

Gene Stroman, GIS Researcher  
Pavement to Parks  
Spring 2014



# OPPORTUNITY MAPPING SAN FRANCISCO PARKLETS & PLAZAS



- I. Introduction**
- II. Preliminary Findings**
- III. Methodology**
- IV. Analysis**
- V. Conclusions**
- VI. Questions**

3868 24th Street Parklet (Hosted by Martha Brothers) Photo by: San Francisco Planning Department

San Jose Guerrero Park, Photo by Jeremy Shaw



**Pavement to Parks** seeks to test the possibilities of underused areas of land by quickly and inexpensively converting them into new pedestrian spaces.



1331 9th Avenue Parklet (Hosted by Arizmendi Bakery) Photo by: Jack Verdoni Architecture

**Street Space → Pedestrian Space  
Temporary → Permanent**

**PARKLETS  
PLAZAS**

*Opportunity Mapping: San Francisco Parklets & Plazas. Presentation delivered at the San Francisco Planning Department on May 29, 2014 by Gene Stroman*

# The World of Parklets, Plazas, and Other Temporary Programs

Pavement to Parks has influenced and been influenced by a number of cities across the globe.



# Why study parklets and plazas?



**Pavement to Parks** is a young program and its projects are new concepts for which there are many basic unanswered questions. An empirical analysis has never been done before, and can be used in the selection of future proposals.

375 Valencia Street Parklet (Hosted by Four Barrel Coffee) Photo by: Great Streets

# Research Questions

How has Pavement to Parks grown since 2009?

Which Supervisor Districts contain the most parklets?

What is the relationship between parklets and NCDs?

Should the location of parklets be limited by street grade?

In what land use and zoning mixes do parklets emerge?

Which areas of the city are served by parklets or plazas? Which areas are not?

Which demographics do parklets and plazas serve in San Francisco?

Where are the best opportunities for future parklets and plazas?

What are the different type of parklet sponsors?

Where do parklets serve best as a public seating space?

How does the bicycle network connect with the parklet network?



# Research Questions

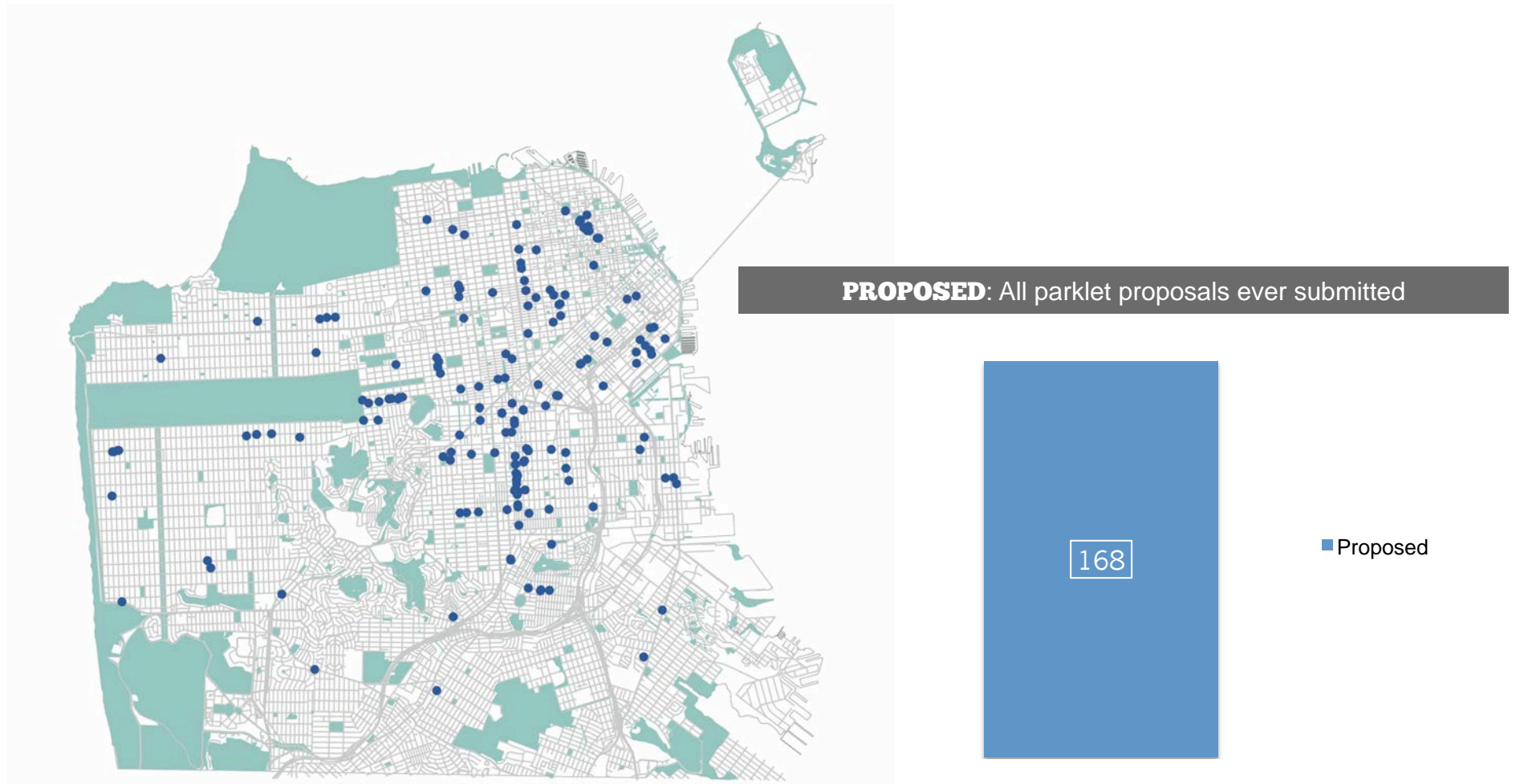
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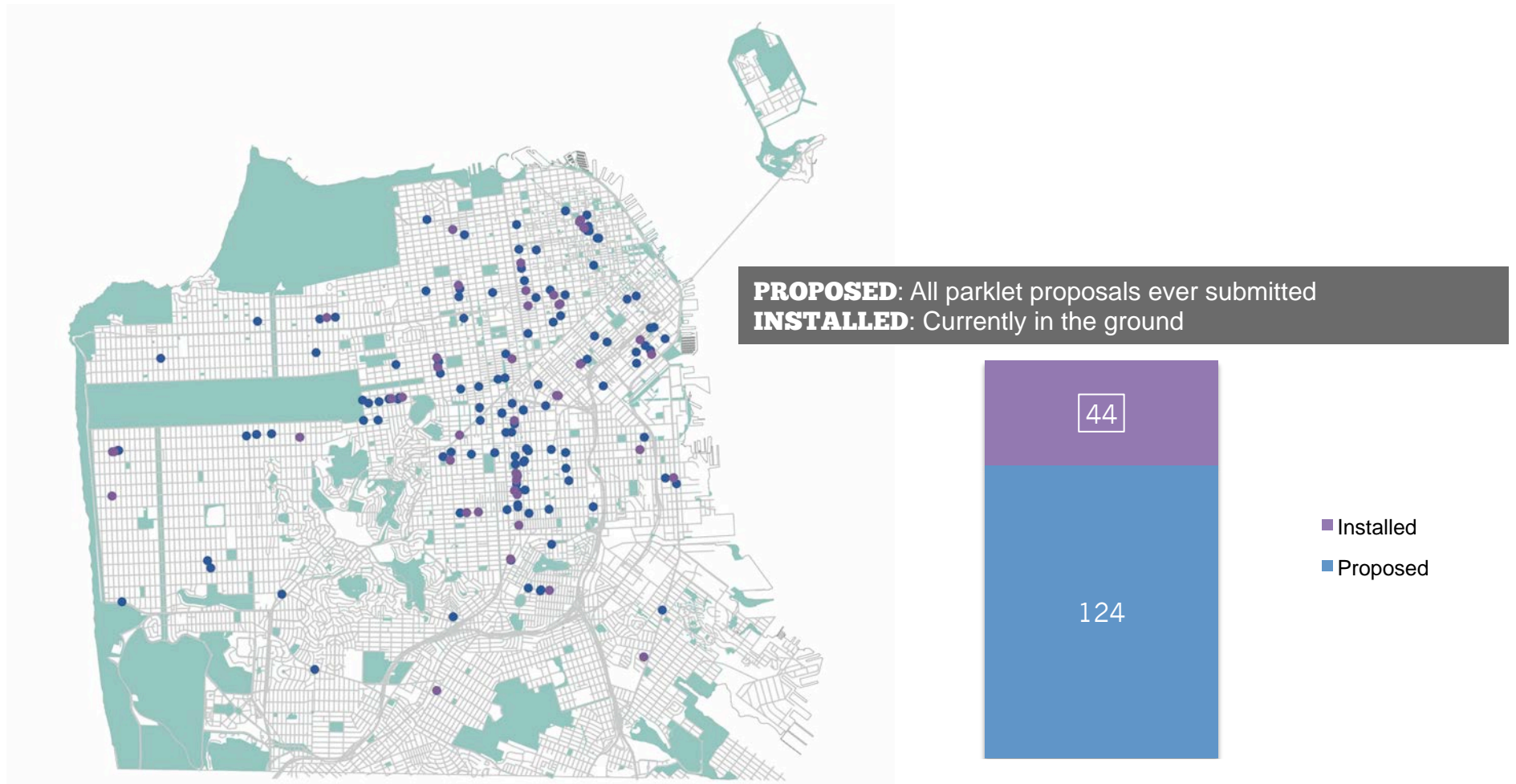
# Parklets in San Francisco



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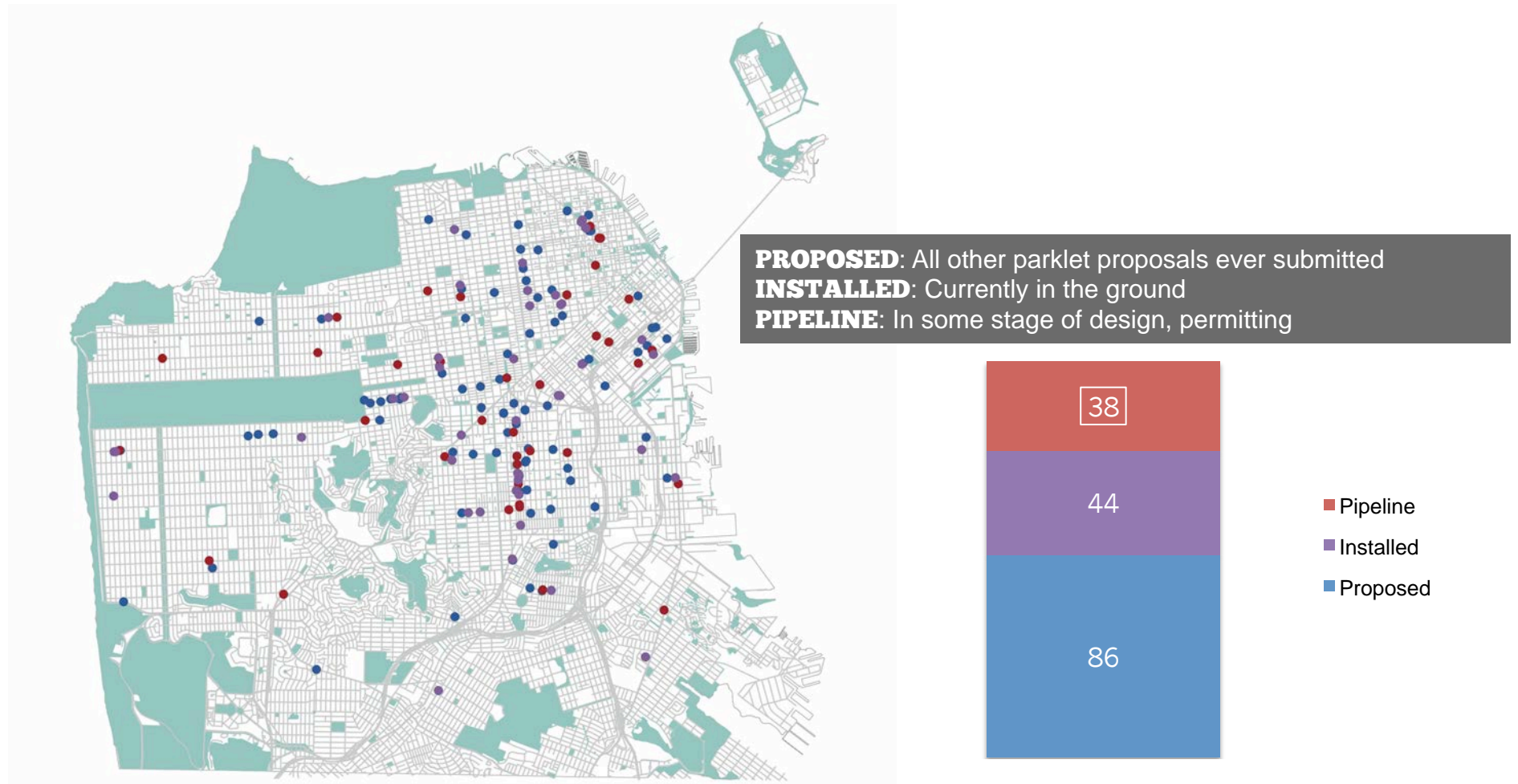


# Parklets in San Francisco



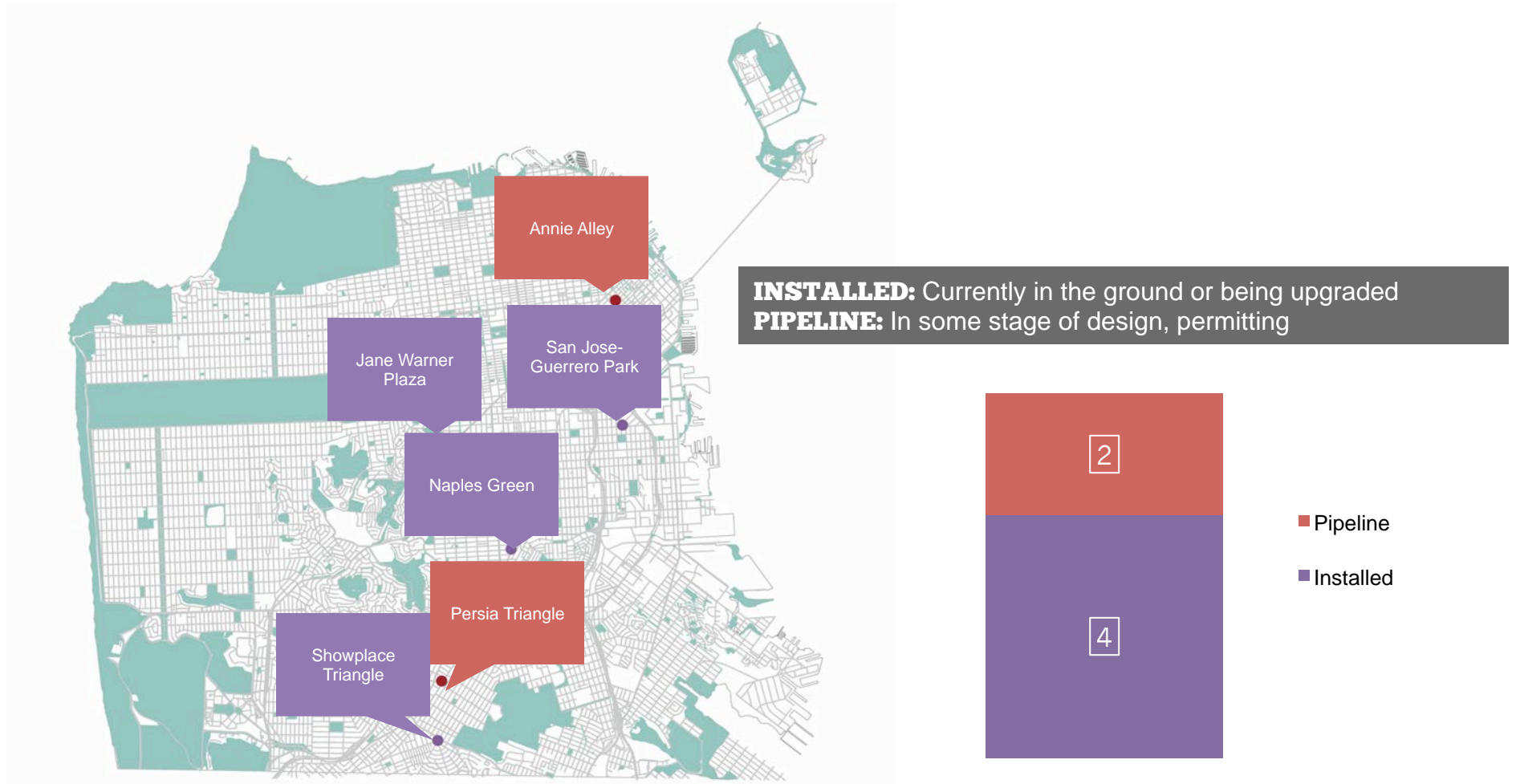
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# Parklets in San Francisco



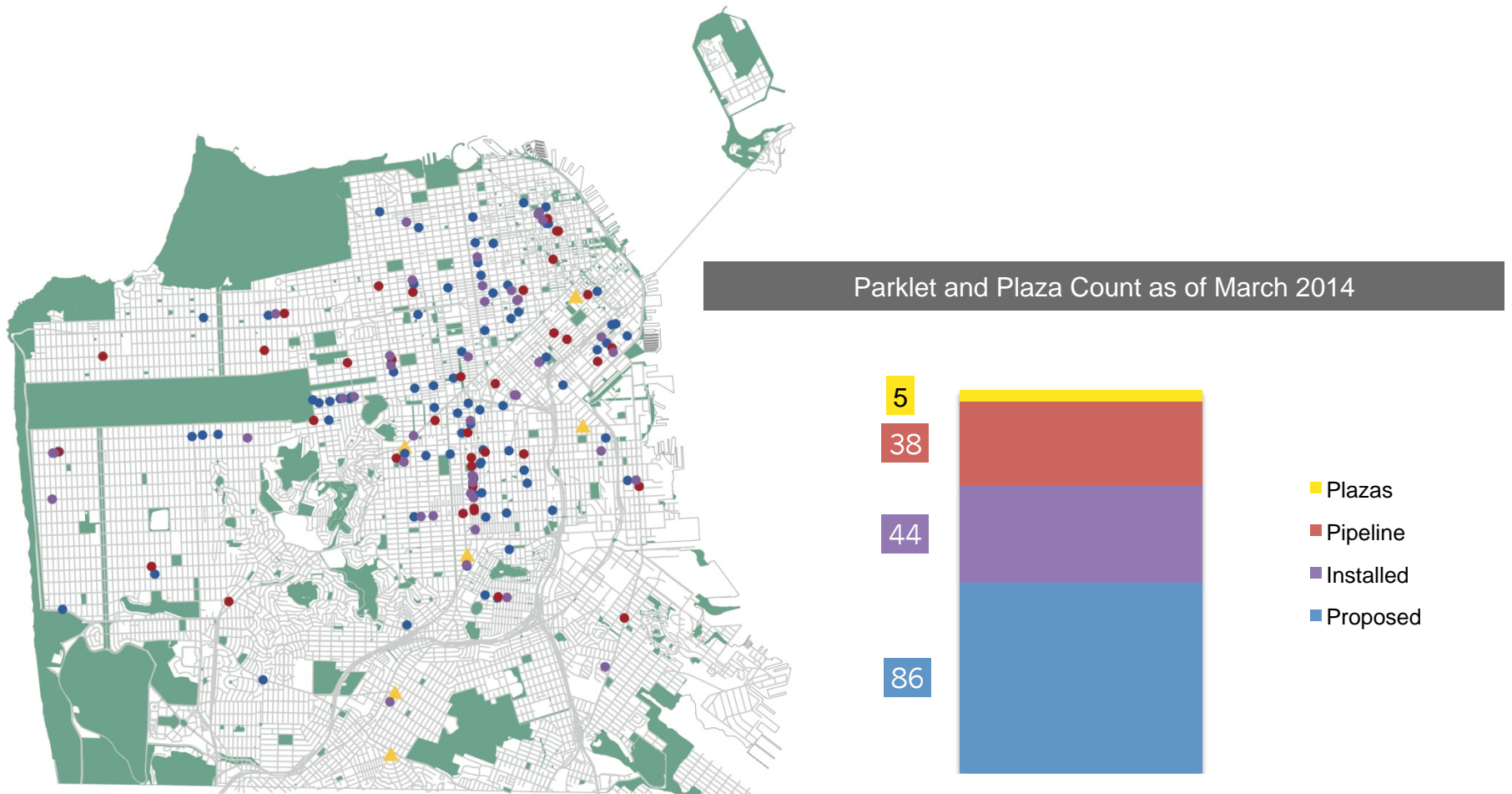
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# P2P Plazas in San Francisco



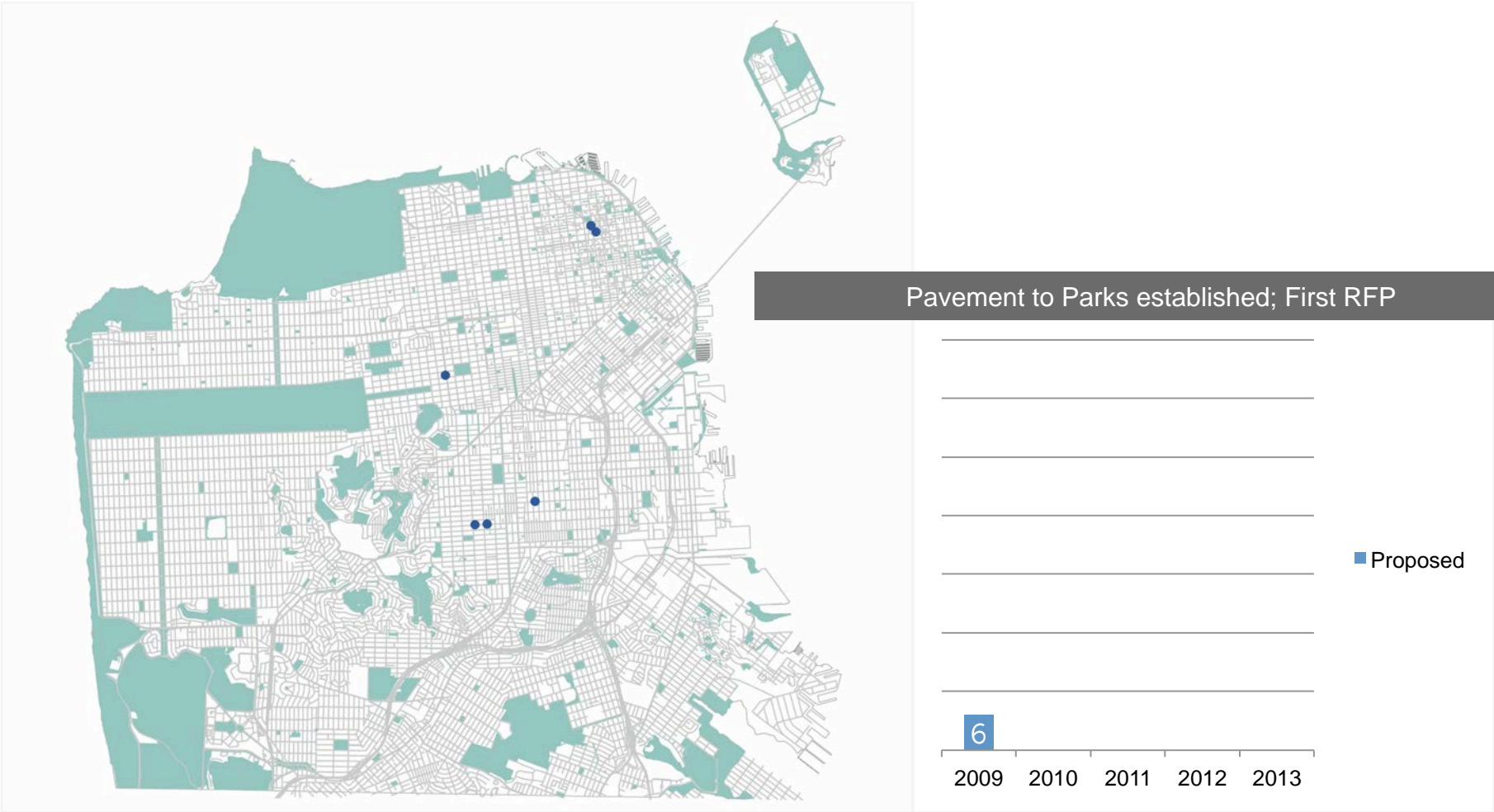
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# P2P Projects



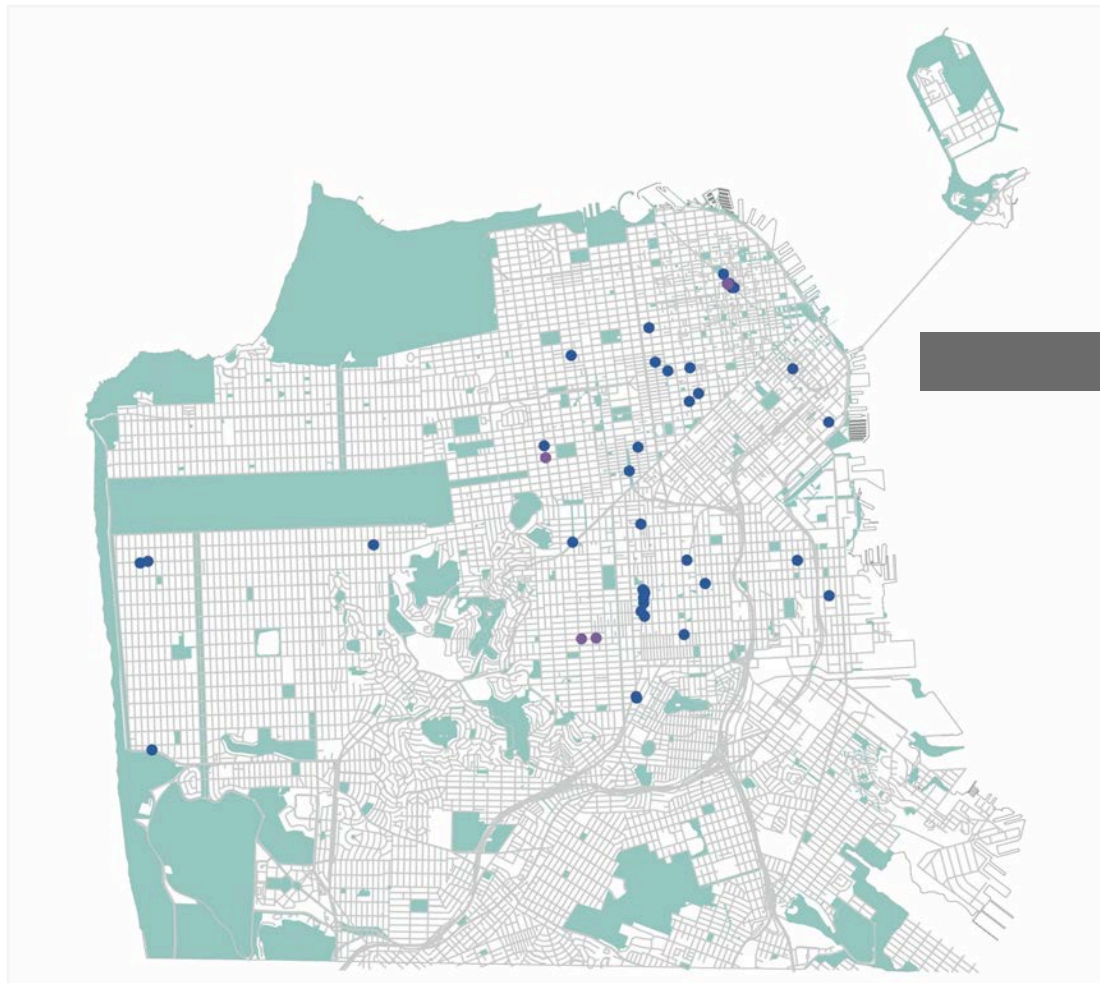
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# 2009

