



# Utility Undergrounding Program Master Workplan Study

Prepared for:  
San Francisco Public Works

Prepared by:



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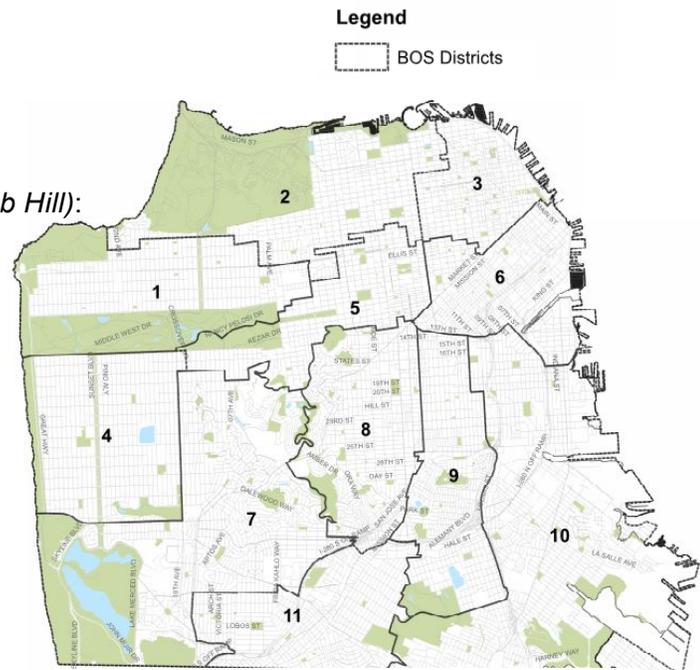
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# Executive Summary

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Undergrounding overhead utilities has a long history in California. In 1967, due to strong public demand for undergrounding new and existing overhead electric and communications facilities, the Utilities Undergrounding Program (UUP) was initiated by the California Public Utilities Commission (CPUC). This program sought to stimulate, encourage, and promote the undergrounding, for aesthetic reasons, of electric and communications services and facilities<sup>1</sup>. Since its creation, the UUP has successfully undergrounded over 2,500 miles of overhead utilities in the last 50 years, but the overall goal of the program is still far from within reach.

The current UUP for undergrounding electric overhead utilities is funded by Rule 20. Below are the three guidelines and funding mechanisms Rule 20 (see appendix F) is composed of:

- Rule 20A: Project upfront cost is funded by the utility agency and paid back by the ratepayers for public interest projects only.
- Rule 20B: Projects upfront cost is funded by the Applicant and approximately 20% paid back by ratepayers for projects with at least 600 LF on both sides of the streets.
- Rule 20C: Project cost is funded by the Applicant for any size projects.

San Francisco's current Rule 20A allocation credit balance is <-\$42M> with a \$3.1M/year allocation. This funding source will not be available until paid back. Rule 20 B & C are funding mechanisms with no current available upfront funding source identified. **The need to find alternative funding sources is imperative in moving forward with a Citywide UUP in San Francisco.**

The goal of this Master Workplan Study (**Study**) is to create a **framework** for a systematic approach for the creation of a Masterplan to effectively underground all remaining overhead utilities in San Francisco. This Study has outlined an approach that compiles Undergrounding Overhead Utility knowledge and lessons learned from statewide and other local agencies, so CCSF can accomplish its undergrounding goals in a streamlined and cost-effective way.

The last large-scale underground effort in San Francisco was from 1996-2006, during which a lack of proper planning resulted in cost overruns. There were many factors that contributed to these cost overruns and schedule delays, but the major issues were:

- An undefined understanding of who was leading the project (PG&E or CCSF) resulted in a diminished capacity to create a clear overall project scope and schedule, and to properly allocate resources and manage funds.
- Undergrounding of the overhead utility triggers additional city projects including installing streetlights and SFMTA poles.
- The congestion of sub-surface utilities was unknown and unexpected due to no upfront existing site condition investigations. This caused change orders from contractors and schedule delays.
- The petition process was not well planned which resulted in construction inefficiencies and lack of undergrounding throughout the project route.

In order to help mitigate the above problems and accomplish utility underground goals, San Francisco will need to:

## 1. Establish Funding Sources

After the completion of the 1996-2006 undergrounding effort, the City exhausted Rule 20A funding allotment. Property owners, rate payers, and public agencies lack upfront money to continue the undergrounding effort. However, from the community outreach survey, it is concluded that the public is willing to contribute into a UUP budget. With the public contributions, the program can accumulate the necessary funding to cover project costs.

There are approximately 470 miles of overhead utilities that still need to be undergrounded. With current estimated costs ranging from \$5 to \$10 Mil/mile, to complete the undergrounding program in 50 years, the estimated annual budget needs to be approximately \$50M to \$100M. To fund such an effort, multiple sources of funding have been studied.

The most probable source that can obtain approval and provide the program with continuous funding are **bolded** below. The details of these funding sources are explained in section 2.1 and 3.4.

- GO Bonds
- Franchise Fee
- **Utility Surcharge**
- **Utility User Tax**
- **Parcel Tax**
- **Real Property Transfer Tax**

For any of these funding sources to be available for this program, they will need approval from voters and policy holders to amend City policy and/or budget reallocation within the City. Although there are private funding sources, such as new developments/subdivisions, Rule 20B/20C, they are not reliable funding sources for the Citywide UUP.

## 2. Designate Underground Utility Managers

A **Program Manager** will oversee and execute the Overall Project Planning and Management goals of the Citywide Underground Utility Program. The Program Manager must be familiar with the funding sources and the undergrounding policies to manage the budget, stakeholders, prioritize projects and coordinate with Project Managers to continue updating the Masterplan.

**Project Managers** will oversee and manage undergrounding projects. Project Managers must have design, permitting and construction experience on projects in San Francisco. Project Managers will collect data from specific projects and report to Program Manager for updating the Overall Project Planning and Management use.

## 3. Develop a Masterplan

To create a Masterplan that collects existing data, establishes priority criteria as well as establish projects design, construction and approval procedures will streamline the UUP process by avoiding cost overrun and schedule delays. However, without proper funding sources in place, and an assigned Program Manager to oversee and implement the program, the Masterplan will not be effective.

The Masterplan scope includes:

- Maintain database and map to create tools for the Program Manager to make decisions, prioritize projects, and manage the program.
- Collect cost data to provide better overall UUP budget estimate
- Guidelines to Prioritize and Implement the SF UUP based on the following.
  - **Safety**
  - **System Reliability**
  - **Aesthetics**
- Defining roles and responsibilities of each stakeholder
- Identify 5-year and annual planned projects per the Prioritization and Implementation Strategy guidelines
- Identify Funding Sources
- Guidelines for Design and Construction Risk Management Evaluation and Mitigation - Cost, Schedule, and Constructability
- Guidelines for implementing a Quality Control Program to monitor the Design, Construction and Permitting Process
- Define Procedures to Monitor Contracts and Unforeseen Conditions
- Provide reporting and continuous updates to the UUP

By reviewing the policies set by CPUC and CCSF, past project performances, and other neighboring Cities' studies, some key issues and opportunities were identified to take into consideration when developing the Study framework.

Since 1967, the UUP has benefited some areas in San Francisco, and by the creation of Underground Utility Districts no future overhead utilities can be installed within these designated Districts. Many of the ratepayers who have been paying into the undergrounding effort though, have received no benefit to date and continue to have escalated congestion in their neighborhood. To benefit all ratepayers and proceed with the undergrounding efforts in San Francisco, San Francisco will need to move forward with developing a Masterplan to streamline and guide the UUP.

# 1. Introduction to Undergrounding

## 1.1 Existing Utility Undergrounding Program Status

The Utilities Undergrounding Program (UUP) mission is to promote undergrounding for new and existing overhead electric and communications facilities for aesthetic reasons.

Over 500 California cities and 2,500 miles of overhead utilities have been undergrounded in the last 50 years throughout California. The program focuses on areas that serve the maximum public benefits such as:

- Major arterial roadways that are extensively used by the general public and carries a heavy volume of pedestrians or vehicular traffic.
- Roadways through civic areas, public recreation areas or areas of unusual scenic interest to the general public.



San Francisco Street with Utility Undergrounding by the 1996 SF UUP

Like many other cities, San Francisco (SF) has successfully undergrounded many major arterial roadways throughout the city in public recreational areas, downtown, and tourist areas.



San Francisco Street without Utility Undergrounding

During major disasters from storm events or earthquakes, many overhead wires over emergency routes, if damaged, can be dangerous to the public and obstruct emergency operations.



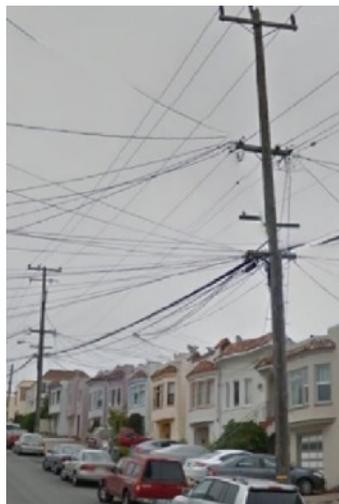
San Francisco Street without Utility Undergrounding



Existing Overhead Wires Over Emergency Routes



*Existing overhead wires with abandoned lines*



In addition to the existing overhead wires in service, many “abandoned” not-in-service lines are often not removed. These abandoned lines, according to utility companies, are left in place for potential installation savings to future customers, while new overhead wires and wireless devices are constantly being added to new and existing poles.



*New overhead wireless facilities*

Currently, there are no rules to prevent utility agencies from installing more overhead utilities, except in new development areas or where LUUDs have been established. As the UUP is trying to identify funding to resolve the existing overhead utilities problem, new overhead lines and wireless devices are being installed faster than they are being undergrounded.

When a utility agency needs to install utility poles within the public right-of-way, only an encroachment permit and excavation permit (during construction) are required through CCSF. Once the poles are installed, lease agreement is negotiated only between utility owners with no assessment of the long-term impacts to public safety, system reliability or aesthetics.

## 1.2 California Utilities Undergrounding Program Rules

In 1967, CPUC initiated the current undergrounding program to address aesthetic-concerns expressed by municipalities and residents in cities throughout California. This program consists of the following two parts:

1. The first part of the undergrounding program, **Tariff Rules 15 and 16**, require new subdivisions and those that were already undergrounded to provide underground service for all new connections.
2. The second part of the program governs both when and where a utility may remove overhead lines and replace them with new underground service, and who shall bear the cost of the conversion.

### 1.2.1 CPUC Rule 20 Funding

On September 19, 1967, the CPUC adopted **Decision 73078 – Rule 20** as a funding mechanism for the conversion program, see Appendix A for Rule 20 details:

Contribution Thresholds Per Rule	Ratepayer Contribution Through Utility Rates	Customers Contribution	Criteria
20A	100%	Max 20%: cost from street to meter	Public Interest - Remove closely-packed lines, or be on a high traffic way, or be in a scenic area
		Min: zero if use mainline funds	
20B	20%	80% <sup>1</sup>	Don't meet Rule 20A criteria, but still involve undergrounding both sides of the street for at least 600 feet.
20C	De minimus	100% <sup>2</sup>	Typically small projects, where a business or individual pays everything
20D <sup>3</sup>	~80%	Max 20%: cost from street to meter	Facilities within SDG&E Fire Threat Zone and undergrounding is a preferred method to reduce fire risk and enhance reliability
		Min: zero if use mainline funds	

<sup>1</sup> Rule 20B customers pay a nonrefundable sum equal to the excess, if any, of the estimated costs, of completing the underground system and building a new equivalent overhead system.

<sup>2</sup> Rule 20C customers pay a nonrefundable sum equal to the estimated cost of the underground facilities less the estimated net salvage value and depreciation of the replaced overhead facilities.

<sup>3</sup> Rule 20D is a new program approved by D14-01-002 in January 2014 only for San Diego Gas & Electric Company.

Figure 1: CPUC Rule 20 Table

- Utilities annually allocate credits under Rule 20 to communities, either cities or unincorporated areas of counties, to convert overhead electric facilities to underground electric facilities
- The recipient communities may either bank (accumulate) their allotments or borrow (mortgage) future undergrounding allocations for five years at most.
- Decision [D.82-12-069](#) adopted on December 1982, ordered Pacific Gas and Electric (PG&E) to consult with the League of California Cities to determine PG&E's future Rule 20A allocation budgets<sup>2</sup>. PG&E and the League agreed to use a "composite inflation and real growth factor" to determine annual Rule 20A allocation budgets. PG&E would adjust annual allocation budgets based on the actual inflation for the period and adjusted growth factors. These escalation factors have been around 5% to 6% until 2012, when PG&E reduce its annual allocations almost by half based on its 2011 General Rate Case (GRC) settlement.

### 1.2.2 CPUC Utilities Undergrounding Program Review

In 2016, CPUC staff prepared a white paper called "Program Review of the California Overhead Conversion Program – Rule 20A for Years 2011-2015".

The three largest California investor-owned electric utilities that participate in the UUP program are Pacific Gas & Electric (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDGE). The utility companies are compensated for project costs by collecting the municipality's accumulated credits and including them in subsequent general customer utility

rates so that the electric rates charged to all customers within their service territory will cover the submitted Rule 20A expenses.

With the data submitted by the participating electric utilities, CPUC showed the cost per mile for undergrounding overhead utilities averaged from \$158,000 to \$5,000,000 per mile depending on the various areas' density and congestion.<sup>3</sup>

**Table 1**  
**Cost per Mile: Converting Overhead to Underground Distribution<sup>1</sup>**

	Urban	Suburban	Rural
<b>Minimum</b>	<b>\$1,000,000</b>	<b>\$313,600</b>	<b>\$158,100</b>
<b>Maximum</b>	<b>\$5,000,000</b>	<b>\$2,420,000</b>	<b>\$1,960,000</b>

Figure 2: CPUC Cost Per Mile Table<sup>3</sup>

The CPUC report also identified a concern: While Rule 20A has been effective in meeting its original goal of facilitating conversion projects that are in the public interest, credits have been allocated annually to municipalities over many years using a formula that does not take into account whether a municipality has any planned overhead conversion projects. As a result, sizable credit balances have built up over the years, cumulatively totaling to over \$1 billion in liabilities and pose a potential financial risk to utility ratepayers.<sup>3</sup>

Based on the 2016 CPUC review of PG&E Rule 20A performance, PG&E allocates \$41.3 million credits to 282 jurisdictions within its service territory per year, with only 41 out of 282 jurisdictions (14%) having undergrounding plans or underground utility districts. Among those participating jurisdictions, the major cities included San Francisco, San Jose, Oakland, and City of Fresno. Similar to the liability identified in the overall program, lack of active participation in the program, within the PG&E service areas, has resulted in a cumulative unused balance of over \$748 million.<sup>3</sup>

**Table 4**  
**Annual Rule 20A Credit Allocations by IOU**

Utility	Number of Rule 20A municipalities	Budgeted Allocation (millions)	Actual Annual Allocations 2015	Avg. No. of Rule 20A projects per year	Avg. Annual Rule 20A Spend
<b>PGE</b>	282	\$41.3	\$43,506,023	Not Available	Not Available
<b>SCE</b>	192	\$28.4	\$37,154,543	10	\$27,255,662
<b>SDGE</b>	27	\$26.0	\$26,273,308	8	\$23,103,310
<b>Total</b>	<b>501</b>	<b>\$95.7</b>	<b>\$106,933,874</b>		

Figure 3: CPUC Annual Rule 20A Credit Allocations by IOU<sup>3</sup>

The report mentioned that PG&E lacked timely and proper reporting and submission of Rule 20A expenses to CPUC. PG&E provided no prior notification that their 16 projects had issues with insufficient credits (with cost overruns resulting in a \$25 million loss) and the CPUC was notified only after the fact.

**Rule 20A Program Balanced Scorecard**

Utility	Compliant Municipalities	Municipalities with Negative Balance	Municipalities with Low Balance or Allocation < \$1M	Program Reporting	Overall Score
<b>PGE</b>	3.6	22.5	15.6	5	46.7
<b>SCE</b>	10.7	17.3	13.5	0	41.5
<b>SDGE</b>	24	20.5	14.8	25	84.3

Figure 4: CPUC Rule 20A Program Balanced Scorecard<sup>6</sup>

Due to some of the reasons described above, per CPUC's Decision 17-05-013, CPUC concluded an audit was necessary to ensure that PG&E would fully account for annual Rule 20A budgeted amounts and to ensure that localities would receive the full benefit of these funds.<sup>4</sup> On December 20, 2019, CPUC released a report by AzP Consulting, LLC for an "Audit of PG&E Rule 20A Undergrounding Program." This report found a "lack of controls, evidence of inconsistent or failure in implementation of existing controls, operating ineffectiveness, and lack of proper integration of the system of controls necessary for proper function and management of the PG&E Rule 20A program"<sup>5</sup>. The report found PG&E had significantly underspend on the Rule 20A program and reprioritized funds away from Rule 20A causing Rule 20A project delays and cost increases. To better improve the Rule 20A program, AzP provided recommendations which included PG&E to increase the level of documentation for the Rule 20A program and improvement in PG&E management of the Rule 20A program. Other recommendations beyond PG&E control were provided such as changes to the Rule 20 Tariff language.

### 1.3 PG&E Utilities Undergrounding Program Rules

As mentioned above, PG&E is one of the three largest California investor-owned electric utilities participating in the CPUC UUP and follows Rule 20. This section will explain and define Rule 20 funding.

#### 1.3.1 Rule 20 Process Flow

Within PG&E service areas, the general process for a utility undergrounding project includes:

- Identifying and reviewing potential projects
- Developing preliminary costs for the projects
- Refining associated boundaries and costs
- Coordinating the schedules of other Public Works projects
- Developing final project plans
- Passing a municipal underground resolution
- Developing an underground design
- Converting service panels for underground use
- Starting construction
- Installing underground services
- Completing all street work
- Removing existing poles from the project area

The process normally involves a cross-functional team that includes representatives from PG&E, phone and cable companies, local governments, and the community. Each utility always completes their own design. PG&E does its electric design, AT&T the telecommunication design, etc. These individual designs are incorporated into a composite joint trench design by a lead agency such as PG&E, the city or county, or another utility designer. The joint trench lead combines each utility's individual design into a composite drawing and takes the lead for joint trench composite design. Depending on the funding mechanism, joint trench cost can be shared and identified by a Sharing Agreement (Form B) among agencies.

#### 1.3.2 Rule 20A

Projects performed under Rule 20A are nominated by a city, county or municipal agency and discussed with electric companies, and other utilities. Rule 20A projects must be stand-alone projects and Rule 20A funds cannot be comingled with Rule 20B or Rule 20C projects.

The costs for undergrounding projects performed under Rule 20A are recovered through electric rates after the project is completed. PG&E determines the 20A credits due from every city within PG&E's territory and evenly distributes all 20A credits across PG&E ratepayers as part of the rate

base. Each project's costs are spread out over 30 years to avoid drastically impacting the rate base. Since 20A credit repayments are part of PG&E's rate base, all cities and ratepayers pay for undergrounding regardless if undergrounding has occurred in the ratepayer's area.

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**How a community's annual Rule 20A allocation is presently calculated**  
**City & County of San Francisco - 2017 Allocation**

**Step 1:**

Total Systemwide Allocation	\$41,300,000 <b>A</b>
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**Step 2:**

Multiply amount in Step 1 by 50%	\$20,650,000 <b>50% of A</b>
(This 50% amount is prorated twice in Steps 3 & 4 below)	

**Step 3**

1st 50% proration: CCSF overhead meters to Systemwide overhead meters

# overhead meters CCSF:	<b>B</b>	228,262		
# overhead meters systemwide:	<b>C</b>	<u>2,908,842</u>	7.85%	\$1,620,442 <b>(50% of A) x (B / C)</b>

**Step 4**

2nd 50% proration: Total meters in CCSF to Total meters systemwide

# meters (both OH & UG) CCSF:	<b>D</b>	401,216		
# meters (both OH & UG) systemwide:	<b>E</b>	<u>5,471,463</u>	7.33%	\$1,514,240 <b>(50% of A) x (D / E)</b>

**Step 5:**

Other Adjustment plus/(minus)	-\$7
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**Step 6:**

Total 2017 Work Credit Allocation (sum of steps 3-5)	<u><u><b>\$3,134,676</b></u></u>
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*Figure 5: CCSF Rule 20A Allocation Calculation (see Appendix G)*

**1.3.3 Rule 20B**

Rule 20B projects are usually done with larger developments. The majority of the costs are paid for by the developer or applicant.

Funding for undergrounding projects under Rule 20B is available for circumstances where the area does not fit the Rule 20A criteria, but still involves both sides of the street for at least 600 feet. Under Rule 20B, the applicant is responsible for the installation of the conduit, substructures, and boxes. The applicant pays for the cost to complete installation of the underground electric system plus the Income Tax Component of Contribution (ITCC) tax, if applicable; however, the applicant receives a credit from the utility in the amount of an equivalent overhead system.

