

SMALL CELL DEPLOYMENTS

STREET LIGHTS & JOINT UTILITY POLES

Planning & Economic Development Department

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SMALL CELL DEPLOYMENTS



Background

- Past Council Discussions
- Macro vs. Small Cell
- Legal Framework



Installations

- Current Deployments (4G)



Community

- Outreach Efforts
- Concerns



Solutions

- Limited Release on City Poles – Non-Residential Areas
- Address Community Concerns Within City's Control
- Emergency Alerting

PAST COUNCIL ACTIONS

Council Policy 300-04

- Adopted in July of 2000
- Generally tailored for large macro cell sites

Amendment to Policy 300-04 – February 2017

- Small cell deployments on city owned infrastructure in right-of-way
 - Master License agreement
 - Site license agreement for each individual location
 - Annual license fee
 - Execution authority to City Manager or designee

PAST COUNCIL ACTIONS

Council Study Sessions

March 6, 2018

June 5, 2018

Installations on City owned street lights and traffic signal poles paused based on feedback received

Macro Sites



- Larger coverage area
- Placement on private structures
- Placement on City buildings
- Addressed under Zoning Code



Macro Sites



Approval Process

- Use Permit and/or Design Review
- Reviewed against published design guidelines
- Alternate Site & Radio Frequency (RF) Analyses
- Public meeting or public hearing
- Building permit for structure attachments or stand alone towers
- Lease agreements – City property



Macro Sites

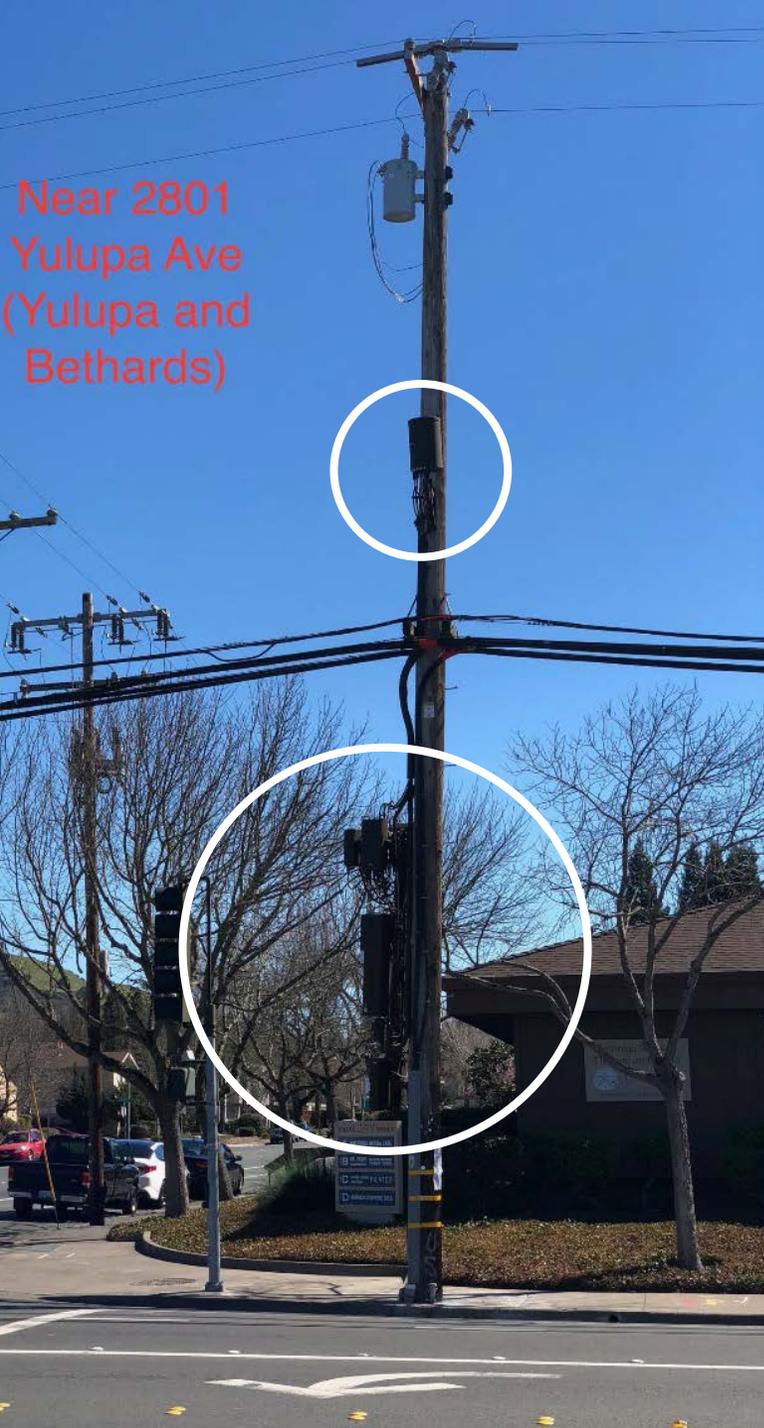


Legal Framework

- Radio Frequency (RF) analysis
 - RF emission limits are regulated by the Federal Communications Commission (FCC)
 - Cell sites must produced analysis showing compliance with FCC emission requirements
- Under federal law (1996 Telecommunications act), the City is prohibited from denying a permit to construct a wireless facility based on health concerns over RF emissions, provided that the emissions from the facility comply with FCC standards.