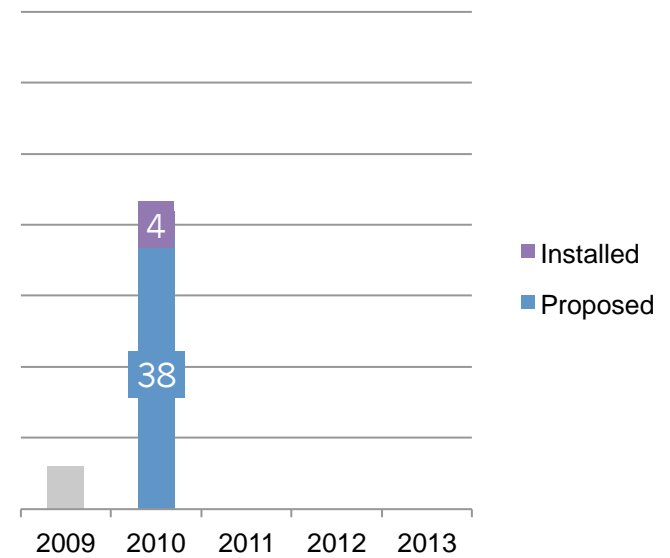


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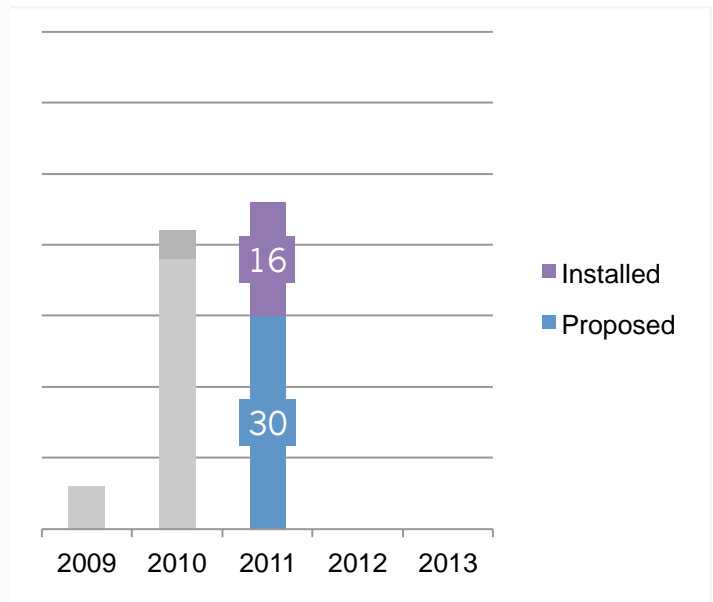
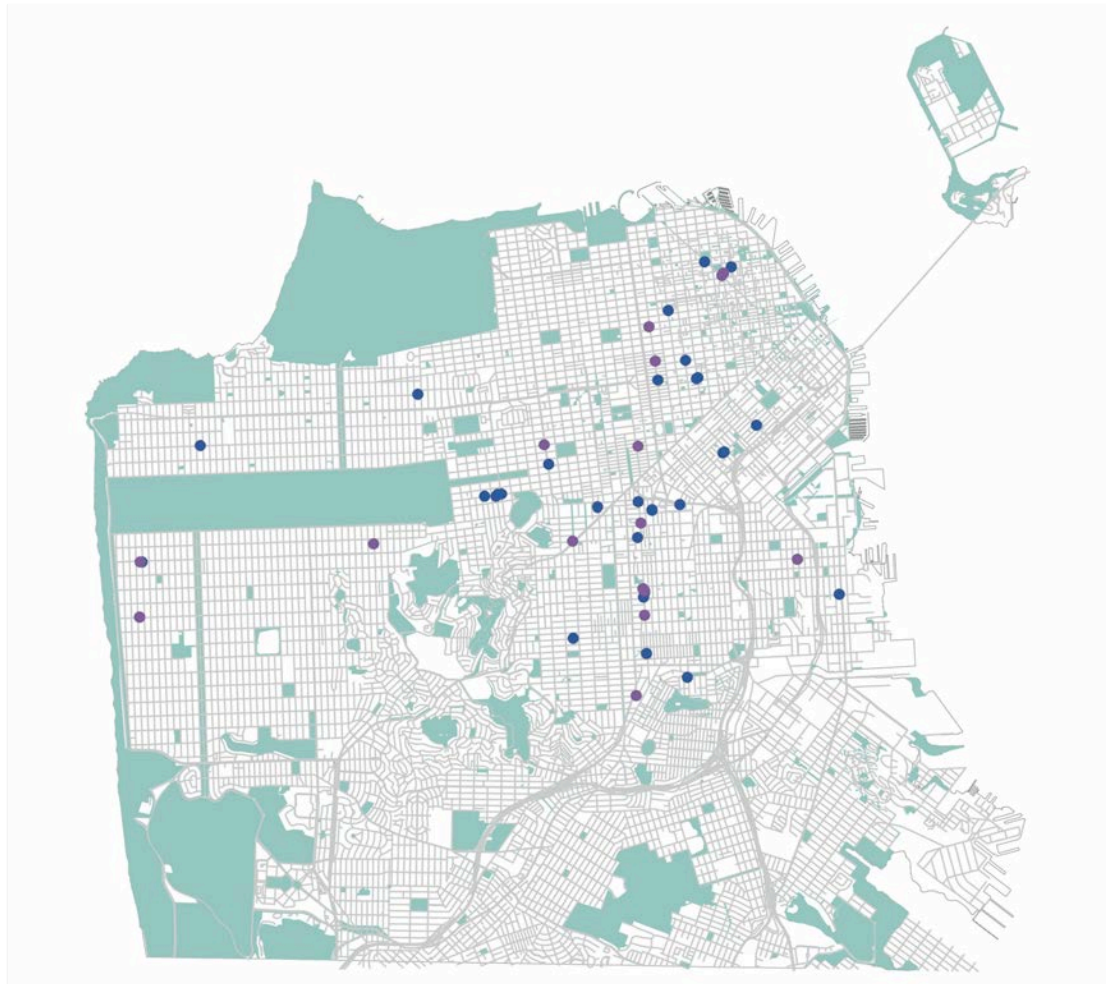
# 2010



4 Pilot Parklets Installed

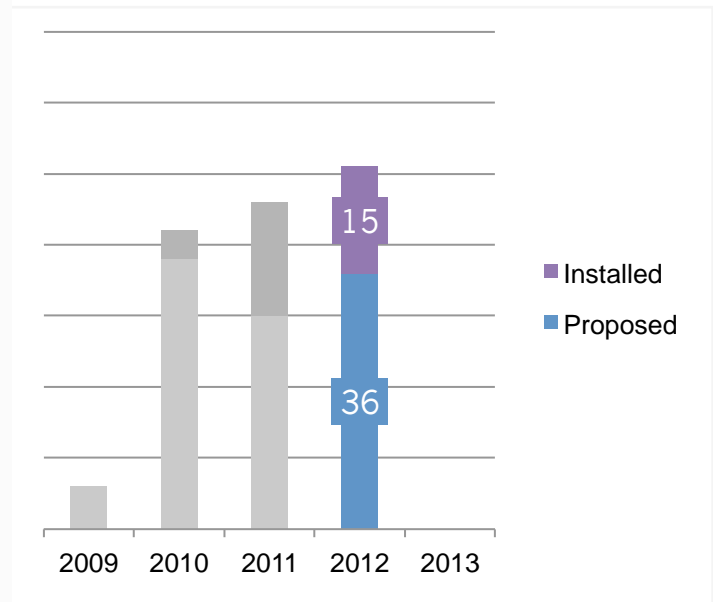
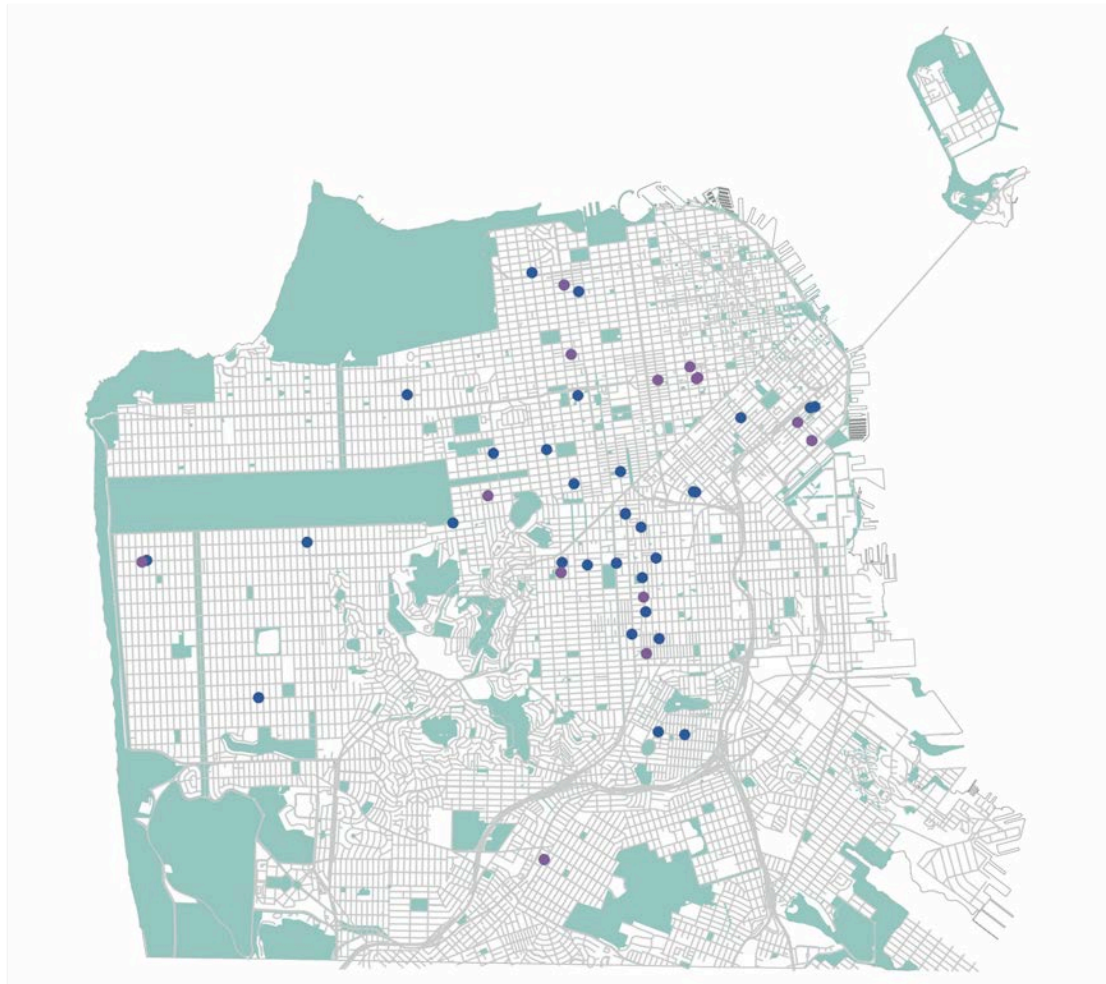


# 2011



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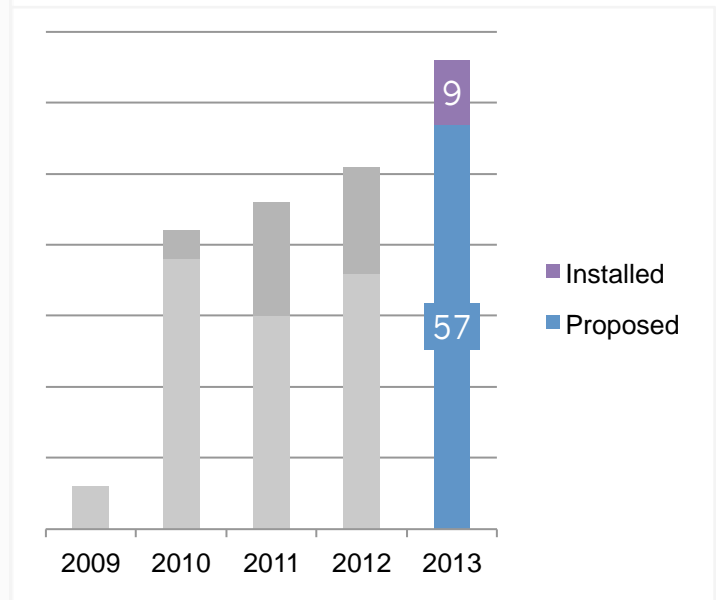
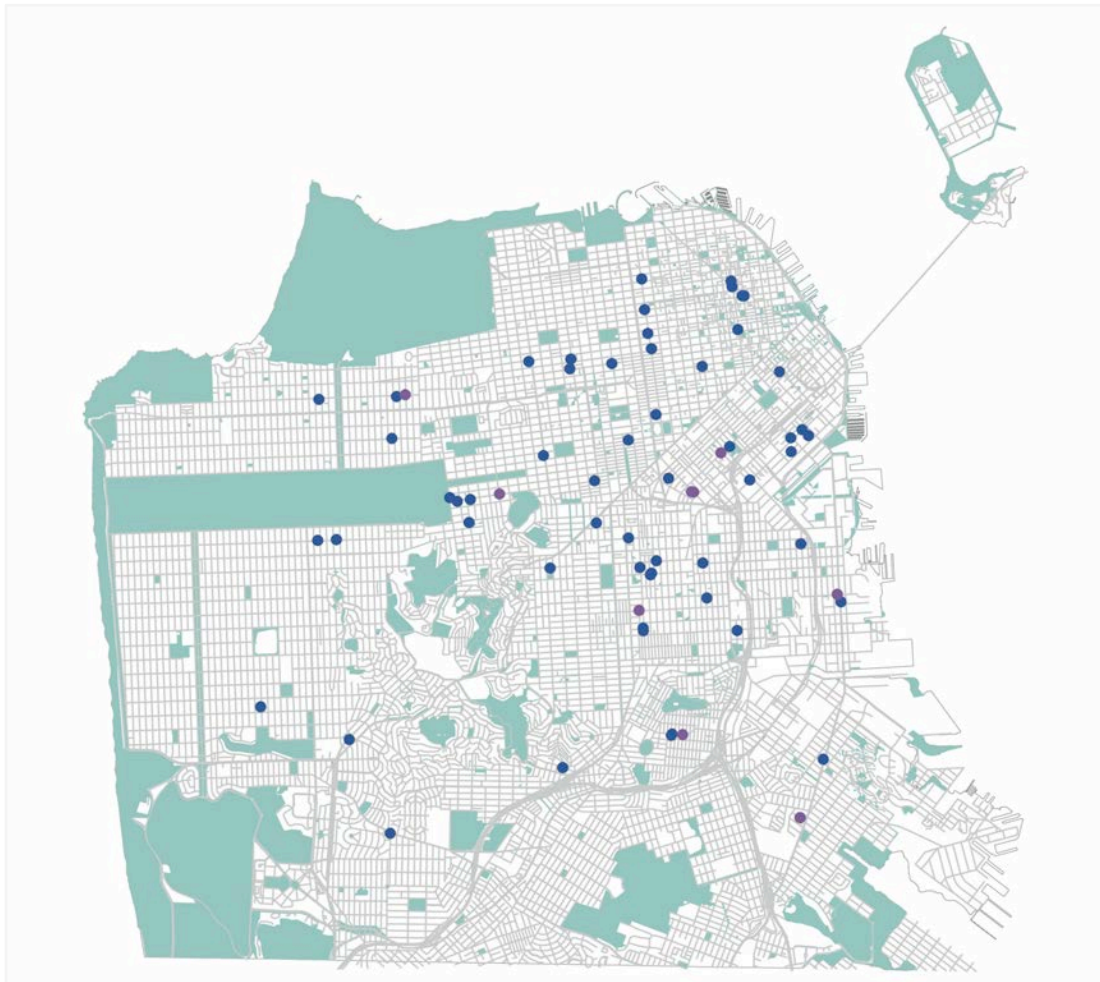
# 2012



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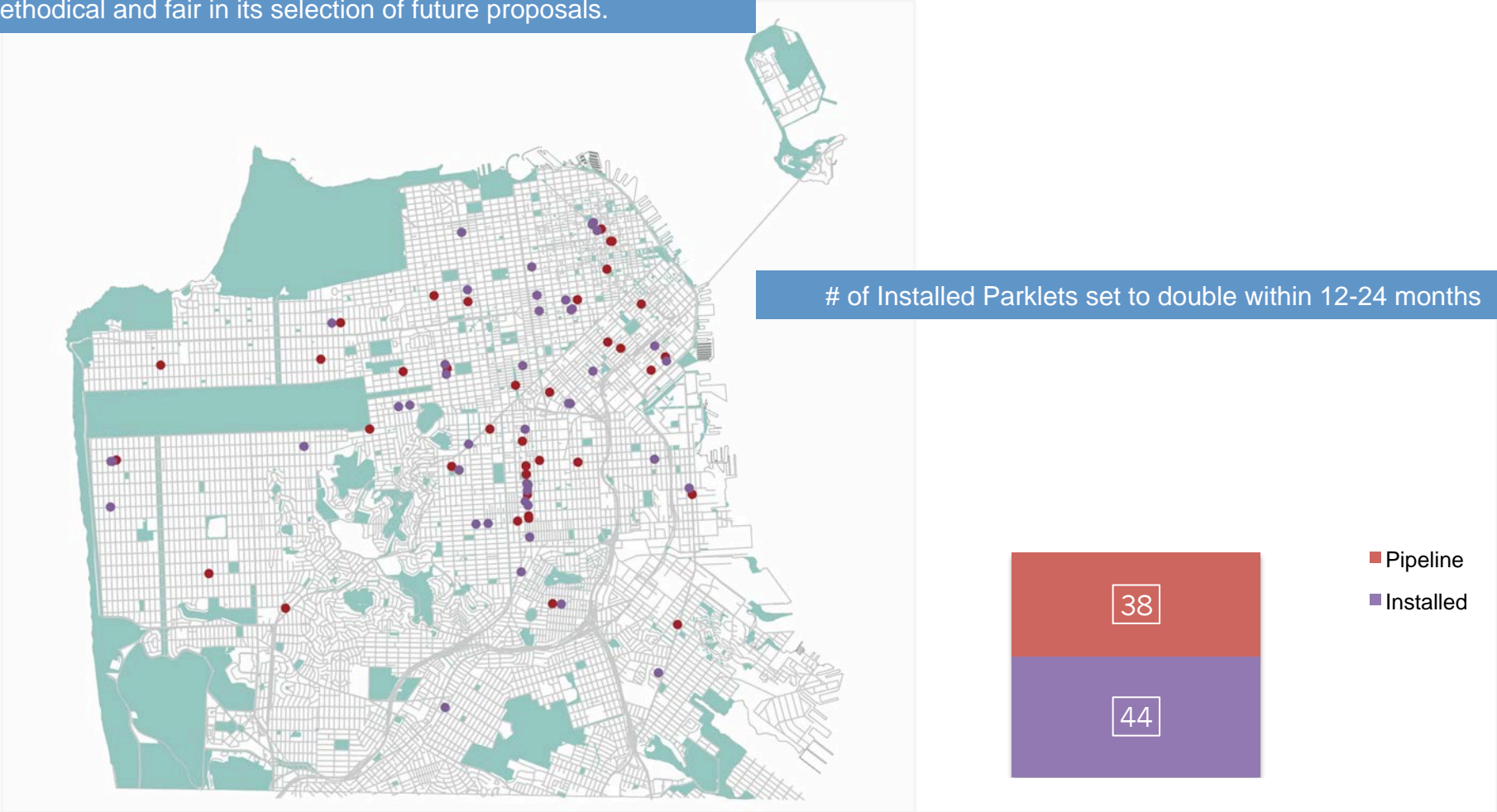
# 2013



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# 2014 | Pipeline

As the program continues to expand, P2P needs to be methodical and fair in its selection of future proposals.

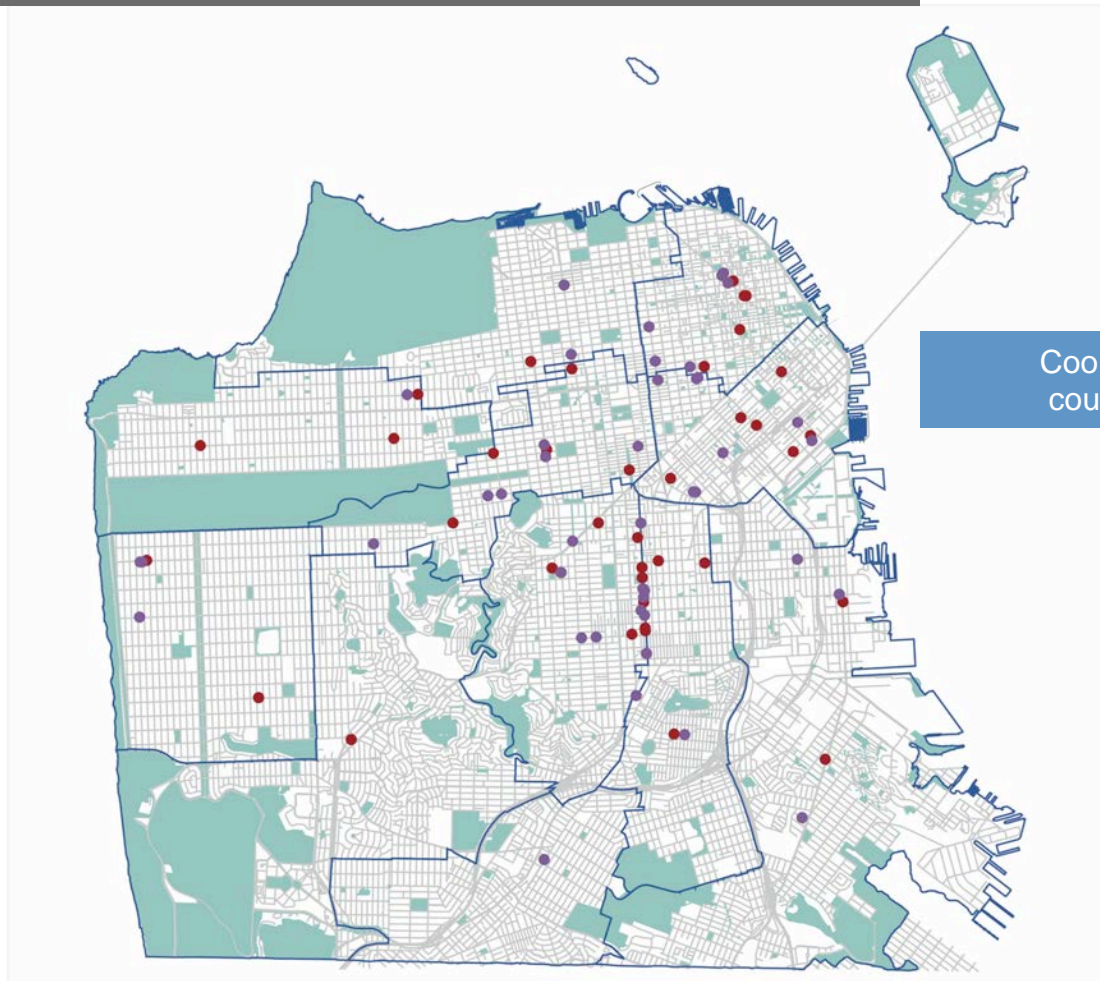


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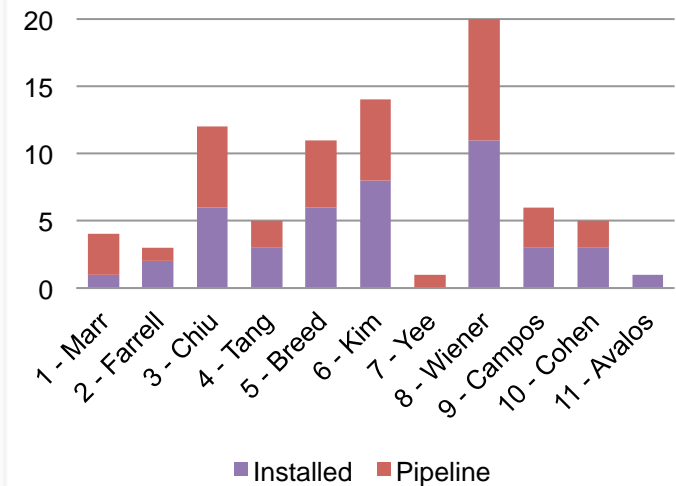
# **PRELIMINARY FINDINGS**

# Parklets by Supervisor District

Some parklets have been partially funded by Supervisors.

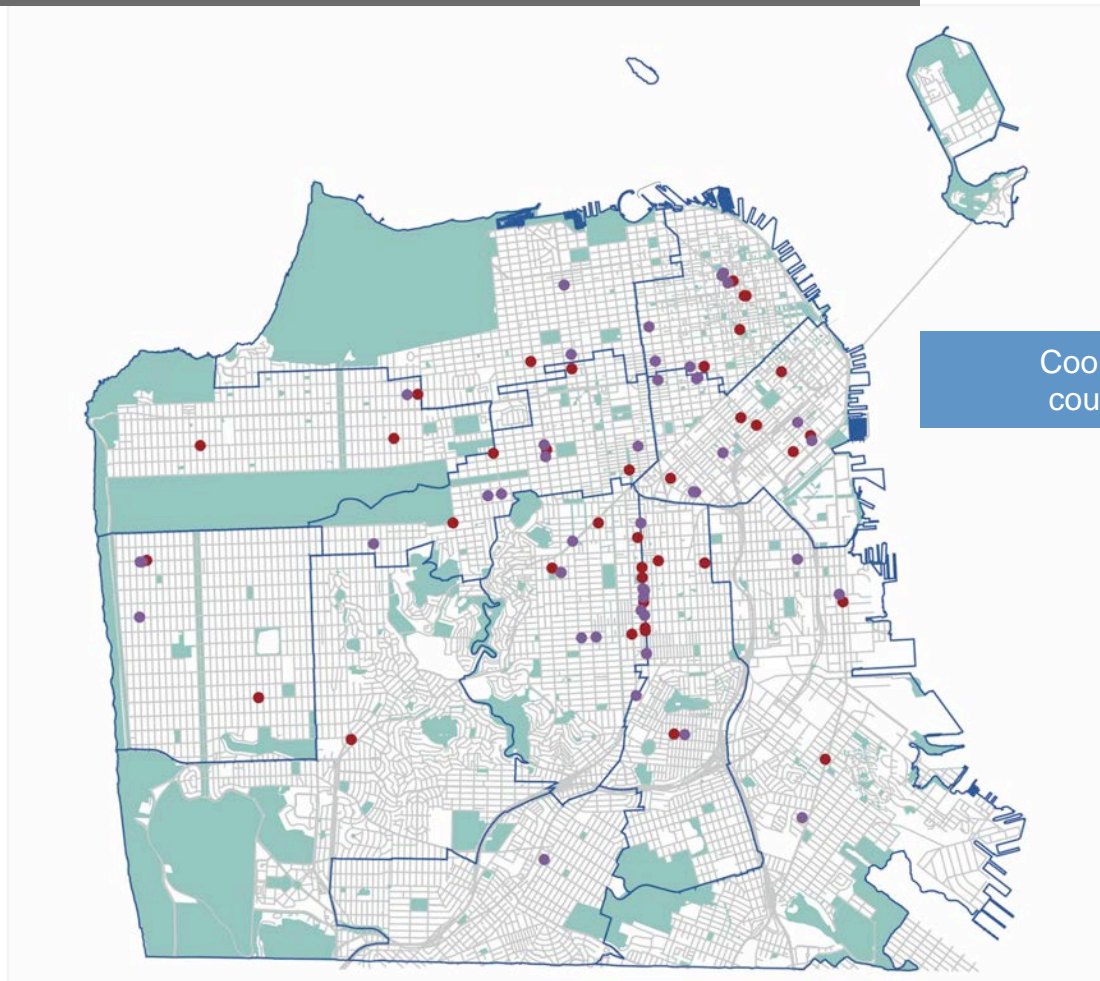


Coordinate P2P outreach with Districts with lowest parklet counts so that parklets are evenly distributed across city.