**1.3.4 Rule 20C**

Rule 20C projects are usually smaller projects involving a few property owners. The costs are almost entirely borne by the applicants.

Undergrounding projects under the provisions of Rule 20C is available where neither Rule 20A nor Rule 20B applies. Under Rule 20C, the applicant pays for the entire cost of the electric undergrounding, less a credit for salvage.

#### **1.4 City and County of San Francisco Utilities Undergrounding Program Rules**

In addition to the rules and regulations of CPUC UUP, CCSF Public Works Code Article 18 – Utility Facilities (see Appendix C), sections 911 through 944 articulate the citywide goal, and exceptions to underground existing overhead utilities.

Under the CCSF Public Works Code – Article 18, when a Legislated Underground District is formed, Service Utility Companies and property owners have respective responsibility and financial obligation to complete the conversion. The Service Utility Companies' responsibility is to underground all overhead lines including the service laterals to a building or structure. The property owners' responsibility is to perform necessary upgrades to their building or structure to be able to receive underground utility services. Once the conversion is completed, no new overhead utilities and poles will be allowed to be constructed in this district except for temporary use and those specified in section 914.

Section 936 specifies new buildings or structures in new construction need to be ready to receive underground utility services. Section 937 states that all utilities shall be undergrounded when built in new streets.

When planning other citywide public safety utilities, including street lighting, fire alarm and police communications facilities, section 939 through 943 specifies that such utilities need to be planned and installed with overhead utility conversions or new street projects.

In November 2004, the San Francisco Board of Supervisors (BOS) Resolution No. 706-04 created the Utility Undergrounding Task Force (UUTF). The UUTF was charged with providing input to the BOS on the future of utility undergrounding within San Francisco by studying and making recommendations on:

- Improved procedures for legislating underground utility districts
- Best practices for allocating available resources
- Finding alternate funding resources
- Options for reduction of utility undergrounding costs
- Coordinating utility undergrounding with other excavation projects
- Alternative tax options, such as the formation of special benefit districts

#### **1.5 City of San Francisco Utility Undergrounding Projects**

Like many cities, San Francisco is looking to develop a Masterplan in the future to implement the UUP economically, efficiently, and systematically. To best inform the development of the Masterplan, this Study formulated a Masterplan Framework by reviewing the results of past San Francisco undergrounding projects and reviewing City of San Diego, City of Palo Alto and City of Berkeley reports.

Undergrounding Projects studied include:

- 1996 to 2006 UU Effort: Joint Construction Project with PG&E Gas Pipeline Replacement Project Joint – Rule 20A Fund
- 2012 to Present: Joint Construction Project with CCSF 2nd Street Streetscape Improvement Project – Rule 20B Fund
- 2019 to Present: 2400 Block Broadway Project – Rule 20C Fund
- Utility Undergrounding of New Developments in San Francisco - Tariff Rule 15 & 16

### 1.5.1 1996 to 2006 UU Effort: Joint Construction Project with PG&E Gas Pipeline Replacement Project – Rule 20A Fund

With the BOS approval, SF initiated the Utility Undergrounding Program to begin the citywide effort of undergrounding existing overhead utilities. The first project was largely funded by Tariff Rule 20A.

In order to maximize the cost sharing opportunities in a joint construction project with PG&E, SF first identified and prioritized the overhead utilities to be undergrounded along PG&E's gas pipeline replacement route and per Public Works Code Article 18 guidelines.<sup>6</sup> SF then began the process of working with the community in identifying and establishing the Legislated Underground Utility Districts (LUUD).



*Funston Street Undergrounded during 1996 to 2006*



*Arguello Blvd Undergrounded during 1996 to 2006*

*LUUDs are based on where there are known or anticipated areas of support for property-owner supported utility undergrounding. Once the district is approved by the BOS (see appendix L), any future poles, overhead wires, and associated overhead structures will be prohibited to be installed within this district.*

The UUP initially identified 42 miles of overhead utilities to be undergrounded, and an additional 3.8 miles of major arterial roadways were later added to this project. The total undergrounding effort was 45.8 miles. Through further review, SF also identified the need to include street lighting as a part of the public safety utilities in the project.<sup>7</sup>

PG&E managed the design and construction and provided funding through Rule 20A for the overhead undergrounding work. Cost of the utility undergrounding portion of the project went from an estimated \$1M/mile to \$3.8M/mile for a total of \$173M.<sup>8</sup>

In 1995, the city had accumulated \$23.5M of Rule 20A credits and received an estimated \$4.3M a year of additional Rule 20A credits. Therefore, SF had to borrow against the next 14 years of future credit to pay the approximate total of \$173M. (Note: Rule 20A Allocation Credit amount was lowered to \$3.07M/year beginning 2011 which extended the repayment period, see section 1.6.1)

Without the supporting documents of the cost breakdowns to help identify why there were cost overruns, some of the issues identified by participating personnel were:

- PG&E designers lacked understanding of San Francisco's permitting process and underestimated San Francisco's density.
- Contracts led by PG&E are bound by in-house labor agreement and the costs are not competitive.
- The inclusion of streetlight construction lacked advanced planning, funding, and resources to complete and align their work with the undergrounding projects which caused cost overruns and delays to the overall project.

During this Study, a PG&E Rule 20A representative stated the following reasons were why undergrounding utilities in SF is more expensive than other cities in the Bay Area and an average cost/mile could not be provided for San Francisco:

1. In most cases, PG&E must have trenches on both sides of the street
2. City may allow customers to choose their own electrical contractors - difficulty of coordination delays conversions
3. High density of services/properties on each block
4. Open trench restrictions (only 150' of trench can be open)
5. Permits/fees/traffic control
6. Traffic control often requires police officers working on overtime
7. Work hour restrictions
8. Street restoration costs
9. Use of underground transformers and switches
10. Lane closure restrictions slow productivity
11. Spoils management: spoils need to be hauled away from the site until needed
12. Conduit, wire, and streetlight box must be installed for each City-owned streetlight location
13. High density of obstacles impacts work progress
14. High density of existing underground utilities
15. Major overhead electric feeders within the underground districts
16. Trenching under major Muni Tracks
17. City does not allow any materials to be stored on the streets of the projects

### 1.5.2 2012 to Present: Joint Construction Project with CCSF 2<sup>nd</sup> Street Streetscape Improvement Project – Rule 20B Fund

The 2<sup>nd</sup> Street Streetscape Improvement Project began in 2012 and is currently under construction. The project includes eight major blocks of widened sidewalks, separated one-way cycle tracks, dedicated transit boarding islands, landscaping, curb ramp improvements, traffic signal and pedestrian lighting upgrades, sewer, water, and Auxiliary Water Supply System



*2<sup>nd</sup> Street Project Construction*

(AWSS) utility replacement, and full roadway reconstruction. Two of the eight blocks had existing overhead utilities. Public Works sought the joint construction opportunity to underground the

remaining two blocks and fund the entire \$30M project, including \$8.65M needed for the undergrounding effort.



2<sup>nd</sup> Street Project Construction

Per PG&E recommendation, Public Works created a Legislated Underground District as the developer/owner for the purpose of removing existing poles, placing overhead wires underground, and **prohibiting** future overhead utilities to be placed within the District. Since there were only 5 property owners for the two blocks to be undergrounded, Public Works was able to easily get a unanimous vote to move forward with undergrounding.

From PG&E's project cost breakdown, 70% of the cost to underground the PG&E system, was for trenching, conduits, and substructures.

Under this project, CCSF entered into contract directly with PG&E only as the owner of the joint trench (JT). Each utility completed their own utility undergrounding design. PG&E did the electric design, AT&T and Comcast did the telecommunication design. PG&E incorporated the individual designs into a composite JT drawing as the JT lead. CCSF took the lead

for JT construction. This JT design and construction became part of the Streetscape Improvement project. Since CCSF is the Applicant/Developer and is funding the project, no Form B (JT Cost sharing Agreement) needed to be prepared and negotiated. CCSF reimbursed PG&E for the cost of design and installation to pull their lines and remove the JT poles. AT&T and Comcast were contractually obligated directly to PG&E to reconnect to the new JT and responsible for covering their own design and installation fees. It was also agreed upon by all parties that any merited changes required by PG&E, in the field during construction, would be covered by CCSF. However, any and all changes requested by AT&T or Comcast are covered at their own expense and not covered by the CCSF & PG&E contract.

Property owners are responsible for ensuring their building equipment is up to code to receive the underground utility services. They are also responsible for paying the cost of the lateral service connection from the PG&E service point to building main electrical panel, estimated at \$3,000-\$6,000/each.

2<sup>nd</sup> Street is considered a major utility corridor with extremely dense underground utilities. The project's cost of the JT work was approximately \$5M to the contractor and \$2.5M to PG&E for

LOCATION: 2ND ST., SAN FRANCISCO, 94107

DESCRIPTION OF WORK: Rule 20B - Underground existing overhead electric facilities

Engineering & Administrative Costs		\$607,511.58
Value of Applicant Design Work	(+)	\$0.00
Cost of Additional Applicant Design Plan Checks	(+)	\$0.00
Value of 20B Underground System	(+)	\$2,508,064.13
Tie-In of 20B by PG&E	(+)	\$180,680.31
PG&E Land Rights Costs	(+)	\$4,082.19
Inspection Fees	(+)	\$46,370.31
Value of 20B Trench & Excavation	(+)	\$5,959,106.95
Value of 20B Conduits & Substructures	(+)	\$203,912.79
Rule 20B Trench Permits Obtained by PG&E	(+)	\$1,795.50
less Cost of Equivalent Overhead System	(-)	\$861,140.68
<b>SUB TOTAL</b>	<b>(=)</b>	<b>\$8,650,383.10</b>
plus ITCC @ 0%	(+)	\$0.00
less 20B Underground System Installed by Applicant	(-)	\$146.68
less 20B Trench & Excavation Provided by Applicant	(-)	\$5,956,909.83
less 20B Conduits & Substructures Installed by Applicant	(-)	\$203,912.79
less Value of Applicant Design Work	(-)	\$0.00
<b>Electric Rule 20B Cash Payment</b>	<b>(=)</b>	<b>\$2,489,413.79</b>

*PG&E Agreement to Perform Tariff Schedule Related Work - 2<sup>nd</sup> Street*

support. The \$5M was a change order to the original CCSF Second Street Streetscape Improvements project. Costs may have been higher due to the change order and the cost being negotiated with the contractor instead of competitively bid. The final cost resulted at \$8.65M for the 2-blocks of 1,950 LF (equating to \$23.4M/mile).

The 2<sup>nd</sup> Street project unit cost is extremely high and above average compared to other locations in San Francisco. It is important to understand the cause of this high unit cost for the undergrounding effort in the remaining downtown areas. Since most of the overhead utility in the downtown area have already been undergrounded, remaining undergrounding projects with this potential high unit cost is unknown and may be limited.

### 1.5.3 2019 to Present: 2400 Block Broadway Project – Rule 20C Fund

This project is currently in the planning and funding stage. The project is proposing to underground roughly 500 linear feet (LF) of overhead utilities along the 2400 Block of Broadway, from Pierce Street to Steiner Street. The project is planned to be funded through Rule 20C, where all associated project costs from planning to construction is borne by the applicant. The project lead, one of the private owners, obtained an agreement from 14 of the 21 property owners to move forward with the Project. The minimum required approval from owners, for Rule 20C projects, is 60%.



*2400 Block Broadway existing condition*

To estimate the project cost, the project lead has been trying to obtain proposals from private firms and contractors but has had difficulty obtaining any solid quote. Currently, the lead has only received verbal or emailed cost estimates. The construction quotes to underground roughly 500 LF of the existing overhead utilities received ranges from \$1 Million Per block (roughly \$10.5 M/mile); \$1,600-2,000 per LF to \$2,000 / LF (\$8.4 to \$10.5 M/mile) at intersections, with an added 50% contingency.

An engineering firm provided an estimate for managing the project for an additional \$60K, however the lead found another firm willing to manage the process for only \$15K.

By using costs from the 2<sup>nd</sup> Street Project, it was estimated that the cost of the lateral service connection from the PG&E service point to building main electrical panel was estimated at \$3,000-\$6,000/each but the lead received cost estimates closer to about \$50,000 per home. An additional obstacle for budgeting the project is due to PG&E requiring a \$10,000 payment prior to providing any cost estimates.

The property owners do not currently have all the necessary upfront funding. They suggested that CCSF front the undergrounding cost and establish a repayment tax over a certain period for the property owners to repay to the City. For CCSF to accommodate this it would impact legislation, policy decisions, and other city funding sources. This is not feasible for the City to manage funding of an undergrounding effort block by block.

The following are some of our evaluations and suggestions for this project:

- This project has demonstrated some of the frustrations and inefficiencies of the Rule 20C property-owner funded process but the effort some owners are willing to put in to resolve the overhead utility issues.

- It is our assumption that the reasons the project lead has not been successful in obtaining bids from contractors may be due to the following:
  - The project scale is small scale with a high risk of unknown working with PG&E
  - There is no PG&E design yet to confirm cost
  - Funding is not in place yet
- From a masterplan point of view:
  - A city-wide underground funding source should be identified instead of block by block funding.
  - Designated Project Manager who is experienced with utility undergrounding projects should be assigned to avoid cost overrun and schedule delay.

#### 1.5.4 Utility Undergrounding of New Developments in San Francisco - Tariff Rule 15 & 16

##### **Mission Bay Development**

In the late 1990s, a master plan to revive and convert over 300 acres of shipyards and industrial warehouses into a planned community was produced by the City called the Mission Bay Project. It was the largest urban development initiated by SF since the construction of Golden Gate Park in the late 1800s. With the new development, approximately 5 miles of OH utilities were converted to an underground system.

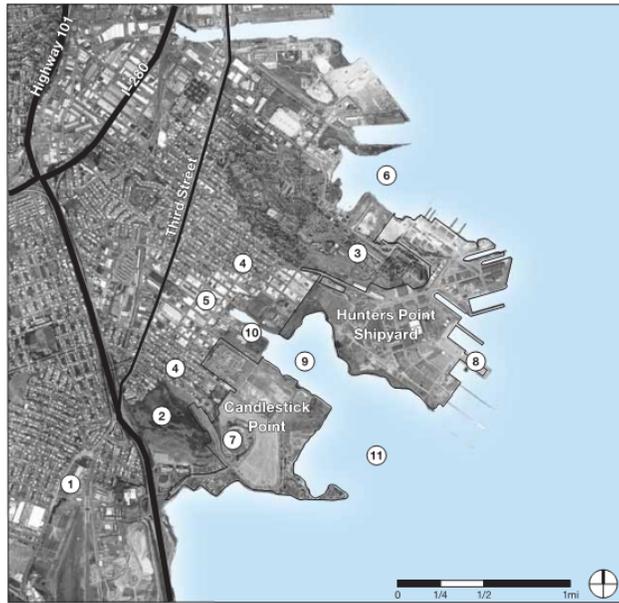


*Mission Bay Development*

##### **Development Hunter's Point Shipyard 2 and Candlestick Point Developments**

The Hunter's Point Shipyard 2 and Candlestick Point areas, along the Bayview waterfront, total 702 acres of land in the southeast portion of SF. These developments will be converting the existing Naval Shipyard, piers, and dry-docks, CP State Recreation Area, NFL stadium, and Alice Griffith public housing development into planned commercial, residential and recreational areas. Currently, these developments have undergrounded the following overhead utilities.

- Approximately 1.5 miles in Hunter's Point Hilltop Development
- Approximately 1 mile in Hunter's view Development
- Approximately 0.5 miles in Candlestick Park Alice Griffith Development



Hunters Point Shipyard and Candlestick Point

**Legend**

- ① Bayshore Caltrain Station
- ② Bayview Hill Park
- ③ Hunters Point Shipyard Phase I – Hilltop and Hillside
- ④ Bayview Neighborhood
- ⑤ Bayview Industrial Lands
- ⑥ India Basin
- ⑦ Candlestick Park Stadium
- ⑧ Re-gunning Crane
- ⑨ South Basin
- ⑩ Yosemite Slough Watershed
- ⑪ San Francisco Bay



Views of streets with undergrounded utilities in New Development areas

The following are some of our comments and suggestions from studying these New Development projects.

- Under Tariff Rule 15 and 16, no overhead utilities are allowed within new development areas, except for SFMTA MUNI overhead lines and wireless devices. Therefore, new developments in the City provide a great opportunity to have many of the existing overhead utilities be converted to underground system in new development areas.
- Community leaders have stated that while the area within the new development will be undergrounded, many neighborhoods adjacent to the new developments, where the utility distribution route runs, will experience the additional burden of increased overhead utilities in front of their properties.
- Developers are required to pay the upfront cost in infrastructure utility design and construction within their development. The developer will recover their upfront payment under a Mello Roos District Tax.
- **Suggestion is to extend the Tariff Rule 15 and 16 Undergrounding District to include the adjacent neighborhoods along the route where new overhead utilities will be installed to service the new development.**

## 1.6 San Francisco Overhead Utilities Underground Program Funding

Currently, the only funding mechanism for the UUP is CPUC Rule 20 (see Appendix B for Rule 20A, B and C). Only Rule 20A has a specific credit set aside for the UUP. Rule 20B and 20C are mechanisms set up but with no available funding identified. Below Rule 20A, 20B, 20C funding are discussed.

### 1.6.1 Rule 20A Funding (See Section 1.3.2 and Appendix B)

PG&E Rule 20A fund was set up as credit and paid for by **all PG&E ratepayers** for utility undergrounding within areas of a community that are used most by the general public. As a result, under rule 20A, only a small portion of San Francisco's existing overhead utilities have been undergrounded.

As of 2019, SF Rule 20A Allocation Balance is -\$42,698,891. With the current \$3.07M/year allocation, SF has borrowed against the next 14 years of future Rule 20A credit for the 1996 Undergrounding effort of only 45.8 miles.

In 2017, CPUC issued Rulemaking 17-05-010 - "Order Instituting Rulemaking to Consider Revisions To Electric Rule 20 and Related Matters" (see Appendix E) which has raised many issues related to Rule 20, including those mentioned above. The Order stated that the Commission's Executive Director shall ensure the notice of the Order Instituting Rulemaking is provided to communities and counties in the service areas of the respondents (California investor owned electric Utilities Agencies). Since revisions (if approved) can directly impact the UU effort, it is important for San Francisco to continue monitoring and requesting to participate in the revision discussion and rulemaking. A draft ruling was issued by CPUC in February 2020 for all participating parties to review, including CCSF Deputy City Attorney, William Sanders.

In January 2019, PG&E announced it was filing for bankruptcy. With the PG&E bankruptcy, there may be an opportunity for municipalities in California to purchase PG&E and provide power and undergrounding funding to their own respective cities at their own rates.

### 1.6.2 Rule 20B Funding (See Section 1.3.3 and Appendix B)

Currently, there is no set aside or available Rule 20B funding identified. These funds are set up by **private developers and utility ratepayers** with a "Legislated Underground District" for the use of converting the existing overhead utilities to the underground system and prohibit future overhead utilities being installed in their District.

### 1.6.3 Rule 20C Funding (See Section 1.3.4 and Appendix B)

Currently, there is no set aside or available Rule 20C funding identified. These funds are set up by **private property owners** within a "Legislated Underground District" for use of converting the existing overhead utilities to the underground system and prohibit future overhead utilities being installed in their District.

## 1.7 Other Municipalities Overhead Utilities Underground Program and Study

CCSF has also gathered and reviewed similar reports describing projects performed, and programs implemented by other municipalities including City of San Diego, City of Palo Alto and City of Berkeley. A range of \$2.8M - \$5.9M per mile was found by examining undergrounding project costs in the city of San Diego and some Bay Area cities from the recent past.

### 1.7.1 City of San Diego – Utilities Undergrounding Program (UUP) Master Plan (Dec 2017)

City of San Diego (CSD) UUP began in 1970. Their plan is to underground the remaining 1,000 miles of overhead utilities in the next 54 years with an annual estimated cost of \$54M.<sup>9</sup> Funds are generated and set aside for the specific purpose of utility undergrounding. To ensure a systematic approach and successful implementation of the UUP, CSD created a Masterplan to define process and capture lessons learned. SDGE received the highest overall score from CPUC (see Section 1.2) and fully used up the 2015 \$26M allocation Rule 20A credit on implemented projects.