Near 2801
Yulupa Ave
(Yulupa and
Bethards)

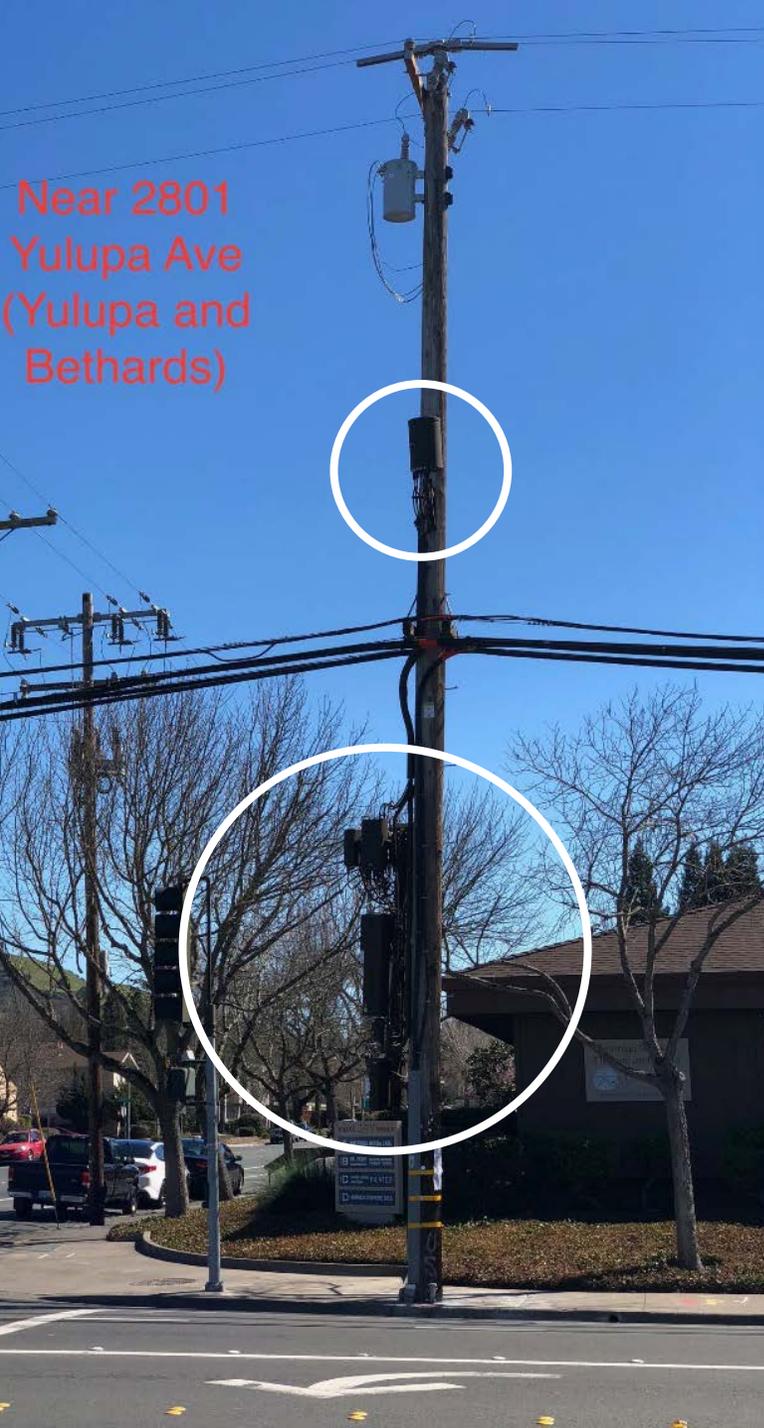


Small Cells



- Fill in smaller coverage gaps
- Placement in public right-of-way
- Covered under Council Policy 300-04
- Chapter 13 of the City Code
- Public Improvement Standards

Near 2801
Yulupa Ave
(Yulupa and
Bethards)