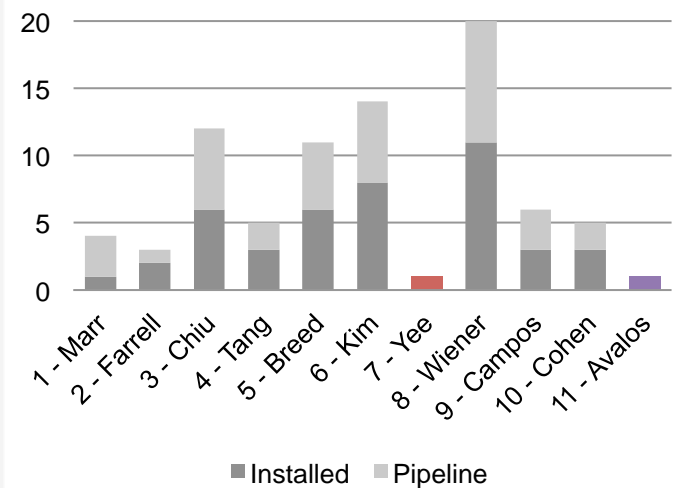


# Parklets by Supervisor District

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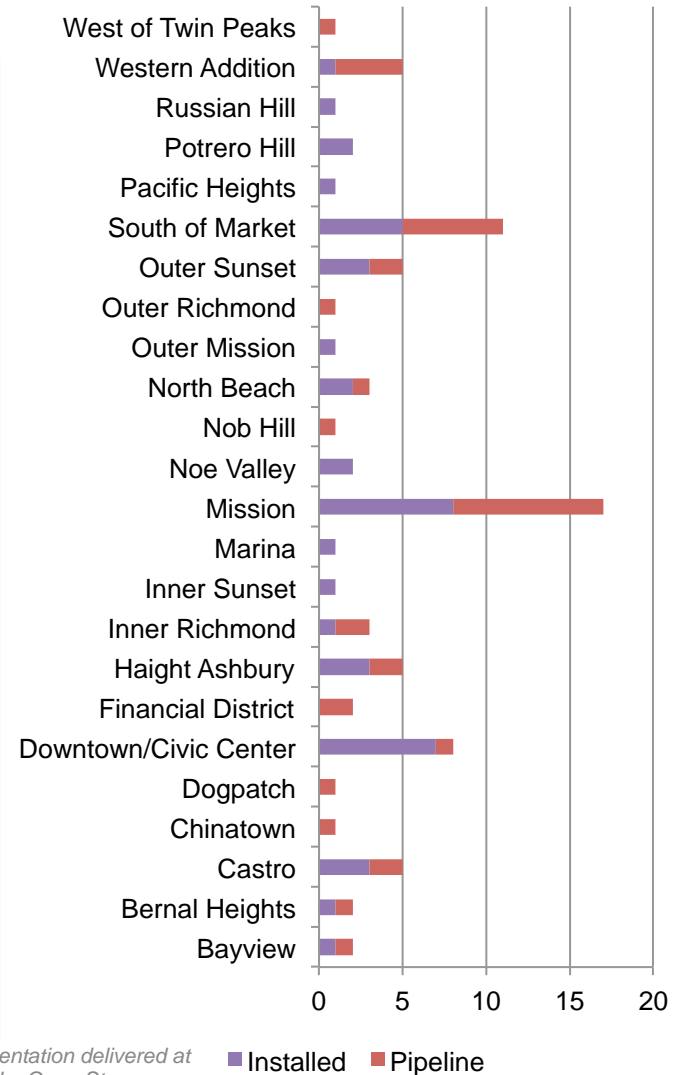
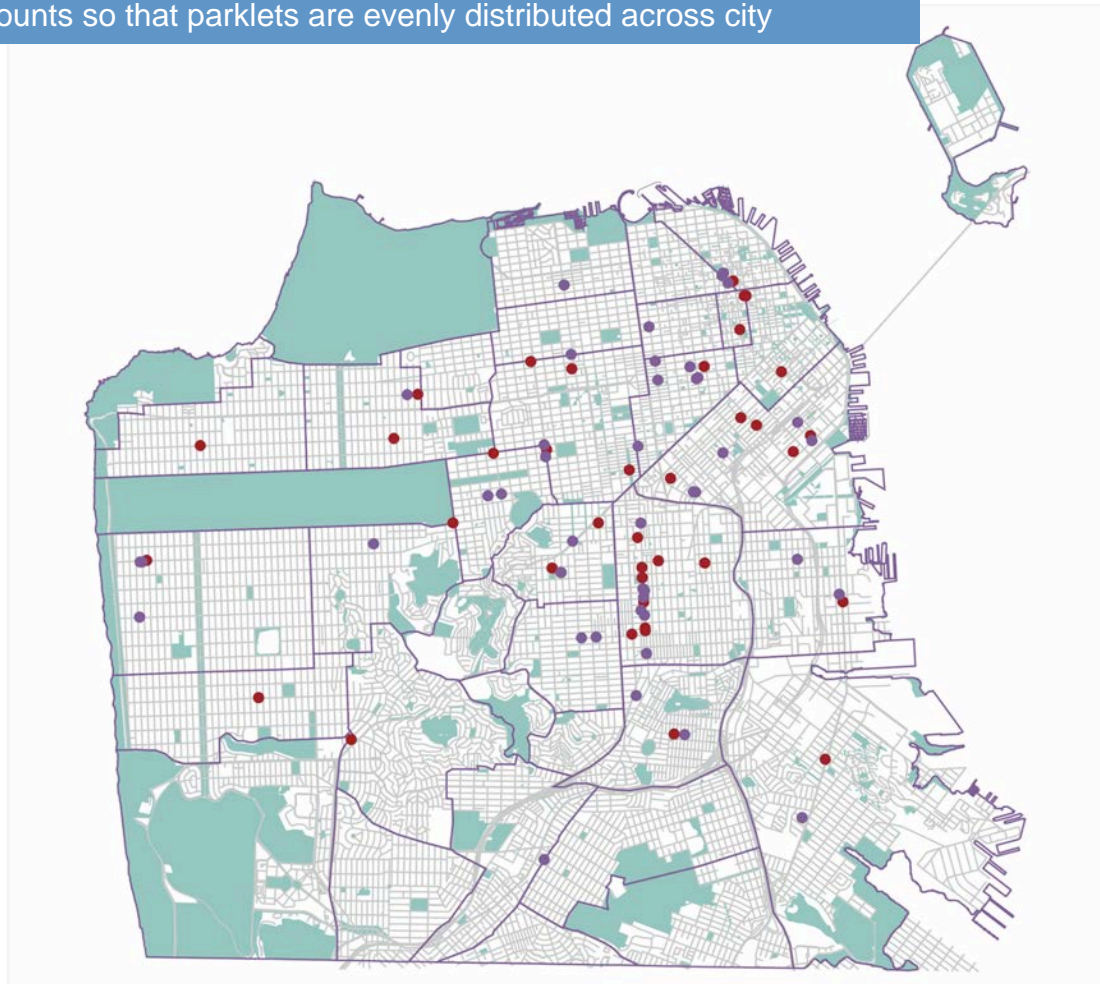


Coordinate P2P outreach with Districts with lowest parklet counts so that parklets are evenly distributed across city.



# Parklets by Neighborhood

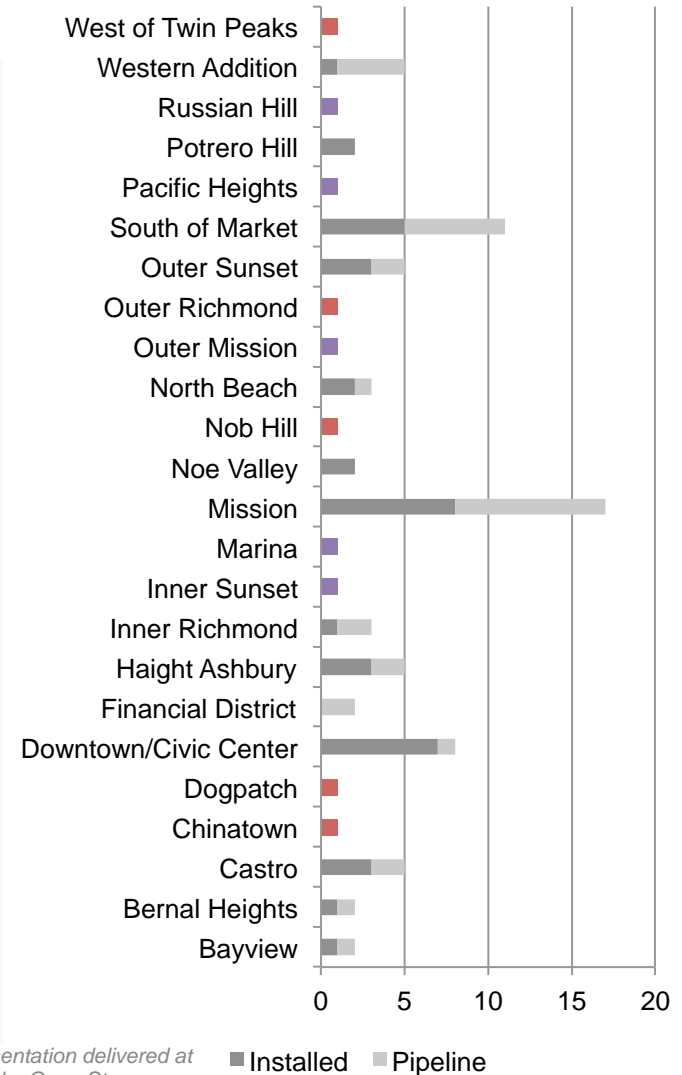
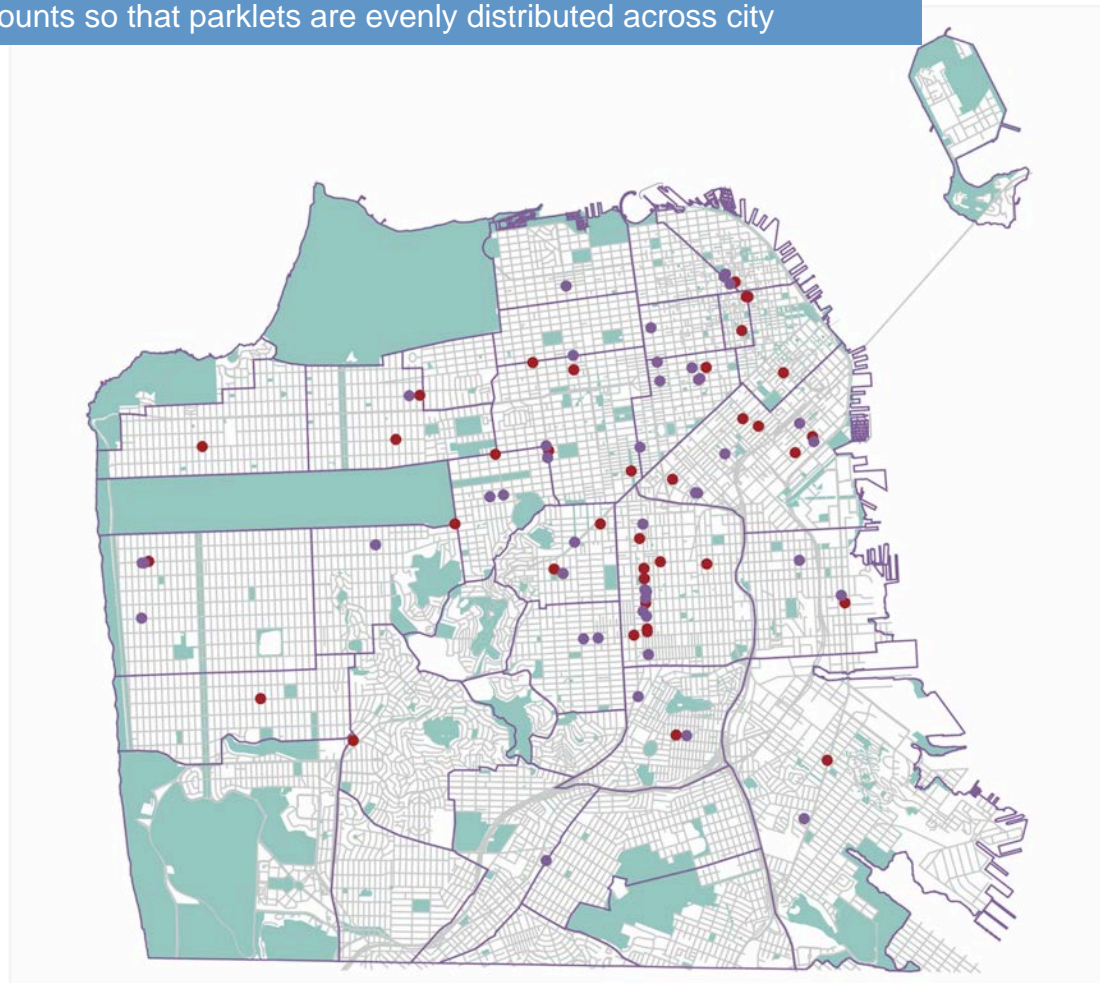
Coordinate P2P outreach in Neighborhoods with lowest parklet counts so that parklets are evenly distributed across city



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# Parklets by Neighborhood

Coordinate P2P outreach in Neighborhoods with lowest parklet counts so that parklets are evenly distributed across city

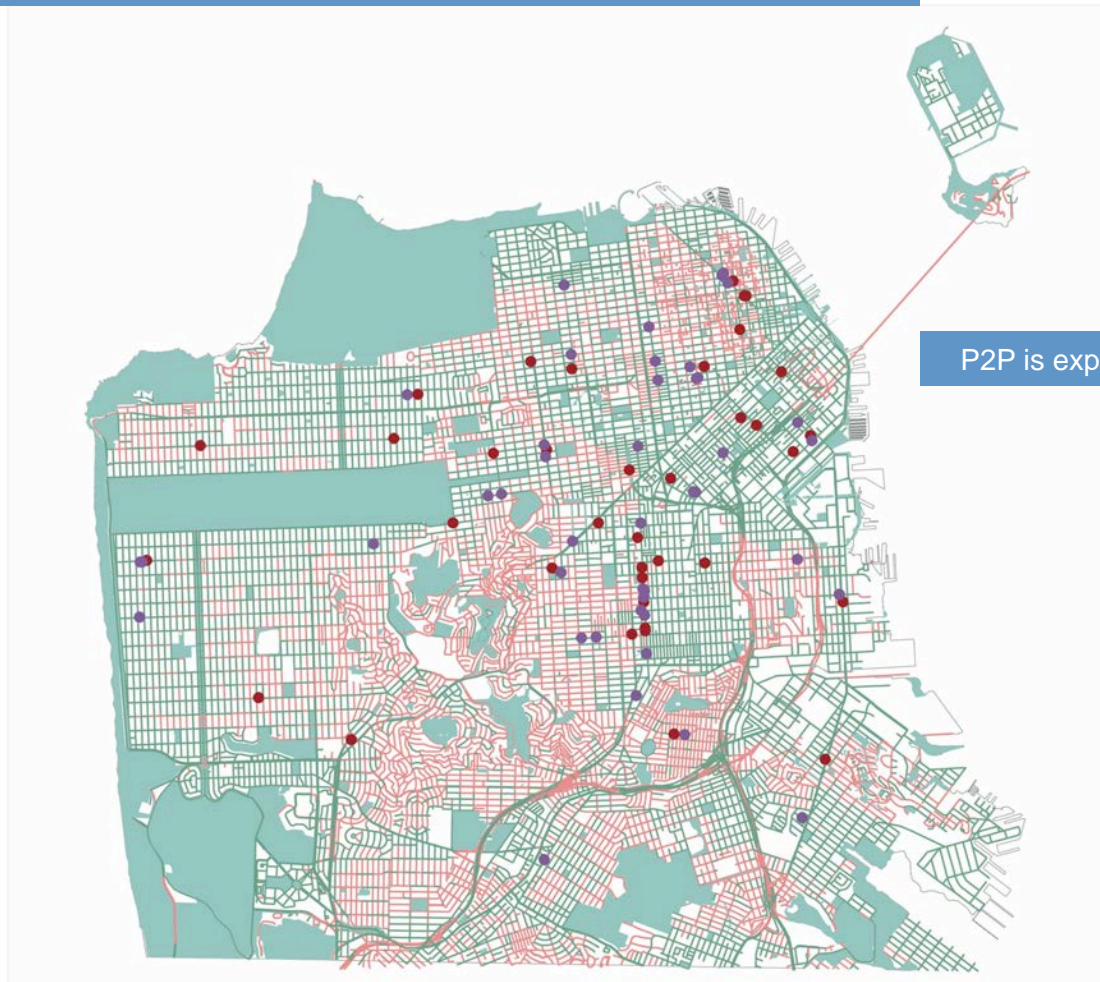


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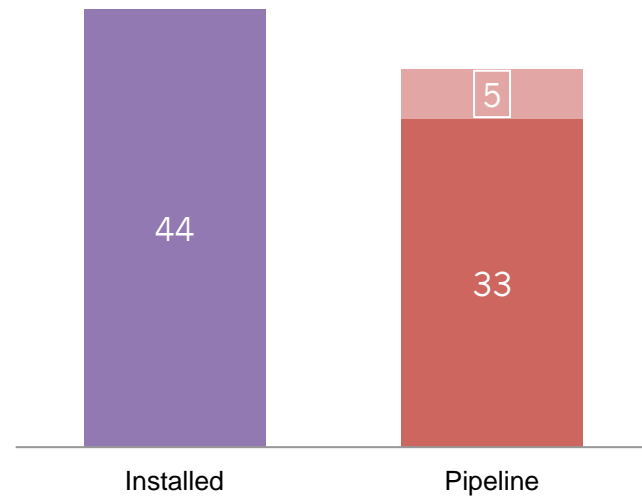
■ Installed ■ Pipeline

# Parklets & Street Grades

The majority of parklets are on a street with <5% slope

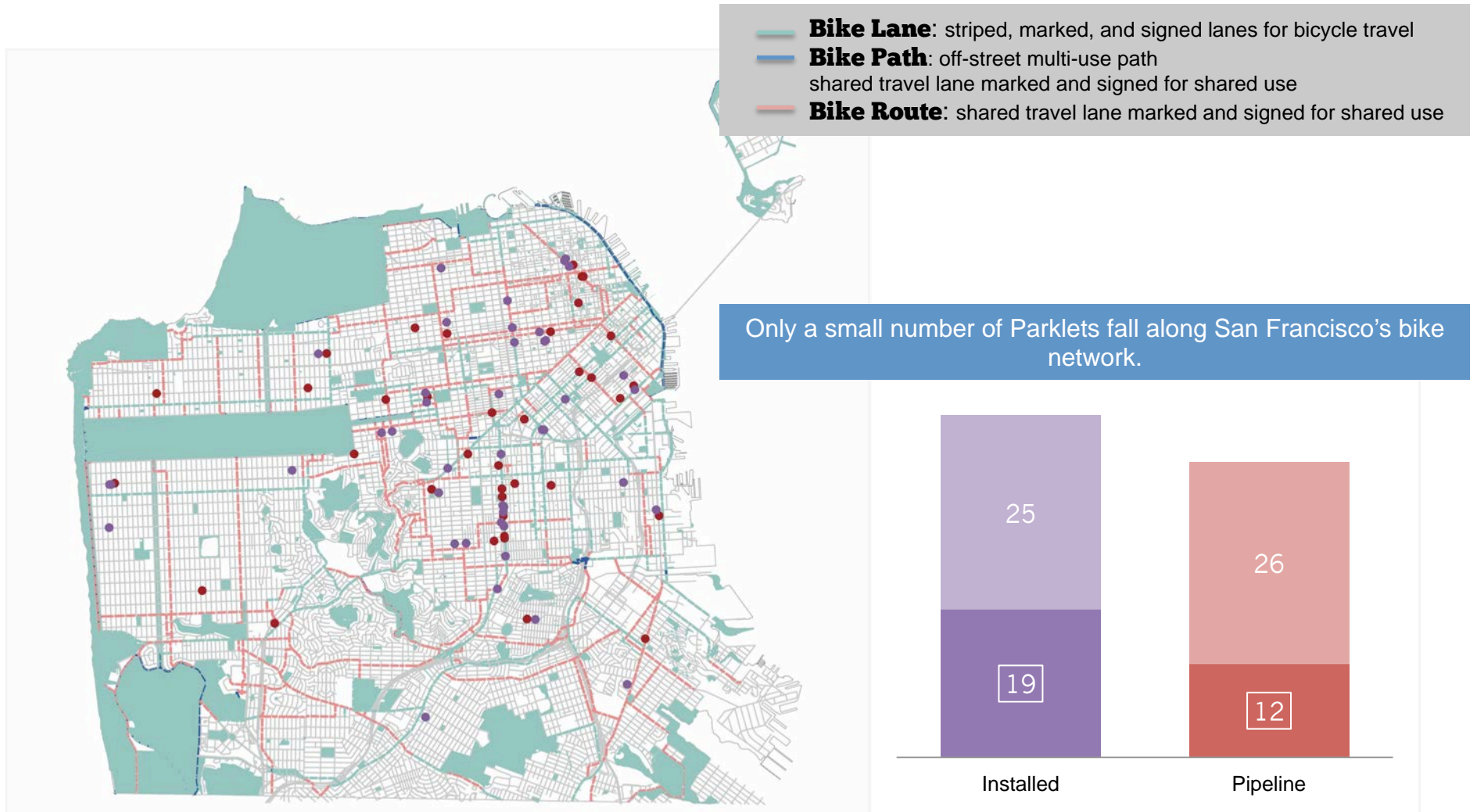


P2P is experimenting with building parklets on more extreme slopes

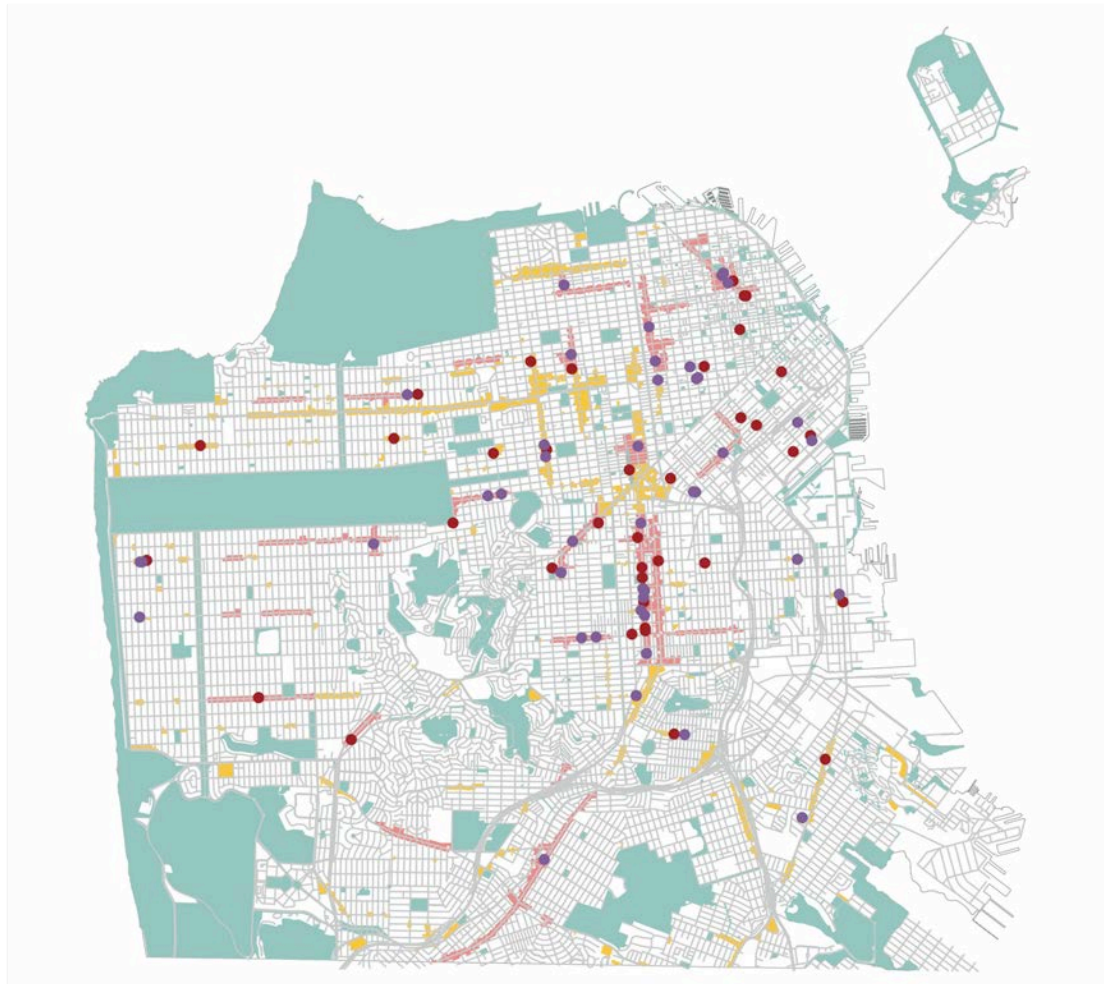




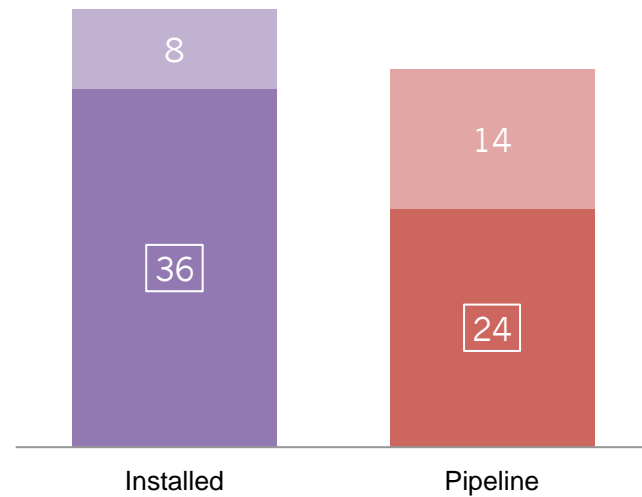
# Access by Bicycle



# Parklets & NCDs



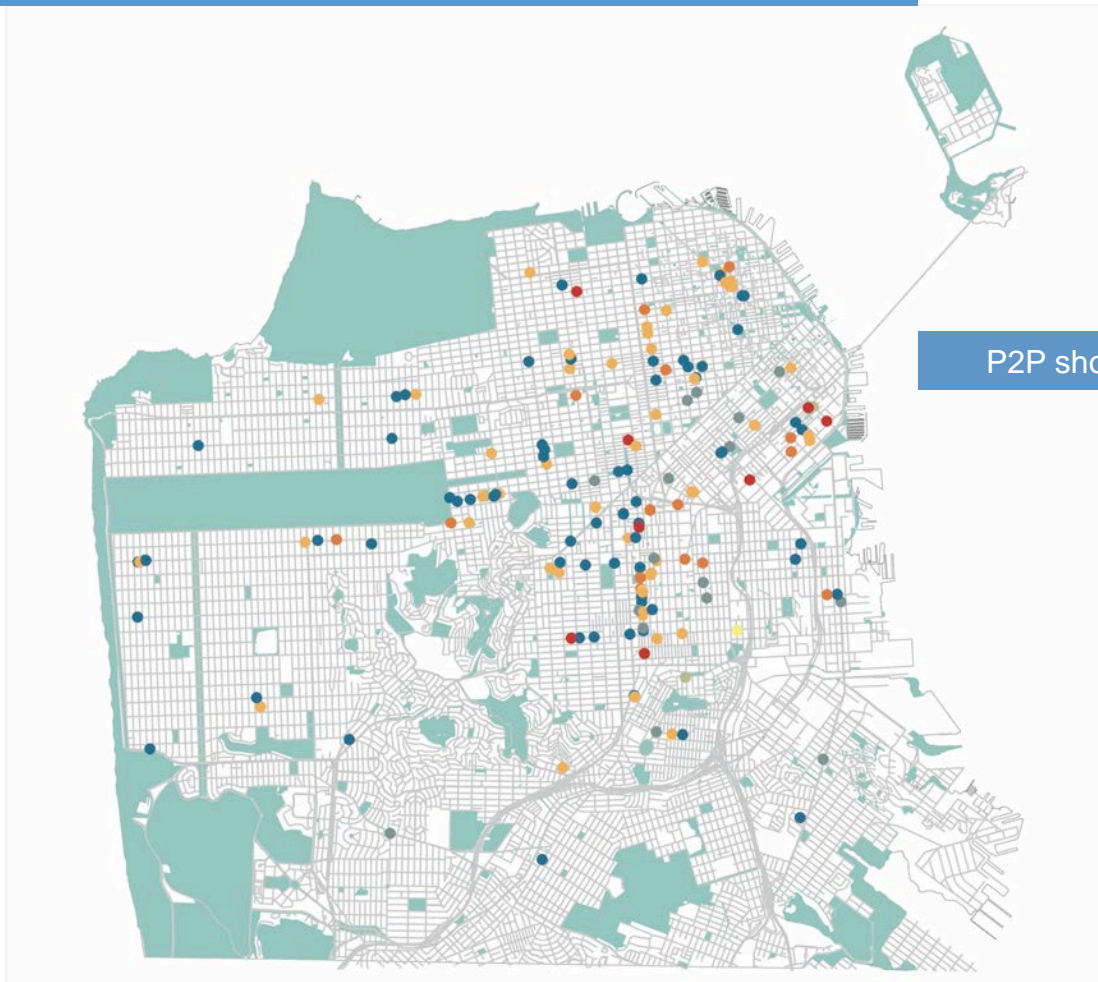
Most parklets are within a named NCD or NCT



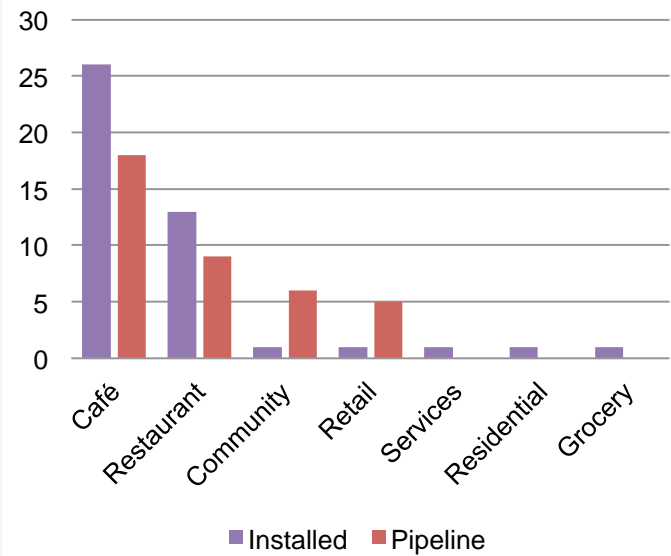
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# Sponsor Types

Most parklets are sponsored by cafes or restaurants

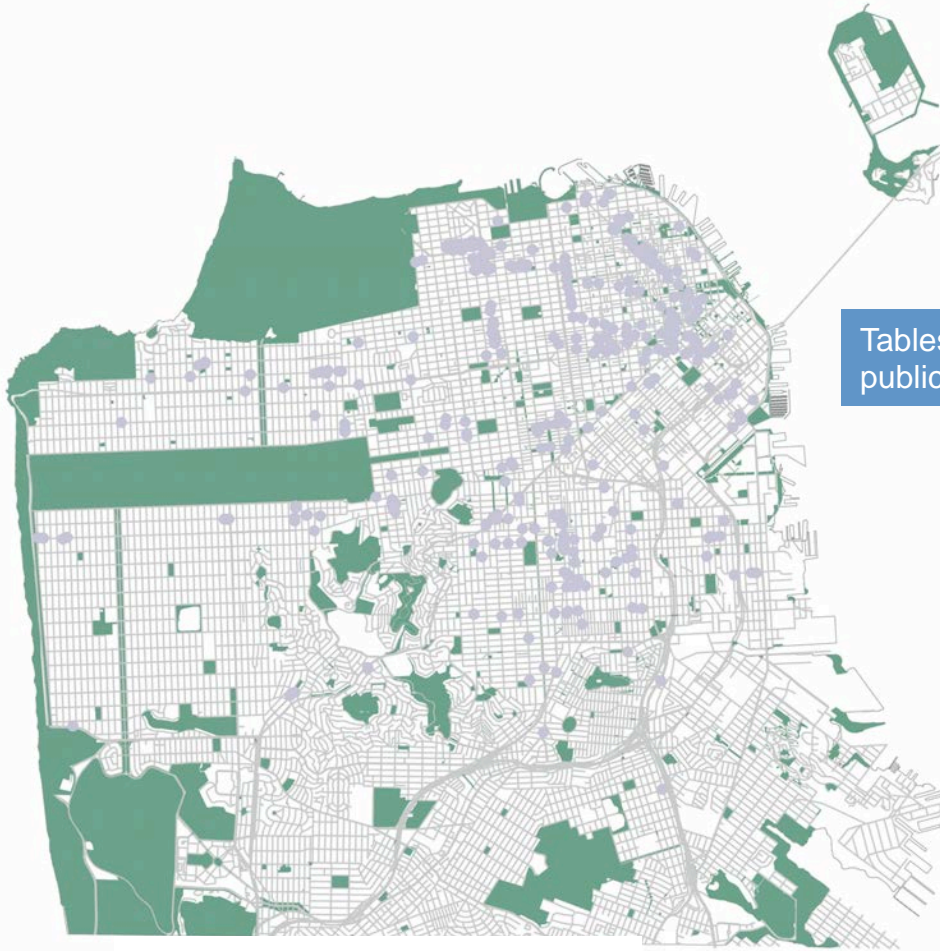


P2P should diversify parklet sponsor types in future RFPs.