Some of the CSD past successes in the UUP include:

- Assigning a dedicated Program Manager in charge of the UUP to oversee the process and progress to ensure the successful implementation of the UUP.
- A Set Aside Utility Undergrounding Funding:
  - Additional Assessment Property Tax was created to generate property owners' funding (Rule 20B and 20C) controlled by CSD for their overhead undergrounding effort.
  - SDGE created Rule 20D that generated additional overhead undergrounding funding specifically for wildfire danger.
  - *Jim Nabong, a city program manager in charge of undergrounding, said the city can only go as fast as the funding allows. But the city admits that in recent years it actually hasn't used all the money that's come in from the surcharge. It's done about eight miles of undergrounding work each year using surcharge money, though it should have been able to pay for about 12 miles a year. At the end of the last budget year, there was \$183 million sitting in a surcharge fund."*

### 1.7.2 City of Berkeley – Conceptual Study for Underground Utility Wires in Berkeley (2018)

City of Berkeley (CB) formed an Underground Subcommittee under the Public Works Department in 2015. In 2018, the Subcommittee prepared an extensive Conceptual Study identifying the advantage of undergrounding overhead utilities, outlining projected costs, and recommending streets to underground. This effort is followed by developing a financing plan for the City to fund the projects.<sup>10</sup>

From the report, the following has been identified:

- **Advantages of undergrounding overhead utilities:**
  - Safety – Preventing the risk of poles and wires falling and causing property damage, fire, and personal injury.
  - System Reliability - Utilities are better protected from storms, wind, and earthquakes when they are undergrounded thus resulting in lower maintenance costs. Wi-fi, internet, landline, and mobile telephony services cannot be re-established until electric power is restored. Having downed power lines will impact the establishment of tele-communications during an emergency.
  - Aesthetics and Reduced Public Right-of-Way Inconvenience
    - Removal of unsightly poles and wires will result in fewer utility poles on sidewalks. This will improve pedestrian mobility and visibility thereby reducing pedestrian accidents.
- Priority for undergrounding along designated evacuation routes. This safety consideration is not only to service the emergency responders, but to allow citizens to evacuate the areas of danger.
- The rough cost estimate to underground the remaining 37.9 miles of City of Berkeley's overhead utilities ranges from \$170-\$200M (\$4.5-5.3M/mile).
- A dedicated staff overseeing the UUP effort was recommended.
- CB requested to participate in the CPUC Order Instituting Rule Making regarding Overhead Utility Undergrounding Credit Allocation (see Section 1.6.1).
- Recommendations from the CB study included moving forward with identifying major arterial and collector streets to underground, develop a financing plan, develop a community outreach and communication plan, and prepare a project implementation plan.

### **1.7.3 City of Palo Alto – Report on Current Status and Future Alternatives to consider for the Continuing the Electric Overhead to Undergrounding Conversion Program (2010)**

City of Palo Alto (CPA) began undergrounding their overhead utilities in 1965. CPA owns and operates its own electric power system and has set aside 2% of the city's electric revenue for the UUP effort. AT&T and Comcast have provided CPA with UUP funding under CPUC Rule 32.1. Rule 32 is for telecommunication overhead conversions to underground facilities. Rule 32 is similar to Rule 20 except it applies only to telecommunication utilities. Rule 32.1, a subset of Rule 32, deals with undergrounding facilities in areas affected by the general public interest similar to Rule 20A (see appendix K). Together with CPA Electric and Rule 32.1 funding, CPA has successfully undergrounded 45% of the City's overhead utilities mainly within commercial areas where they fall under the General Public Benefit Project definition.

Most of the remaining overhead utilities are in residential areas. The cost to underground the remaining City of Palo Alto overhead utilities is estimated at \$280M. Without ATT and Comcast contribution in areas that do not qualify for Rule 32.1 funding and with current 2% electric revenue funding alone, it is projected to take 70 years to complete the City of Palo Alto's UUP program.<sup>11</sup> Similar to San Francisco, since 1965, all new developments in Palo Alto require to have underground facilities. Based on CPA's report, undergrounding existing overhead facilities has the following potential list of Advantages and Disadvantages:

**Advantages:**

1. Improved aesthetics
2. Lower Tree trimming cost
3. Lower storm drainage and restoration cost
4. Fewer Motor Vehicle accidents
5. Increased safety and reduced potential for live wire contact during storm and earthquakes
6. Fewer momentary interruptions
7. Improved utility relations regarding tree trimming
8. Fewer structures impacting sidewalks

**Disadvantages:**

1. Reduced electrical equipment life expectancy (an underground electric system has a design life of 30 to 40 years. The City will need to rebuild one district each year at an annual cost of \$500,000 to \$1,000,000 million to maintain an appropriate replacement cycle.)
2. Higher maintenance and operating costs
3. Longer outage duration and more customers impacted per outage
4. Stranded asset costs for existing overhead facilities
5. Increased utility employee work hazards during vault and manhole inspection
6. Increased exposure to dig-ins
7. Susceptibility to flooding and damage during post-flooding clean-up
8. Reduced flexibility for both operations and system expansions
9. Higher costs for providing telecommunication services

**Financing Options explored by City of Palo Alto include:**

1. Set Aside UUP funds by the following avenues:
  - Set Aside a percentage of utility revenues
  - Direct Customer Funding
  - Special Tax Assessments
  - Bond Financing

However, with each of the above avenues, there are issues for the city to address:

  - If direct customer funding is used, only the wealthy would be able to afford undergrounding
  - If undergrounding is done through a tax, some people may be paying for underground projects that will not get to their neighborhoods for a decade or more, or after they have moved.
2. Policy Options for the UUP Program:
  - Obtain CPUC Rule Change that requires full cost recovery by AT&T and Comcast, and appropriate reimbursement by the City for AT&T's and Comcast's substructure costs. Out of the \$282 million, this would reduce the city's cost to \$141 million but the property owners would still owe \$70.5 million. The remaining cost would be covered by AT&T and Comcast. Obtaining a CPUC rule change is a complex process that could take years for the city to obtain any results or changes.
  - Continue the Undergrounding Program as long as AT&T's participation is available. The City will continue to look for non-residential areas that qualify under Rule 32.1 until all areas have been exhausted.
  - Initiate a new Underground Program where AT&T's costs are funded by the City or the property owners.
    - Customers benefiting from the AT&T improvements pay the cost through direct payment

- Customers benefiting from the AT&T improvements pay the cost through a ten-year special property assessment
- City funds the cost through a surcharge on the electric bill
- City funds the cost of AT&T improvement through assessment districts that require each district to vote.

## 1.8 Community Outreach

From this Study, it was determined undergrounding overhead utilities is important to each city studied. To determine where the residents of SF stood on this issue, a Community Outreach meeting was held at Koret Auditorium on September 18<sup>th</sup>, 2019. An audience of approximately 40 attendees representing various constituent groups, including the San Francisco Coalition to Underground Utilities (SFCUU), Board of Supervisor Legislative Aide, and other members of the community attended the meeting.

At the meeting, a presentation (see Appendix H) addressing the current UUP status and funding issues was shared. There was overwhelming support for undergrounding utilities, but the residents had concerns about available funding options for future undergrounding projects and how an undergrounding program could be implemented.

The meeting was followed up with an on-line survey for the attendees and the San Francisco community to complete. The survey results (see Appendix I) are intended to provide a sample of the community's support towards the UUP and potential funding options. Below are the overall findings from the 250 respondents of the survey:

- 63% were from District 2 (Cow Hollow, Marina, Pacific Heights) with the second largest group, 18%, being from District 1 (Richmond)
- 90% owned their residence, and 95% of those who owned currently live in their residence
- 50% of the respondent's main concern for undergrounding overhead wires was **Safety**
- 90% would accept a light congestion of overhead wires
- More than 30% were willing to pay more than \$10 each month to underground utilities throughout all of San Francisco
- 88% would approve a bond to pay for undergrounding utilities in San Francisco

From the on-line survey following the Community Outreach meeting, it appears that a majority of the survey participants are willing to pay for a funding mechanism to be established that dedicates UUP funds.

## 1.9 Findings and Lessons Learned

Many common issues and lessons learned from municipalities who try to implement a comprehensive UUP are identified below for this Study.

### 1.9.1 Importance for Undergrounding

- **Safety** – Preventing risk of overhead poles and wires falling cause property damage, fires, and personal injury. Especially during a major disaster such as a major earthquake or storm event. The priority should be along the emergency evacuation routes.
- **System Reliability** – Utilities are better protected from storms, wind, and earthquakes when undergrounded thus resulting in lower maintenance costs. Wi-fi, internet, landlines, and mobile telephony services cannot be re-established until electric power is restored. Having downed power lines will impact the establishment of telecommunication during an emergency.

With high wind and wildfire danger, the Bay Area has recently experienced large-scale PG&E blackouts. It takes PG&E much longer to check and confirm the system safety before power can be turned back on. The priority should be for the city emergency system and key economic zones.

- **Aesthetics and Reduced Public Right-of-Way Inconvenience -**  
Removal of unsightly poles and wires improve the aesthetics of the neighborhood. Fewer utility poles on sidewalks improve pedestrian mobility and visibility thereby reducing pedestrian accidents.

### 1.9.2 Importance of a Streamline Process

In general, the following elements for project efficiency were identified:

- Larger scale projects are much more cost effective than smaller scale projects. Also, program-wide projects with pre-approved designers and contractors can be more efficient than individual bid projects.
- Clearly track joint project opportunities
- A streamlined permitting process would provide clear direction on how to underground overhead utilities and shorten the project timeline. This permitting process will require collaboration from both public and private agencies.
- Clearly define stakeholders, and their roles and responsibilities

### 1.9.3 Importance of a Masterplan

The Masterplan is a tool that will map out a plan of how to accomplish the utility undergrounding effort.

In general, the following elements need to be included in a Masterplan:

- Identify and secure UUP Funding
- Collaborate with all stakeholders to define a process to identify priority projects
- Have a dedicated Program Manager to properly **Plan, Execute and Monitor** the UUP Program. This will require the Program Manager to define the scope, schedule, and cost of the overall UUP program.
- Have experienced Project Managers to successfully manage each underground project. This will require the Project manager to implement the scope, manage the schedule and budget of an individual undergrounding project.

## 2. Next Steps

This Study is reviewing a way to fully underground all overhead utilities in SF within 50 years or less. This goal cannot be achieved without identified funding sources, effective management to oversee the undergrounding program, and a comprehensive master plan established.

Rule 20A and Rule 32.1 funding have successfully assisted in implementing the initial UUP within areas that bring maximum public benefit to those communities who participated in the Program.

As Rule 20A funding is not available, alternate funding will dictate what areas can be further undergrounded. The problem with Rule 20B and Rule 20C funding is that it relies on residents or the community to partially or fully fund the undergrounding project.

Once funding has been established and prior to any planning or work done in the UUP, establishing, and assigning a knowledgeable Program Manager will ensure that the overall UUP is managed properly and will help to reduce inefficiencies.

The Program Manager will use a Master Plan to implement the undergrounding program. The Master Plan will provide guidelines and procedures for the entire UUP related to funding, prioritization, implementation, and management from Planning all the way through Construction.

The following are the three main components needed to initiate and continue the UUP in San Francisco.

- Establish Funding Sources
- Designate Underground Utility Managers
- Masterplan

### 2.1 Establish Funding Sources

Without any established funding sources, the UUP or the future Masterplan can not begin or move forward. The following sections are discussions of some of the possible SF UUP Funding sources.

#### 2.1.1 Utility User Tax

In 1992, a Utility User Tax (UUT), collected from **SF utility ratepayers**, was implemented to provide additional money to the local General Fund since the State was making budget cuts to Cities due to deficits in the state budget. The UUT in SF is currently set at a 7.5% tax assessment on **residential cellular telephone usage as well as on non-residential electric, gas, telecommunication, and water usage**. This has generated roughly \$101M in FY 2016-17 and funds approximately 2-3% of the General Fund.

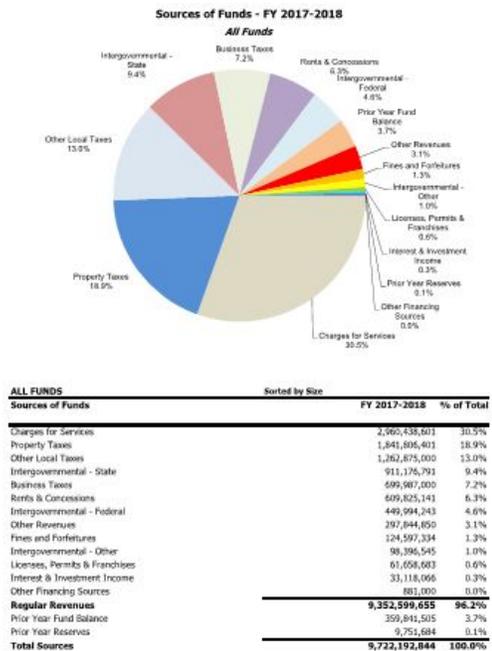


Figure 6: CCSF Sources of Funds FY 2017-2018

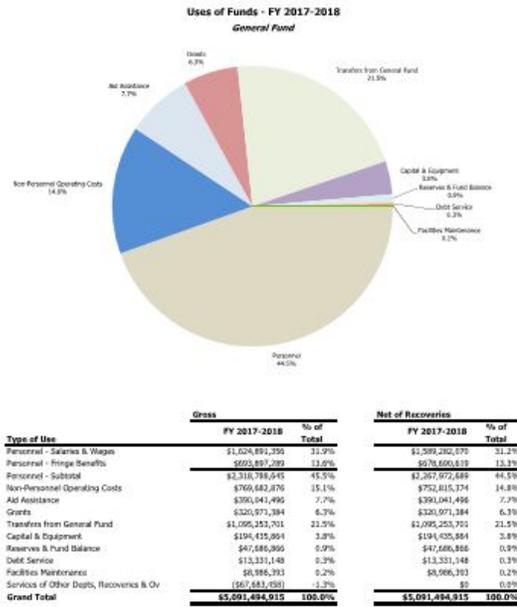


Figure 7: CCSF General Fund Uses FY 2017-2018

Since the General Fund provides funding for various city departments, if the UUT portion of the General Fund is used to fund the SF UUP, other General Fund allocations will need to be balanced out.

If additional funds for utility undergrounding is generated through the UUT as a special tax, **the fund would need to be placed into a specific escrow account to only be used for the undergrounding of overhead utilities.** This would require two-thirds voter approval of registered voters.

### 2.1.2 PG&E Franchise Fee

Since 1939, the SF Franchise fee Agreement has been in place between PG&E and the City. It is an agreed upon fee PG&E pays to the City for the right to use and install their system in the street and the air space within the public right-of-way. The franchise fee is 0.5% of PG&E's electrical revenue from SF PG&E ratepayers with no renegotiation allowed. For the year 2017, PG&E's approximate payment for the franchise fee was \$3.91M (\$782.7M x 0.5% = \$3.91M) and for the year 2018 was \$3.5M (\$703.4M x 0.5% = \$3.5M). In addition, PG&E bills and collects electricity franchise fees, as a surcharge, based on a formula specified in state law from its customers who purchase electricity from a third party.

**It is recommended to explore whether a portion of the PG&E Franchise Fee can be assigned to the UUP funding.**

### 2.1.3 Utility User Surcharge

A Utility User Surcharge is a way the City of San Diego was able to generate an additional \$40M of undergrounding funding. In 2001, the City of San Diego was able to successfully renegotiate their franchise agreement with San Diego Gas and Electric (SDG&E) to include an undergrounding surcharge as part of the franchise fee for the sole purpose of undergrounding utilities. It is our understanding that if this surcharge is collected as part of the PG&E Franchise fee, it may not be constituted as a tax under the provisions of Proposition 218, and no voter approval will be necessary. The process will trigger a re-negotiation of the Franchise Fee Agreement with PG&E, which may be possible now due to the recent PG&E bankruptcy. This process needs further follow up to understand any other implications to re-opening the Franchise Agreement. If the Utility User Surcharge is determined to be a special tax, similar to the Utility User Tax identified in section 2.1.1, then a two-thirds voter approval will be needed and the Surcharge will not be able pass through the PG&E Franchise agreement.

From our recent SF community outreach survey, almost 70% of the community is willing to pay an additional "set aside" residential utility user surcharge to properly fund the UUP.

### 2.1.4 Parcel Tax

If approved by a two-thirds majority of registered voters, a parcel tax, paid for by the **SF property owners**, could be created that would go into a specific escrow account dedicated for use by the

UUP. A parcel tax is a form of a property tax that is based on the parcel, rather than on the value of the property itself. Depending on the annual parcel tax value determined, it could generate significant funds for undergrounding that could be used in conjunction with other funding sources or cost-saving opportunities.

### 2.1.5 Real Property Transfer Tax

San Francisco currently collects a tax, from **SF property owners (with transfer)**, on non-exempt transfers of real property located in the City. The rate for the property transfer tax is determined by the value of the transfer and adjusted accordingly. An increase in the Transfer Tax would require a two-thirds majority of registered voters as the money raised from this tax would be considered a Special Tax dedicated to the UUP.

### 2.1.6 General Obligation Bonds

General Obligation Bonds (G.O. Bond) are municipal bonds collected from **all SF Property Owners** that are used to fund City public work projects and resources, and is secured by the City’s pledge to use legally available resources, including tax revenues, to repay bond holders. Over the next 10 years, San Francisco’s Capital Plan anticipates approximately \$2.7 billion in General Obligation Bonds (see Appendix N). General obligation bonds are repaid directly by a portion of the City’s property tax revenue and is held at the City Treasurer’s Office.

Figure 8, “shows the impact on the local tax rate of issued, expected, and planned G.O. Bond debt. The red line shows the property tax limit policy established in 2006 that sets the annual level of bond debt repayment. The space between the red line and the bars on the chart illustrates the projected capacity for bond debt for each year. This capacity is largely driven by changes in assessed value and associated property tax revenues within the City”. (Capital Plan FY2020-29)

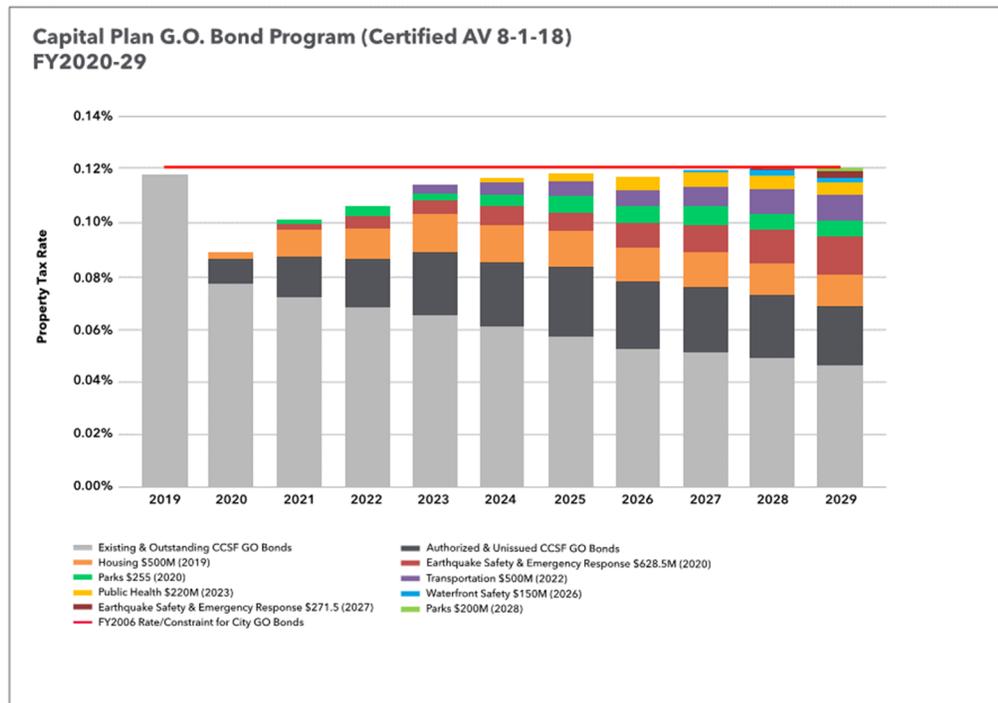


Figure 8: Capital Plan G.O. Program FY2020-29 (see Appendix N)

To create a G.O. Bond in San Francisco that could be dedicated to the undergrounding of overhead utilities, it must be approved by two thirds vote of the electorate. The Bond would need to be approved by the Mayor, Capital Planning Committee, and the Board of Supervisors prior to being placed on the ballot for voter approval. Once a bond is approved, it has 3 years from each issuance to use the bond money. Each issuance is a fraction of the approved amount. Therefore, for a large-

scale program such as undergrounding overhead utilities, the City would need to divide the program into smaller areas.

Below are the funding principles the Mayor, San Francisco Capital Planning Committee, and BOS use to determine which G.O. Bonds are passed to get on the ballot for voter approval and how they are prioritized once they are passed by voters.

1. Address Legal or Regulatory Mandate
2. Protects Life Safety and Enhances Resilience
3. Ensures Asset Preservation and Sustainability
4. Serves Programmatic or Planned Needs
5. Promotes Economic Development

The UUP program has not been registered as a priority in the G.O. Bond Program in the most recently approved Capital Plan, approved unanimously by the Board on April 30, 2019. The next opportunity to get a G.O. Bond on the ballot for voter approval will not be until 2021. Due to the restriction by the City's policy that G.O. Bonds will not increase voters' long-term property tax rates above FY 2006 levels, the creation of new G.O. Bonds will only be used as a funding source when existing approved and issued debt is retired, the property tax base grows, or it is determined by the Capital Planning Committee as a priority which would then reduce funding from other bonds in the program. Therefore, a G.O. Bond for Undergrounding Utilities will need to assess its risk, prove it fits into one of the above funding principles and needs to be compared to other G.O. Bond programs.