Small Cells

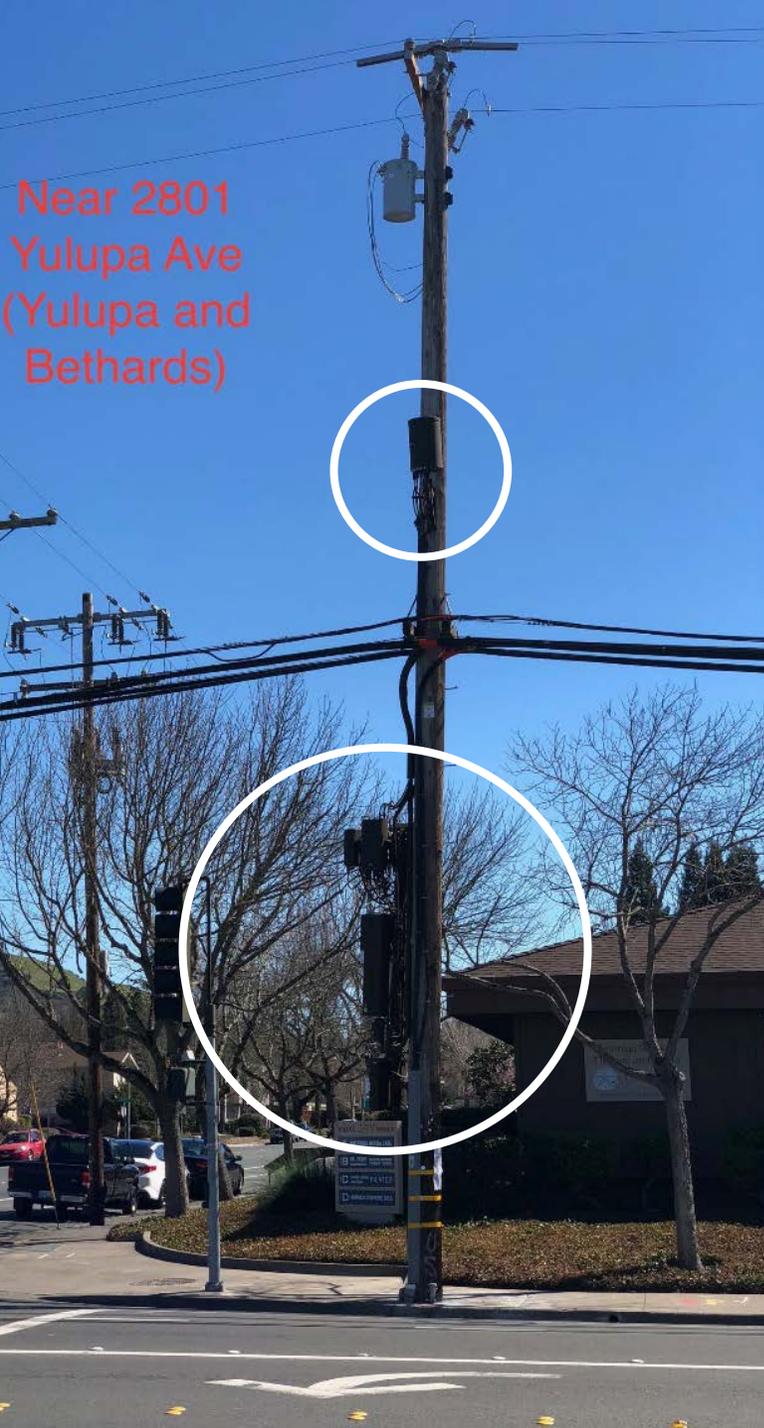
Joint Utility Poles



Approval Process

- Encroachment Permit
- Traffic Control Plan
- Consistency with design standards
- Notification requirements
- Building permit for meter installation

Near 2801
Yulupa Ave
(Yulupa and
Bethards)



Small Cells

Joint Utility Poles



Legal Framework

California Public Utilities Commission

Decision 16-01-046 – January 28, 2016

Verizon has right-of-way access rights per the modified right-of-way decision of 2016. By way of this decision, PG&E is mandated to provide access to its poles for pole top antennas belonging to Verizon. The process involves Verizon submitting an application and construction drawings, and pole loading calculations are also performed to ensure structural integrity. Verizon is solely responsible for constructing to G095 compliance and for retaining any jurisdictional permitting required.

PG&E does not get to choose which poles may be encumbered with an antenna on the basis of property value or aesthetic reasons.