# Tables & Chairs v. Parklets

Distribution of Tables & Chairs Permits

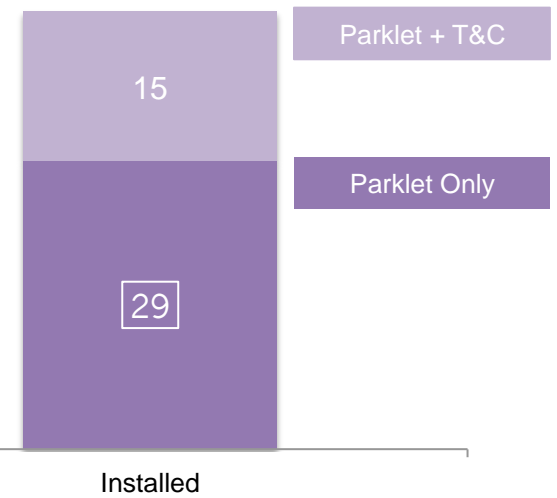


Tables and Chairs provide private seating, while parklets provide public seating

# Tables & Chairs v. Parklets

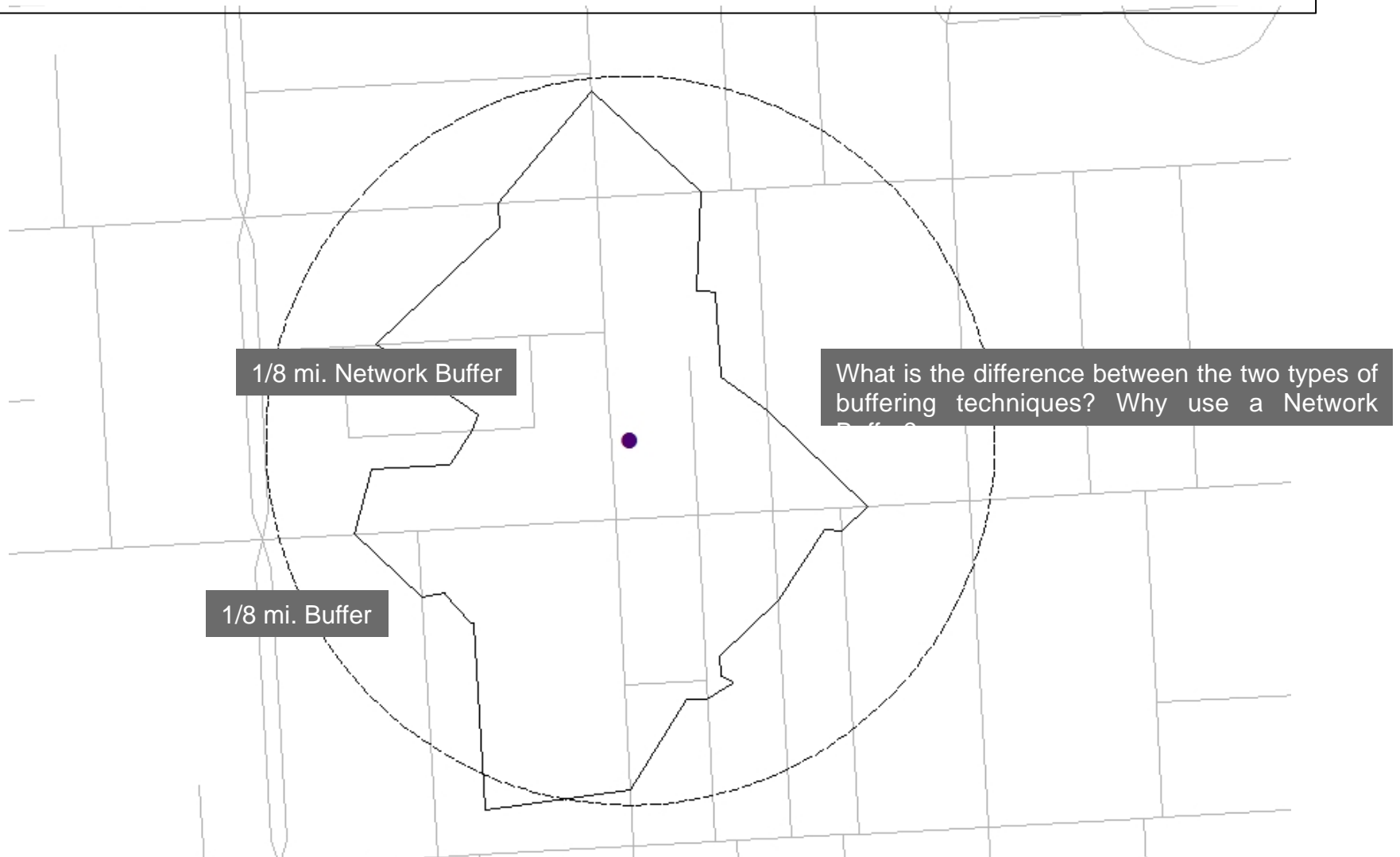


While some businesses apply for both permits, the majority of parklet sponsors do not have table and chair permits



# **METHODOLOGY**

# Tools | Buffer v. Network Buffer

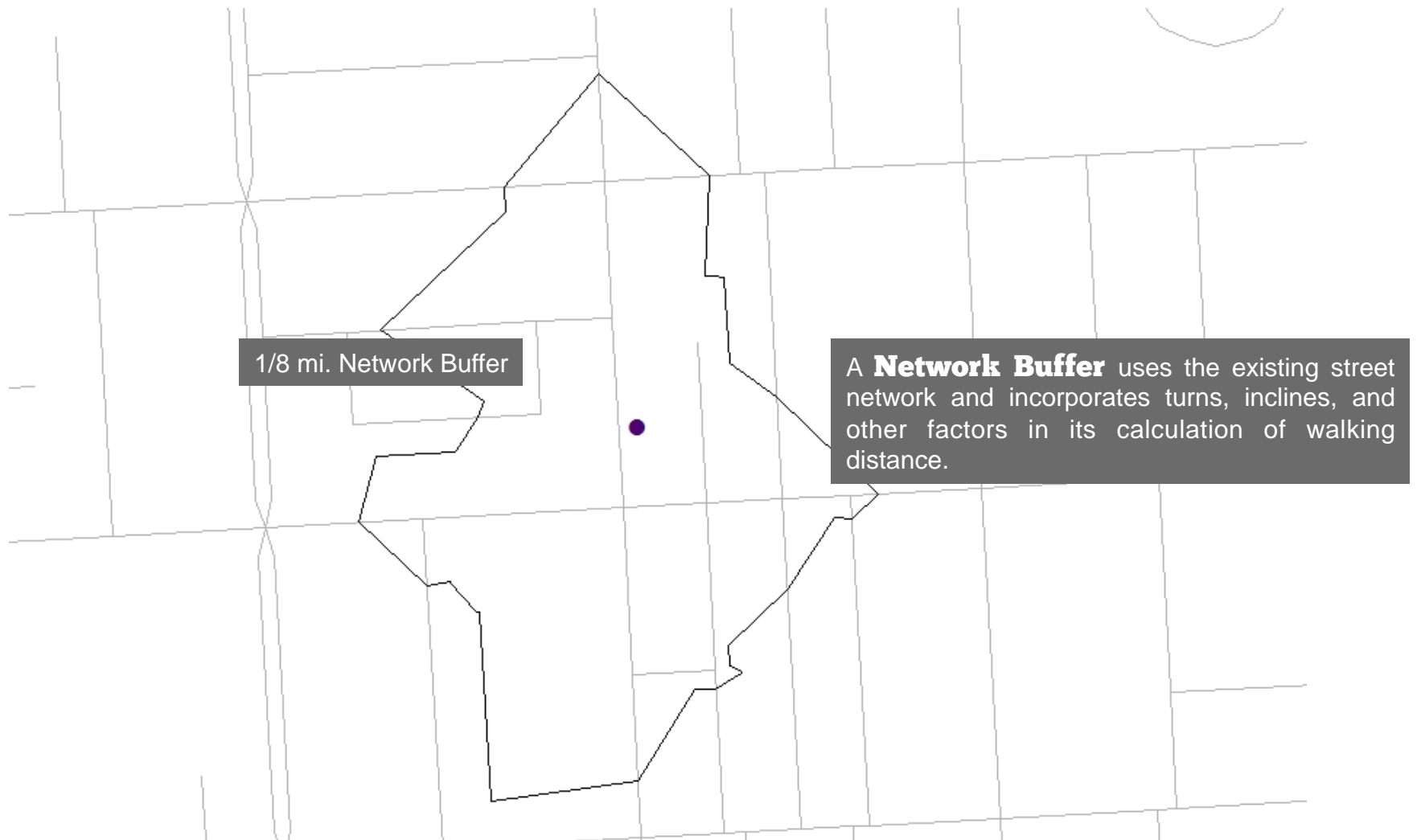


# Tools | Buffer v. Network Buffer

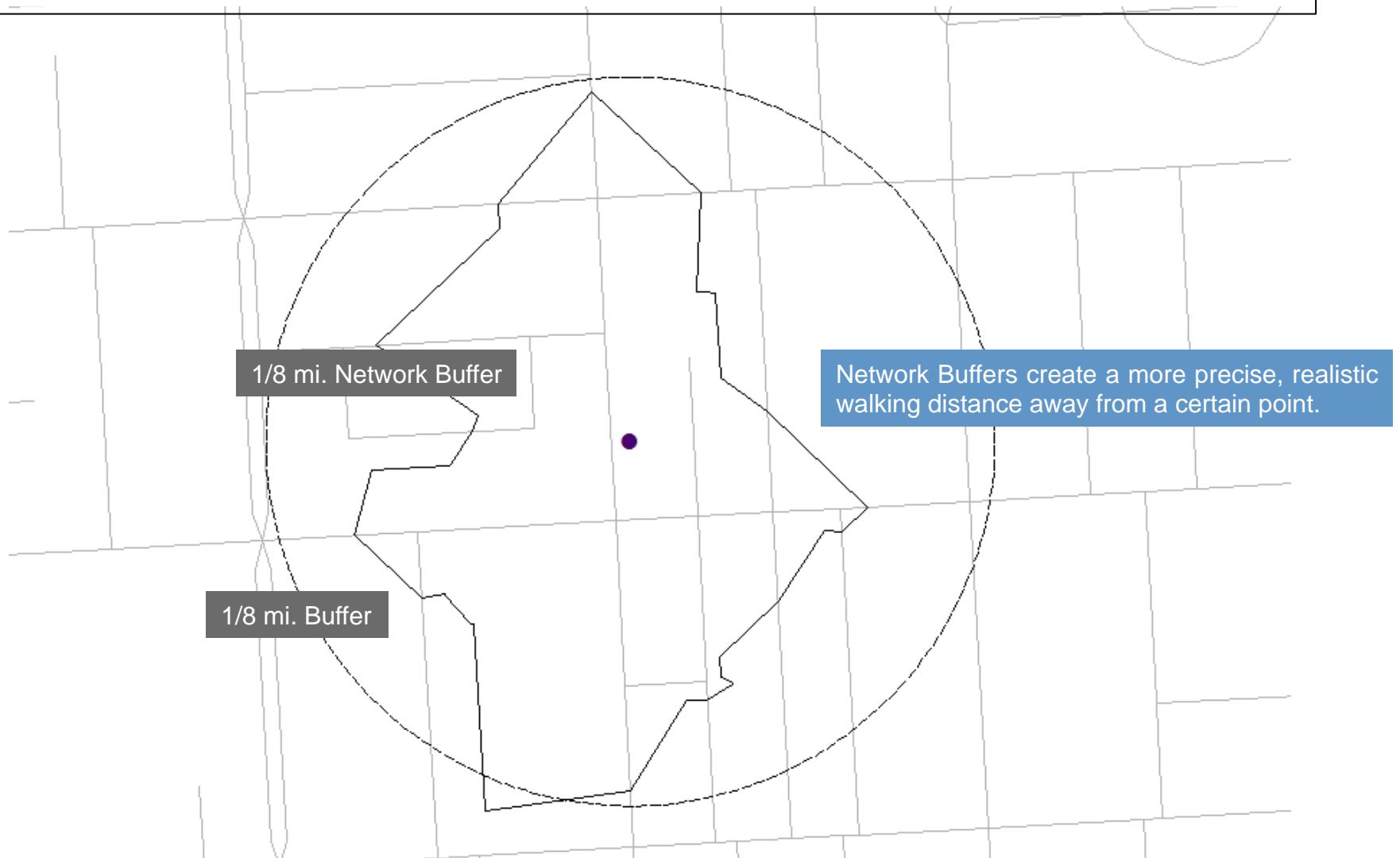




# Tools | Buffer v. Network Buffer

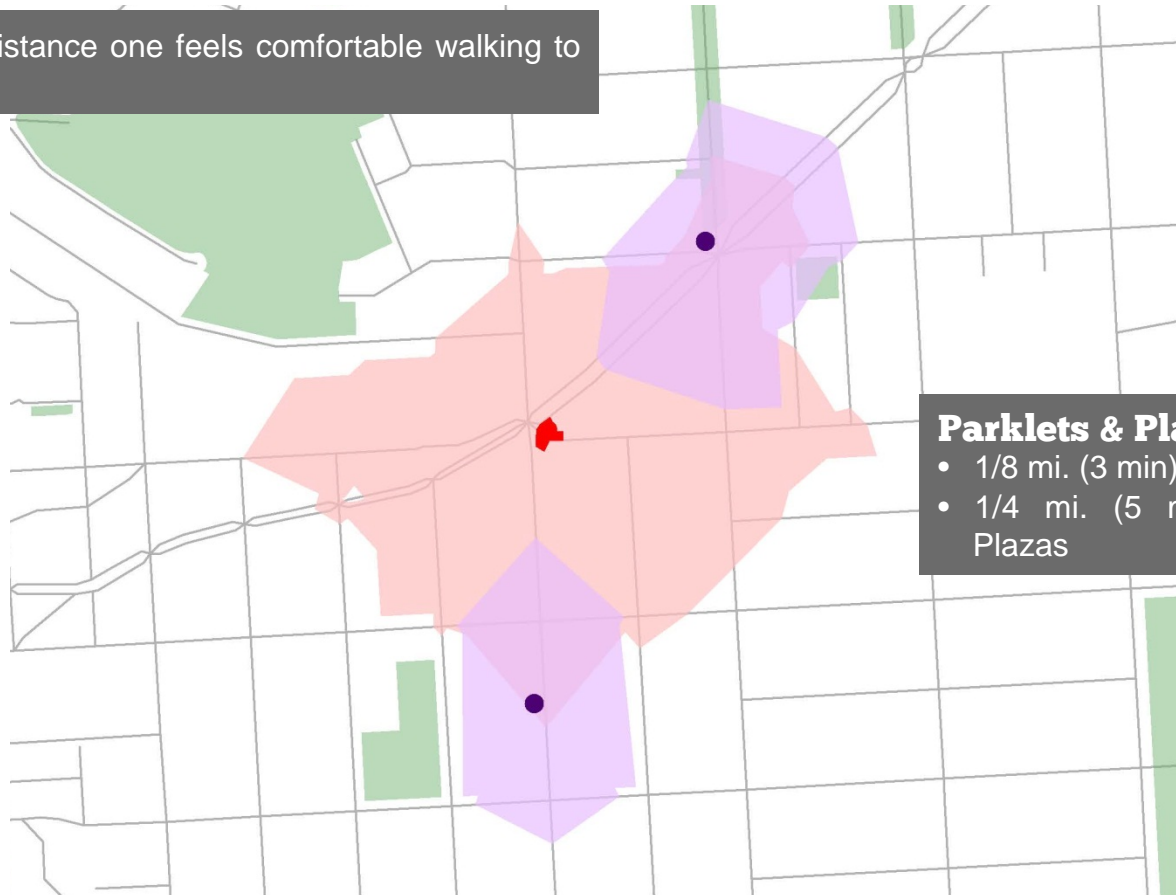


# Tools | Buffer v. Network Buffer



# Determining Walkshed

A **Walkshed** is the distance one feels comfortable walking to an amenity.



## Parklets & Plazas

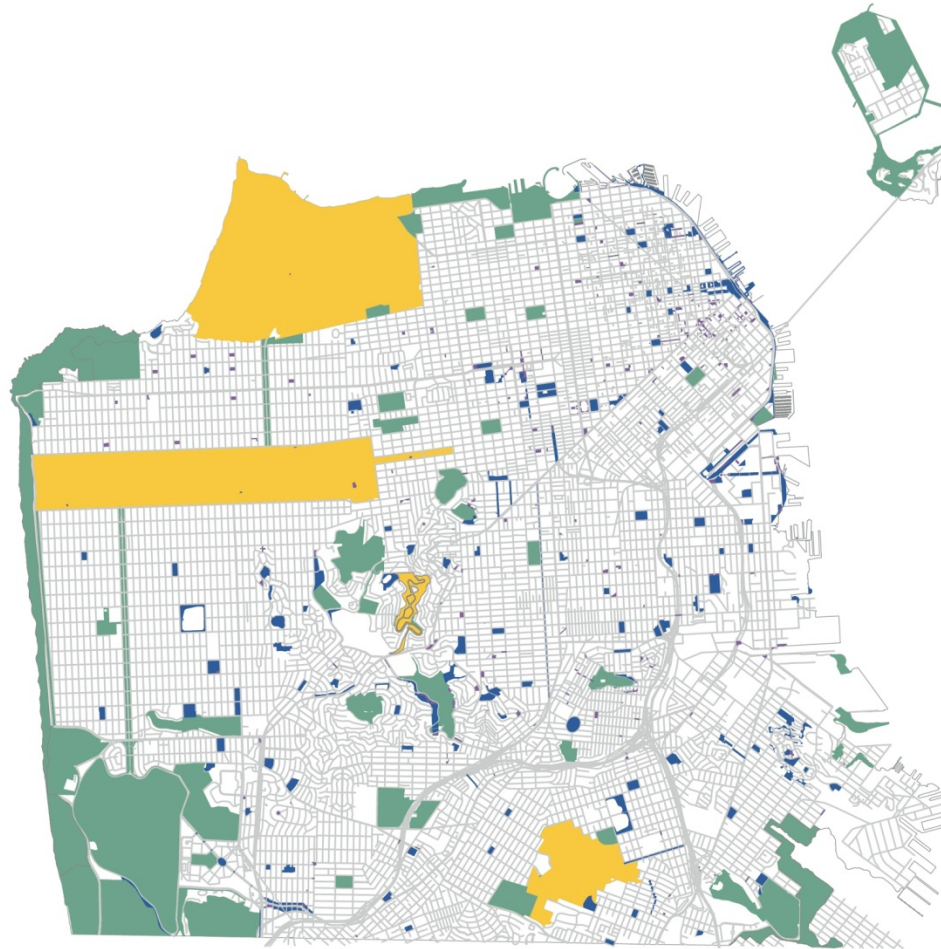
- 1/8 mi. (3 min) walkshed for Parklets
- 1/4 mi. (5 min) walkshed for P2P Plazas

- SF General Plan: Recreation & Open Space Element  
[http://www.sf-planning.org/ftp/general\\_plan/l3\\_Rec\\_and\\_Open\\_Space.htm](http://www.sf-planning.org/ftp/general_plan/l3_Rec_and_Open_Space.htm)
- Congress for the New Urbanism Charter  
[http://www.cnu.org/sites/files/charter\\_book.pdf](http://www.cnu.org/sites/files/charter_book.pdf)
- Manhattan East Side Open Space Index  
<http://www.nv4p.org/research/osi/EastSideOSI.pdf>

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# Determining Walkshed

Should Open Space have only one Walkshed value?



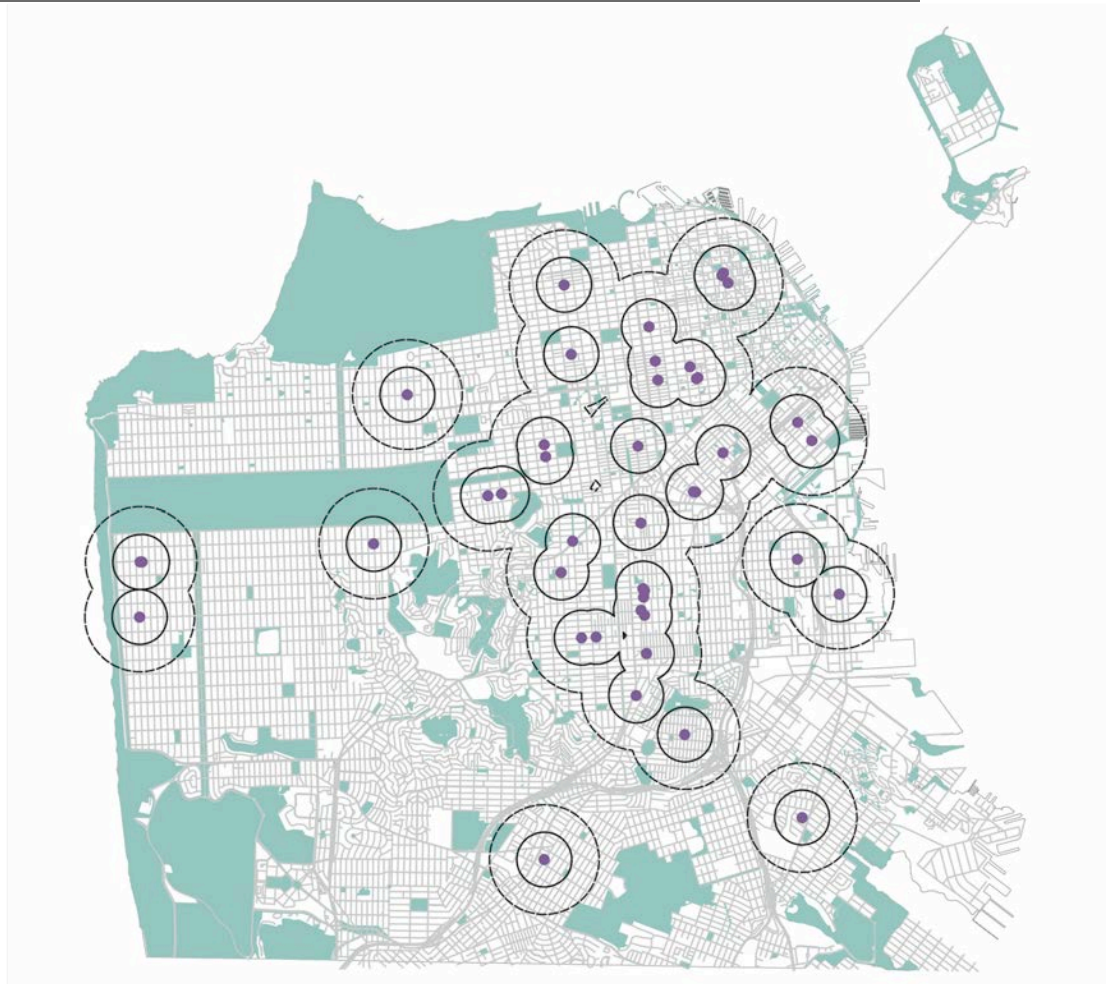
**Open Spaces:** Natural Areas, Parks, Plazas, Mini-Parks, Playgrounds, Green Strips, Street Parks, Community Gardens, POPOs, Piers, Wharfs

## Open Space Classifications:

- Citywide Serving: 1/2 mi. (10 min)
- District Serving: 3/8 mi. (8 min)
- Neighborhood Serving: 1/4 mi. (5 min)
- Sub-neighborhood Serving: 1/8 mi. (3 min)

# Buffer | multi-ring

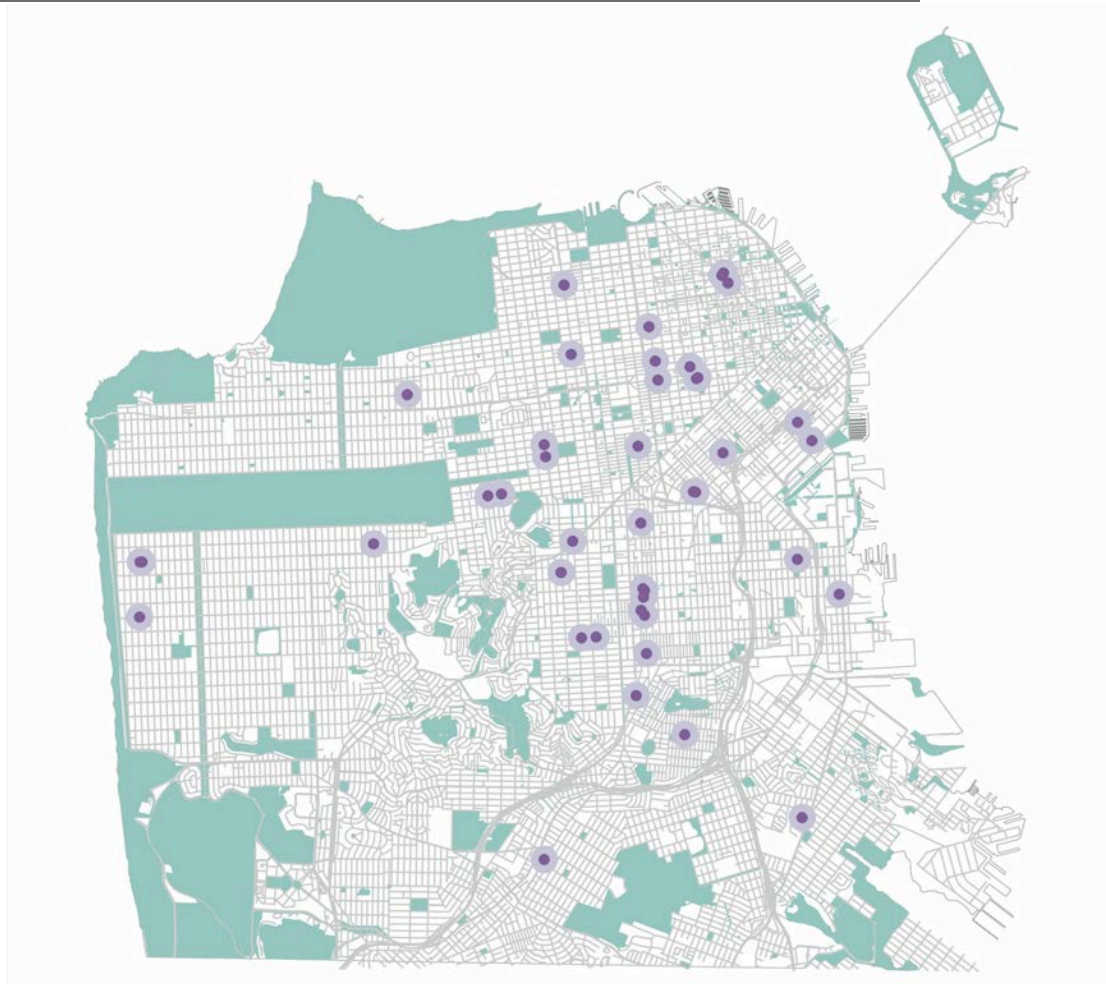
Mutli-ring buffer (5 and 10 min.) on Installed Parklets