Due to the above complexity of G.O. Bond approval and issuances, and since undergrounding utilities is such a large-scale program, **G.O. Bonds are not recommended as a funding source for the UUP program.**

## 2.2 Designate Underground Utility Managers

To have a successful UUP, designated Underground Utility Managers need to be identified. These positions include a Program Manager and Project Manager(s).

A **Program Manager** shall manage the Citywide UUP. The Program Manager's responsibilities are to oversee and execute the overall Planning and Management of the following:

- Funding Source
- Underground Utility Policies
- Masterplan

This Program Manager should have the following knowledge and capabilities, but not limited to:

- Understanding the current and potential funding options for the UUP.
- Collaborating and managing the stakeholder engagement process
- Provide oversight of the Project Managers to monitor and execute the Masterplan.

This position can be fulfilled by a person from an existing public department, a newly created third party entity, similar to the UUTF, or from a private firm. The Program Manager must have the authority to oversee and obtain agencies' collaboration to successfully plan and execute the UUP.

**Project Managers** shall manage and execute undergrounding projects identified through the Masterplan process. The Project Manager shall manage and track the status of the following:

- Design/Permitting/Construction
- Project cost and schedule

Project Manager shall report the above data to the Program Manager. The Program Manager will use this information to update the Masterplan.

The Project Manager(s) should have the following knowledge and capabilities, but not limited to:

- Design/Permitting/Construction Process
- Collaborating with stakeholders
- Managing resources
- Maintaining budget and schedule
- Performing Quality Assurance/Quality Control (QA/QC)
- Monitor Contracts and Unforeseen Conditions

### **2.3 Masterplan**

The Masterplan will provide guidelines/procedures and overall management tool for the Program Manager and Project Managers to track progress of the UUP.

- The Masterplan will keep an updated database for planning purposes.
- Identification of prioritization
- Match funding opportunities with specific project
- Provide cost data to continue improved project cost effectiveness
- Set standard design/construction/permitting procedures

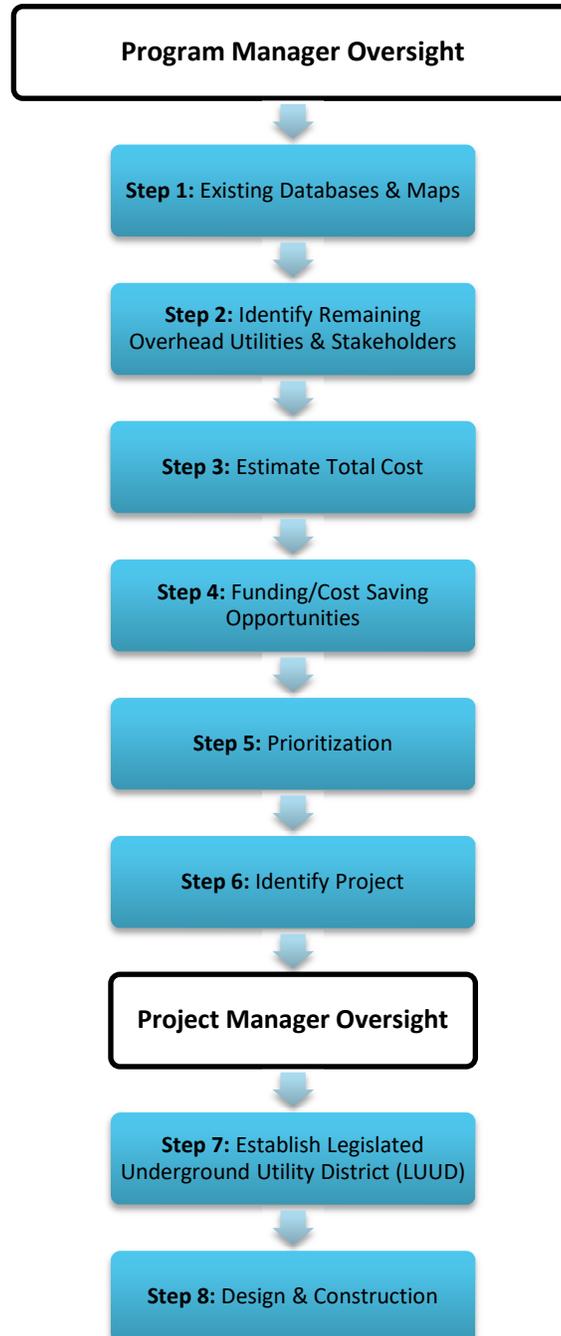
Without this Masterplan, the Program Manager and the Project Managers will not have the proper tool to successfully deliver the UUP. More importantly, without proper funding sources in place, the Masterplan will not be effective.

The following section provides a framework for the future Masterplan.

### 3. Master Workplan Study Framework

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Telamon Engineering Consultants Inc. (TECI) has identified the following steps for the Masterplan as shown in the flowchart below. Further description of each step will be provided in the subsequent sections of this Study.



### 3.1 Step 1: Existing Database & Maps

Currently all public and private agencies maintain their systems in a Citywide database. Each database should be updated with the latest information at all times by the agencies.

The Masterplan will create composite maps (Figure A) from the Geographic Information System (GIS) layers of the databases. These composite maps will be the tool for the Program Manager to make decisions, prioritize projects, and manage the subsequent steps 2-8.

Some of the useful GIS information include, but not limited to, the following:

- Figure B - Utility System Map (Underground vs Overhead)
- Figure C - Utility Poles
- Figure D - Population Density
- Figure E - Current/Planned Construction Projects
- Figure F - New Developments (or Planned Subdivisions)
- Boundaries of Legislative Underground Utility Districts (LUUD)
- Figure G - Emergency Response Routes
- Figure H - Wireless Devices

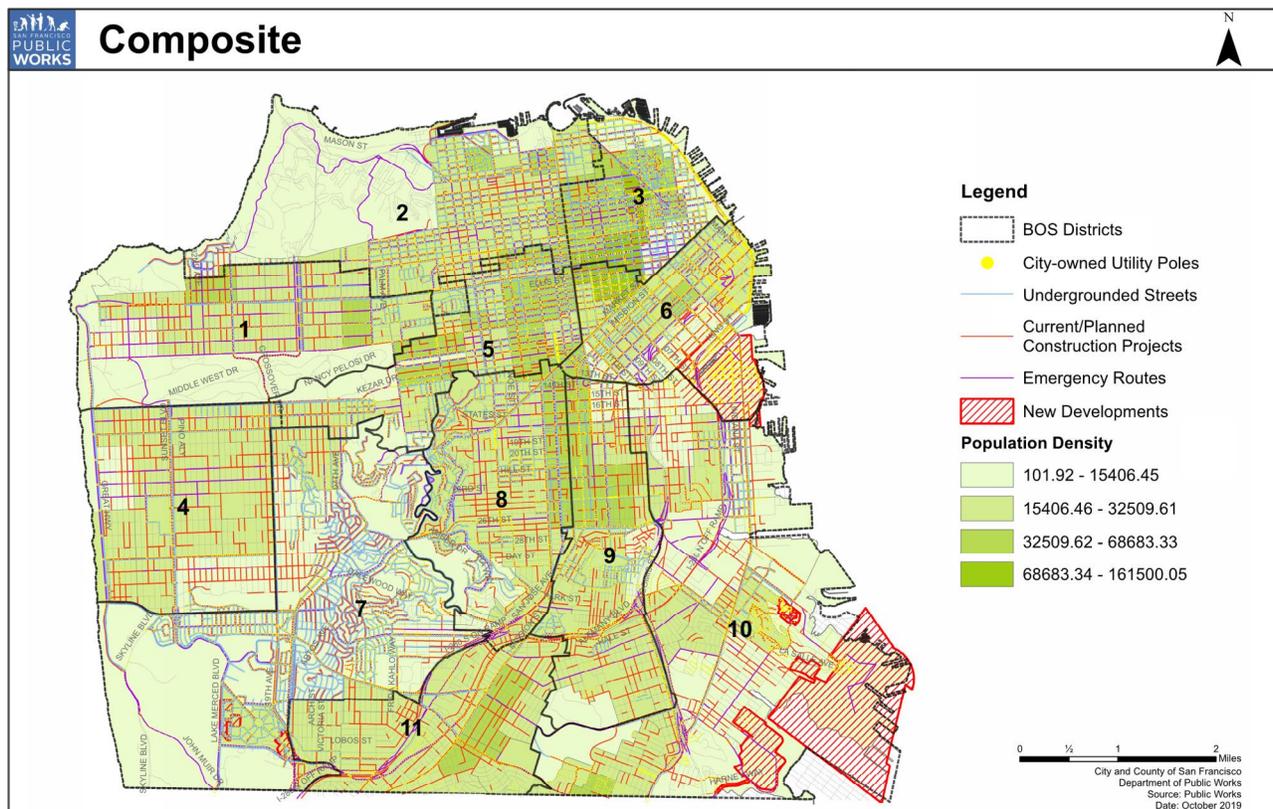


Figure A: Composite San Francisco GIS

1. UTILITY SYSTEM MAP (UNDERGROUND VS OVERHEAD)

This map provides locations of where utility systems have been undergrounded vs overhead from all agencies. The information will be used as a tool for making decisions in steps 2 and 3 for quantity and cost estimates for the overall UUP.

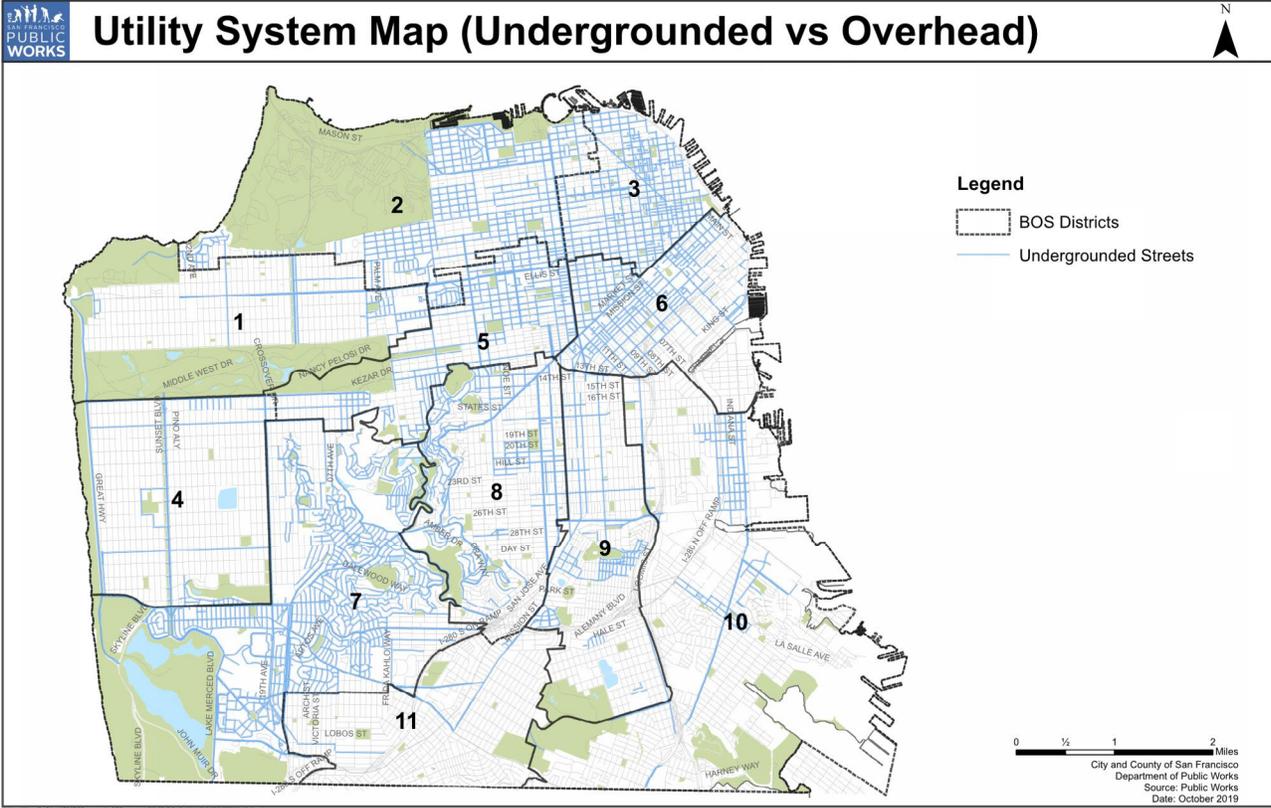


Figure B: Utility System Map (Underground vs Overhead)

## 2. UTILITY POLES

Locations of all utility poles within San Francisco shall be mapped and include the pole identification number for field verification, pole owner, pole classification and material type, and the various agencies that are leasing space from this pole owner. This information will help identify the various utility stakeholders that may be involved with the removal of the utility pole in steps 4 and 8.

Currently, there is GIS information for City owned utility poles from SFPUC and the Joint Use Map Portal (JUMP) from PG&E.

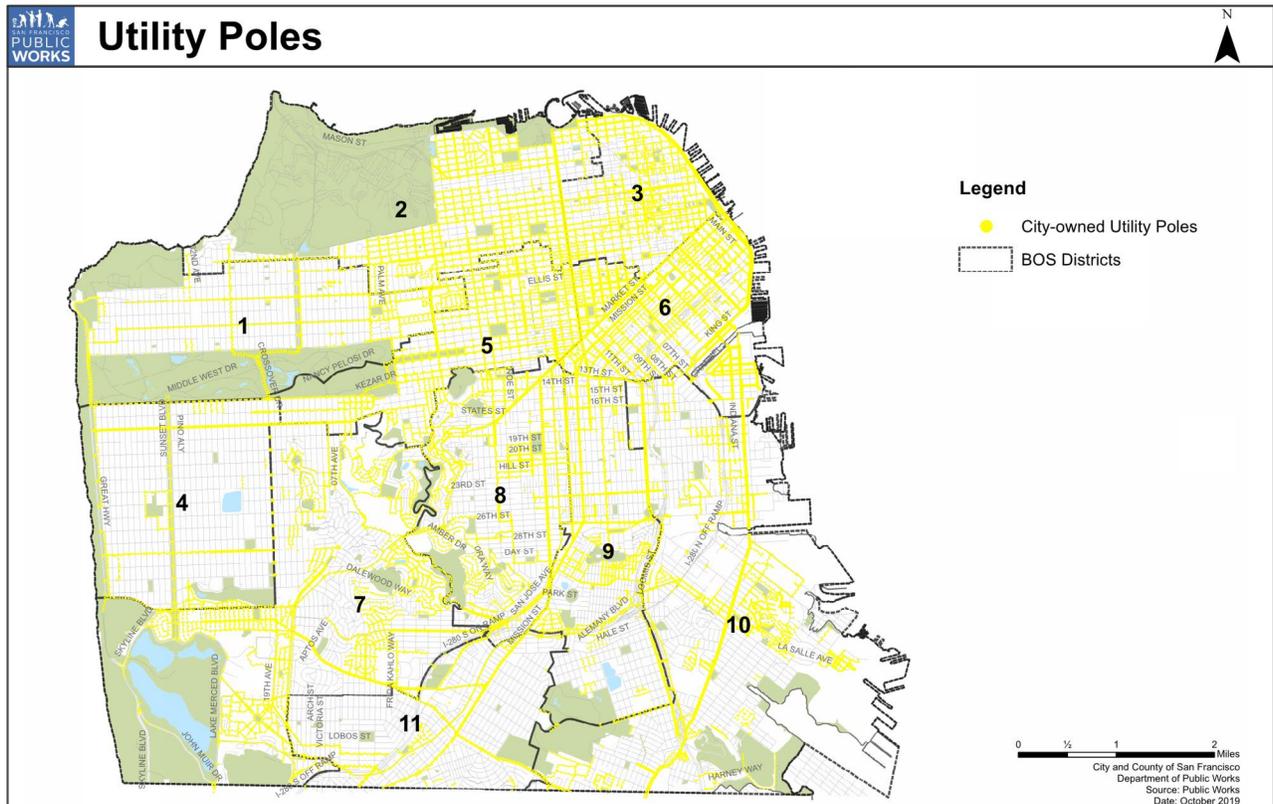


Figure C: SFPUC Utility Poles

### 3. POPULATION DENSITY

The population density map is available from the San Francisco Department of Public Health, Environmental Health Services (SFDPH). This information will help identify potential cost impact in step 3 based on degree of underground utility congestion.

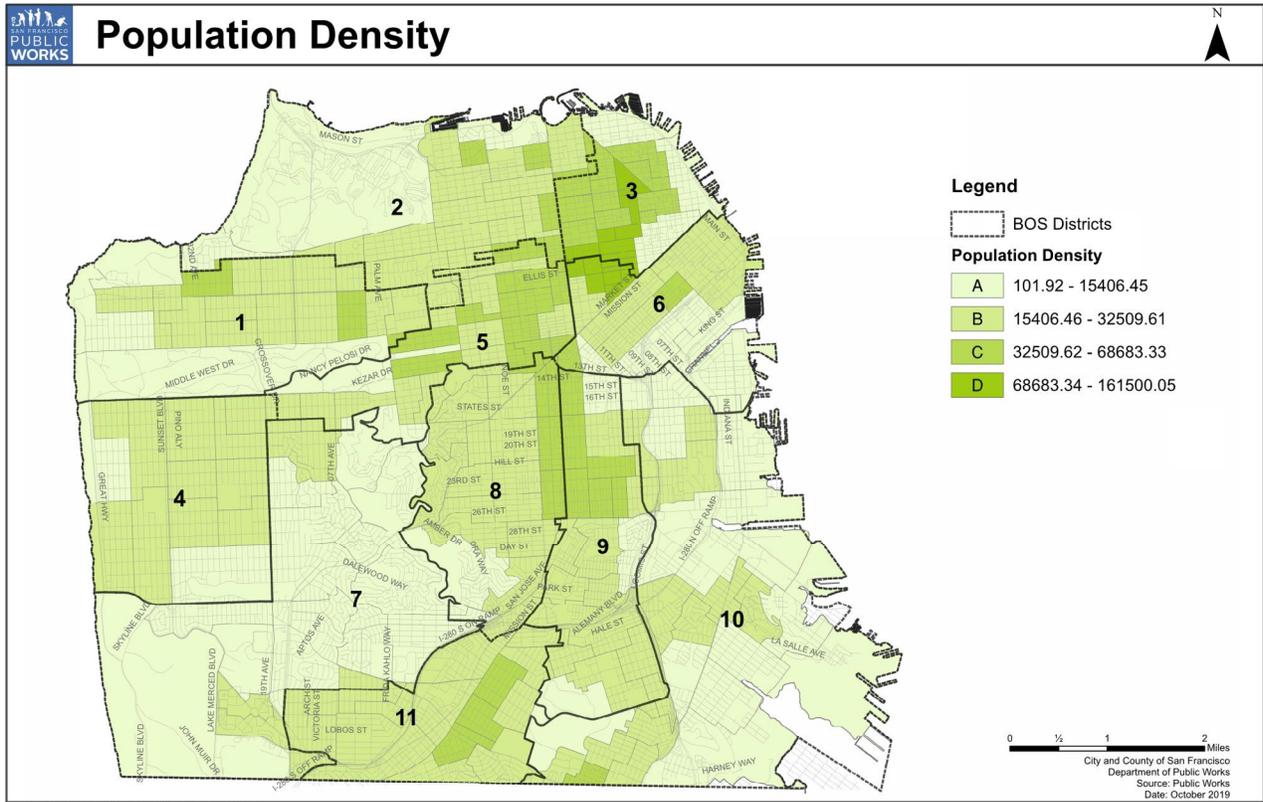


Figure D: SFDPH population density in San

#### 4. CURRENT/PLANNED CONSTRUCTION PROJECTS

Currently all planned or in design City projects map is available from Public Works. This information will identify cost-saving opportunities in step 4 for the undergrounding effort by associating with larger construction projects.

Collaborating with larger construction projects could maximize efficiencies in the permitting and design process as well as provide cost saving opportunities in construction for street/sidewalk re-paving.