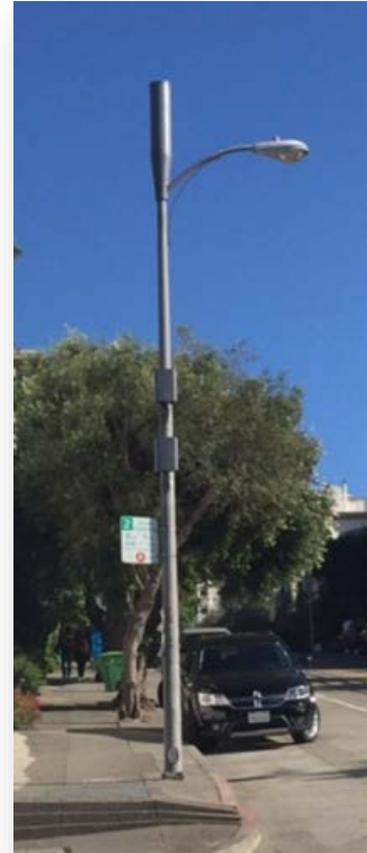
Small Cells

City Owned Poles



Approval Process

- Similar to joint poles
- Master license agreement
- Site license agreement
- Mitigate operational issues
 - Pole knockdowns
 - Routine electrical maintenance
 - Controlling ground equipment



Small Cells

City Owned Poles



Legal Framework

- Federal law requires State and local governments to act on applications within a reasonable time
- Defined as either 150, 90, or 60 days based on the nature of the application.
- Application can be deemed automatically approved if the State or local agency fails to act within the prescribed time frames.

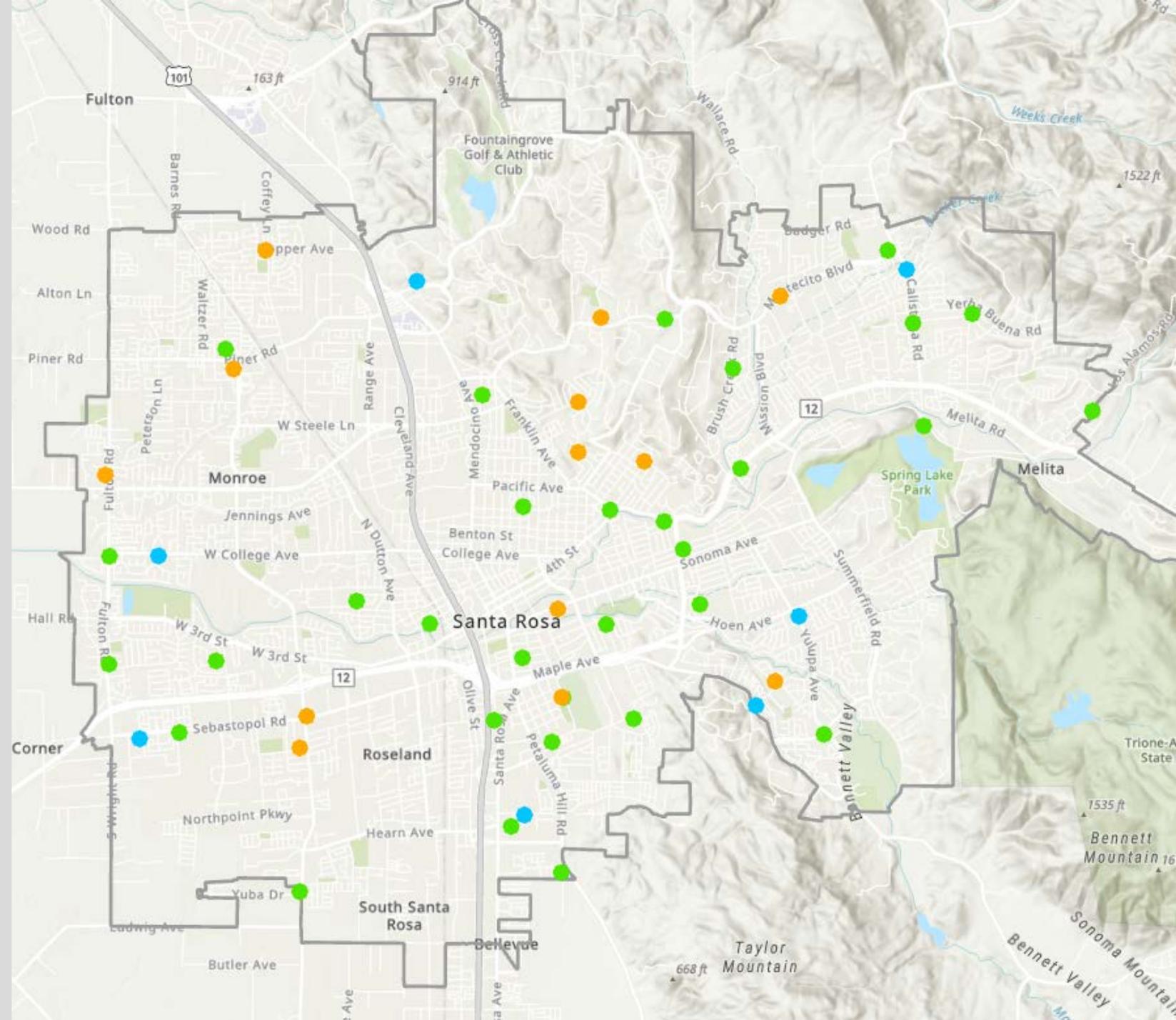


Current Deployments

Joint Utility poles

Verizon

- Completed (31)
- Not Started (14)
- Undergrounding and Cable (7)