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# Buffer | installed

Final (3 min.) Buffer on Installed Parklets



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# Buffer | plazas

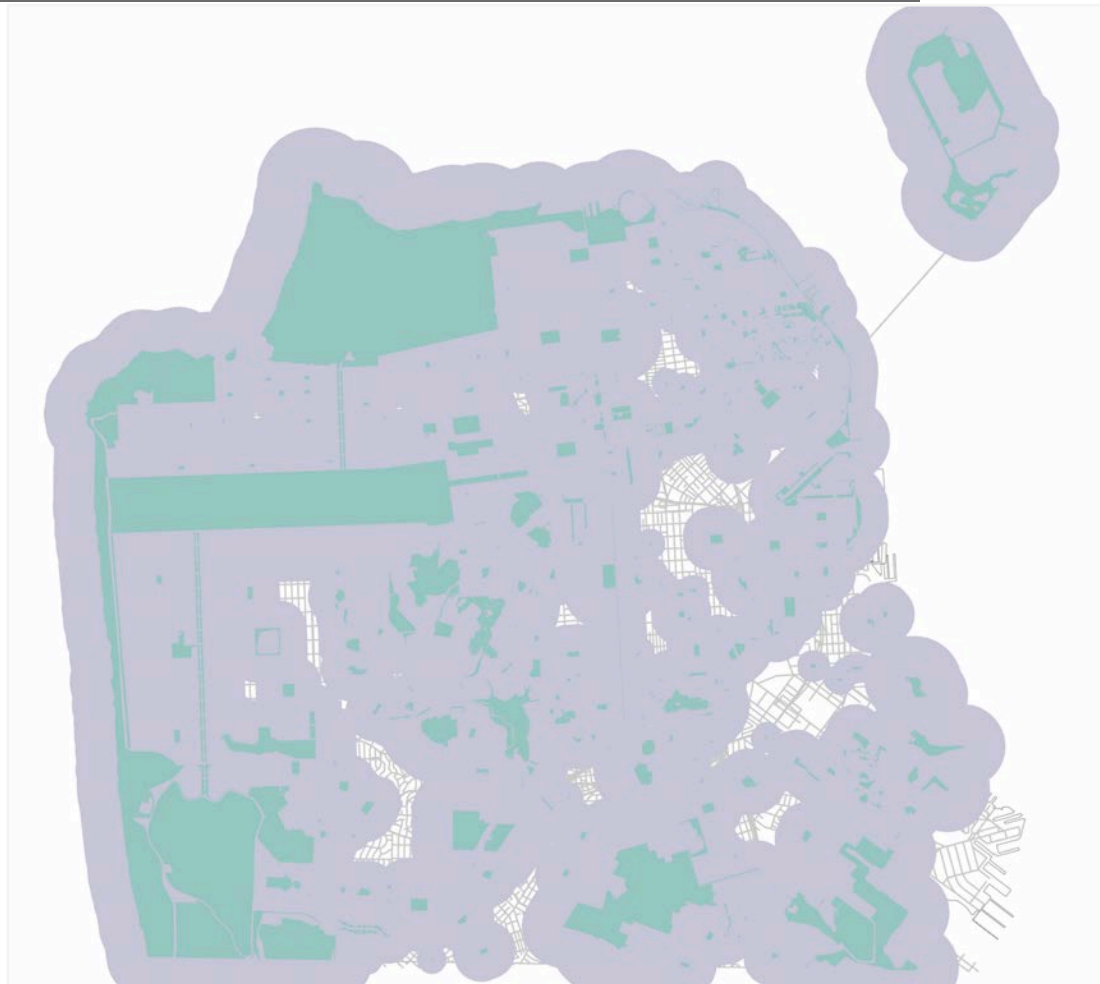
Final (5 min.) Buffer on Plazas



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# Buffer | open space

Buffer on all Open Space by Classification



## Open Space Classifications:

Citywide Serving: 1/2 mi. (10 min)

District Serving: 3/8 mi. (7 min)

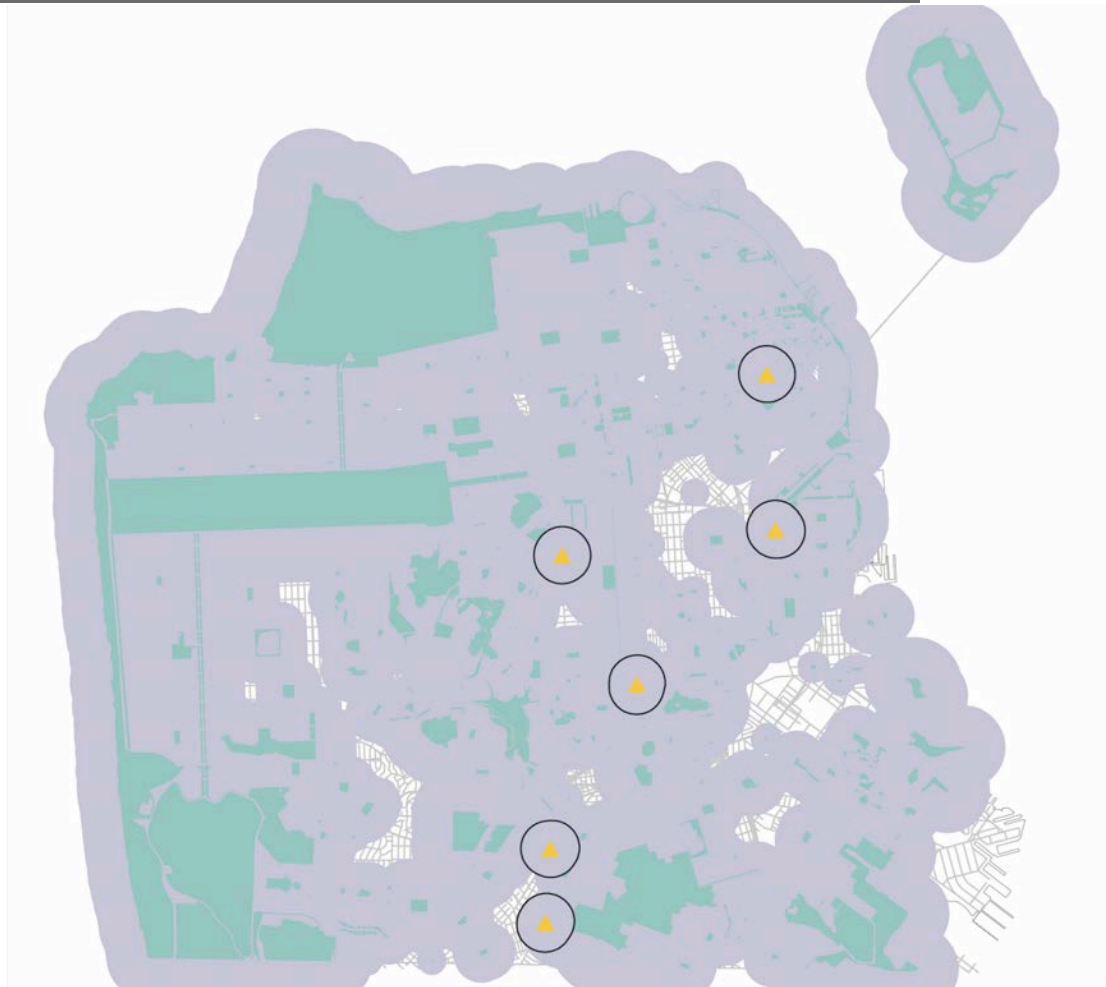
Neighborhood Serving: 1/4 mi. (5 min)

Sub-neighborhood Serving: 1/8 mi. (3 min)



# Buffer | final

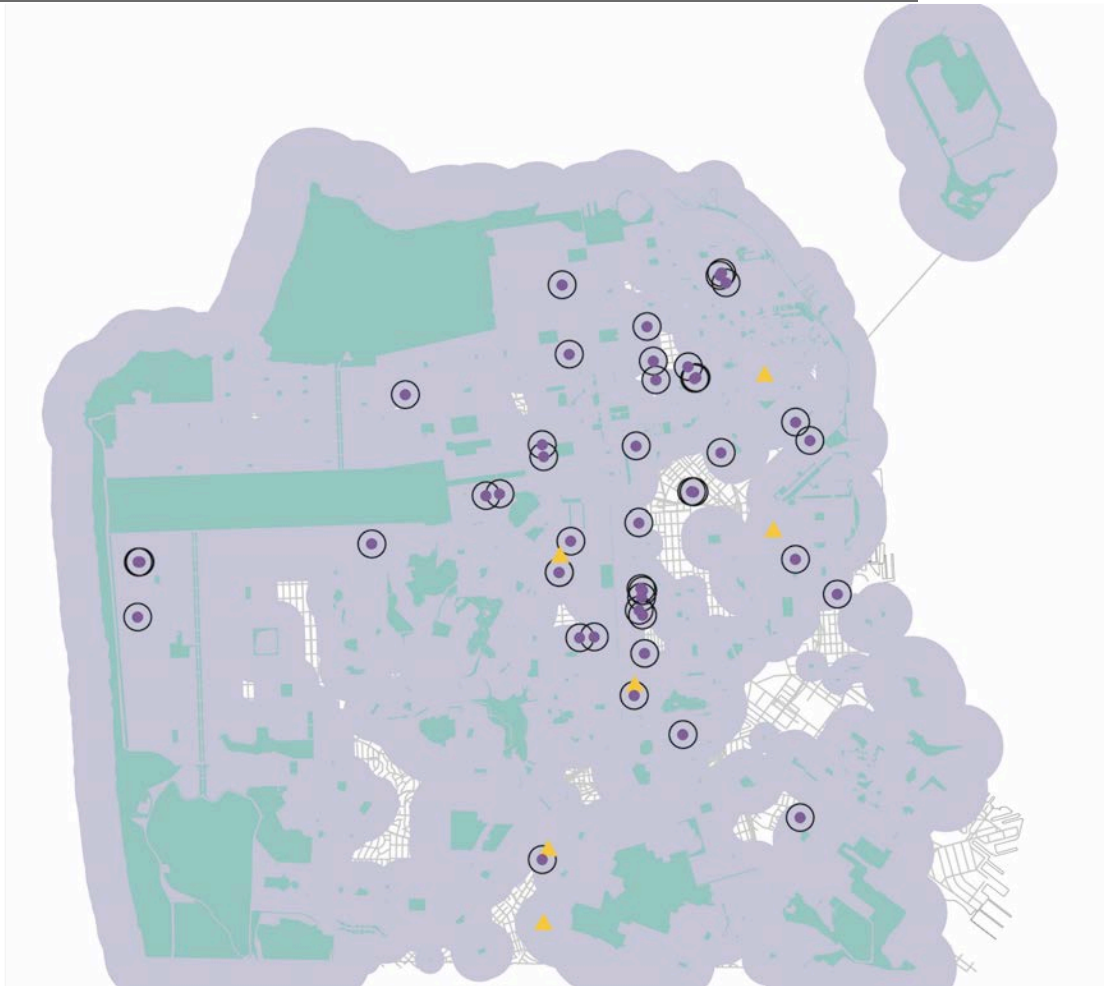
Buffer on Open Space + Plazas



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# Buffer | final

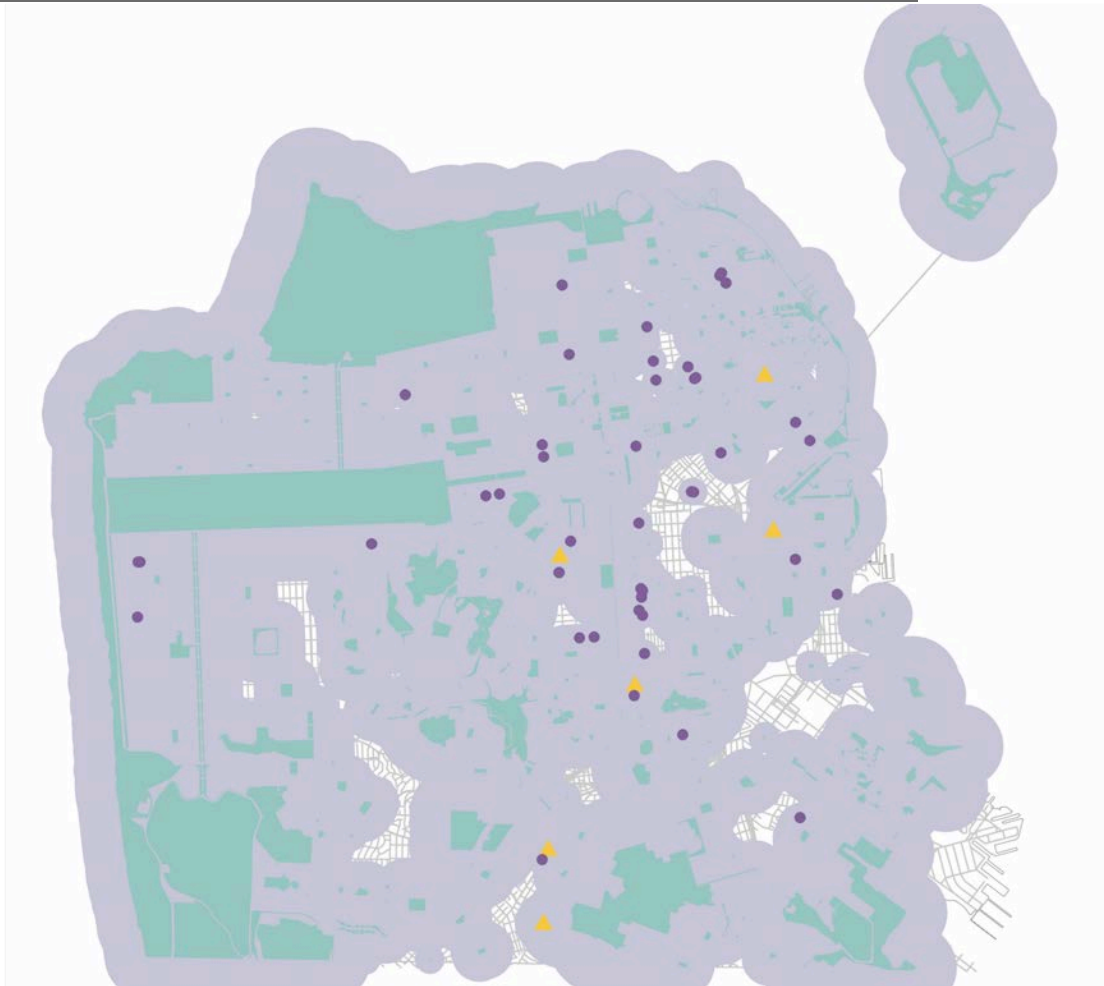
Buffer on Open space + Plazas + Installed Parklets



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# Buffer | final

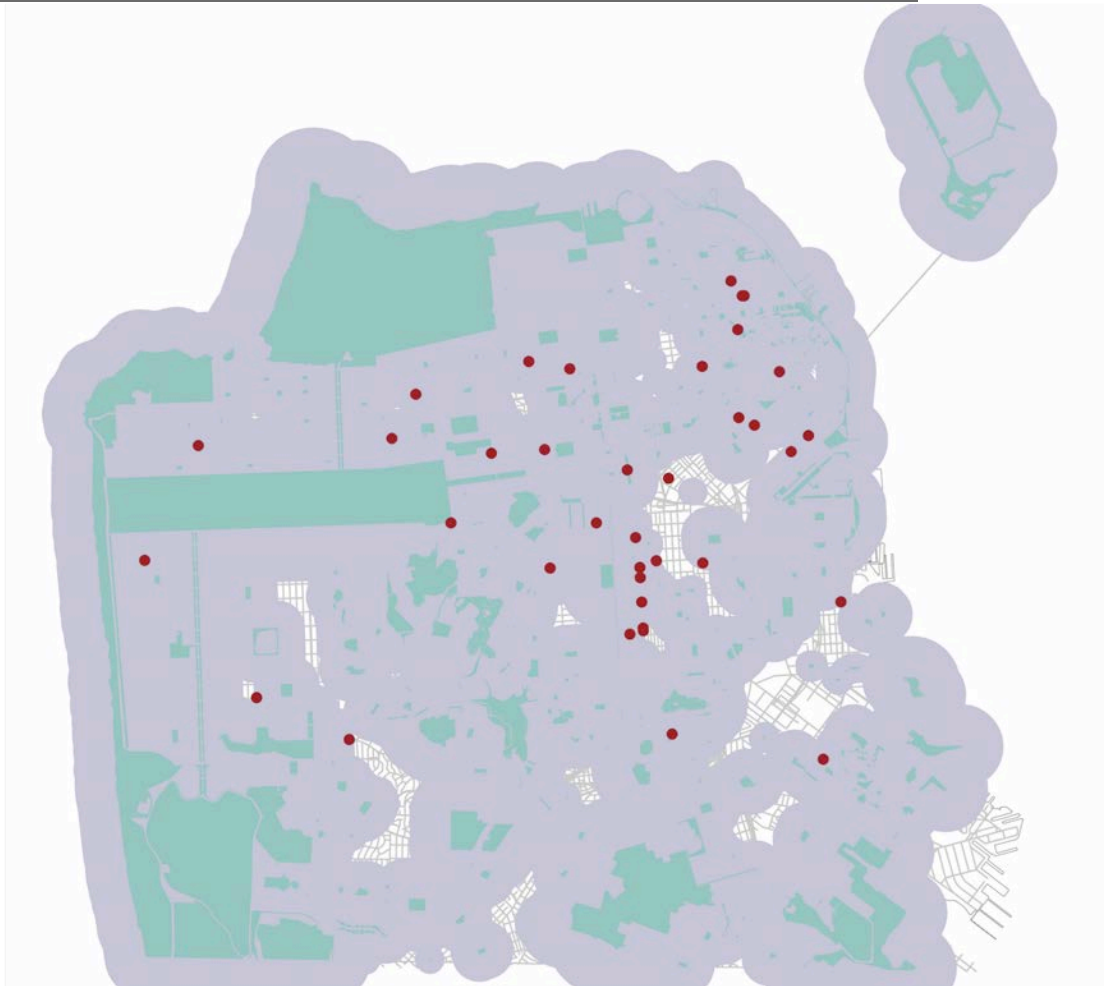
Final Buffer



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# Buffer | final

Final Buffer v. Pipeline Parklets



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# Buffer | priority

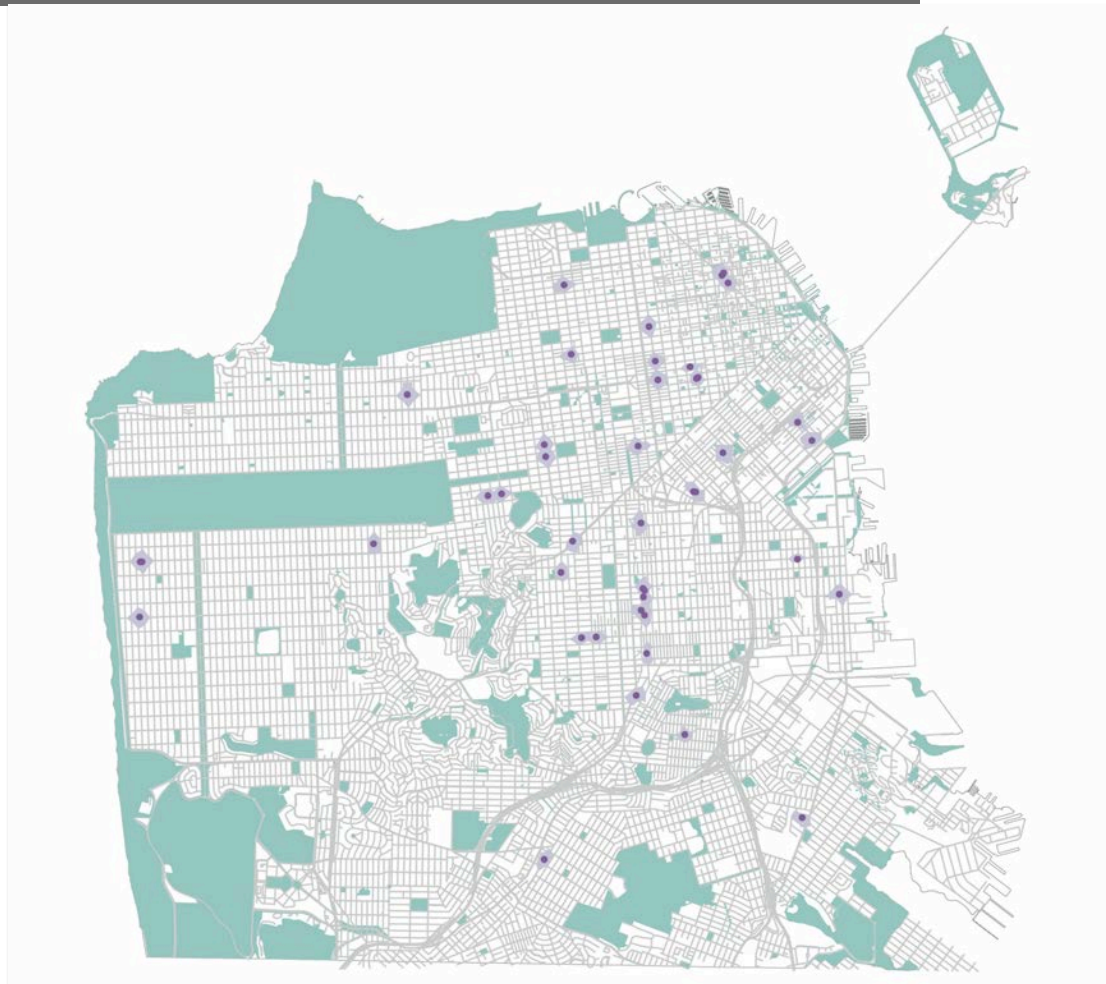
## Priority Pipeline Parklets



The simple buffer takes over most of city, leaving far too small of an opportunity area. A network buffer can produce a more realistic catchment area that will include more pipeline parklets.

# Network Buffer | installed

Network Buffer (3 min.) on Installed Parklets



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# Network Buffer | plazas

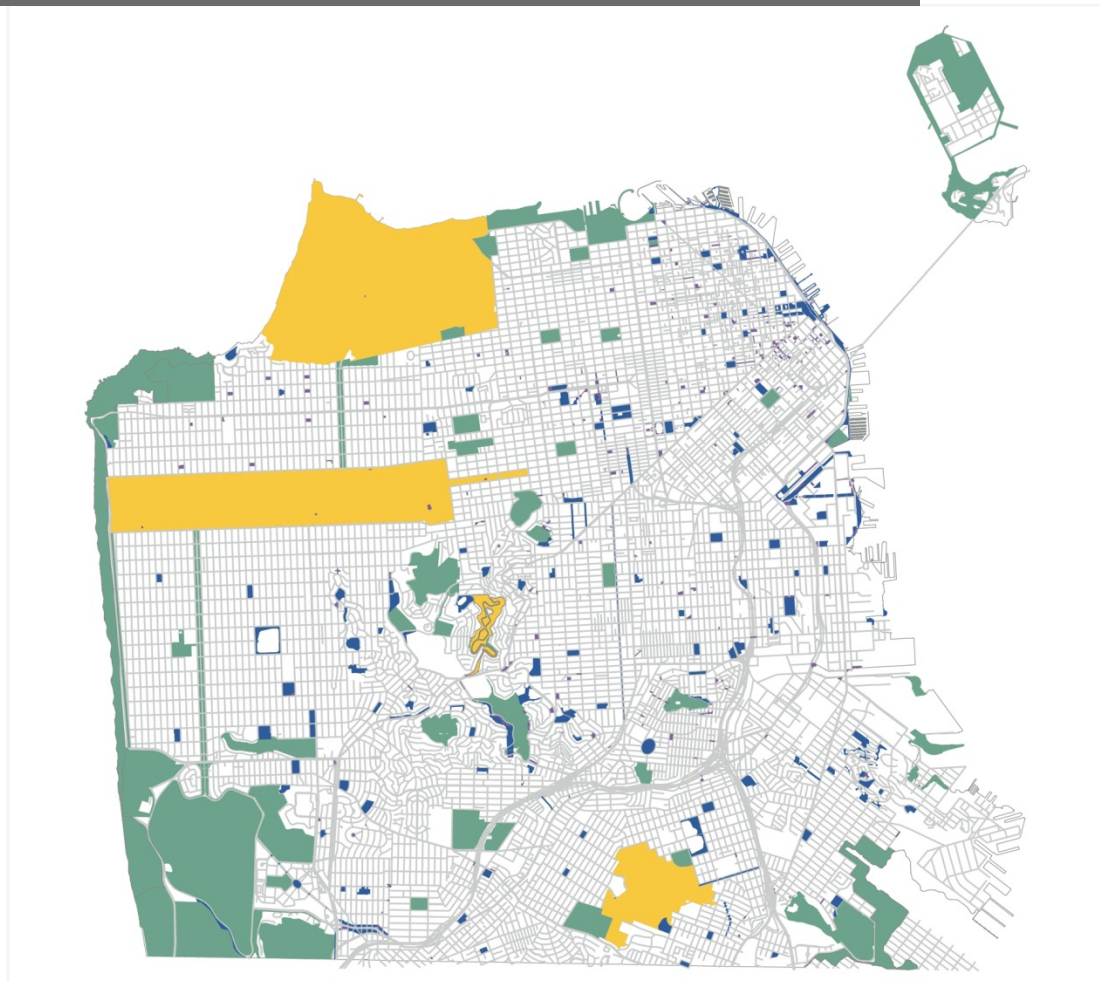
Network Buffer (5 min.) on P2P Plazas



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# Network Buffer | open space

Network Buffer on all Open Space by Classification



## Open Space Classifications:

Citywide Serving: 1/2 mi. (10 min)

District Serving: 3/8 mi. (7 min)

Neighborhood Serving: 1/4 mi. (5 min)

Sub-neighborhood Serving: 1/8 mi. (3 min)

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# Network Buffer | open space

Network Buffer on all Open Space by Classification



## Open Space Classifications:

Citywide Serving: 1/2 mi. (10 min)

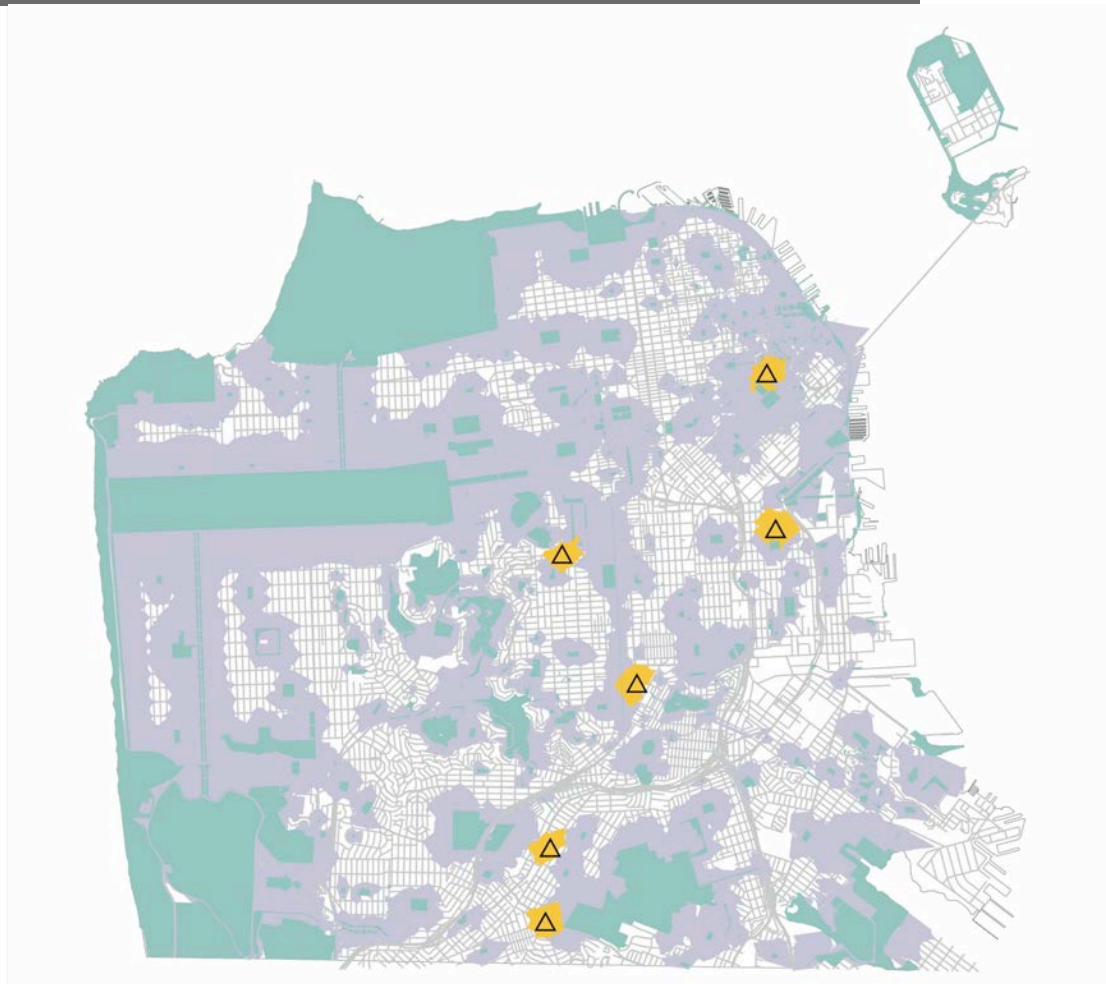
District Serving: 3/8 mi. (7 min)

Neighborhood Serving: 1/4 mi. (5 min)

Sub-neighborhood Serving: 1/8 mi. (3 min)