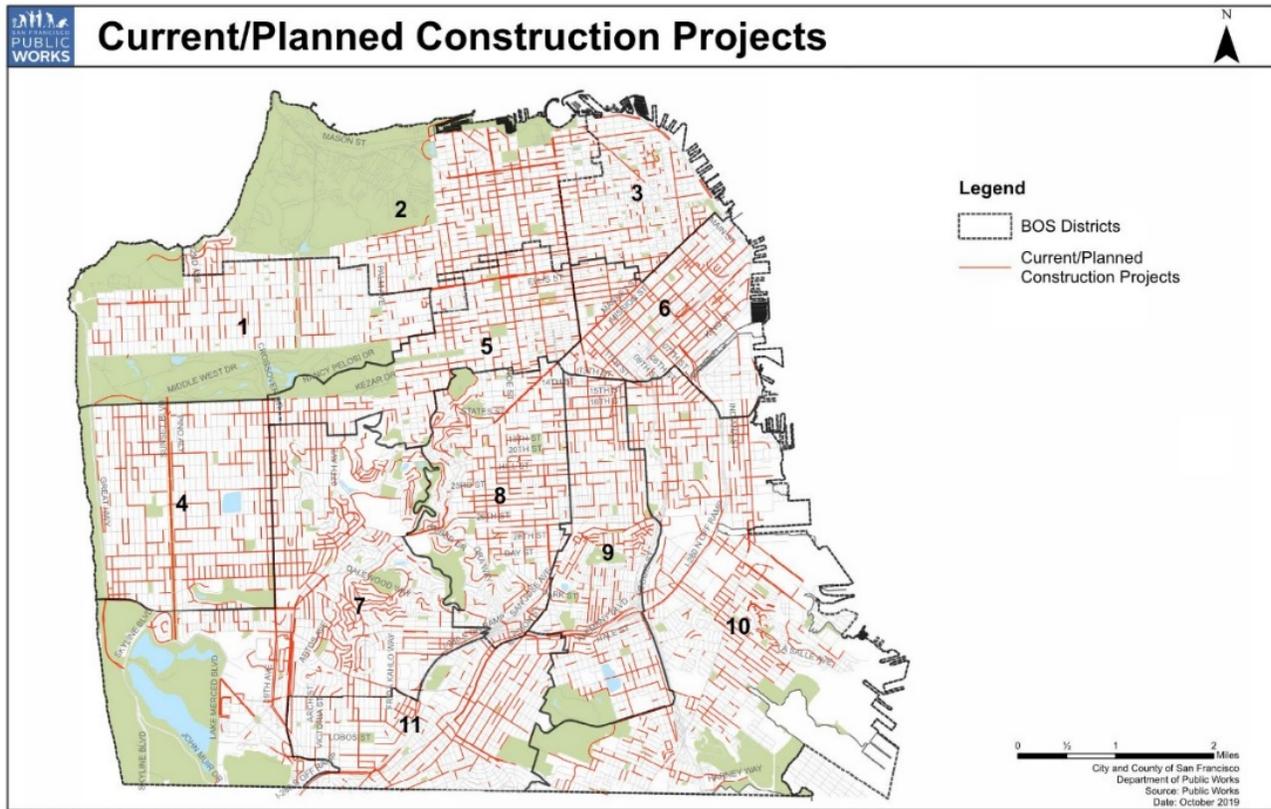


Figure E: Current or Planned Construction Projects in San

**5. NEW DEVELOPMENTS (OR PLANNED SUBDIVISIONS)**

In accordance with Tariff Rule 15 and 16 (see section 1.2), all new subdivisions and new development areas shall provide underground facilities. Identifying new developments will assist in providing funding opportunities in step 4.

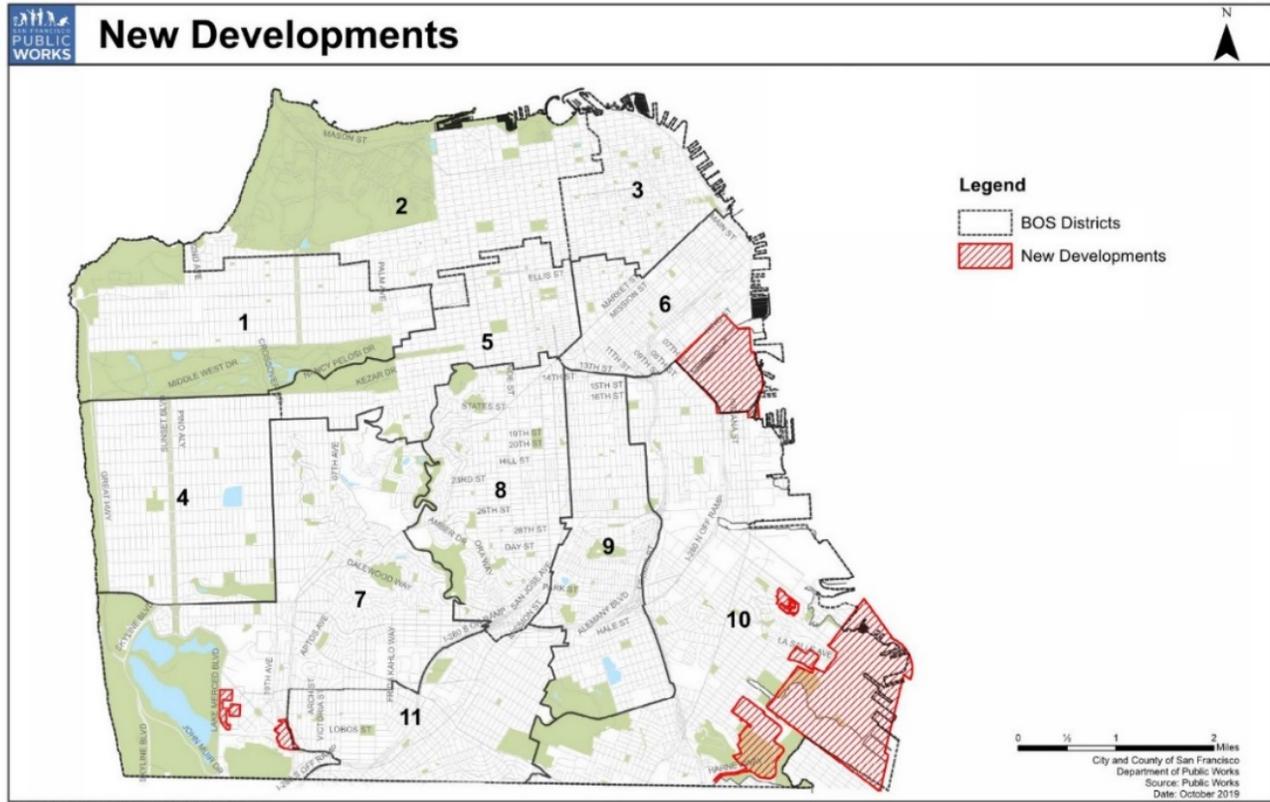


Figure F: Planned Developments or Subdivisions in San Francisco

**6. BOUNDARIES OF LEGISLATED UNDERGROUND UTILITY DISTRICTS (LUUD)**

Currently, there is no available City map that shows the LUUDs within San Francisco. Mapping the approved districts in step 7 will assist to document where in the City the undergrounding projects can move forward. In the case where establishment of the LUUD fails, steps 5 and 6 will need to be re-evaluated.

**7. EMERGENCY RESPONSE ROUTES**

Currently a map of the emergency response routes within the City is available from Public Works. This map will help identify safety corridors and prioritization for undergrounding overhead utilities in step 5.

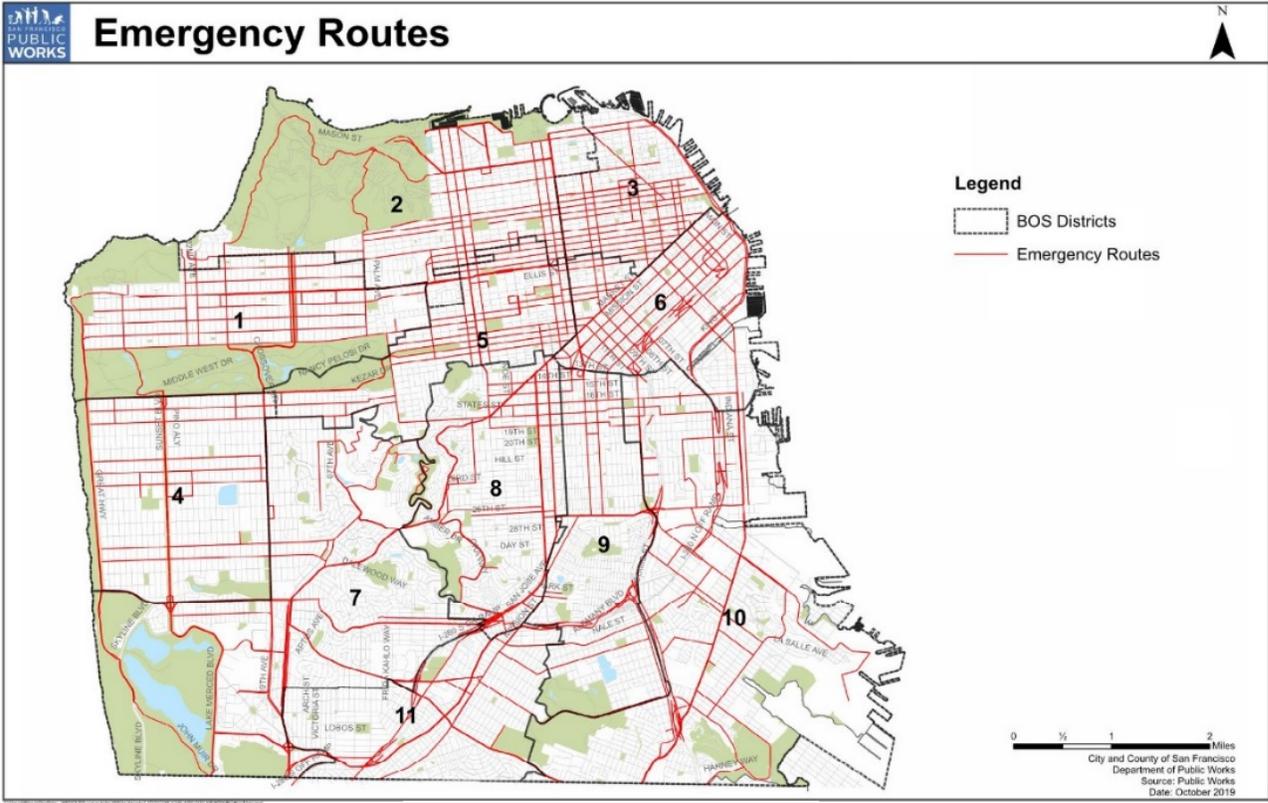


Figure G: Emergency Routes in San Francisco

## 8. WIRELESS DEVICES MAP

Wireless devices map is available from Public Works. According to the service provider, these wireless devices must remain above ground. When overhead utilities are undergrounded and poles removed, the wireless device will need to be relocated to another pole such as a streetlight or muni pole. The relocation effort needs to be coordinated with stakeholders in steps 2, 3, and 8.

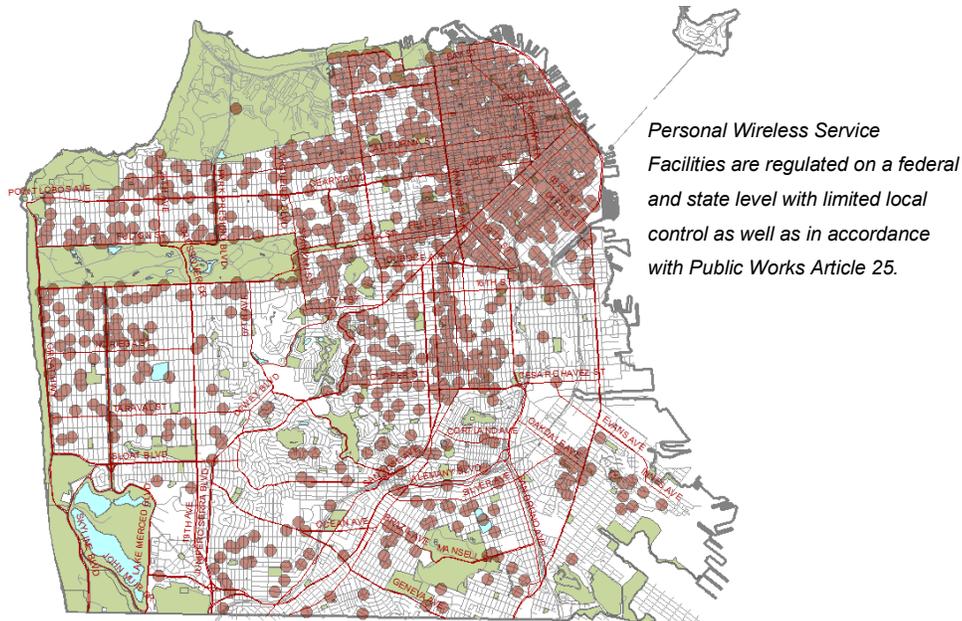


Figure H: Public Works Wireless Devices

### 3.2 Step 2: Identify Remaining Overhead Utilities & Stakeholders

The database in step 1 will be utilized to identify the remaining overhead utility miles in San Francisco and the associated stakeholders for overall program planning.

### 3.3 Step 3: Estimate Total Cost

To determine an overall UUP budget, the total length of overhead utilities that needs to be undergrounded, identified from Figure B-Utility System Map (Underground vs Overhead) should be multiplied by a unit cost per mile. In review of past reports, input from other utility agencies, and current proposed projects, the cost per mile varies from city to city (see Appendix O) and some critical elements that affect cost include density, size of project, construction cost escalation, design and permitting process, and other project costs. To date, the average undergrounding cost is between \$5-10 million per mile. As more cost data is collected from step 8, the unit cost per mile will be adjusted and the overall UUP budget will be updated.

The following are some of the items that will affect the unit cost:

- **Density** – Heavy density has direct impact on the degree of congestion in site working conditions, the amount of utilities to underground and amount of space available for undergrounding utilities.
- **Size of project** – Larger projects can provide sharing opportunities in permitting process, roadway repaving, contractor's general conditions which will lead to lower costs for designers/contractors/stakeholders. The minimum length of undergrounding should be considered for project efficiency. Failure to successfully establish a continued LUUD will result in extreme cost inefficiency.
- **Construction cost escalation** – Depending on the bidding environment, construction costs vary over time.
- **Design and permitting process** – If standardized and streamlined design and permitting processes can be established, individual project cost can be lowered. Trenchless technologies such as directional boring may be reviewed for use in San

Francisco which will allow utilities to be installed underground without excavating a full utility trench.

- **Other project costs** – The program budget will increase if the following costs are to be included such as streetlights, and private property conversions.

**3.4 Step 4: Funding/Cost Saving Opportunities**

To have a successful Citywide Undergrounding Utility Program, it is critical to have reliable and continuous funding sources identified and established. With steady funding sources, the City can plan and schedule projects, gain efficiency in management/design/construction, and take advantage when cost saving opportunities arises.

If the goal of San Francisco is to underground all overhead utilities in 50 years from the establishment of a Master Plan, the City will need to underground approximately 10 miles per year. With the estimated costs to underground ranging between \$5M - \$10M/mile to date, the City will need to obtain approximately \$50M - \$100M of funding each year. As the program progresses and more cost data are available, this budget will be adjusted.

All funding sources studied were noted in section 2.1. For any of these funding sources to be available for this program, they will need approval from voters and policy holders and amendment to City policy. Although there are private funding sources, such as new developments/subdivisions, Rule 20B/20C, they are not reliable funding sources for the Citywide UUP.

The following funding sources have been further studied to be available as potential steady stream of funding for the UUP. However, for any of these funding to be available, it will depend on the City’s ability to obtain approval and amendment to the City policy.

**3.4.1 Utility User Tax**

A priority made to undergrounding overhead utilities with a dedication of 1.5% of the revenue generated from the Utility User Tax could be allocated to undergrounding overhead utilities in San Francisco, see Table 1. Approximately \$1.52M could be generated from the Utility User Tax and dedicated to the UUP.

*Table 1: Utility User Tax per Percentage*

Utility User Tax			
Funding Source	Tax / year	% for UUP	Total Funds for UUP
Utility User Tax	\$101,000,000	1.5%	\$1,515,000

**3.4.2 Utility User Surcharge**

If a Utility User Surcharge of \$5 per month for residential usage and \$95 per month on commercial usage were proposed, the City could dedicate this money specifically to the Undergrounding Program. This utility surcharge would generate approximately \$64M, see Table 2. An alternative approach could be a 10% increase in the user surcharge which would generate approximately \$70.3M, see Table 3.

Table 2: Utility Surcharge by Fixed Amount Per Account

Utility User Surcharge					
UUP Surcharge by Fixed Amount per Account					
Type of Account	No of PG&E SF Accounts (2018)	PG&E SF Revenue (2018)	Surcharge / month	Surcharge / year	% Revenue increase
Residential	384,546	\$240,525,102.15	\$5.00	\$23,072,760	9.59%
Commercial	35,957	\$462,912,616.56	\$95.00	\$40,990,980	8.86%
<b>TOTAL</b>	420,503	\$703,437,718.71	\$100.00	\$64,063,740	9.11%

Table 3: Utility Surcharge by Percent Increase Per Account

Utility Surcharge					
UUP Surcharge by % Increase per Account					
Type of Account	No of PG&E SF Accounts (2018)	PG&E SF Revenue (2018)	% Increase	Surcharge / year	Surcharge / Month
Residential	384,546	\$240,525,102.15	10%	\$24,052,510.22	\$5.21
Commercial	35,957	\$462,912,616.56	10%	\$46,291,261.66	\$107.28
<b>TOTAL</b>	420,503	\$703,437,718.71	-	\$70,343,771.87	\$112.50

### 3.4.3 Parcel Tax

If a Parcel/Property Tax were to be imposed on the residents of San Francisco of \$110/year, a total of roughly \$23M of revenue would be generated, see Table 4 below. This increase in the Parcel Tax would be approximately a 0.84% increase in the current assessed property taxes.

Table 4: Parcel/Property Tax by Fixed Amount Per Account

Parcel/Property Tax				
UUP Surcharge by Fixed Amount per Account				
No of SF Parcels	SF Property Tax Revenue	Tax / year	Tax / year	% Increase
211,642	\$2,763,771,117	\$110.00	\$23,280,620	0.84%

### 3.4.4 Real Property Transfer Tax

Per the County Assessor's 2018 Annual Report, there were approximately 9,400 property sales in San Francisco that generated roughly \$302M in transfer taxes. If 1.5% of the revenue generated by this tax were to be dedicated to the Underground Utility Program, it would generate approximately \$4.5M, see Table 5 below. This percentage will need to be evaluated based on available resources and may require to be adjusted when there are not enough resources for undergrounding overhead utilities.

Table 5: Real Property Transfer Tax by Fixed Amount Per Account

Real Property Transfer Tax			
UUP Surcharge by Fixed Amount per Account			
No of SF Transferred Parcels	SF Transfer Tax (FY2017-2018)	% Increase	Amount of Money Dedicated to UUP
9,400	\$302,000,000	1.5%	\$4,530,000

### 3.4.5 Potential Funds Available Summary

Based on the above funding options, approximately \$93M of funding could be allocated to undergrounding overhead utilities in San Francisco (see Table 6). Using this annual funding amount, with approximately 470 miles of overhead utilities remaining to be undergrounded, and a cost to underground ranging between \$5-10M/mile, it would take between 25 and 50 years to underground the rest of the utilities in San Francisco (see Table 7).

Table 6: Total Funds Available for UUP

Potential Funds Available for UUP			
Funding Source	Tax / year	% for UUP	Total Funds for UUP
Utility User Tax	\$101,000,000	1.5%	\$1,515,000
Utility Surcharge	\$64,063,740	100%	\$64,063,740
Parcel Tax	\$23,280,620	100%	\$23,280,620
Real Property Transfer Tax	\$302,000,000	1.5%	\$4,530,000
<b>TOTAL</b>			<b>\$93,389,360</b>

Table 7: Total Years to Underground Remaining Overhead Wires

Total Years to Underground Remaining OH Wires				
No of remaining OH miles	Cost to Underground/mile	Total Cost to Underground	Total Annual Funds for UUP	# of Years
470	\$5,000,000	\$2,350,000,000	\$93,389,360	25.2
	\$10,000,000	\$4,700,000,000	\$93,389,360	50.3

### 3.4.7 Cost Saving Opportunities

With joint construction projects, there are cost saving opportunities through larger construction projects as mentioned in section 3.3. This will can reduce the overall UUP cost. From Section 3.1, the utility GIS layers from the **Current/Planned Construction Projects Map (Figure E)** can be used to identify potential joint construction project opportunities.

### 3.5 Step 5: Prioritization

Criteria to determine priority for the SF Citywide UUP should be established through the approval of the BOS, the SF community, as well as the various utility agencies impacted. The Masterplan will utilize the Composite map and follow the prioritization criteria to establish locations for project selection. These locations can then be used to create a Citywide prioritization map.

Some of the consideration for setting the criteria include fairness of how to prioritize within neighborhoods and SF Emergency Responders expressed the concerns of overhead utilities along emergency/evacuation routes. **However, life safety preparedness should be our highest priority for the UUP knowing that future natural disaster will occur.**

The following is a list of categories that can be further refined during the Masterplan process to develop a more specific prioritization criterion.