Community Outreach

Community Outreach

Verizon Open House

- Monday, February 26, 2018 6:00pm – 8:00pm
- Saturday, March 3, 2018 10:00am – 12:00pm
- Thursday, March 8, 2018 6:00pm – 8:00pm
- Saturday, March 10, 2018 10am – 12:00pm

Neighborhood Meetings

- Hidden Valley Neighborhood Group – May, 2018
- Neotomas Avenue Neighborhood Group – May, 2018



Community Concerns

Residential Area Concerns

- Health risks – RF exposure
- Aesthetics – loss of property value
- Saturation
- Lack of notification
- Environmental impact – back up batteries



RF Standards & Testing

Health Concerns

Are small cells safe?

- FCC adopts guidelines for evaluating human exposure to RF fields from transmitting antennas such as those used for cellular radio
 - “5G”
 - Technology?
 - Frequency?
 - Exposure standards reevaluated by FCC with technology evolution
- Testing requirements and process



Solutions

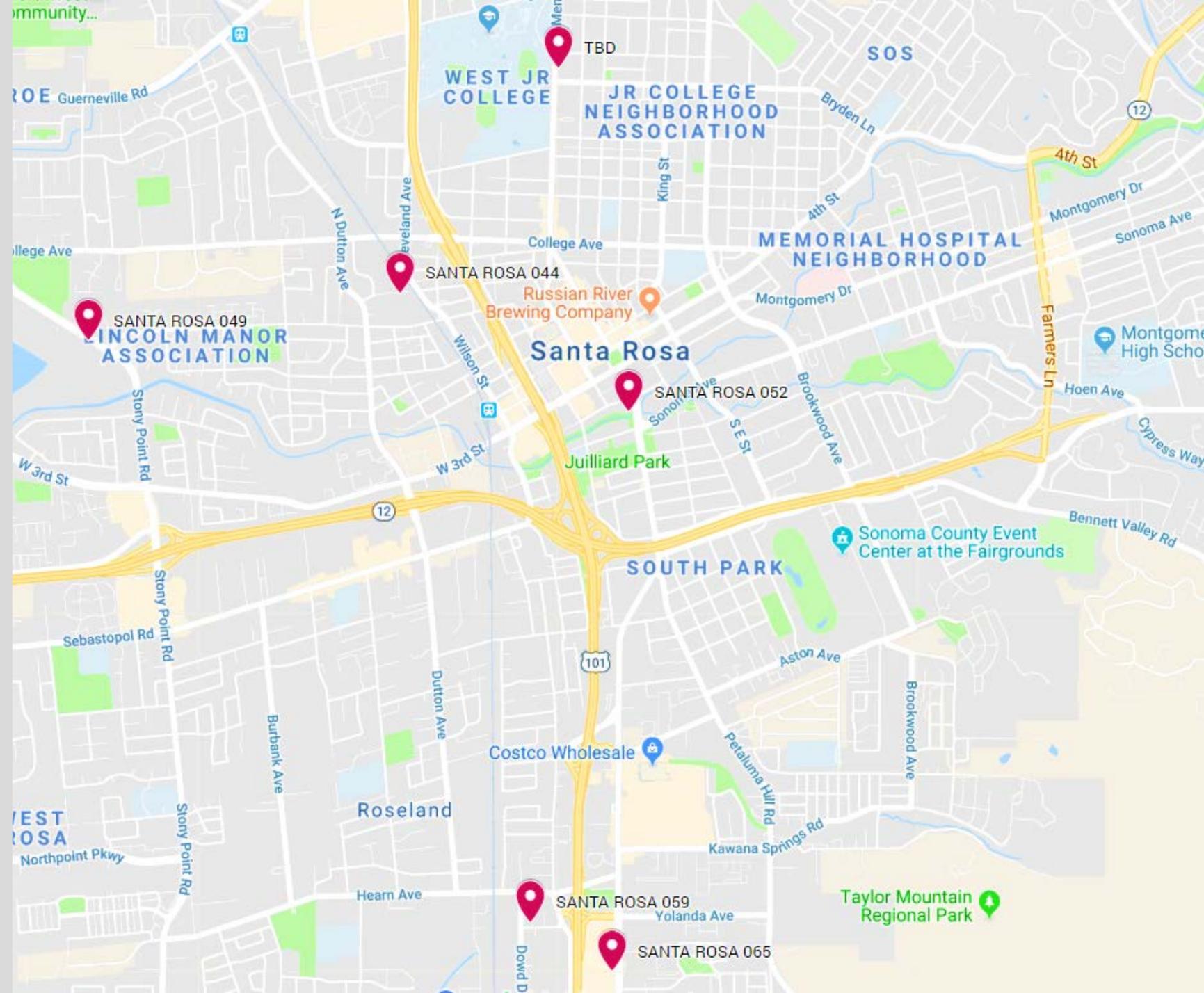
City Owned Poles



- Limited deployment for each provider (maximum of 6 locations)
 - Deployments in non-residential areas only
- Increase transparency and improve educational materials
 - Map portal
 - Access to studies (RF)
 - Improved notification and community engagement
- Align code sections and telecommunications policy
- Improve emergency alerting
- Develop solutions for aesthetic concerns
- Allow additional location flexibility