# Network Buffer

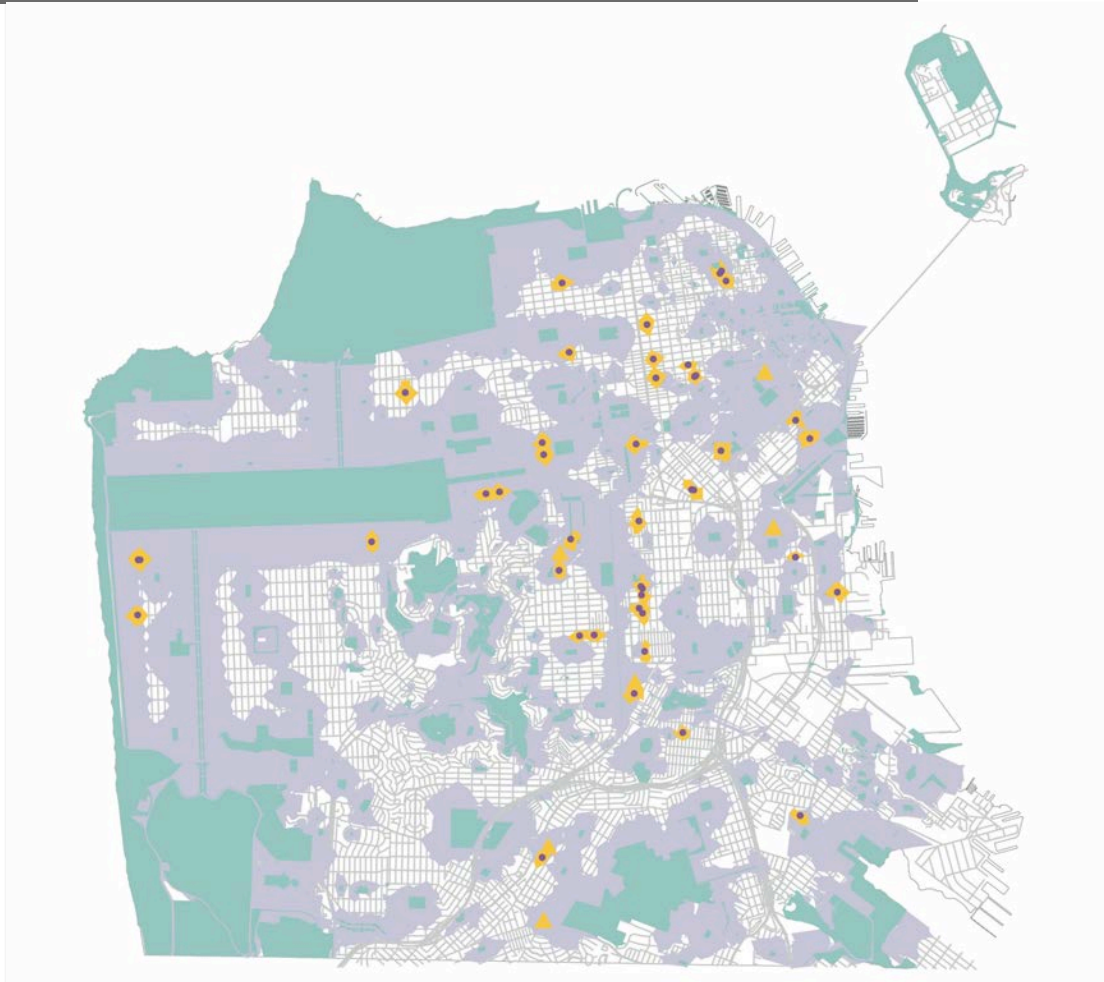
Network Buffer on Open Space + Plazas



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# Network Buffer

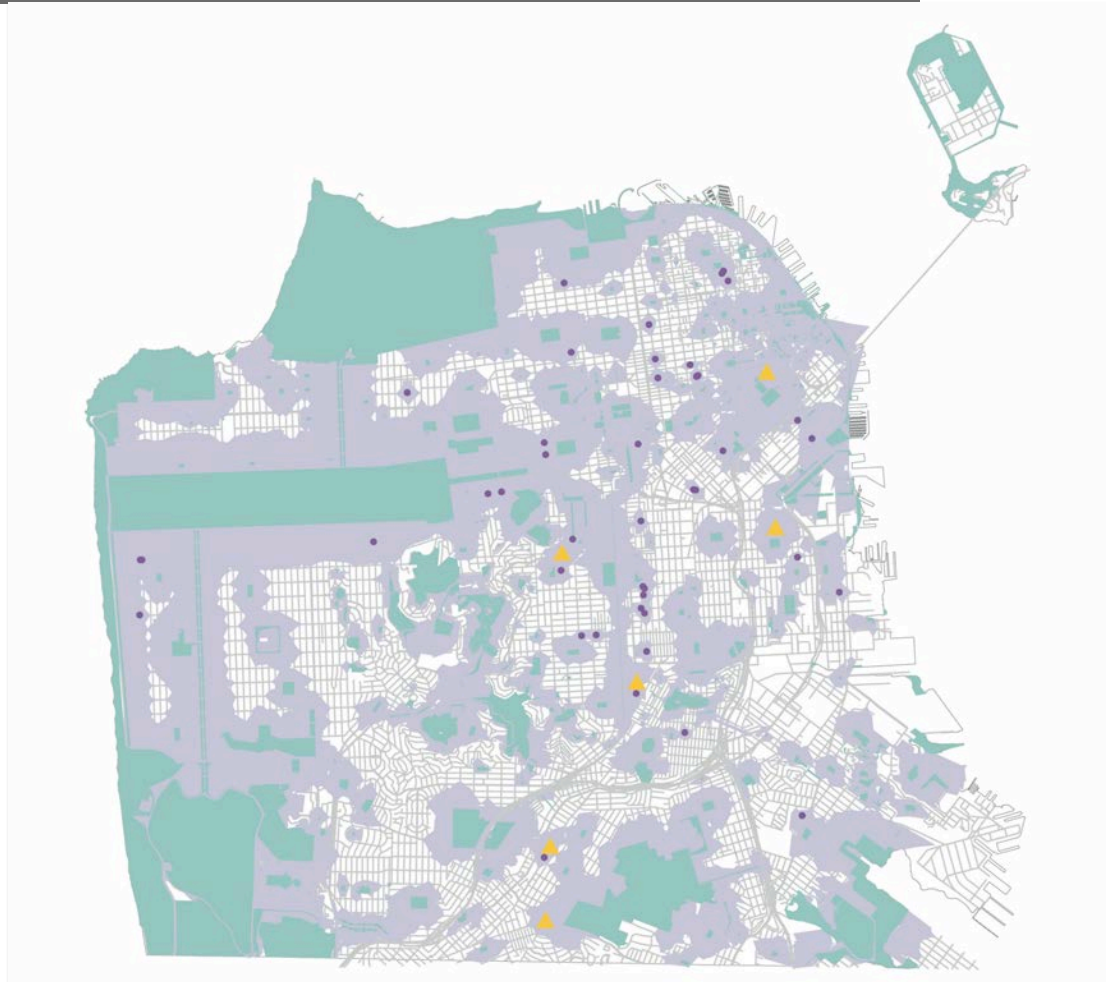
Network Buffer on Open Space + Plazas+ Installed Parklets



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# Network Buffer | final

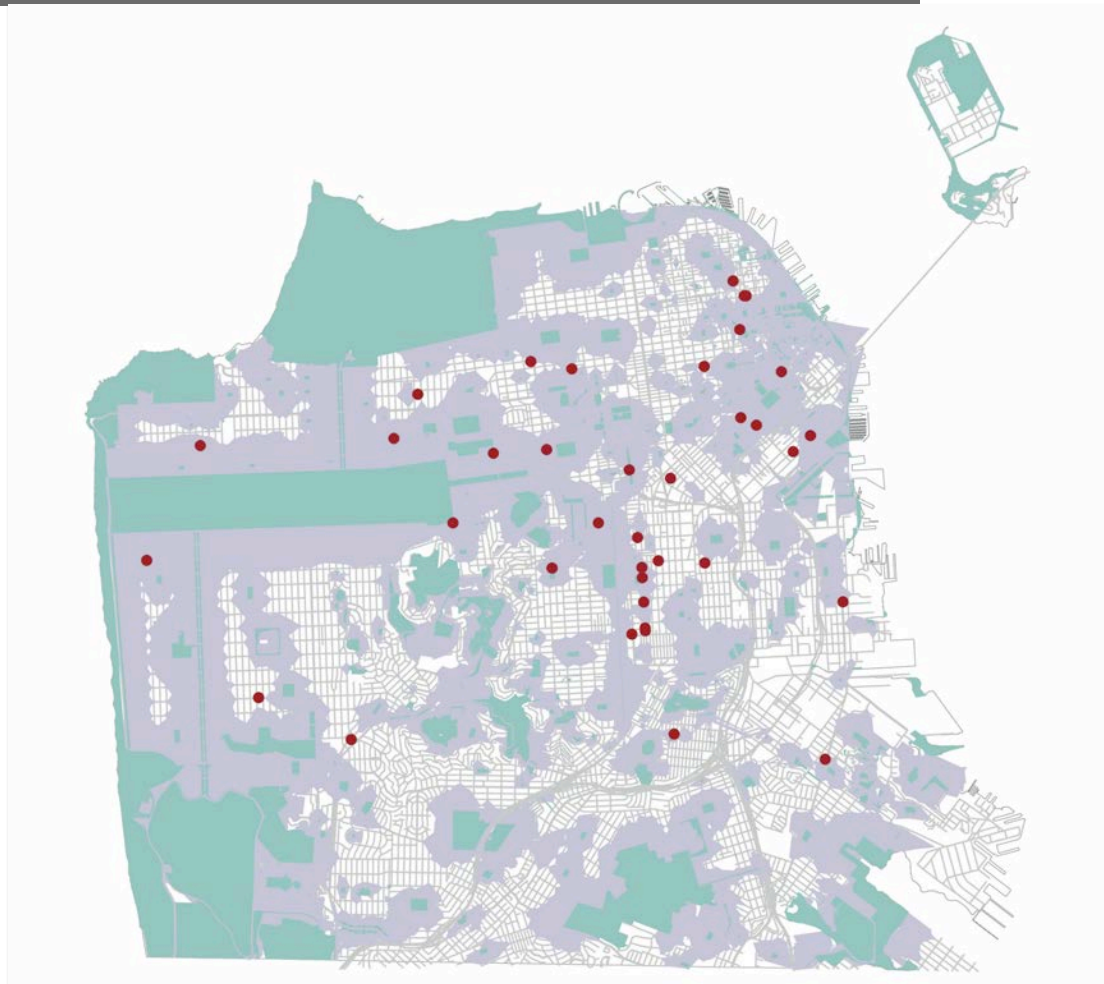
Final Network Buffer



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# Network Buffer | pipeline

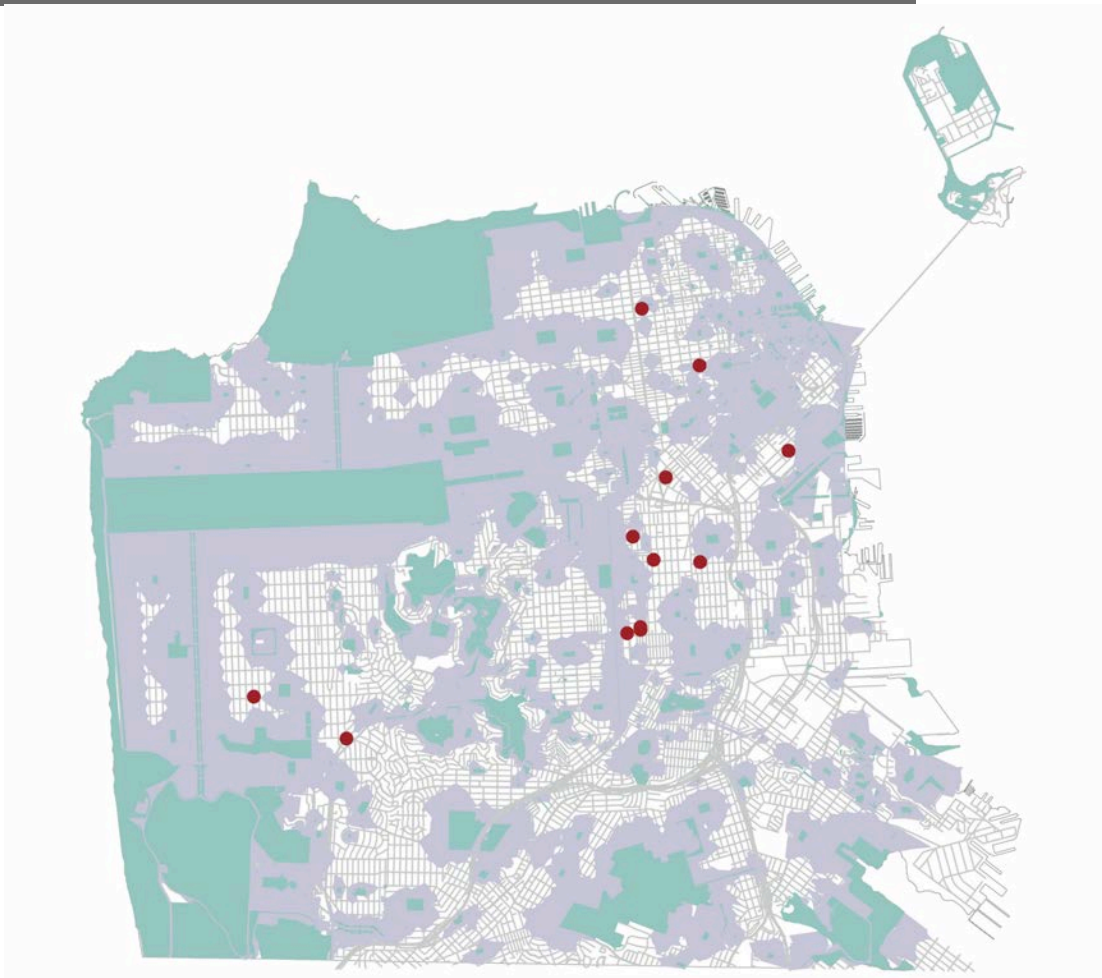
Final Network Buffer v. Pipeline Parklets



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# Network Buffer | priority pipeline

## Priority Pipeline Parklets



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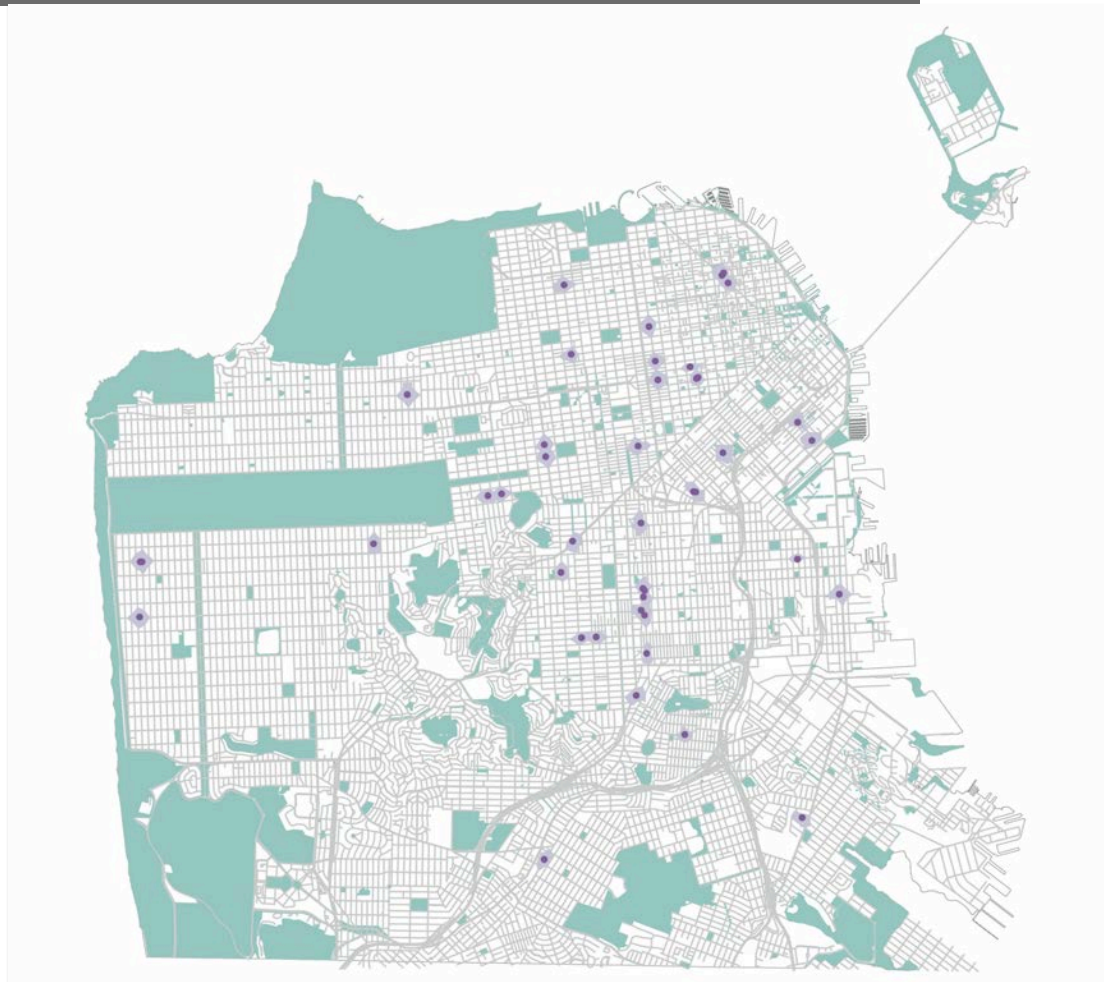
# **ANALYSIS**

**Q1: In what land use and zoning mixes do parklets emerge?**



# Parklet Walkshed Network Buffer

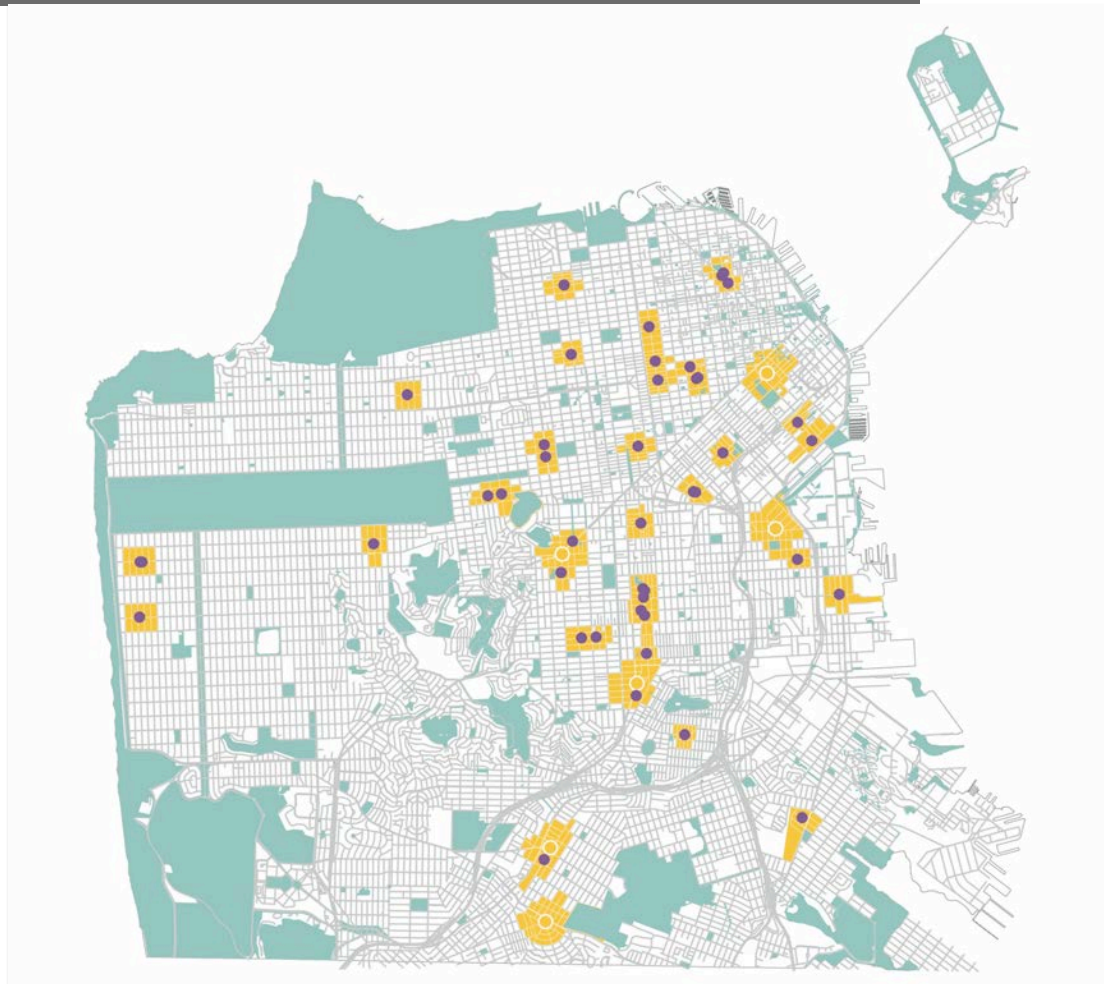
Network Buffer on Parklets



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# Parklet Walkshed Network Buffer

All blocks within Parklet Network Buffer

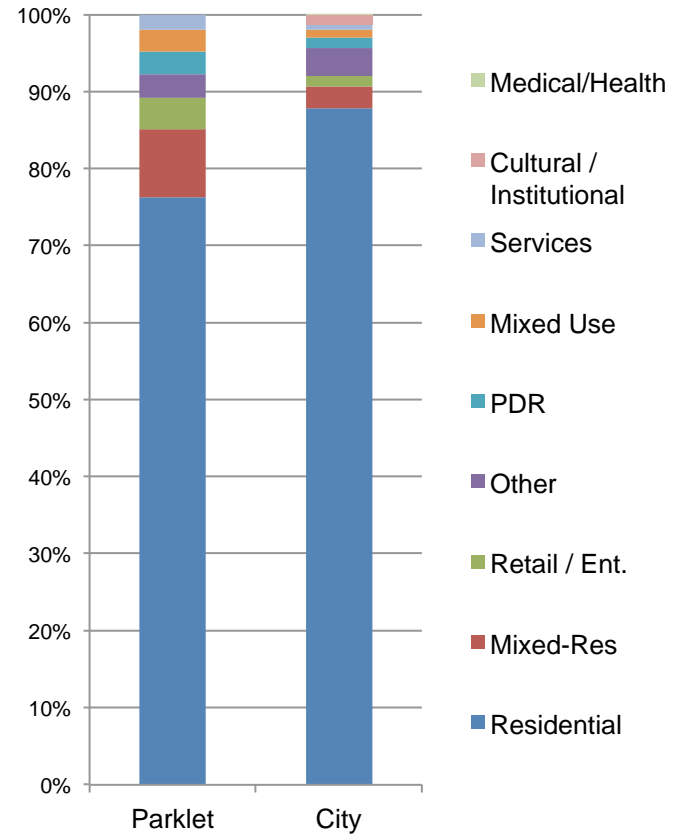
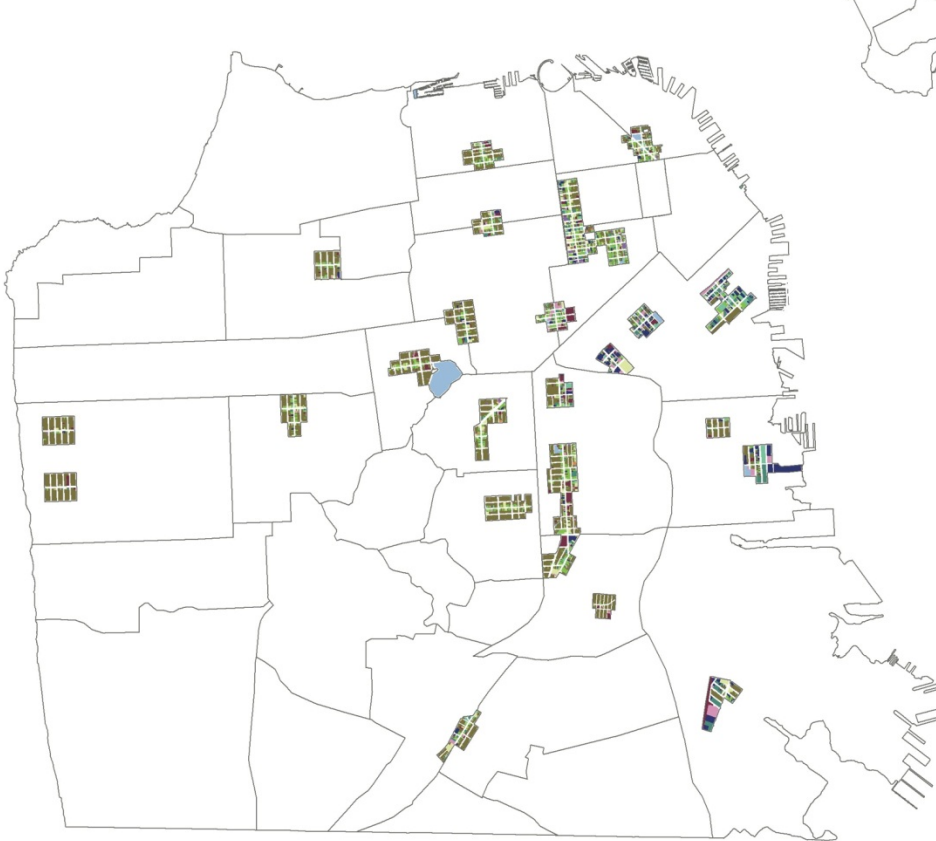


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# Parklets & Land Use

1/8 mi. Parklet Walkshed Land Use Mix

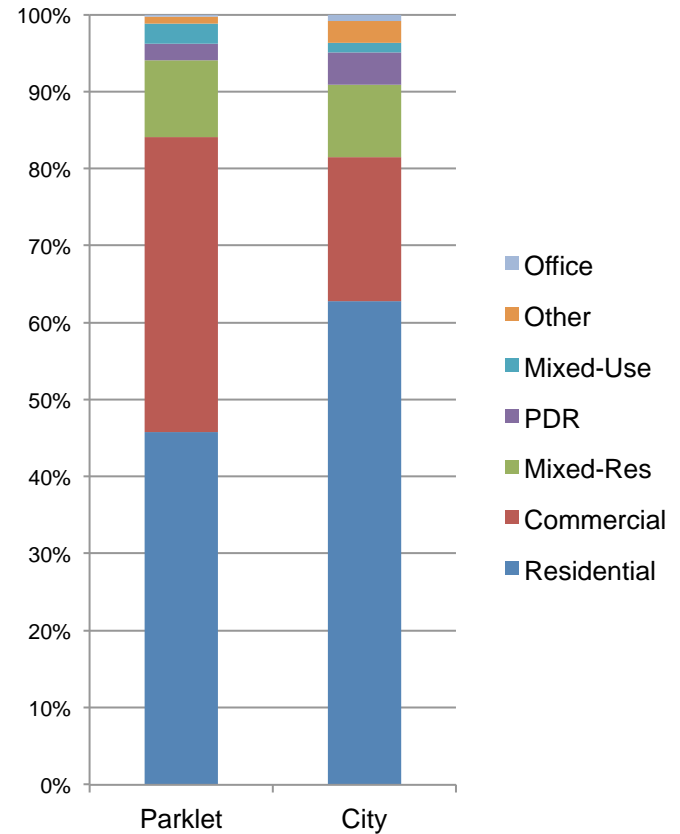
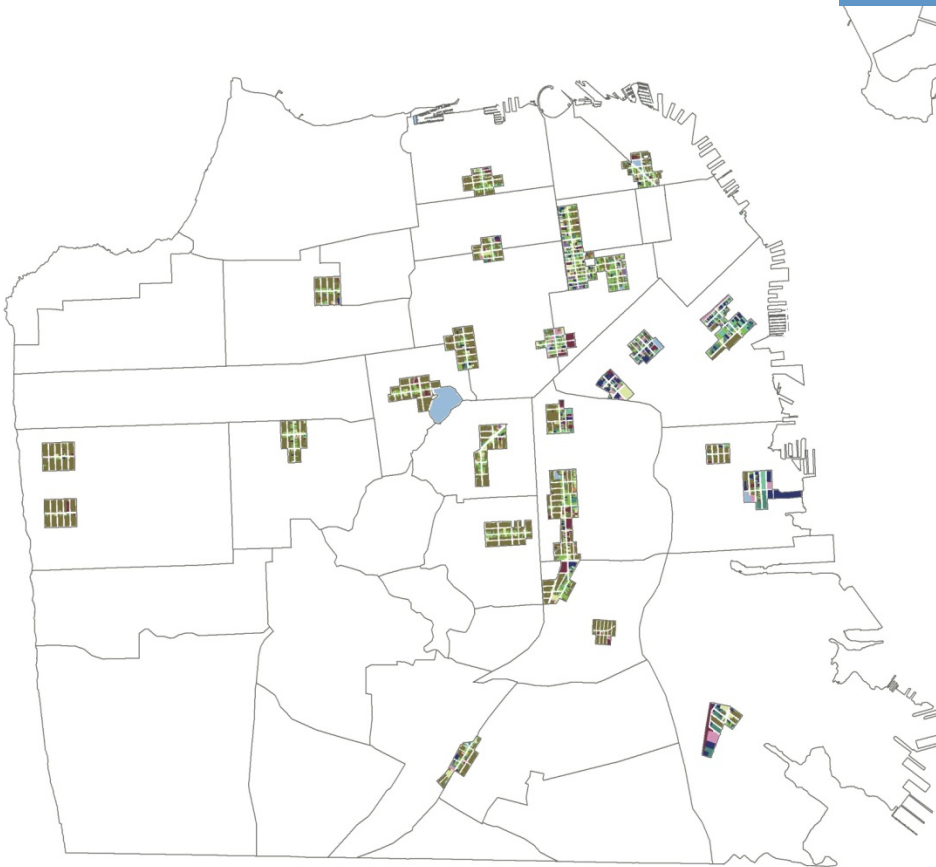
Compared to city as a whole, service area for parklets includes a greater percentage of Residential Mixed Use and Retail/Entertainment Land Uses.