#### 1. Safety

- Removal of overhead wires, where if damaged, can endanger the public with fallen wires and obstruct streets, roads, and public right of ways specifically in locations listed below.
  - Emergency Routes (Figure G)
  - That contain a heavy volume of pedestrian or vehicular traffic
  - That pass through a civic area, a public recreation area or an area of scenic interest to the general public

#### 2. System Reliability

- Removal of overhead wires in locations where:
  - Maintenance issues occur on a regular basis as identified by the community or by the various utility agency owners.
  - Trees have or may impact overhead facilities that may be a potential threat to the community.
  - Major utility feeds that pass through or enter the City

#### 3. Aesthetics

- Avoid or eliminate unusually heavy concentration of overhead facilities which create an unsightly visual effect
- Removal of abandoned utilities on overhead poles

### 3.6 Step 6: Identify Project

When the UUP budget has been established, the Program Manager will match the funding with the Citywide prioritization map to come up with 5-year and annual planned potential projects. The Program Manager will review any joint construction opportunities for cost savings. Once potential projects have been identified, further refinement of the budgets will need to be performed. The list of projects will be submitted to the applicable stakeholders for approval and pursuit of the LUUD (see step 7). The Program Manager will need to repeat step 6 if the potential project did not obtain stakeholder approval or establishment of LUUD.

Figure 9 is a potential planning tool to assist the Program Manager to identify potential projects.

DISTRICT X															
DENSITY CATEGORY	POLE TYPE	UNIT COST/MILE	OH MILES	TOTAL COST	COST SAVINGS								REMAINING COST	% SAVINGS	
					New Development	SFDPW Projects	SFPUC Projects	PG&E Projects	SFMTA Projects	Rule 20B	Rule 20C	Others			
A	I	\$1,000,000.00	5	\$5,000,000	-\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,750,000	5%
	II	\$1,500,000.00	1	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	0%
	III	\$2,000,000.00	2	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0	-\$4,000,000	\$0	\$0	\$0	100%
	IV	\$2,500,000.00	1	\$2,500,000	\$0	\$0	\$0	\$0	\$0	-\$1,000,000	\$0	\$0	\$0	\$1,500,000	40%
B	I	\$1,000,000.00	15	\$15,000,000	\$0	-\$3,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000,000	20%
	II	\$2,000,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	III	\$3,000,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	IV	\$3,500,000.00	1	\$3,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,500,000	0%
C	I	\$2,500,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	II	\$3,000,000.00	2	\$6,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000,000	0%
	III	\$3,000,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	IV	\$3,750,000.00	5	\$18,750,000	\$0	\$0	\$0	-\$3,000,000	\$0	\$0	\$0	\$0	\$0	\$15,750,000	16%
D	I	\$3,000,000.00	2	\$6,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000,000	0%
	II	\$2,000,000.00	2	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,000,000	0%
	III	\$4,000,000.00	2	\$8,000,000	\$0	\$0	-\$1,200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$6,800,000	15%
	IV	\$4,250,000.00	3	\$12,750,000	\$0	\$0	\$0	\$0	-\$2,000,000	\$0	\$0	\$0	\$0	\$10,750,000	16%
DISTRICT X TOTAL			41	\$87,000,000	-\$250,000	-\$3,000,000	-\$1,200,000	-\$3,000,000	-\$2,000,000	\$0	-\$4,000,000	\$0	\$72,550,000	17%	

Figure 9: Undergrounding Planning Tool spreadsheet

### 3.7 Step 7: Establish Legislative Underground Utility District (LUUD)

Prior to any utility undergrounding work can be done, a Legislated Underground Utility District (LUUD) must be established as defined by Public Works Code Article 18, Section 900 (see Appendix C). Without the established LUUD:

- The City cannot require property owners to be responsible in converting their properties to receive underground utilities, per Section 917.
- The City cannot prevent future overhead poles to be erected or installed within the underground district after the undergrounding work is completed, per Section 913.
- The City cannot establish Rule 20B/C funding for that district.

To establish the LUUD, it requires 60% of the property owners to sign the petition. In the event that Public Works determines that the neighborhood committee has failed to meet the 60 percent signature requirement, the committee may elect either to:

- Continue to collect signatures
- Redefine the proposed utility undergrounding district to include only those blocks where the 60 percent requirement can be met
- Terminate the project.

In order to not avoid delays if signatures are not collected on a timely fashion or higher project costs due to inefficiency of breaking up the projects, the Project Manager will report to the Program Manager and consider next project in the priority list.

### 3.8 Step 8: Design & Construction

The complexities of design and construction depends on the scope and size of the project, the congestion of the site, and the number of stakeholders. The Masterplan is to provide a streamline process to achieve the following:

- Minimize or eliminate risk and unknown to prevent cost overruns.
  - Existing condition assessment
  - Define project scope
  - Identify stakeholders' roles & responsibilities
- Gain efficiency by standardizing design, permitting, and construction procedures.
- Obtain data feedback to update the Masterplan for better future planning

The following are some of the procedures that have been identified during this Study.

- To minimize risk or potential unforeseen costs:
  - Perform an existing topographic survey to determine above ground features and potential obstacles.
  - Perform an underground utility investigation and/or potholing. These investigations can include calling Underground Service Alert (USA) within the public right-of-way, underground locating by means of electromagnetic locating, ground penetrating radar, or potholing. These technologies and construction methods have varying levels of accuracy and costs.
- To help streamline design, permitting, and construction procedures:
  - Provide an initial project kick-off meeting with all applicable stakeholders to ensure project deliveries, in both design and construction, are met.
  - Perform community outreach at early phases of the project to ensure the community is aware of the upcoming project and what to expect in the near future. This also gives the community an opportunity to communicate their concerns or get any questions they might have addressed.
  - Perform during-design quality control checks both on the design as well as the budget to ensure the project is still on track to meet the original planned budgets and scope.
- To update the Masterplan for future planning:
  - Record and update overall UUP cost estimates based on latest project data
  - Record locations of the established LUUDs
  - Post construction review and lessons-learned should be performed to understand any changes or refinements that could be made to the process or to help streamline future efforts.

## 4. Conclusion

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The goal of this Study is to develop a systematic approach to complete the utility undergrounding effort in regard to safety, system reliability, and aesthetics throughout San Francisco within the next 50 years. Furthermore, within the established LUUDs, the City can prevent future overhead utilities installation. Inefficiencies and issues were identified by studying other agencies' reports and past projects. The following solutions are recommendations to address some of the issues identified.

### **Establish Funding Sources**

CPUC established Rule 20A which provided upfront funding to cover project costs. The City was successful in the 1996-2006 undergrounding effort with Rule 20A funding. When the City exhausted Rule 20A funding allotment, undergrounding effort halted.

Property owners, rate payers, and public agencies lack upfront money to continue the undergrounding effort. However, from the community outreach survey, it is concluded that the public is willing to contribute into a UUP budget. With the public contributions, the program can accumulate the necessary funding to cover project costs.

### **Designated Underground Utility Program and Project Managers**

From studying previous undergrounding projects in the City, common issues identified include undefined scopes, unclear stakeholders' roles and responsibilities, lack of understanding of funding and undergrounding policies. These confusions contributed to costs overrun, schedule delays, and lack of data reporting.

A designated Program Manager is recommended to oversee the successful implementation of the overall UUP. This Program Manager needs to be familiar with the funding sources and the undergrounding policies in order to manage the budget, stakeholders, prioritize projects and coordinate with Project Managers to continue updating the Masterplan.

Project Managers are recommended to oversee the successful implementation of undergrounding projects. These Project Managers need to be familiar with the design, permitting and construction process. They will manage the project scope, cost, and schedule, collect and report project data to the Program Manager.

### **Masterplan**

The Masterplan is a tool that will map out a plan of how to accomplish the utility undergrounding program effort. It will provide database for planning purposes, assist in project prioritization, track cost data, and document the streamline design/construction/permitting procedures.

### **Other Recommendations:**

While this Study is identifying a plan to underground all existing overhead utilities, it is our recommendation to have policies in place to:

- Minimize installation of new overhead utilities in the City. These include overhead wires and wireless devices.
- Require major subdivision developers and utility agencies to underground along the supply distribution route servicing their new development. This could prevent the neighboring communities to not be burden with additional overhead utilities for the benefit of the new development.

## 5. References

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- <sup>1</sup> California Public Utilities Commission, Decision No. 73078, September 19, 1967.
- <sup>2</sup> California Public Utilities Commission, Decision No. 8212069, December 15, 1982.
- <sup>3</sup> California Public Utilities Commission, “Program Review of the California Overhead Conversion Program – Rule 20A for Years 2011-2015”. 2016.
- <sup>4</sup> California Public Utilities Commission, Decision No. 1705013, May 18, 2017.
- <sup>5</sup> AzP Consulting, LLC, “Audit of PG&E Rule 20A Undergrounding Program”. December 15, 2019
- <sup>6</sup> San Francisco Local Agency Formation Commission. July 2015. “Study on the Undergrounding of Utility Wires and Expansion of Fiber Network in San Francisco”. City and County of San Francisco.
- <sup>7</sup> Utility Undergrounding Task Force (UUTF). “Utility Undergrounding Task Force Report”. January 2007. City and County of San Francisco.
- <sup>8</sup> Budget and Legislative Analyst’s Office. March 2015. “Utility Wire Undergrounding Costs”. City and County of San Francisco.
- <sup>9</sup> SD Transportation and Storm Water Department. “Utilities Underground Program Master Plan”. December 2017. City of San Diego.
- <sup>10</sup> Public Works Commission, Disaster and Fire Safety Commission, and Transportation Commission. January 2018. “Conceptual Study to Underground Utility Wires in Berkeley”. City of Berkeley.
- <sup>11</sup> Utilities Department. January 2010. “Report on Current Status and Future Alternatives to Consider for the Continuing the Electric Overhead to Undergrounding Conversion Program”. City of Palo Alto.

## Appendix A

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### **California Public Utilities Commission Undergrounding Program Description**



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## Undergrounding

Utilities annually allocate funds under Rule 20 to communities, either cities or unincorporated areas of counties, to convert overhead electric and telecommunication facilities to underground electric facilities. The recipient communities may either bank (accumulate) their allotments, or borrow (mortgage) future undergrounding allocations for five years at most.

The Commission instituted the current undergrounding program in 1967. It consists of two parts. The first part, under Tariff Rules 15 and 16, requires new subdivisions (and those that were already undergrounded) to provide underground service for all new connections. The second part of the program governs both when and where a utility may remove overhead lines and replace them with new underground service, and who shall bear the cost of the conversion.

Instead of specifying a fixed allocation formula, Decision (D) 73078 adopted on September 19, 1967, required each utility to report annually and to propose an amount for its Rule 20 allocation. Utilities have submitted their Rule 20 allocation budgets to the CPUC each year by letter and set aside

approximately two percent of their electric revenue for overhead conversions. The total allocation then was divided among individual cities or counties based on a 50/50 allocation formula. This formula requires half the allocation to be based on the ratio of the community's overhead meters to total system overhead meters, and half based on the community's total meters to total system meters.

Then [D.82-12-069](#) adopted in December 1982, ordered Pacific Gas and Electric (PG&E) to consult with the League of California Cities to determine PG&E's future Rule 20A allocation budgets. PG&E and the League agreed to use a "composite inflation and real growth factor" to determine annual Rule 20A allocation budgets. PG&E would adjust annual allocation budgets based on the actual inflation for the period and adjusted growth factors. These escalation factors have been ~5% to 6% until 2012, when PG&E began to reduce its annual allocations almost by half based on its 2011 General Rate Case (GRC) settlement.

Tariff Rule 20 is the vehicle for the implementation of the underground conversion programs. Rule 20 provides three levels, A, B, and C, of progressively diminishing ratepayer funding for the projects.

Under Rule 20, the Commission requires the utility to allocate a certain amount of money each year for conversion projects. Upon completion of an undergrounding project, the utility records its cost in its electric plant account for inclusion in its rate base. Then the Commission authorizes the utility to recover the cost from ratepayers until the project is fully depreciated.

Rule 20 requires the utility to reallocate to communities having active undergrounding programs amounts initially allocated to others but not spent. Cities also may mortgage 20A funds for five years.

Because ratepayers contribute the bulk of the costs of Rule 20A programs through utility rates, the projects must be in the public interest by meeting one or more of the following criteria:

- Eliminate an unusually heavy concentration of overhead lines;
- Involve a street or road with a high volume of public traffic;
- Benefit a civic or public recreation area or area of unusual scenic interest;
- Be listed as an arterial street or major collector as defined in the Governor's Office of Planning and Research (OPR) Guidelines.

The determination of "general public interest" under these criteria is made by the local government, after holding public hearings, in consultation with the utilities.

Contribution Thresholds Per Rule	Ratepayer Contribution Through Utility Rates	Customers Contribution	Criteria
20A	100%	Max 20%: cost from street to meter	Public Interest - Remove closely-packed lines, or be on a high traffic way, or be in a scenic area
		Min: zero if use mainline funds	
20B	20%	80% <sup>1</sup>	Don't meet Rule 20A criteria, but still involve undergrounding both sides of the street for at least 600 feet.
20C	De minimus	100% <sup>2</sup>	Typically small projects, where a business or individual pays everything
20D <sup>3</sup>	~80%	Max 20%: cost from street to meter	Facilities within SDG&E Fire Threat Zone and undergrounding is a preferred method to reduce fire risk and enhance reliability
		Min: zero if use mainline funds	

<sup>1</sup> Rule 20B customers pay a nonrefundable sum equal to the excess, if any, of the estimated costs, of completing the underground system and building a new equivalent overhead system.

<sup>2</sup> Rule 20C customers pay a nonrefundable sum equal to the estimated cost of the underground facilities less the estimated net salvage value and depreciation of the replaced overhead facilities.

<sup>3</sup> Rule 20D is a new program approved by D14-01-002 in January 2014 only for San Diego Gas & Electric Company.

California has approximately 25,526 miles of transmission lines, approximately 239,557 miles of distribution lines, in which approximately 152,000 miles of distribution lines are overhead. Utilities convert less than 100 miles/year to underground. Therefore, if our program remains at the current progress, it will take over a thousand years to convert our entire distribution system to underground.

PG&E, SCE, and SDG&E serve approximately 11.4 million electric accounts. Therefore, \$126 million dollars' worth of projects completed in 2012 implies each electric account would pay ~\$11/year or \$1/month.

## History of Undergrounding Program

- **1967** – [Decision 73078](#) required tariffs for replacement of overhead to underground distribution facilities, annual allocation amounts for overhead conversions, and reports of conversion work completed for the preceding years. Tariff Rule 20 was established for electric conversions and Rule 32 for telecommunication.
- **1968** – Utility allocations (annual cost caps in each community) are set proportional to –
- **1968** – the total number of electric meters;
- **1982** – only the number of overhead meters;
- **1990** – Present – both the total number of meters and the number of overhead meters.
- **2000** – CPUC opened its Rulemaking R.00-01-005 to implement Assembly Bill 1149 regarding undergrounding of electric and telecommunication facilities.
- **2001** – The Commission issued Decision ([D.](#)) [01-12-009](#) in Phase I of the OIR directing expanded use of Rule 20 funds and listing issues for Phase 2

- **2002** – The Commission issued [D.02-11-019](#) to signal consideration of a new rulemaking to address Phase 2 issues.
- **2002** – The Commission in Resolution [E-3788](#) approved franchise fee surcharges within the City of San Diego for electric conversions not eligible for Rules 20.
- **2003** – Commissioner Kennedy assigned at expiration of Commissioner Duque's term.
- **2005** – [D.05-04-038](#) closed OIR 00-01-005. [D.01-12-009](#) remains effective until a new proceeding is opened consistent with the Commission's resources and priorities.
- **2006** – [D.06-12-039](#) authorized AT&T to impose a special surcharge to customers in the City of San Diego for a limited time duration to recover undergrounding cost as a result of the City of San Diego Underground Utilities Procedural Ordinance.
- **2014** – [D.14-01-002](#) added Rule 20D to facilitate undergrounding in high fire zone areas of San Diego Gas & Electric Company.
- **2017** - The Commission opened its current Rulemaking [R.17-05-010](#) to consider changes to Electric Tariff Rule 20 in order to enhance the fair, efficient allocation of reatepayer funds to communities for the undergrounding of electric infrastructure.

This [PowerPoint Presentation](#) on the Overhead to Underground Conversion Program provides more in-depth information on the program.

[PG&E](#), [SCE](#), [SDG&E](#), [Liberty Utilities](#), and [PacifiCorp](#) websites have specific information related to the conversion program in their service territory.

## Resources

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### [R.17-05-010 Undergrounding Proceeding Docket](#)

This [PowerPoint Presentation](#) on the Overhead to Underground Conversion Program provides more in-depth information on the program.

[PG&E](#), [SCE](#), [SDG&E](#), [Liberty Utilities](#), and [PacifiCorp](#) websites have specific information related to the conversion program in their service territory.

Rule 20A Annual work Credit Allocation Reports (Years 1968 - 2018). Lists the annual Rule 20A work credit allocations for each city and unincorporated county entity that may be used to pay for Rule 20A undergrounding projects.

- [PG&E](#)
- [SCE](#)
- [SDG&E](#) (Years 2005 - 2017)

Rule 20 Annual Completion Reports (Years 1967 - 2017) details the

- [PG&E](#)
- [SCE](#)
- [SDG&E](#)

[Jan 2017: Program Review: California Overhead Conversion Program, Rule 20A for Years 2011-2015](#)

This programs review evaluates how the undergrounding program is being administered by SCE, PG&E, and SDG&E; describes its history over the past five years; and identifies where there may be deficiencies or potential liabilities associated with the current program administration and status. Additionally, this review provides recommendations for how the CPUC should move forward to improve undergrounding program management and performance.

## Contact Us

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For undergrounding inquiries, please contact Jonathan Frost, Regulatory Analyst, at [jonathan.frost@cpuc.ca.gov](mailto:jonathan.frost@cpuc.ca.gov)

For utility-specific undergrounding inquiries, please contact the relevant utility using the contact information found on the utility's undergrounding website.

- [PG&E](#)
- [SCE](#)
- SDG&E does not have an undergrounding website at this time.

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# Appendix B

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## PG&E Electric Rule No. 20



**ELECTRIC RULE NO. 20** Sheet 1  
REPLACEMENT OF OVERHEAD WITH UNDERGROUND ELECTRIC FACILITIES

A. PG&E will, at its expense, replace its existing overhead electric facilities with underground electric facilities along public streets and roads, and on public lands and private property across which rights-of-ways satisfactory to PG&E have been obtained by PG&E, provided that:

1. The governing body of the city or county in which such electric facilities are and will be located has:

a. Determined, after consultation with PG&E and after holding public hearings on the subject, that such undergrounding is in the general public interest for one or more of the following reasons:

- 1) Such undergrounding will avoid or eliminate an unusually heavy concentration of overhead electric facilities;
- 2) The street or road or right-of-way is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic;
- 3) The street or road or right-of-way adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public; and
- 4) The street or road or right-of-way is considered an arterial street or major collector as defined in the Governor's Office of Planning and Research General Plan Guidelines.

b. Adopted an ordinance creating an underground district in the area in which both the existing and new facilities are and will be located requiring, among other things, (1) that all existing overhead communication and electric distribution facilities in such district shall be removed, (2) that each property served from such electric overhead facilities shall have installed in accordance with PG&E's rules for underground service, all electrical facility changes on the premises necessary to receive service from the underground facilities of PG&E as soon as it is available, and (3) authorizing PG&E to discontinue its overhead service.

c. Acknowledged that wheelchair access is in the public interest and will be considered as a basis for defining the boundaries of projects that otherwise qualify for Rule 20A under the existing criteria set forth in Section A(1)(a) above.