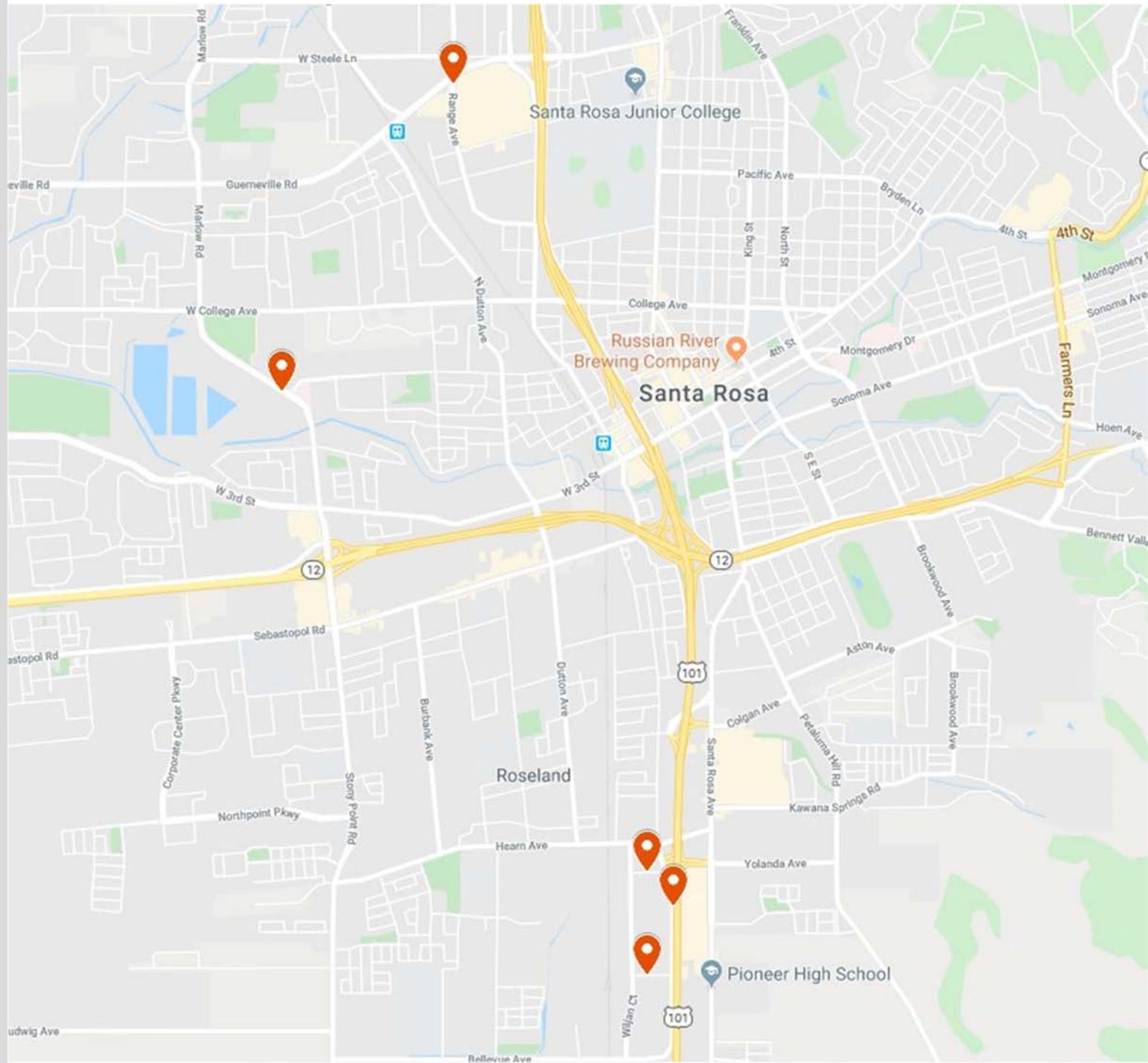
Possible Verizon Sites Limited Release

- Mendocino (JC Area)
- Stony Point Road
- Corby (Auto Row)
- Santa Rosa Avenue
- Downtown
- Cleveland Avenue



