maintenance will be extremely high. Many cities either have one full-time staff person or a contracted provider to manage the WiFi system. This would be an expensive cost to the City.
- A WiFi system will become outdated very quickly if there are not regular upgrades to both the hardware and software, which will require steady and regular investment over time.
- Individual WiFi systems are typically not secure networks for visitors and residents. If security cannot be guaranteed there is a low likelihood of use and adoption by businesses or business customers.
- Telecommunication experts expressed that they were not confident connecting their phone to public WiFi systems without understanding that network's safety and security.



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City staff recommends that the City should explore a publicly available WiFi system in two to three years once the private sector has been able to explore cellular installations under the revised ordinances.

Recommendation

Provide direction for staff to prepare amendments to Los Altos Municipal Code to improve wireless connectivity in Los Altos.