# Parklets & Zoning

1/8 mi. Parklet Walkshed Zoning Districts

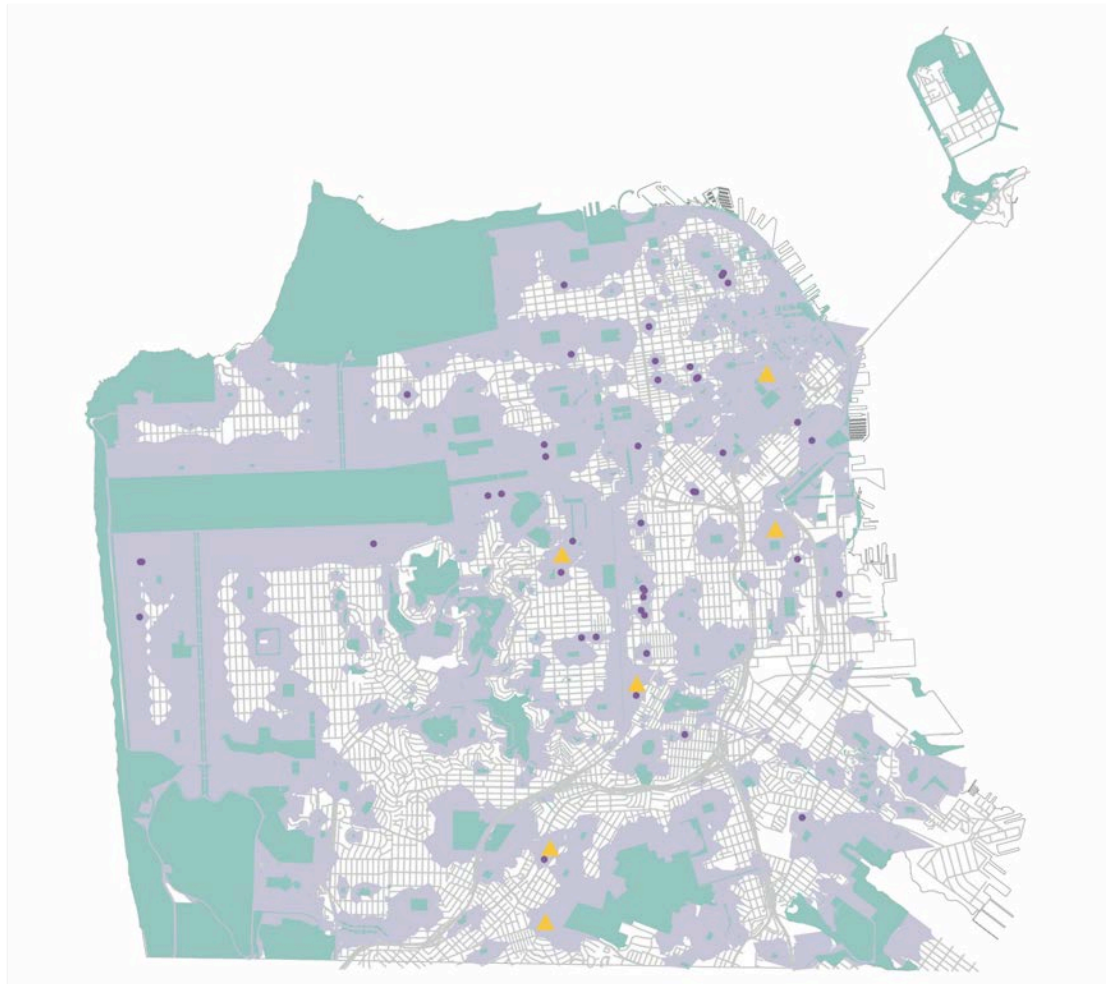
Compared to city as a whole, service area for parklets includes a greater percentage of Commercial Zoning.



**Q2: Which areas of the city are served by parklets or plazas? Which areas are not?**

# Blocks Served / Not Served

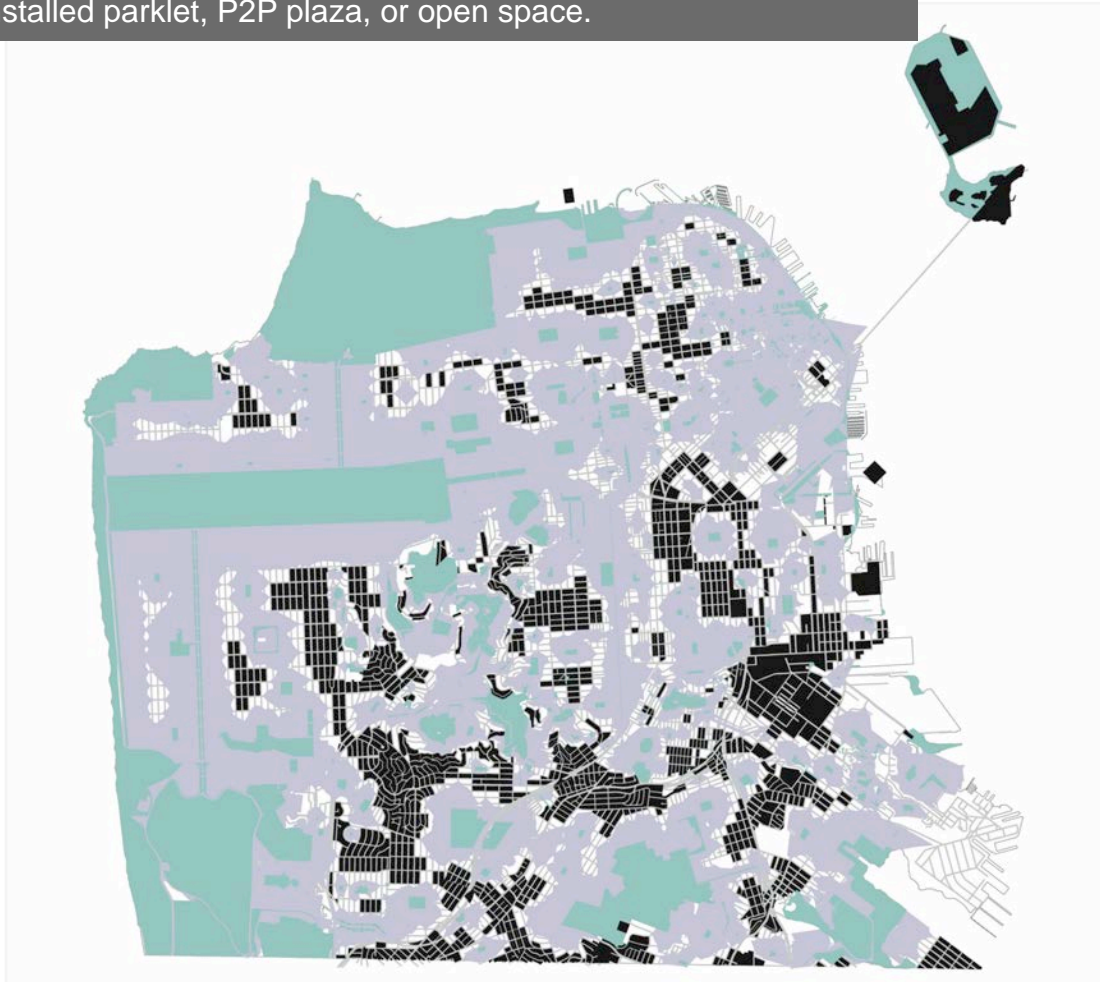
Network Buffer



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# Blocks Served / Not Served

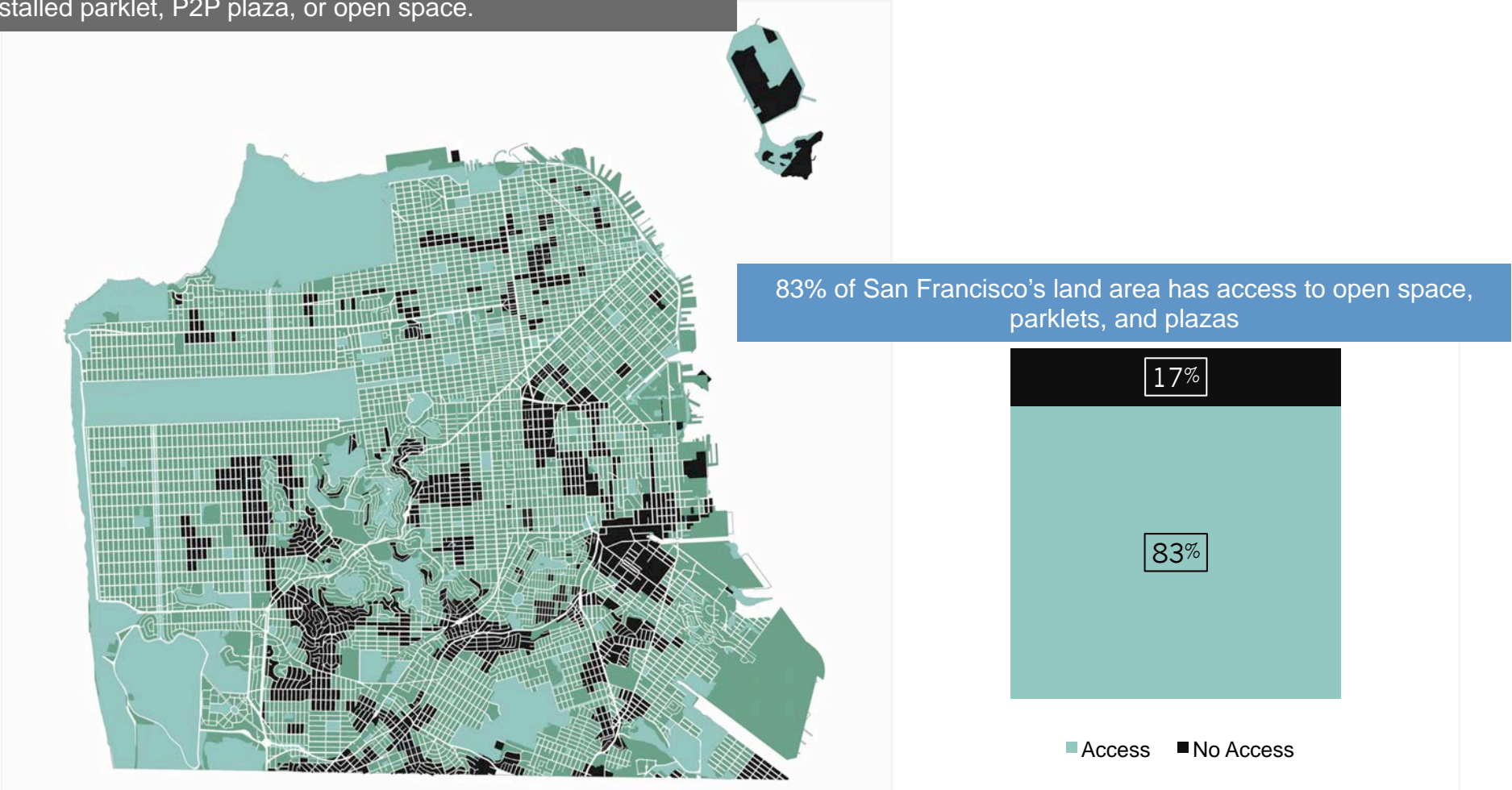
**Access:** population within the associated watershed of an installed parklet, P2P plaza, or open space.



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# Blocks Served / Not Served

**Access:** population within the associated watershed of an installed parklet, P2P plaza, or open space.



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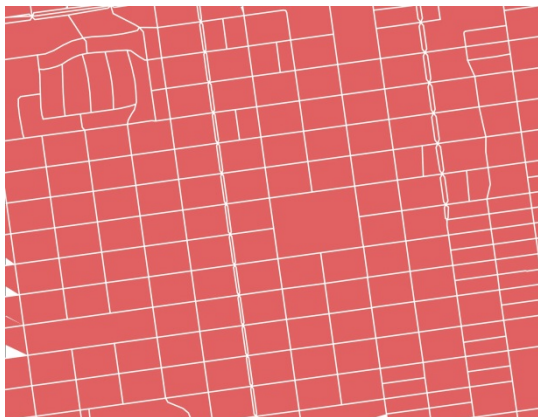
**Q3: Which demographics do parklets and plazas serve in San Francisco?**

# The Census & GIS

## Decennial Census (2010)

Race, Age

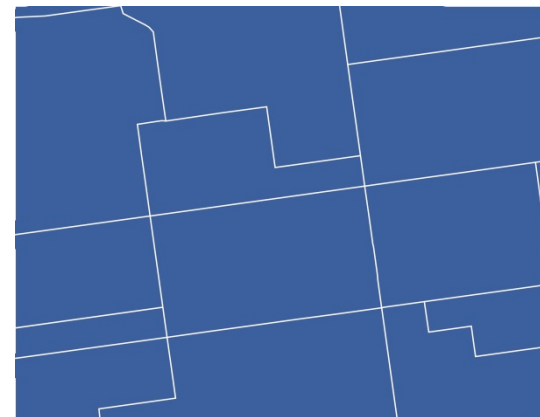
- Short survey (fewer categories)
- Samples entire population every 10 years (less frequent)
- Larger population sample
- Smaller geographic unit: blocks and block groups



## American Community Survey (2012)

Income, Education, Transportation

- Long survey
- Samples small percentage of population every year
- Less accurate (data is an estimate, includes margin of error)
- Larger geographic unit: Census Tracts

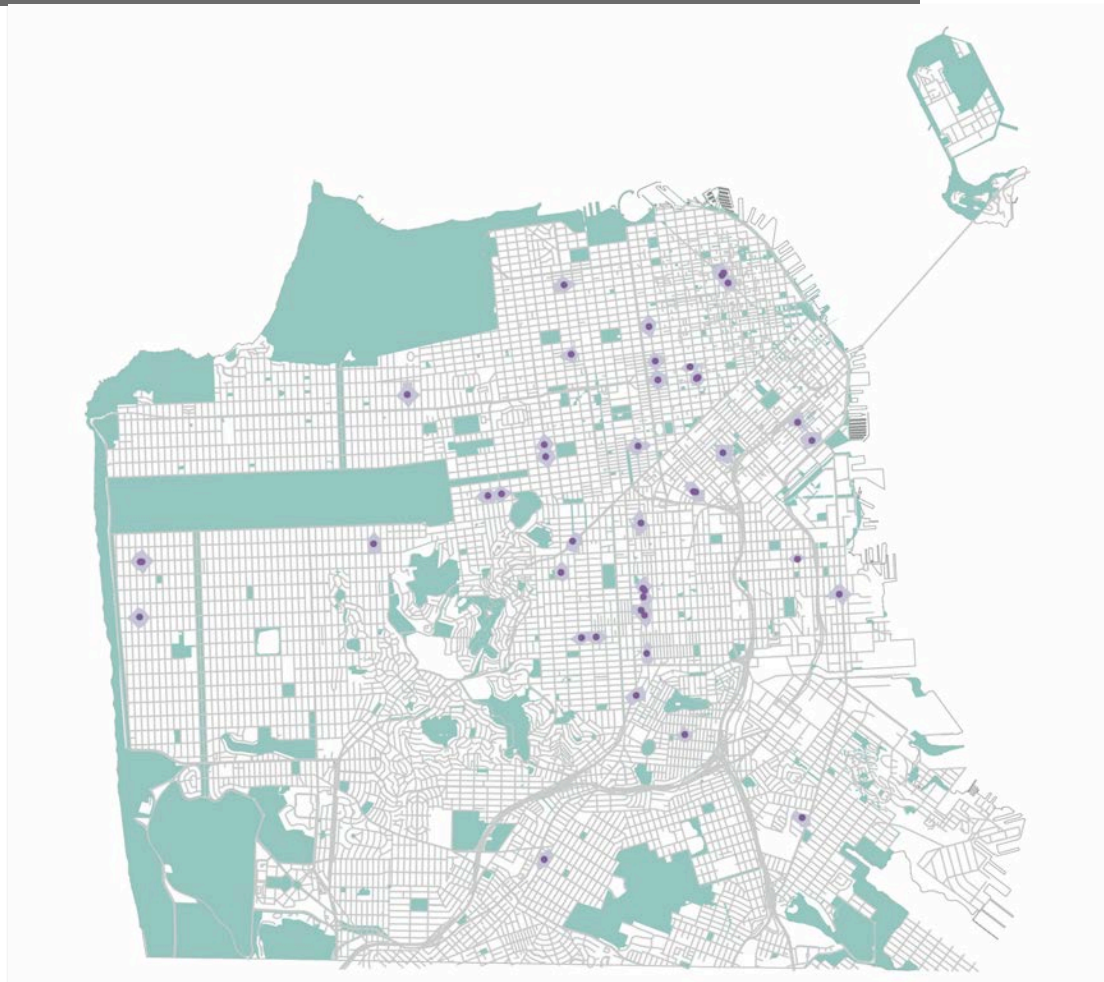




# **Decennial Census Data (Blocks)**

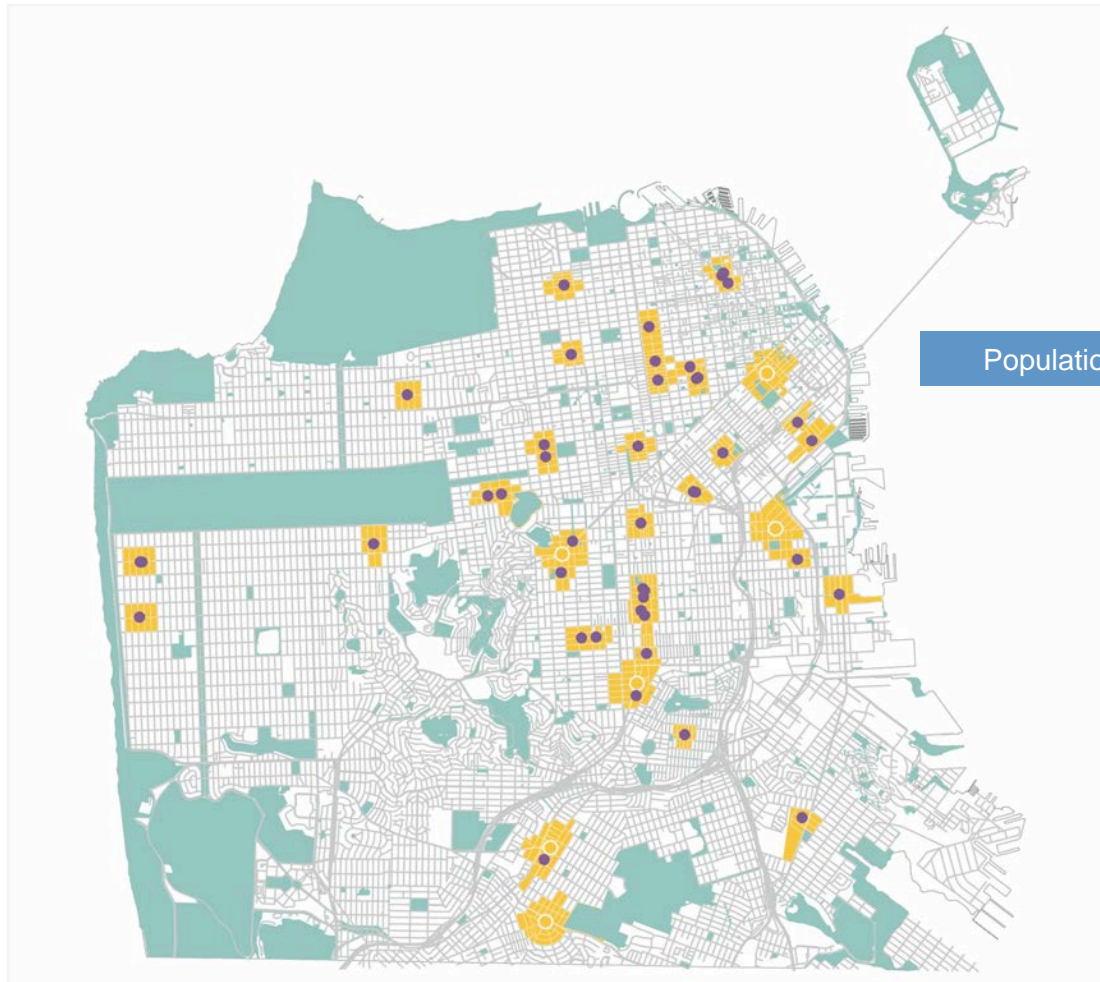
# Parklet Walkshed Network Buffer

Network Buffer on Parklets

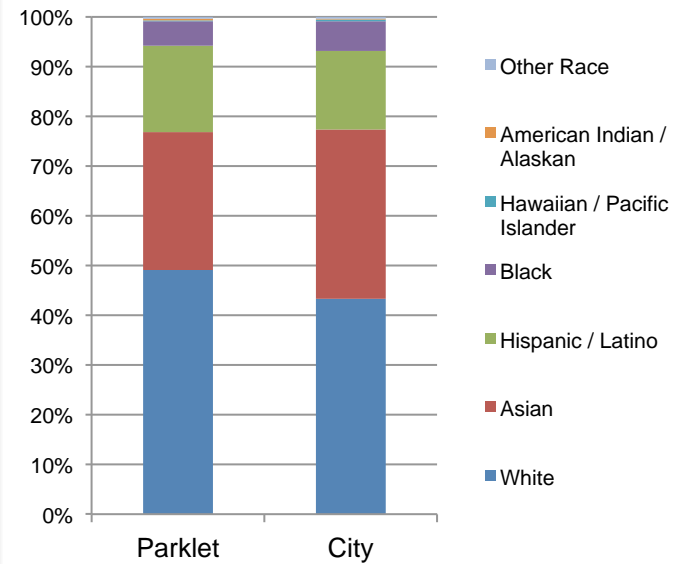


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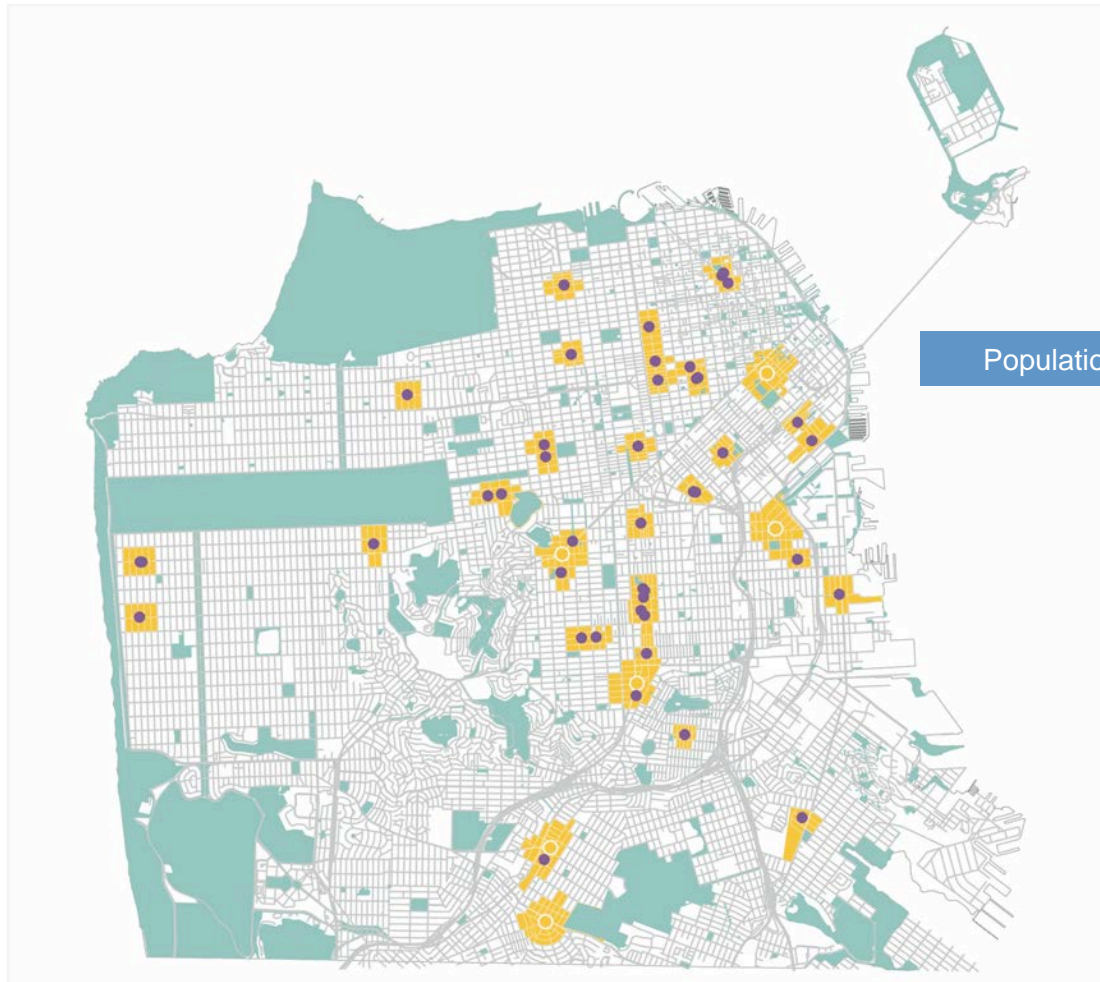
# Population Served | Race



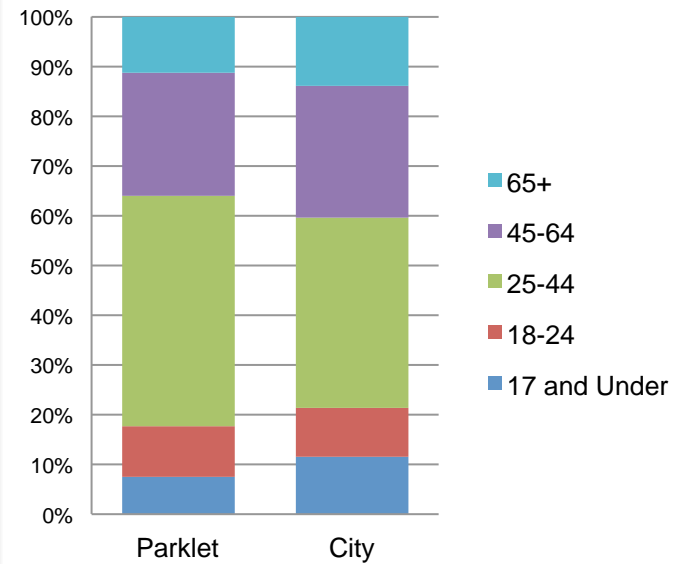
Populations served by parklets reflect that of the city as a whole.



# Population Served | Age



Populations served by parklets reflect that of the city as a whole.