Possible AT&T Sites Limited Release

- Coddington Mall Area
- Stony Point Road
- Corby (Auto Row)
- Dowd Drive Area



AT&T

Limited Release Sites

Corby Avenue



proposed AT&T antenna

proposed AT&T pole mounted equipment

proposed meter pedestal

AT&T

Limited Release Sites

Range Avenue
Coddington



proposed AT&T antenna

proposed AT&T pole mounted equipment

proposed meter pedestal

Verizon

Limited Release Sites

Stony Point Road



Proposed Verizon
Antenna & Equipment

Solutions

Access to Information

Expand Mapping Portal to Provide Additional Access to Information

- Permitting data on all cellular facilities
- Access to RF Analysis
- Listing of properties noticed
- Copies of notice
- Links to State and Federal resources and requirements
- FAQs



Solutions

Code and Policy Consistency



Code Alignment

- Maintain consistency across Chapters 13 and 20 of the City Code and the Council Policy 300-04
- Expand design guidelines and standards to address small cells on both City owned and joint poles
- Align and improve noticing requirements
 - Consistent radius
 - Require prior to approval of site license
 - Require confirmation of noticing
- Streamline and improve review process for both macro and small cells
- Public process – site license agreement execution

Solutions

Aesthetic Improvements

Equipment Size
and Placement

Components

- Antenna
- Radios
- Power
- Backhaul
- Battery Backup



Solutions

Aesthetic Improvements

Concealment and
Equipment Choices

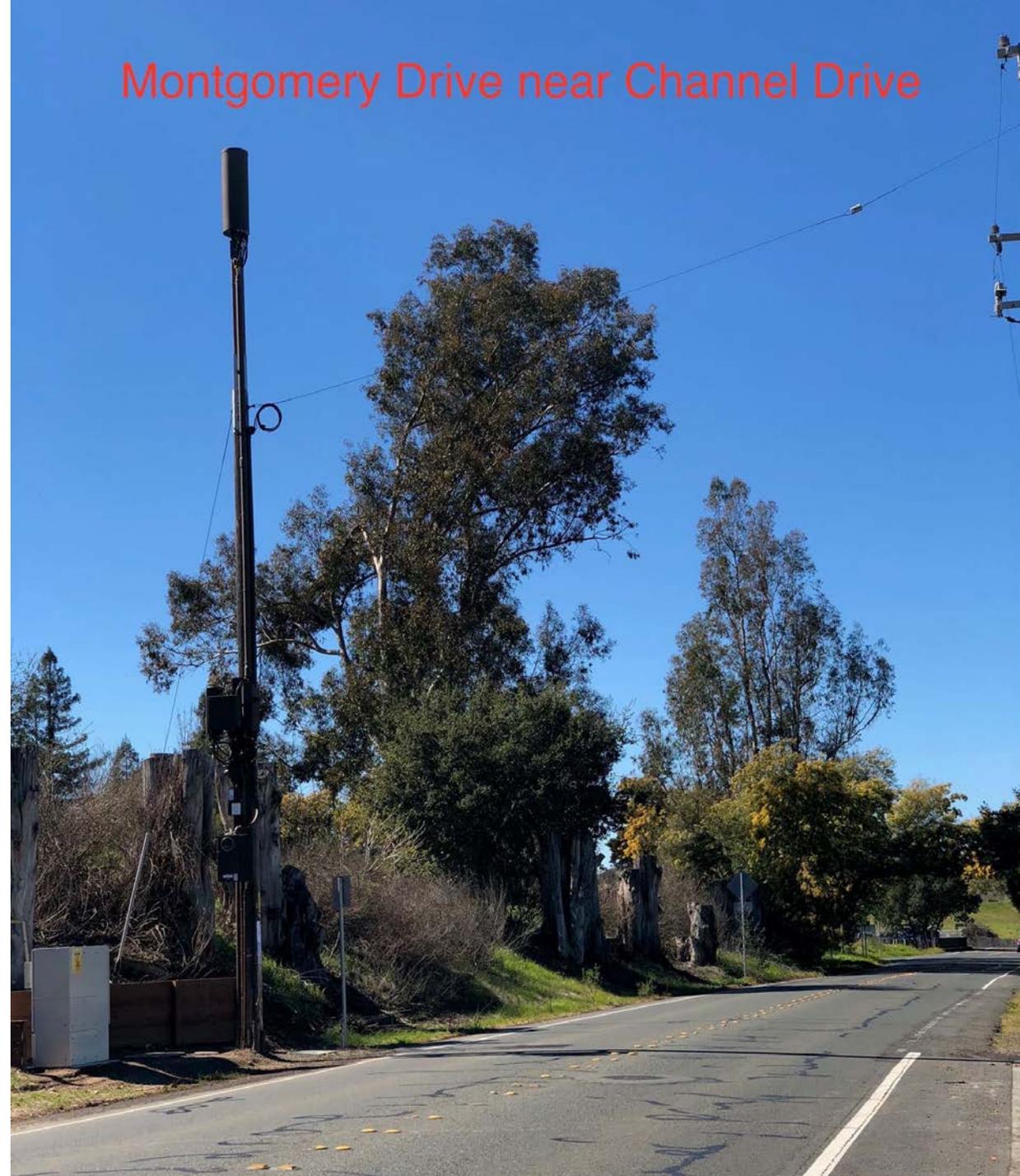


Solutions

Aesthetic Improvements

Select Locations Suitable For
Backup Power Supplies

Montgomery Drive near Channel Drive