(N)  
|  
|  
(N)

(Continued)





**ELECTRIC RULE NO. 20** Sheet 3  
REPLACEMENT OF OVERHEAD WITH UNDERGROUND ELECTRIC FACILITIES

- A. (Cont'd.) (L)
- 3. The undergrounding extends for a minimum distance of one block or 600 feet, whichever is the lesser. (L)
- Upon request of the governing body, PG&E will pay from the existing allocation of that entity for: (L)
- The installation of no more than 100 feet of each customer's underground electric service lateral occasioned by the undergrounding. (L)
- The conversion of electric service panels to accept underground service, up to \$1,500 per service entrance, excluding permit fees. (L)
- The governing body may establish a smaller footage allowance, or may limit the amount of money to be expended on a single customer's electric service, or the total amount to be expended on all electric service installations in a particular project. (L)

(Continued)

<i>Advice Decision</i>	5085-E-A 11-05-018, 14-08-032 and 17-05-013	<i>Issued by</i> <b>Robert S. Kenney</b> <i>Vice President, Regulatory Affairs</i>	<i>Date Filed Effective Resolution</i>	<u>October 11, 2017</u> <u>November 13, 2017</u>
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**ELECTRIC RULE NO. 20**

Sheet 4

**REPLACEMENT OF OVERHEAD WITH UNDERGROUND ELECTRIC FACILITIES**

- B. In circumstances other than those covered by A above, PG&E will replace its existing overhead electric facilities with underground electric facilities along public streets and roads or other locations mutually agreed upon when requested by an applicant or applicants when all of the following conditions are met: (L)
  - 1. a. All property owners served from the overhead facilities to be removed first agree in writing to have the wiring changes made on their premises so that service may be furnished from the underground distribution system in accordance with PG&E's rules and that PG&E may discontinue its overhead service upon completion of the underground facilities; or
  - b. Suitable legislation is in effect requiring such necessary wiring changes to be made and authorizing PG&E to discontinue its overhead service.
  - 2. The applicant has:
    - a. Furnished and installed the pads and vaults for transformers and associated equipment, conduits, ducts, boxes, pole bases and performed other work related to structures and substructures including breaking of pavement, trenching, backfilling, and repaving required in connection with the installation of the underground system, all in accordance with PG&E's specifications, or, in lieu thereof, paid PG&E to do so;
    - b. Transferred ownership of such facilities, in good condition, to PG&E; and
    - c. Paid a nonrefundable sum equal to the excess, if any, of the estimated costs, of completing the underground system and building a new equivalent overhead system.
  - 3. The area to be undergrounded includes both sides of a street for at least one block or 600 feet, whichever is the lesser, and all existing overhead communication and electric distribution facilities within the area will be removed. (L)

(Continued)

<i>Advice</i>	5085-E-A	<i>Issued by</i>	<i>Date Filed</i>	<u>October 11, 2017</u>
<i>Decision</i>	11-05-018, 14-08-032 and 17-05-013	<b>Robert S. Kenney</b> <i>Vice President, Regulatory Affairs</i>	<i>Effective</i>	<u>November 13, 2017</u>
			<i>Resolution</i>	



**ELECTRIC RULE NO. 20** Sheet 5  
REPLACEMENT OF OVERHEAD WITH UNDERGROUND ELECTRIC FACILITIES

- B. (Cont'd) (L)

  - 4. PG&E may, when requested by the city or county and mutually agreed upon by such government entity and PG&E, initially fund any required engineering/design costs for conversion projects under this section. In the event such a project proceeds, the requesting city or county shall reimburse PG&E for such engineering/design costs before PG&E shall be required to commence further work on the project. In the event the project is not approved to proceed within two and one-half years of PG&E's delivery of such engineering/design study, the requesting city or county shall reimburse PG&E for its costs of such engineering/design study within 90 days of a demand by PG&E. In the event payment is not received PG&E shall expense such costs as an operational cost and shall reduce the city or county's allocations provided under Section A of this Schedule by the amount.
  - 5. The costs of removal of the overhead poles, lines, and facilities are the responsibility of PG&E and will be paid by PG&E. Such payments shall not operate to reduce Rule 20-A allocations.

- C. In circumstances other than those covered by A or B above, when mutually agreed upon by PG&E and an applicant, overhead electric facilities may be replaced with underground electric facilities, provided the applicant requesting the change pays, in advance, a nonrefundable sum equal to the estimated cost of the underground facilities less the estimated net salvage value and depreciation of the replaced overhead facilities. Underground services will be installed and maintained as provided in PG&E's rules applicable thereto.
- D. The term "underground electric system" means an electric system with all wires installed underground, except those wires in surface mounted equipment enclosures. (L)

# Appendix C

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## **Public Works Code**

### **Article 18**

### **Utility Facilities**

**ARTICLE 18:  
UTILITY FACILITIES**

- Sec. 900. Definitions.
- Sec. 901. Permits-Consent.
- Sec. 902. Locations and Space Assignments of Utility Facilities.
- Sec. 903. Poles to be Available for Installation of Traffic Signals, Etc.-  
Responsibility-Removal-Installation of Street Lights on Trolley Poles.
- Sec. 904. Erection of Poles in Proximity to Light Poles Prohibited.
- Sec. 905. Location of Facilities to be Furnished.
- Sec. 906. Notice to Remove or Relocate Utility Facilities.
- Sec. 907. Owners Must Remove in Required Time.
- Sec. 908. Failure-Work May Be Done by Director, Director of Transportation or  
General Manager.
- Sec. 909. Agreement with Owner or Operator.
- Sec. 910. Provision for Administration, Etc.-Cost.
- Sec. 911. Underground Districts Designated.
- Sec. 912. Need for Underground District to be Determined.
- Sec. 913. Removal of Overhead Utility Facilities in Designated Districts-  
Exemptions.
- Sec. 914. Exemptions to Undergrounding.
- Sec. 915. Public Hearing-Notices.
- Sec. 916. Removal of Overhead Utility Facilities-Responsibility for-Cost.
- Sec. 917. Responsibility of Property Owners.
- Sec. 918. Installation of Service Lateral.
- Sec. 919. Failure of Property Owner to Install Conduits.
- Sec. 920. Notice to Property Owner of Declaration of Public Nuisance.
- Sec. 921. Proof of Delivery or Mailing.
- Sec. 922. Hearing.
- Sec. 923. Issuance of a Director's Order.
- Sec. 924. Posting and Service of Order.
- Sec. 925. Forfeiture of Property Owners' Right To Do Work.
- Sec. 926. Assessment for Costs.
- Sec. 927. Report of Costs.
- Sec. 928. Hearing and Confirmation of Report for Special Assessment of Costs.
- Sec. 929. Costs of Abating the Public Nuisance.
- Sec. 930. Underground Public Nuisance Abatement Fund.

~~Sec. 931. Compliance-Rescinding Order~~  
Sec. 932. Penalty for Each Day Overhead Utility Facilities are Left Standing.

Sec. 933. Temporary Use of Poles and Overhead Wires in Underground Districts.

Sec. 934. Removal of Temporary Poles and Overhead Wires.

Sec. 935. Duties of the Director-Authority to Remove Overhead Utility Facilities.

Sec. 936. New Construction-Installation of Service.

Sec. 937. Underground Utility Facilities to be Included in Construction of New Streets.

Sec. 938. Director May Enter Into Agreement for Joint Construction.

Sec. 939. Provision for Street Lighting in Plans.

Sec. 940. Underground Wired Street Lighting, Fire Alarm and Police Communication Facilities to be Included in Plans for Construction of Streets.

Sec. 941. Cost of Underground Wired Facilities for Street Lighting, Fire Alarm and Police Communication Systems.

Sec. 942. Money to be Included in Fund When Work Done by City.

Sec. 943. Underground Wired Facilities for Street Lighting, Fire Alarm and Police Communication Systems to Become Property of City.

Sec. 944. Declaration of Public Nuisance.

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## **SEC. 900. DEFINITIONS.**

Unless the context specifically indicates otherwise, the meaning of terms in this Article shall be as follows:

(a) "Board" shall mean the Board of Supervisors of the City and County of San Francisco.

(b) "City" shall mean the City and County of San Francisco.

(c) "City Administrator" means the City Administrator of the City and County of San Francisco.

(d) "Department" shall mean the Department of Public Works of the City and County of San Francisco.

(e) "Director" shall mean the Director of the Department of Public Works of the City and County of San Francisco.

(f) "Director of Transportation" shall mean the Director of the Municipal Transportation Agency of the City and County of San Francisco.

(g) "General Manager" shall mean the General Manager of the Public Utilities Commission of the City and County of San Francisco.

(h) "Municipal Railway" shall mean the Municipal Railway of the City and County of San Francisco including the tracks, overhead lines and power feeder systems.

(i) "Municipal Transportation Agency" shall mean the Municipal Transportation Agency of the City and County of San Francisco.

(j) "Owner or Operator" shall mean any person, firm, corporation, or public or private utility, owning, controlling or operating any utility facility upon, in, over or under the streets or places of the City and County of San Francisco.

(k) "Places" shall mean any public park or pleasure ground and common which has been dedicated and accepted according to law.

(l) "Property" shall mean any real property in the City and County of San Francisco. Where any building or structure on real

property is a condominium, planned development, community apartment, or stock corporation, "property" shall mean each separate unit.

(m) "Property owner" shall mean any person, firm, association, limited liability corporation, corporation, or other legal entity owning or controlling real property in the City and County of San Francisco. Where any building or structure on real property is a condominium, planned development, community apartment, or stock corporation, "property owner" shall mean any person, firm, association, limited liability corporation, corporation, or other legal entity owning or controlling any unit.

(n) "Public Utilities Commission" shall mean the Public Utilities Commission of the City and County of San Francisco.

(o) "Serving Company" shall mean the person, firm, corporation or utility supplying the electrical service for electric lighting, heat, power, telephone, telegraph, television signal, or any other type of electrical service.

(p) "Shall" is mandatory; "may" is permissive.

(q) "Sidewalk" shall mean the area between the curb and the property line, as set forth in Ordinance 1061, entitled "Regulating the widths of Sidewalks" (approved December 18, 1903).

(r) "Streets" shall mean the public area, between property lines, of any avenues, highways, boulevards, lanes, roads, parkways, freeways, alleys, crossings or intersections, and courts or other public ways.

(s) "Underground" and "Undergrounding" shall mean the complete and permanent removal of the overhead utility facilities defined in subsection(s) hereof, except such utility facilities as are specifically exempted in Section 914; also, a complete installation beneath the surface of a street, public place, or stated area, of such utility facilities.

(t) "Underground District" shall mean a street, or streets, public place, or stated area, within which overhead utility facilities, as defined in subsection (s) hereof, shall be prohibited and existing overhead utility facilities shall be removed or converted to an underground installation. New utility facilities, when installed, shall be a complete installation beneath the surface of the street, or streets, public place, or stated area, except such utility facilities as are specifically exempted in Section 914.

(u) "Utility facility" shall mean pipes, wires, tracks, conduits, tunnels, poles or other overhead supporting structures, with any appurtenances, or any other structures of any nature, upon, in, over or under the streets or places of the City and County of San Francisco which are used for the purpose of supplying or conveying any services or substances within the limits of the City and County of San Francisco.

(Amended by Ord. 445-84, App. 11/13/84; Ord. 140-07, File No. 070621, App. 6/22/2007)

## **SEC. 901. PERMITS-CONSENT.**

Every owner or operator of any utility facility before installing, locating or relocating any utility facility shall file with the Director of Public Works a written application for a permit to do such work and obtain a written permit for the work as provided in Article 2.4. In accepting such permit the permittee expressly consents to regulation by any applicable rules or ordinances.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

## **SEC. 902. LOCATIONS AND SPACE ASSIGNMENTS OF UTILITY FACILITIES.**

The Director may, as a condition of any permit issued pursuant to Section 901, require that the utility facility be installed in a specific location and may assign specific space for such utility facility in accordance with the Rules and Regulations of the Department and applicable General Orders of the California Public Utilities Commission.

(Added by Ord. 139-72, App. 5/26/72)

## **SEC. 903. POLES TO BE AVAILABLE FOR INSTALLATION OF TRAFFIC SIGNALS, ETC.-RESPONSIBILITY-REMOVAL-INSTALLATION OF STREET LIGHTS ON TROLLEY POLES.**

The City reserves the right to attach to any utility pole for which a permit has been or is to be issued in accordance with Section 901 of this Article, any traffic signal, fire alarm or police communication facilities, or equipment necessary for the normal operation thereof. Notice in writing shall first be given by the Director stating the City's intention to attach thereto the required facilities or other equipment. The owner of the pole shall not be responsible for any damages to any facilities of the City mounted on the pole, unless such damages proximately caused by the negligent act or omission of the owner of the pole. The Director shall have the traffic signal, fire alarm, police communication facilities or other equipment, removed from a utility pole upon and within 30 days after receipt of written notice of the owner's intention to reconstruct, replace, or remove the utility pole. The Director further reserves the right, under

the conditions and stipulations specified above, to attach, as required, any street light and necessary equipment therefore, to any trolley pole which may now exist or which may be installed pursuant to Section 901 of this Article. The City shall install and maintain all of its traffic signal, fire alarm, police communication, street lighting or other equipment on any utility pole in conformity with all applicable General Orders of the Public Utilities Commission of the State of California.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 904. ERECTION OF POLES IN PROXIMITY TO LIGHT POLES PROHIBITED.**

It shall be unlawful to erect any pole on the streets or sidewalks of the City at a point which is situated nearer than 10 feet to a pole on which is supported a lamp maintained by said City for lighting the public streets or any traffic control device.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 905. LOCATION OF FACILITIES TO BE FURNISHED.**

Every owner or operator using, controlling or having an interest in any utility facility upon, in, or under the surface of any street, sidewalk or other public place shall provide a copy of the record of location of any such facility upon request from the City Engineer.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 906. NOTICE TO REMOVE OR RELOCATE UTILITY FACILITIES.**

(a) Whenever any public work is authorized by the Board to be done under the supervision of the Director upon, in, over or under any of the streets, the Director, before the commencement of the work, shall notify in writing any owner or operator having utility facilities of any nature upon, in, over or under the streets to remove or adjust so much of his or their facilities as will allow the prosecution of the public work. The Notice shall be accompanied by a copy of the plans and specifications for the authorized public work showing the location of the work in the streets and describing the same. The Notice shall specify a time within which all affected utility facilities must be removed or adjusted.

(b) The evolution of urban rail, trolley coach and motor bus passenger systems from private operations under franchise operating without tax subsidies to publicly owned and operated systems under federal, state and local policies mandating intra-city passenger service at revenue levels which require a substantial measure of tax support, the paramount right of the people as a whole to use the public street, and the level of service provided being essential to the circulation, health, safety, comfort and welfare of people in an urban setting, and the need for improved transportation systems to meet increasing demand for development and maintenance of an adequate, safe and efficient transportation system requires that this service be recognized and defined as a governmental activity within the City's police powers. Accordingly, whenever any public work relating to the Municipal Railway is authorized by the Municipal Transportation Agency to be done under the supervision of the Director of Transportation upon, in, over or under any of the streets, the Director of Transportation, before the commencement of the work, shall notify in writing any owner or operator having utility facilities of any nature upon, in, over or under the streets to remove or adjust so much of his or their facilities as will allow the prosecution of the public work. The notice shall be accompanied by a copy of the plans and specifications for the authorized public work showing the location of the work in the streets and describing the same. The notice shall specify a time within which all affected utility facilities must be removed or adjusted.

(c) The Public Utilities Commission owns and operates certain utility facilities in the City and County of San Francisco that provide essential services that are necessary to protect the public health, safety and welfare. Accordingly, whenever any public work upon, in, over or under any of the streets relating to the Public Utilities Commission is authorized to be done under the supervision of the General Manager, the General Manager, before the commencement of the work, shall notify in writing any owner or operator having utility facilities of any nature upon, in, over or under the streets to remove or adjust so much of his or their facilities as will allow the prosecution of the public work. The notice shall be accompanied by a copy of the plans and specifications for the authorized public work showing the location of the work in the streets and describing the same. The notice shall specify a time within which all affected utility facilities must be removed or adjusted.

(Amended by Ord. 445-84, App. 11/13/84; Ord. 140-07, File No. 070621, App. 6/22/2007)

#### **SEC. 907. OWNERS MUST REMOVE IN REQUIRED TIME.**

Any owner or operator having utility facilities upon, in, over or under the streets upon, in, over or under which any public work is authorized to be done, shall, upon receipt of a Notice pursuant to Section 906, and at his expense, cause to be removed or to be adjusted within the time specified in the Notice, so much of the affected utility facilities belonging to or under the control of such owner

or operator as will allow the authorized work to be prosecuted according to the plans and specifications therefor.

(Added by Ord. 139-72, App. 5/26/72)

**SEC. 908. FAILURE-WORK MAY BE DONE BY DIRECTOR, DIRECTOR OF TRANSPORTATION OR GENERAL MANAGER.**

(a) If any owner or operator except a City agency or department shall fail, neglect or refuse to comply with the requirements set forth in a notice issued pursuant to Section 906(a) then, and in that event, the Director shall cause to be removed or be adjusted so much of the utility facilities as may be required for the prosecution of the said authorized public work according to the plans and specifications for the work; and the incidental expenses incurred in the removal or adjustment shall be chargeable to the owner or operator failing, neglecting or refusing to comply with the requirements of the Notice, and may be recovered in an action at law brought in the name of the City against such owner or operator.

(b) If any owner or operator except a City agency or department shall fail, neglect or refuse to comply with the requirements set forth in a notice issued pursuant to Section 906(b) then, and in that event, the Director of Transportation shall cause to be removed or adjusted so much of the utility facilities as may be required for the prosecution of the said authorized public work according to the plans and specifications for the work; and the incidental expenses incurred in the removal or adjustment shall be chargeable to the owner or operator failing, neglecting or refusing to comply with the requirements of the Notice, and may be recovered in an action at law brought in the name of the City against such owner or operator.

(c) If any owner or operator except a City agency or department shall fail, neglect or refuse to comply with the requirements set forth in a notice issued pursuant to Section 906(c) then, and in that event, the General Manager shall cause to be removed or adjusted so much of the utility facilities as may be required for the prosecution of the said authorized public work according to the plans and specifications therefore the work; and the incidental expenses incurred in the removal or adjustment shall be chargeable to the owner or operator failing, neglecting or refusing to comply with the requirements of the notice, and may be recovered in an action at law brought in the name of the City against such owner or operator.

(Amended by Ord. 445-84, App. 11/13/84; Ord. 140-07, File No. 070621, App. 6/22/2007)

**SEC. 909. AGREEMENT WITH OWNER OR OPERATOR.**

(a) The Director, with the approval of the City Administrator, may enter into an agreement with the owner or operator of any utility facility which may require support, protection and working around in order to successfully prosecute the construction of public work, to have any such support, protection and working around including as a part of a contract for public work. The cost of any such support, protection and working around a utility facility shall be borne by the owner or operator thereof.

(b) The Director of Transportation may enter into an agreement with the owner or operator of any utility facility which may require support, protection and working around in order to successfully prosecute the construction of public work, to have any such support, protection and working around included as a part of a contract for public work. The cost of any such support, protection and working around a utility facility shall be borne by the owner or operator thereof.

(c) The General Manager, with the approval of the Public Utilities Commission, may enter into an agreement with the owner or operator of any utility facility which may require support, protection and working around in order to successfully prosecute the construction of public work, to have any such support, protection and working around included as a part of a contract for public work. The cost of any such support, protection and working around a utility facility shall be borne by the owner or operator thereof.

(Amended by Ord. 445-84, App. 11/13/84; Ord. 140-07, File No. 070621, App. 6/22/2007)

**SEC. 910. PROVISION FOR ADMINISTRATION, ETC.-COST.**

(a) Pursuant to Section 909(a) the Department will provide administration and other necessary services during the progress of the construction. The estimated cost of administration, preparation and supervision of the contract attributable to the work, shall be included in the agreement.

(b) Pursuant to Section 909(b) the Municipal Transportation Agency will provide administration and other necessary service during the progress of the construction. The estimated cost of administration, preparation and supervision of the contract attributable to the work, shall be included in the agreement.

(c) Pursuant to Section 909(c) the Public Utilities Commission will provide administration and other necessary service during the progress of the construction. The estimated cost of administration, preparation and supervision of the contract attributable to the work,

shall be included in the agreement.

(Amended by Ord. 445-84, App. 11/13/84; Ord. 140-07, File No. 070621, App. 6/22/2007)

### **SEC. 911. UNDERGROUND DISTRICTS DESIGNATED.**

For the purpose of removing poles and placing wires underground, the City shall be divided into districts designated as Underground Districts, which Underground Districts are more particularly described in Order No. 214 (Second Series) and amendments thereto and other ordinances on file in the Office of the Clerk of the Board, in the offices of the Director, and collected in a volume entitled "Legislated Underground Districts" and maintained by the Department. The yearly rate to be accomplished by converting from overhead facilities to underground construction shall be in accordance with the limitation imposed by the funds allocated by the Serving Companies for such conversion, as ordered and required by the California Public Utilities Commission.

(Amended by Ord. 223-83, App. 4/28/83; Ord. 140-07, File No. 070621, App. 6/22/2007)

### **SEC. 912. NEED FOR UNDERGROUND DISTRICT TO BE DETERMINED.**

Each Underground District shall be established by Ordinance on streets, public places, or stated areas having existing poles and overhead utility facilities, when required for reasons of public necessity, health, safety, or welfare, and when in the public interest for one or more of the following reasons:

- (a) To avoid or eliminate an unusually heavy concentration of overhead distribution facilities;
- (b) The street, road or right-of-way is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic;
- (c) The street, road or right-of-way adjoins or passes through a civic area, public recreation area, or an area of unusual scenic interest to the general public;
- (d) In connection with a public street improvement, street reconstruction between property lines, street widening or realignment.

(Added by Ord. 139-72, App. 5/26/72)

### **SEC. 913. REMOVAL OF OVERHEAD UTILITY FACILITIES IN DESIGNATED DISTRICTS-EXEMPTIONS.**

The removal of all existing surface and overhead utility facilities shall be completed in accordance with the Department of Public Works program. On/or after the date of completion in accordance with said program, no surface or overhead utility facilities shall be erected or installed for any purpose in any underground district, except as are exempted in this Article.