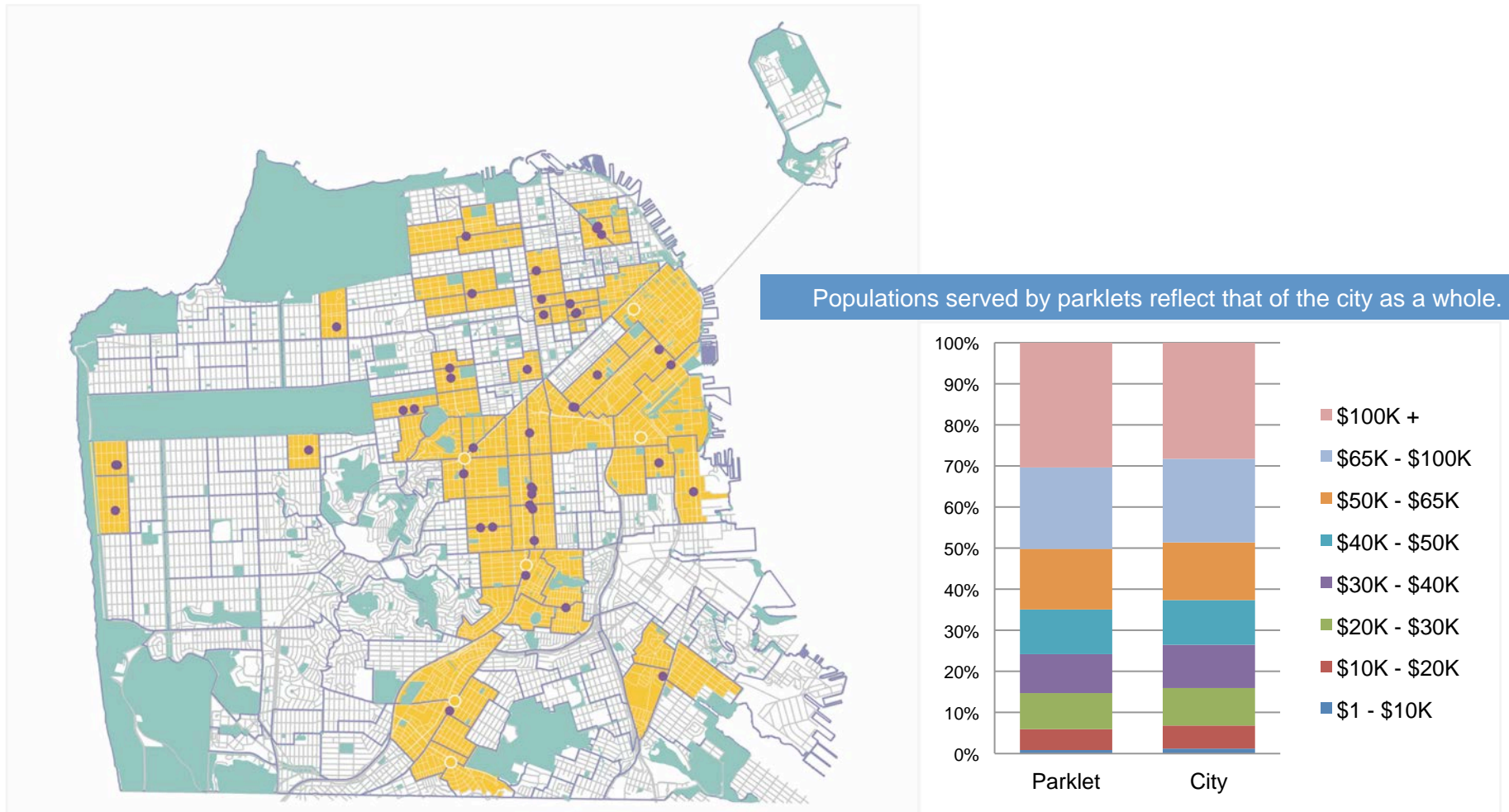


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**ACS Data (Census Tracts)**

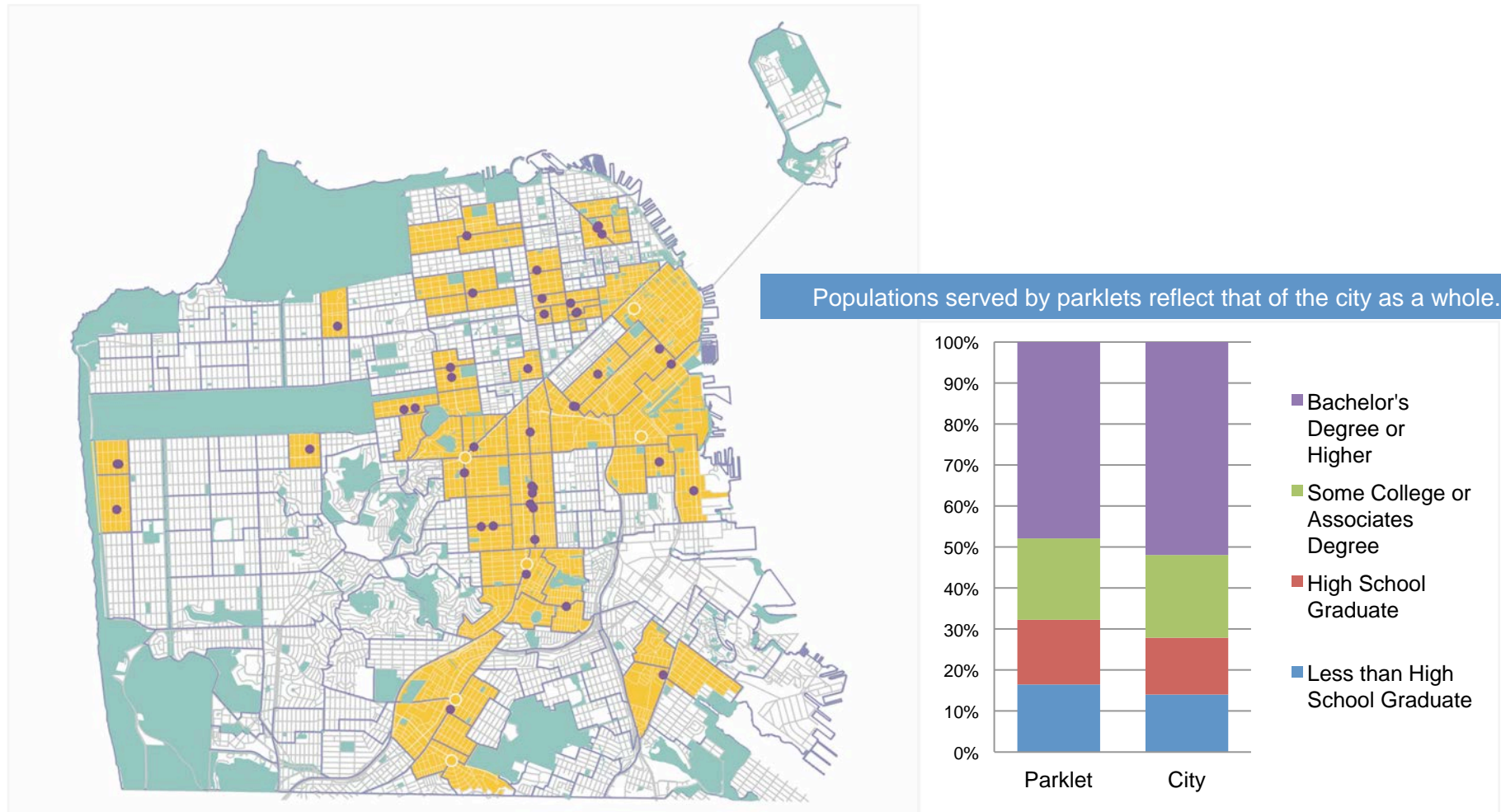
# Population Served | Income



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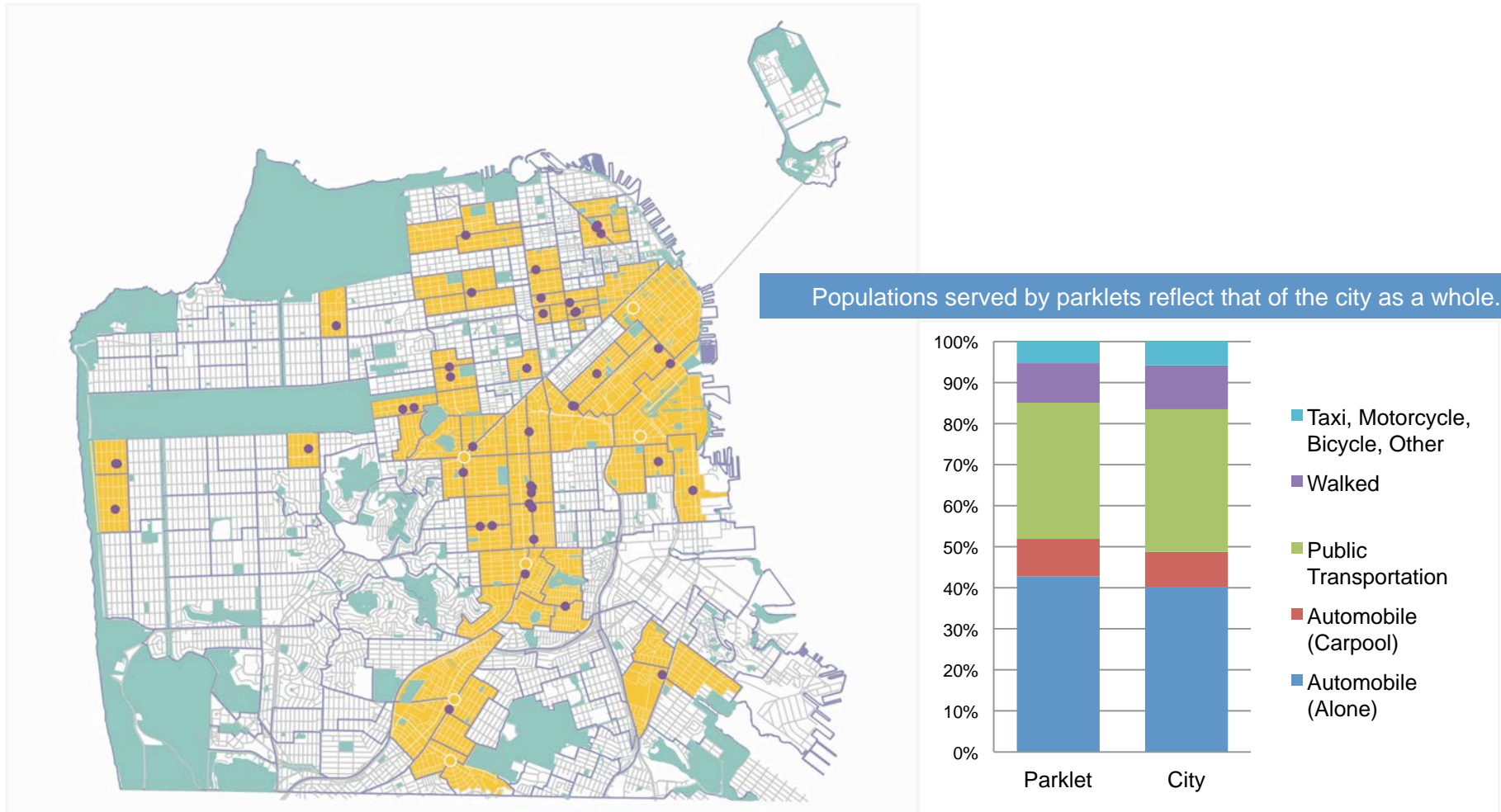


# Population Served | Education



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# Population Served | Transportation



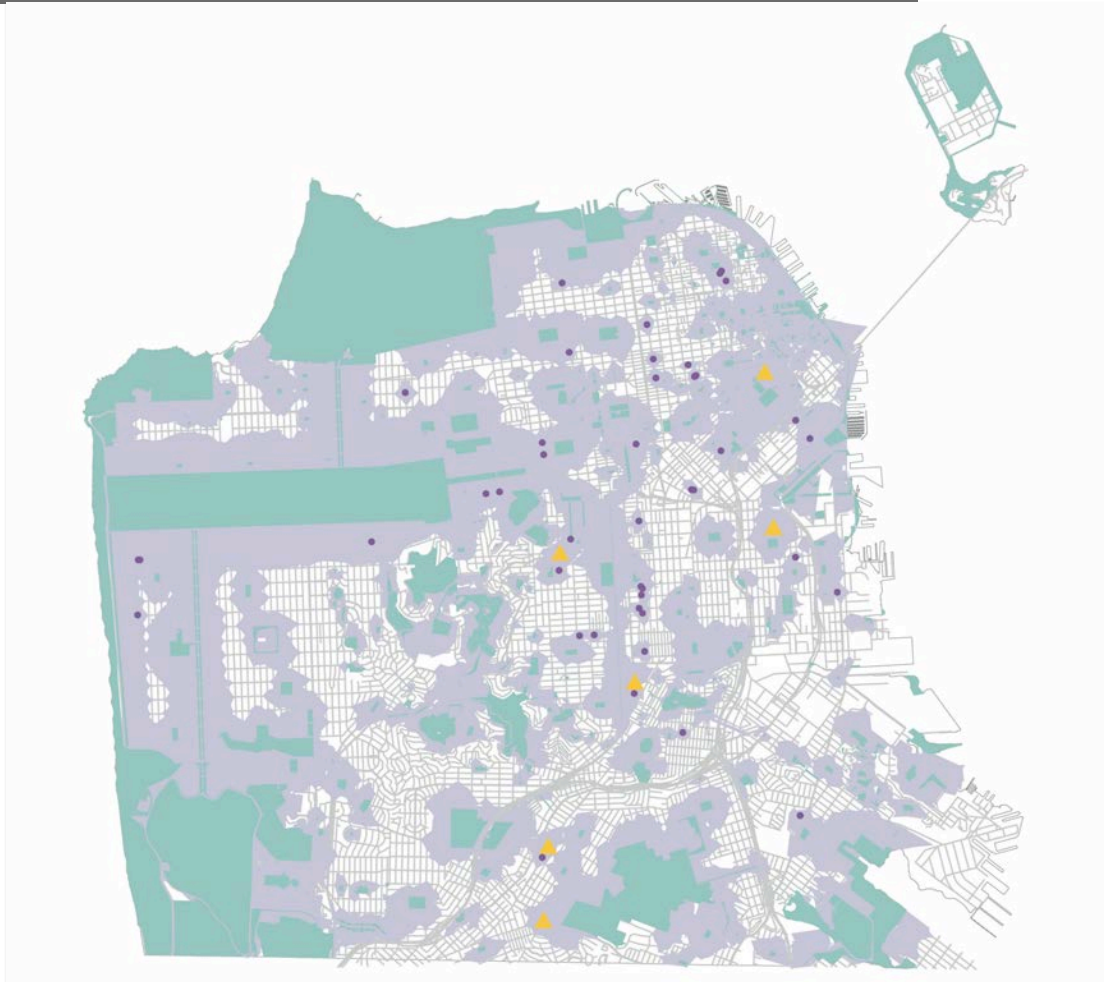
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# **CAPPUCCINO URBANISM?**

**Q4: Where are the best opportunities for future parklets and plazas?**

# Opportunity Streets

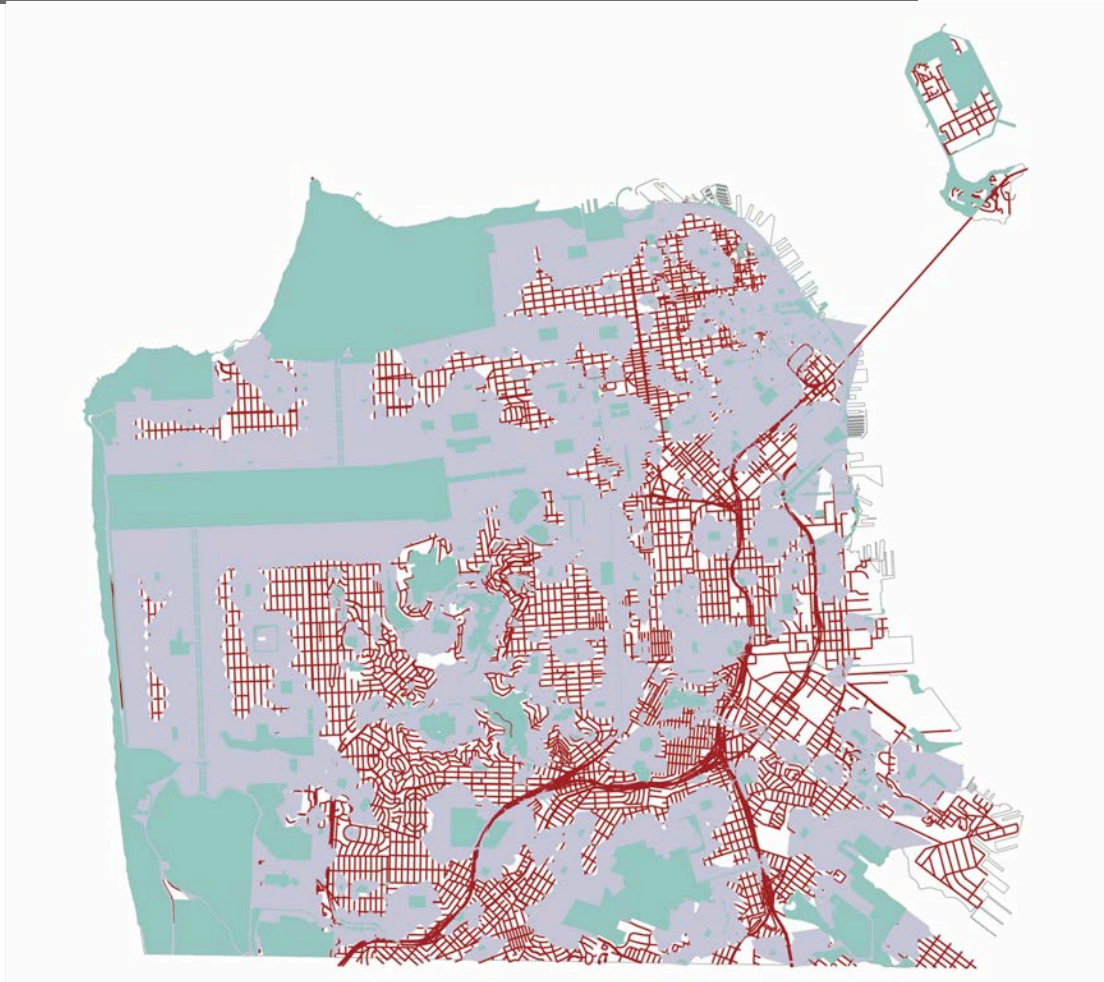
Network Buffer



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# Opportunity Streets

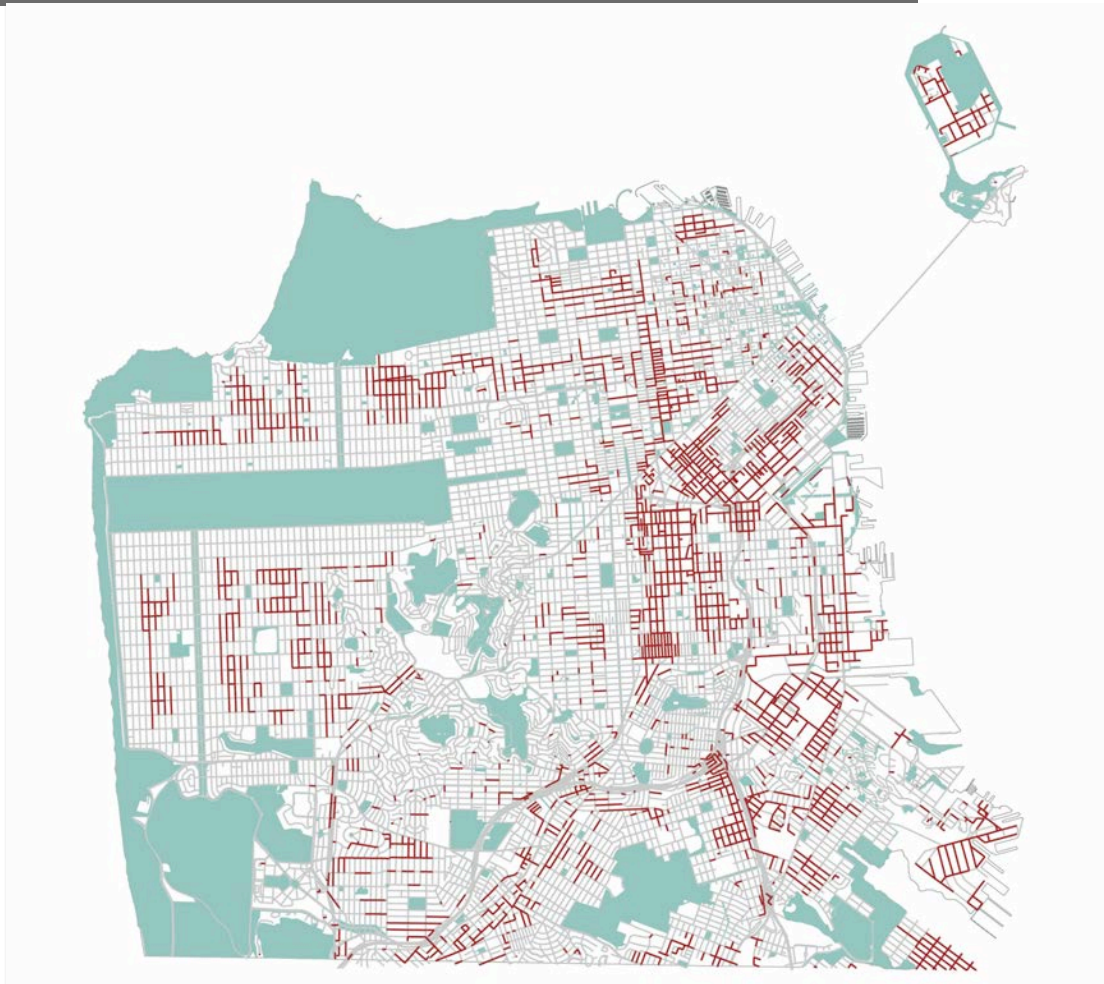
Street Segments in "No Access" areas



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# Opportunity Streets

Street Segments with a grade of less than 5%



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# Opportunity Streets

Street Segments within a named NCD or NCT



## **OPPORTUNITY STREETS =**

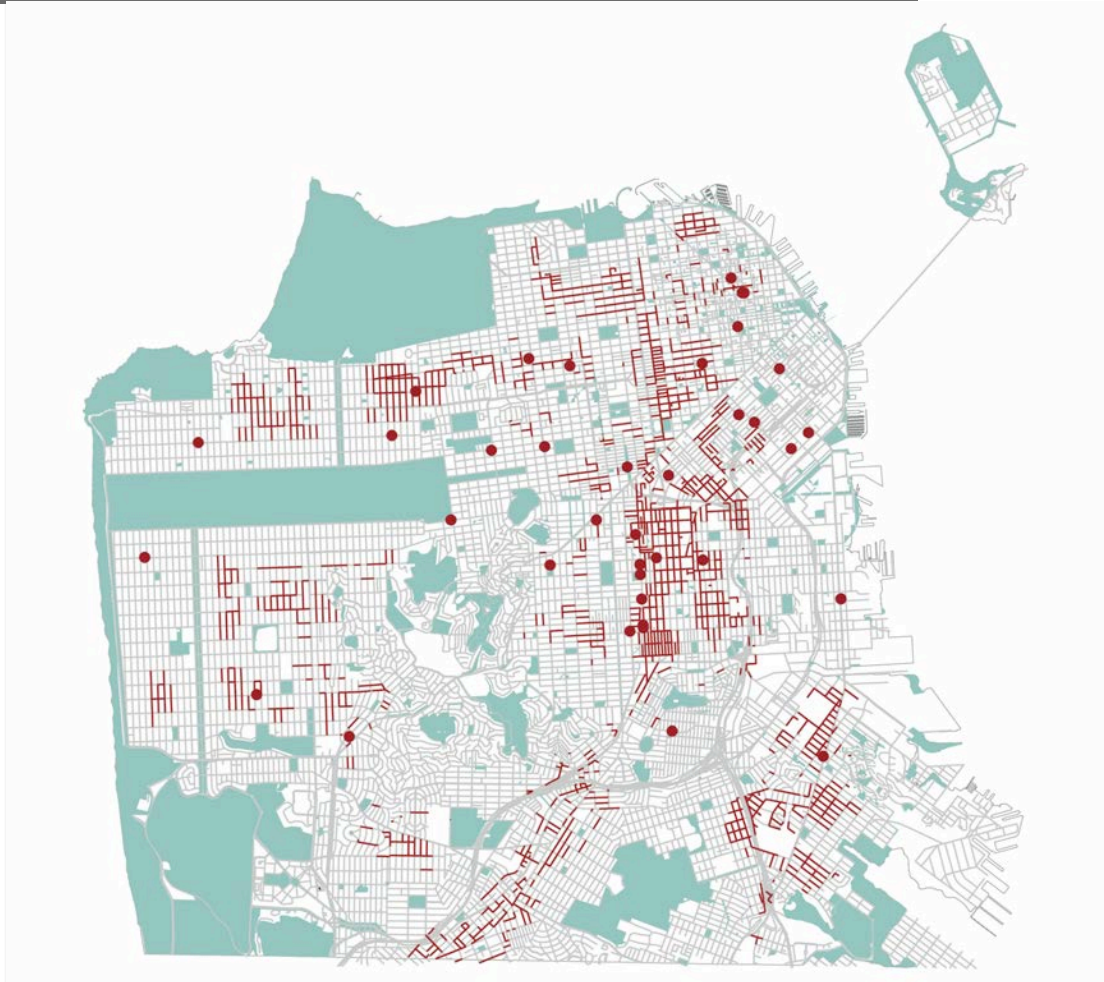
- Are within areas of the city that do not currently have access to parklets, plazas, or other types of open space
- Have a street grade of less than 5%
- Are Within an NCD, NCT, or other NC

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# Opportunity Streets

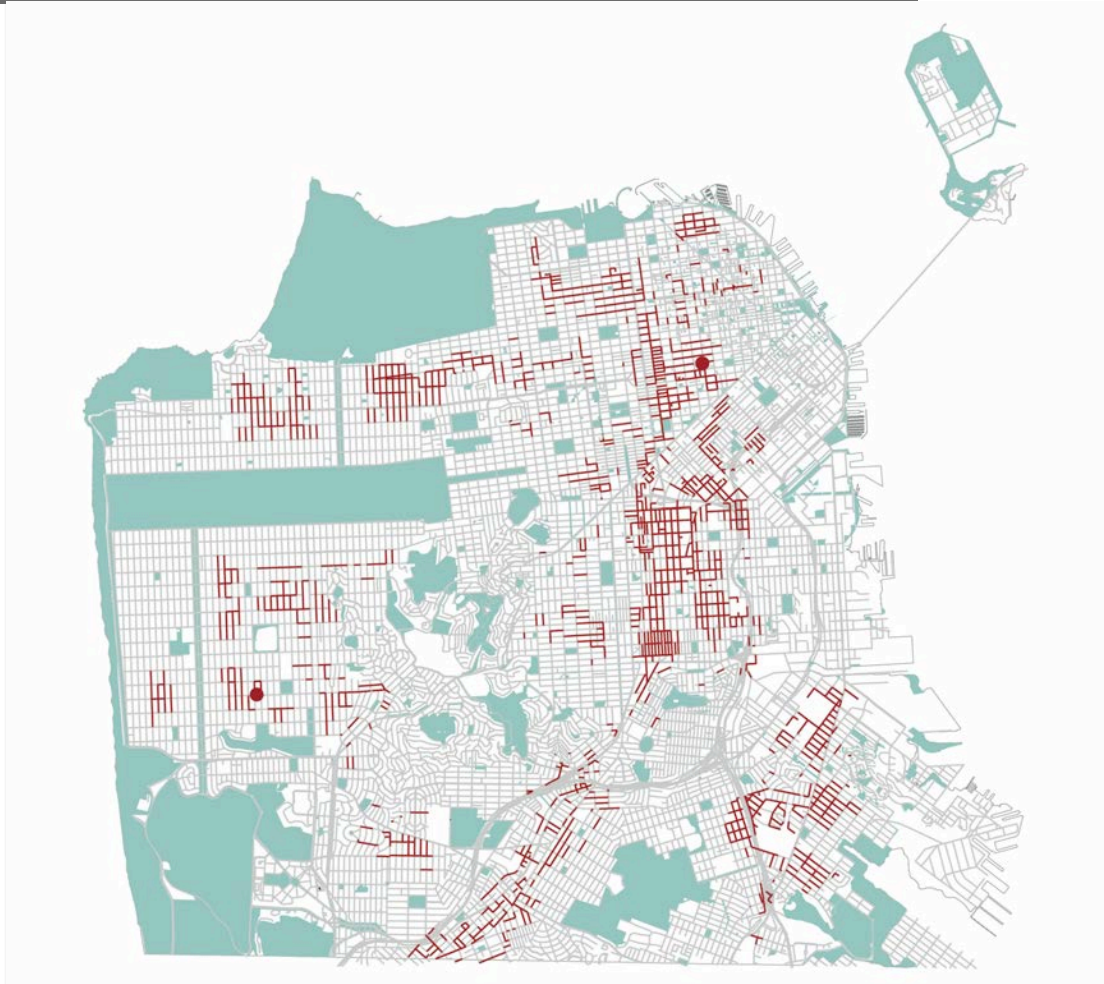
Opportunity Streets v. Pipeline Parklets



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# Opportunity Streets

## Priority Pipeline Parklets



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# Conclusions



- The parklet program is growing every year. P2P should ensure geographic equity in its selection of future proposals.
- The distribution of parklets is uneven across Supervisor Districts and Neighborhoods. P2P should coordinate more closely with the entities with lowest parklet counts to ensure geographic equity.
- Most parklets are within an NCD or NCT and are streets with grades of less than 5%.
- Only a small number of parklets fall along San Francisco's bike network.
- Most parklet sponsors are either cafes or restaurants. P2P should diversify sponsor type in future RFP selection.
- The majority of parklet sponsors do not also have table and chair permits.
- Compared to city as a whole, the service area for parklets includes a greater percentage of Residential Mixed Use or Retail / Entertainment Land Use and is within a Commercial Zoning District.

1530 Haigh Street (Hosted by Haight Street Market) Photo By: SF Planning (AG)

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# Conclusions



- 83% of San Francisco has access to open space, parklets, and plazas. The other 17% is where P2P should build future parklets.
- Despite criticism about parklets serving only specific populations, populations served by parklets reflect that of the city as a whole, meaning that ALL populations are served by parklets.
- The best opportunity areas for parklets and plazas **are along streets that:**
  - Are within areas of the city that do not currently have access to parklets, plazas, or other types of open space.
  - Have a street grade of less than 5%.
  - Are within a named NCD or NCT.

1530 Haigh Street (Hosted by Haight Street Market) Photo By: SF Planning (AG)

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# Further Research



Q: How does population density affect the opportunity study for parklets and plazas?

Q: What makes a successful parklet? (Design, accessibility, side of street, sponsor type?)

Q: At what locations can a parklet most benefit a neighborhood?

Q: How do people arrive at parklets? Further explore link with bicycle infrastructure and SF's Green Connections program.

Q: Prove / disprove the assumption that people will only walk a few blocks to use a parklet

Q: Does street slope affect the popularity / effectiveness of a parklet?

Simple Pleasures Parklet, Photo by San Francisco Planning Department, Ilaria Salvadori

# Questions



Trouble Coffee Bayview Parklet, BaviewPhotos by Ben Frombgen, Architect



# Acknowledgements

- 
- Robin Abad & Ilaria Salvadori
  - Sahiti Karempudi & SF Parks Alliance
  - Mike Webster
  - Gary Chen
  - Teresa Ojeda
  - Diana Sokolove & Teresa Oropeza
  - Sabrina Barekzai
  - Friends of City Planning

Trouble Coffee Bayview Parklet, BaviViewPhotos by Ben Frombgen, Architect

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