Solutions

Aesthetic Improvements

Sign Screening



Solutions

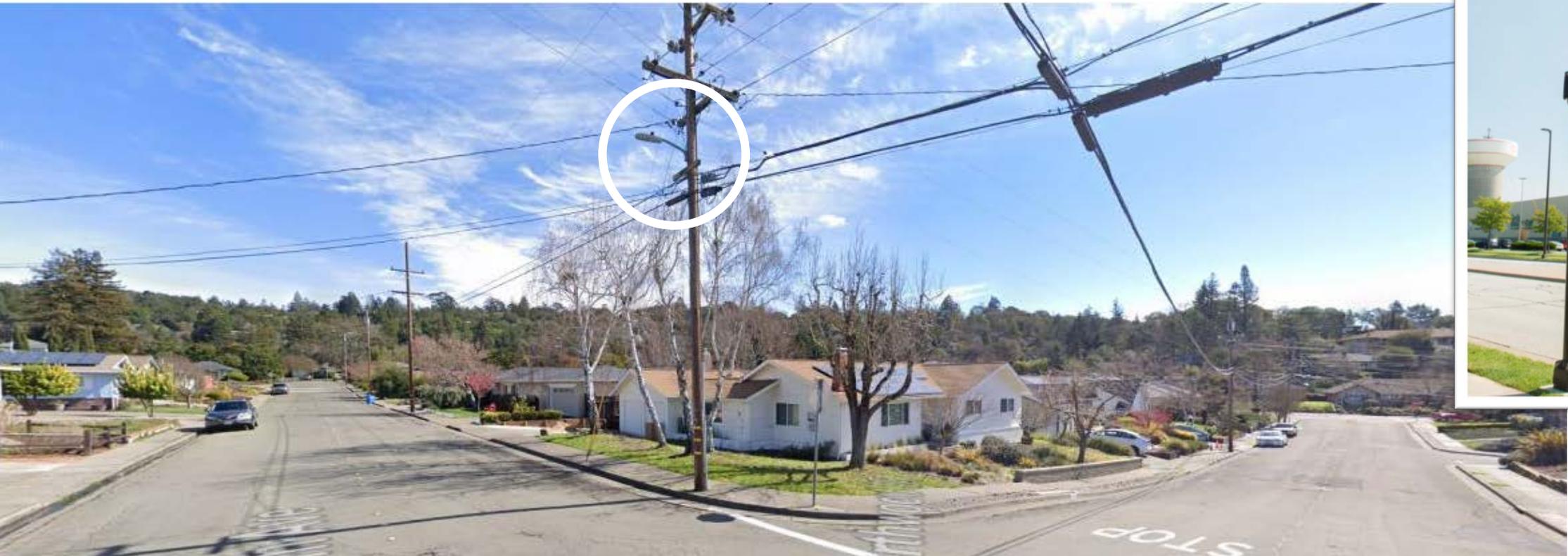
Aesthetic Improvements

Utility Box Art Program



Solutions

Location Flexibility



Benefits

Emergency Communications and Alerting



- Improving emergency alerting through the expansion of cellular infrastructure
 - Need for additional data capacity to support future alerting standards
- Deployment of backup power sources at cellular facilities
 - Backup generators (macro sites)
 - Back up batteries (small cells)
 - Allows for operation in the first few hours after a disaster or power shutdown

Next Steps

1.) Limited Release on City Poles

- Execute master license agreement with AT&T
- Execute site license agreements for all street light sites within limited release
- Work collaboratively with cellular providers to improve notification process and community engagement
- Identify areas for potential back up batteries and begin the development of a utility box art program
- Improve educational and mapping resources
- Develop RF testing procedures – peer review, City consultant contract or applicant responsibility

2.) Deployments Allowed Under Council Policy 300-04

- Align language in Chapter 13 and 20 of the City Code with Council Policy 300-04
- Modify design criteria – joint utility poles and City owned poles
- Streamline review process and define public processes for all cellular installation types
- Develop solutions for residential areas
- Return to Council to address modifications to overall program – adopt code and policy changes

Questions?

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