(Amended by Ord. 224-83, App. 4/28/83)

### **SEC. 914. EXEMPTIONS TO UNDERGROUNDING.**

The following are expressly exempted from the provisions of this Article, with respect to undergrounding:

Trolley poles and trolley contact wires used exclusively for the transmission of electrical power for transit vehicles; single primary distribution circuits and single telephone, telegraph or other cables which cross designated districts or parts thereof not further than to the extent of the width of a single street; terminal cabinets and meter boxes when the size and location have been approved by the Director. The feeders or electrical service conductors for the trolley contact wires shall conform to the undergrounding requirements of this Article.

Additional variances may be granted by the Director.

(Added by Ord. 139-72, App. 5/26/72)

### **SEC. 915. PUBLIC HEARING-NOTICES.**

Public hearings shall be held by the Director before the establishment of an underground district. Notices of the public hearing shall be conspicuously posted along all the streets within the district, and each affected property owner and owner or operator in such district shall be notified by mail of the time and place of the hearing, in accordance with the provisions of Section 920. Written protests, objections or other comments regarding the proposal must be filed with the Director before the date of the hearing, or may be made in person during the hearing or on the day to which action on the proposal may be postponed. If the underground district is approved by

the Director at this hearing, legislation will be forwarded to the Board of Supervisors for enactment of an ordinance establishing the district.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

#### **SEC. 916. REMOVAL OF OVERHEAD UTILITY FACILITIES-RESPONSIBILITY FOR-COST.**

The removal of overhead utility facilities shall be the responsibility of and be done by and at the cost of the owner or operator so owning, controlling, operating or using same. Before the underground installation of any utility facilities a permit for such installation shall first be secured pursuant to Section 901 hereof.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 917. RESPONSIBILITY OF PROPERTY OWNERS.**

In any district that the Board may designate as an Underground District, the owner of a building or other structure will provide, as necessary, at his expense, all conduit and associated equipment required to receive utility service between the facilities of the Serving Company and the terminal facility in or on the building or structure, and all trenching, excavation, backfilling and paving necessary to allow the installation of the service lateral. The installation of conduit or other enclosures within the building or structure, from the terminal facility, shall be made by the owner in accordance with the provisions of the San Francisco Electrical Code. The terminal facility shall be located at a point approved in accordance with the rules adopted by the Director of Public Works and satisfactory to the Serving Company.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 918. INSTALLATION OF SERVICE LATERAL.**

The Serving Company shall install the service lateral from its distribution line to the terminal facility of the building being served, and provide the conductor or conductors for such service, except as may be agreed between the owner and the Serving Company. Underground construction by the Serving Company shall be accomplished in accordance with the applicable provisions of the San Francisco Electrical Code and the rules and regulations of the California Public Utilities Commission.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 919. FAILURE OF PROPERTY OWNER TO INSTALL CONDUITS.**

In the event of failure on the part of a property owner to perform the required construction in accordance with the provisions of Section 917 within 30 days after receipt of a notice to provide such facilities, in order to permit completion of the service reconnection and the removal of the overhead wires and conductors by the Serving Company or Companies, the Director may order the disconnection and removal of any and all overhead electrical or other service wires or conductors supplying electrical or other service to such building or structure. In the event of such failure by the property owner to act, the Director may, at his discretion, perform the work required of property owners by Section 917, and is authorized to use and employ whatever labor, materials and devices may be necessary to effectually carry out the provisions of this Article. The total cost of the labor, materials and devices necessary for the performance of such work shall be paid by the owner of the building or structure for which such work was required.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

#### **SEC. 920. NOTICE TO PROPERTY OWNER OF DECLARATION OF PUBLIC NUISANCE.**

(a) When the Director has determined that a property owner has failed to perform the required construction in accordance with the provisions of Section 917 within the time required by Section 919, the Director shall notify the property owner that the property has been declared a public nuisance and order that such work be done ("Director's Notice"). One copy of the Director's Notice shall be posted in a conspicuous place upon the building or structure and one copy of the Director's Notice shall be sent to the property owner by certified mail at the address of such property owner as it appears on the last equalized assessment roll of the County or at the address to which the most recent real property tax bill for said building or structure was mailed by the Tax Collector. If no such address appears on the assessment roll of the County or of the Tax Collector, then a copy of the Director's Notice shall be addressed to the property owner at the address of the building or structure involved. The failure of the property owner to receive the Director's Notice shall not affect in any manner the validity of any proceedings taken hereunder including the sale of the property.

(b) The Director's Notice shall contain the following information:

- (1) The street address of the property sufficient for identification.
- (2) A statement that the property has been declared a public nuisance pursuant to Public Works Code § 944.
- (3) The work required to be done at the property to receive utility services at a building or structure on the property, as well as an estimate of the cost of such work if readily ascertainable.
- (4) The date by which the work required is to be commenced and completed by the property owner.
- (5) A statement that, in the event that the property owner fails to complete the work by the required date, the Director will take action to abate the public nuisance.
- (6) A statement of the manner in which the Director will abate the public nuisance by installing the necessary facilities on the property, as well as an estimate of the cost of such work if readily ascertainable.
- (7) A statement that low-income property owners should contact the Mayor's Office of Housing to determine whether they are eligible for a grant to hire a licensed electrician to perform the work required on their properties.
- (8) A statement that the City will hold the property owner responsible for all of the City's costs to enforce any of the requirements of this Article and to abate the public nuisance, including the cost of the required work, the Department's administrative and supervisory costs, and any costs incurred by other City departments including the City Attorney's Office.
- (9) A statement that the City will make the City's costs a special assessment against the property if the property owner fails to pay the City's costs.
- (10) The time, date and place during which the Director will conduct a hearing to determine whether the Director should abate the public nuisance by ordering that such work be done and assessing costs against the property for abating the nuisance.
- (11) A statement that the property owner may attend the hearing and provide evidence why the Director should not abate the public nuisance by ordering that such work be done or assess costs against the property for abating the nuisance.
- (12) Such additional information as the Director deems necessary to notify property owners of their duties and obligations to comply with any of the requirements of this Article.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

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### **SEC. 921. PROOF OF DELIVERY OR MAILING.**

- (a) The person mailing the Director's Notice to a property owner as provided in Section 920 shall file an affidavit or declaration thereof under penalty of perjury with the Director certifying to the time and manner in which such notice was given. He shall also file therewith any receipt card of such notice by certified mail.
- (b) The notice of hearing shall be posted and served at least 10 days prior to the time set for the hearing.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

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### **SEC. 922. HEARING.**

- (a) The hearing shall be held at the time and place designated in the Director's Notice to determine whether the Director should abate the public nuisance by ordering that such work be done and assess costs against the property for abating the nuisance. For good cause the hearing may be continued by the Director to a later time. Subject to the procedures prescribed by the Director for the orderly conduct of the hearing, all persons having an interest in the building or structure may present evidence materially bearing on the case for consideration by the Director.
- (b) The Director shall appoint a hearing officer to conduct the hearing by taking testimony and other evidence from the Department, the property owner and any other interested parties. The hearing officer shall have the same authority as the Director to hear and decide the case and to make any order hereinafter provided for including abating the public nuisance by ordering that the work be done and assessing costs against the property for abating the nuisance.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

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### **SEC. 923. ISSUANCE OF A DIRECTOR'S ORDER.**

(a) At the conclusion of the hearing, the hearing officer may issue an order abating the public nuisance by requiring that the work be done and assessing costs against the property for abating the nuisance ("Director's Order").

(b) The Director's Order shall set forth the following:

(1) The street address of the property where the Director has ordered the public nuisance to be abated sufficient for identification.

(2) A statement of the work required to be done to abate the public nuisance.

(3) A statement that the property owner has 30 days from the date of the Director's Order to abate the public nuisance by completing the required work.

(4) The date and time on which the Department will enter the property to do the work required to abate the public nuisance.

(5) A statement of the costs to be assessed against the property to abate the public nuisance, including the costs incurred to date and any additional costs to be incurred if the required work is not done by the date ordered by the Director.

(6) A statement that the property may be sold by the Tax Collector after three years for unpaid delinquent assessments.

(c) Upon written application of the property owner showing a reasonable cause for any delay, the Director may grant a reasonable extension of time not to exceed 30 days within which the work required to abate the public nuisance must be completed.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

#### **SEC. 924. POSTING AND SERVICE OF ORDER.**

A copy of the Director's Order shall be posted in a conspicuous place upon the building or structure and shall be served in the manner prescribed in Section 920 upon all persons to whom the notice of hearing is required to be served, and a copy shall be recorded in the office of the Recorder of the City and County.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

#### **SEC. 925. FORFEITURE OF PROPERTY OWNERS' RIGHT TO DO WORK.**

Upon a property owner's failure to comply with a Director's Order issued under Section 923 the property owner shall be deemed to have forfeited all right to do such work on said building or other structure except as the Director may otherwise allow.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

#### **SEC. 926. ASSESSMENT FOR COSTS.**

(a) The Director shall take action to have the costs of abating the public nuisance assessed against the property upon which said building or other structure is situated. Such costs shall include; (i) the cost of performing the required construction in accordance with the provisions of Section 917; (ii) an amount equal to 15 percent of such cost to cover the cost to the City for administration and supervision of the work required; and (iii) any costs incurred by any other City department, including the City Attorney's Office, in furtherance of the work done or related to any action, administrative proceeding, or special proceeding to abate the public nuisance.

(b) In any action, administrative proceeding, or special proceeding to abate the public nuisance, the prevailing party may seek recovery of attorneys' fees; provided, however, that the recovery of such fees is available only if the City, at the initiation of the individual action or proceeding, elects to seek recovery of its own attorneys' fees. In no action, administrative proceeding or special proceeding shall an award of attorneys' fees to the prevailing party exceed the amount of reasonable attorneys' fees incurred by the City in the action or proceeding.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

#### **SEC. 927. REPORT OF COSTS.**

The Department shall keep an account of the cost of all work done or caused to be done by the Department or by contract to which shall have been added the 15 percent administrative and supervisory cost and any costs incurred by any other City department and shall render an itemized report in writing to the Board of Supervisors showing such cost.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

## **SEC. 928. HEARING AND CONFIRMATION OF REPORT FOR SPECIAL ASSESSMENT OF COSTS.**

(a) At the time fixed for receiving and considering said report, the Board of Supervisors shall hear the same, together with any objections which may be raised by any property owner liable to be assessed for the cost described in said report, and thereupon may make such modifications in the report as the Board deems necessary, after which by motion or resolution said report shall be confirmed. The costs assessed for abating a public nuisance at the property, as confirmed by the Board of Supervisors, shall constitute a special assessment against the property and shall constitute a lien on said property for the amount of said assessment. After confirmation of said report, a copy thereof shall be transmitted to the Assessor and to the Tax Collector of the City and County, whereupon it shall be the duty of said officers to add the amount of said assessment to the next regular bill for taxes levied against said property for municipal purposes, and thereafter said amount shall be collected at the same time and in the same manner as ordinary City and County taxes are collected, and shall be subject to the same penalties and the same procedure under foreclosure and sale in case of delinquency as provided for ordinary taxes of the City and County of San Francisco.

(b) Notwithstanding any provision contained in this Article making the costs assessed for abating a public nuisance at the property a special assessment against the property upon which the same exists, said cost, as confirmed by the Board of Supervisors and to the extent that the same has not been paid to the City, shall be a personal obligation of the property owner and his heirs, successors and assigns, and said owner and his heirs, successors and assigns shall be liable to the City and County of San Francisco for the payment thereof.

(c) If any property to which the cost of the abatement relates has been transferred or conveyed to a bona fide purchaser for value, or if a lien of a bona fide encumbrancer for value has been created and attached thereon, prior to the date on which the first installment of taxes would become delinquent, then the cost of the abatement shall not result in a lien against the property, but shall instead be transferred to the unsecured roll for collection.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

## **SEC. 929. COSTS OF ABATING THE PUBLIC NUISANCE.**

(a) Whenever the Director, pursuant to authority conferred by this Article, shall abate a public nuisance on a property by causing the required construction in accordance with the provisions of Section 917 to be performed by the Department or pursuant to contract, or take any other action to enforce the requirements of this Article, the cost thereof shall be paid from the "Underground Public Nuisance Abatement Fund" and assessed against the property upon which the particular building or other structure is located.

(b) The assessment charged under Section 928 may be paid either in one lump sum payment or in 10 installments, which would be comprised of biannual payments during the five-year period. If the property owner chooses to pay the assessments in installments, a six percent interest charge shall be added annually.

(Added by Ord. 139-72, App. 5/26/72; amended by Ord. 305-97, App. 7/28/97; Ord. 140-07, File No. 070621, App. 6/22/2007)

## **SEC. 930. UNDERGROUND PUBLIC NUISANCE ABATEMENT FUND.**

(a) A special revolving fund, to be known as the "Underground Public Nuisance Abatement Fund," is hereby created for the purpose of defraying the costs and expenses which may be incurred by the Director to abate a public nuisance at a property or to enforce any of the other requirements of this Article. The Underground Public Nuisance Abatement Fund is a Category 8 fund under Section 10.100-1 of the San Francisco Administrative Code.

(b) The Board of Supervisors may by transfer or appropriation, establish or increase the special revolving fund with such sums as it may deem necessary in order to expedite the abatement of a public nuisance at a property or the enforcement of any of the other requirements of this Article. The special revolving fund shall be replenished with all funds collected under the proceedings herein provided for, either upon voluntary payments or as the result of sale of the property after delinquency, or otherwise. Balances remaining in the Underground Public Nuisance Abatement Fund at the close of any fiscal year shall be carried forward in such fund.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

## **SEC. 931. COMPLIANCE, RESCINDING ORDER.**

When the building or structure has been found to comply with requirements of the Director, the Director shall issue and record in the offices of the Recorder, City and County of San Francisco, an order rescinding his original order.

(Added by Ord. 139-72, App. 5/26/72)

**SEC. 932. PENALTY FOR EACH DAY OVERHEAD UTILITY FACILITIES ARE LEFT STANDING.**

Any owner or operator who, after the time specified by ordinance for each designated underground district shall neglect to take down and remove the overhead utility facilities, shall be guilty of a misdemeanor, and upon conviction, shall be fined not less than \$50 or more than \$200 for every day any part of such overhead utility facilities are left standing.

(Added by Ord. 139-72, App. 5/26/72)

**SEC. 933. TEMPORARY USE OF POLES AND OVERHEAD WIRES IN UNDERGROUND DISTRICTS.**

In cases requiring the temporary use of poles and overhead wires for the purpose of reporting conventions, meetings or other public gatherings, or in cases of emergency, permits may be granted by the Director for the erection of such facilities for a period not exceeding 60 days in each case, conditioned upon erection and maintenance in conformity with the Rules and Regulations of the Department. The Director, at his discretion, may grant extensions beyond 60 days if the emergency or special conditions still exist.

(Added by Ord. 139-72, App. 5/26/72)

**SEC. 934. REMOVAL OF TEMPORARY POLES AND OVERHEAD WIRES.**

After the expiration of a temporary permit issued pursuant to Section 933 and the emergency or special condition no longer exists, the person, firm, partnership, corporation or public utility shall remove all poles and overhead wires from the underground district in which such temporary use was permitted. Failure to comply with the provisions of this Section shall result in the same penalties as are specified in Section 932 of this Article.

(Added by Ord. 139-72, App. 5/26/72)

**SEC. 935. DUTIES OF THE DIRECTOR-AUTHORITY TO REMOVE OVERHEAD UTILITY FACILITIES.**

The Director shall be responsible for the enforcement of the provisions of this Article and the Rules and Regulations of the Department relative to and affecting the provisions of this Article, which may from time to time be issued by the Director. The Director, after the expiration of the time specified in Section 913, shall have the authority to order the removal, taking down and carrying away of any and all overhead utility facilities as may not have been previously removed by the Serving Company, as required by the provisions of this Article with respect to Underground Districts. The Director is hereby given authority to use and employ whatever labor, materials and devices may be necessary to effectually carry out the provisions of this Article. The total cost of the labor, materials and devices necessary for the taking down and removing of such overhead utility facilities shall be paid by the Serving Company.

(Added by Ord. 139-72, App. 5/26/72)

**SEC. 936. NEW CONSTRUCTION-INSTALLATION OF SERVICE.**

No permit shall be issued for construction of any new building or structure in any legislated underground district unless all electric, communication or other similar services are installed and provisions are made for receiving underground service when such underground service becomes available.

(Added by Ord. 139-72, App. 5/26/72)

**SEC. 937. UNDERGROUND UTILITY FACILITIES TO BE INCLUDED IN CONSTRUCTION OF NEW STREETS.**

The Director shall require that all utility facilities and appurtenances necessary to transmit, conduct, or convey electrical energy for the purpose of electric light, heat, power, telegraph, telephone, television signal, communication, or any other electrical service, shall be installed underground by any affected Serving Company when new streets are constructed. Underground distribution and service shall be required for approval of any subdivision map by the City. Such underground installations shall be complete installations as defined in Section 900(k) and (1).

(Added by Ord. 139-72, App. 5/26/72)

**SEC. 938. DIRECTOR MAY ENTER INTO AGREEMENT FOR JOINT CONSTRUCTION.**

The Director, with the approval of the City Administrator, may enter into an agreement with owners or operators of any utility

facilities required to be installed underground in any street area by any Ordinance or Code, for the purpose of constructing the utility facilities jointly with public governmental facilities under a public contract. Said owner or operator shall, under such agreement, proceed in accordance with the provisions of Section 910 of this Article.

(Added by Ord. 139-72, App. 5/26/72; Ord. 140-07, File No. 070621, App. 6/22/2007)

#### **SEC. 939. PROVISION FOR STREET LIGHTING IN PLANS.**

The Public Utilities Commission shall determine the intensity of illumination, number and spacing of lighting facilities and other details necessary to secure satisfactory street lighting.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 940. UNDERGROUND WIRED STREET LIGHTING, FIRE ALARM AND POLICE COMMUNICATION FACILITIES TO BE INCLUDED IN PLANS FOR CONSTRUCTION OF STREETS.**

The Director shall require that provision for underground wired street lighting, fire alarm and police communication facilities, including standards, all associated wires, cables, conduits, junction boxes, services, and all connections therewith, be included in all plans, maps, plats and specifications for the initial construction of streets.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 941. COST OF UNDERGROUND WIRED FACILITIES FOR STREET LIGHTING, FIRE ALARM AND POLICE COMMUNICATION SYSTEMS.**

The cost of underground wired facilities for street lighting, fire alarm and police communication systems shall be borne by the person, firm or corporation paying for the grading, paving, sidewalks and other street construction.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 942. MONEY TO BE INCLUDED IN FUND WHEN WORK DONE BY CITY.**

Money to cover the cost of underground wired street lighting facilities, fire alarm and police communication systems associated with work being done by the City shall be included in the fund provided for the street construction or reconstruction.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 943. UNDERGROUND WIRED FACILITIES FOR STREET LIGHTING, FIRE ALARM AND POLICE COMMUNICATION SYSTEMS TO BECOME PROPERTY OF CITY.**

All underground wired street lighting, fire alarm and police communication system facilities, including but not limited to, standards and all associated wires, cables, conduits, junction boxes, services, and all connections therewith, in streets constructed or reconstructed by individuals, firms, corporations, or assessment districts, shall become the property of the City on final completion and acceptance of the work, except when such facilities are installed and are to be owned and maintained by a public utility.

When accepted by the City, City-owned street lighting shall be under the jurisdiction of the San Francisco Public Utilities Commission for maintenance and operation. The Fire Alarm and Police Communication systems shall be under the jurisdiction of the San Francisco Department of Electricity for maintenance and operation.

(Added by Ord. 139-72, App. 5/26/72)

#### **SEC. 944. DECLARATION OF PUBLIC NUISANCE.**

Any property in which the property owner has failed to comply with an order issued by the Director under Section 923 is declared to be a public nuisance and the City may take all lawful action to abate the nuisance.

(Added by Ord. 140-07, File No. 070621, App. 6/22/2007)

## Appendix D

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### **The City and County of San Francisco Capital Plan**



THE CITY AND COUNTY  
OF SAN FRANCISCO  
CAPITAL PLAN

**ONESF**  
Building Our Future

Fiscal Years 2020-2029

**ONESF**  
Building Our Future

**There is only ONE  
San Francisco.**

**Let's take care of it.**



**City and County of San Francisco  
Capital Plan  
Fiscal Years 2020-2029**

Copies of this document can be found at <http://onesanfrancisco.org>  
or through the Office of Resilience and Capital Planning

City Hall, Room 347  
1 Dr. Carlton B. Goodlett Pl.  
San Francisco, CA 94102



In compliance with the San Francisco Administrative Code Section 3.20, I am pleased to submit the City and County of San Francisco Capital Plan for Fiscal Years (FY) 2020-2029. The guiding document for City infrastructure investments, this Plan assesses the City's capital needs, identifies the level of investment required to meet those needs, and provides a constrained plan of finance for the next 10 years.

The Capital Plan continues the City's commitment to plan and finance projects that will strengthen the integrity of San Francisco's infrastructure in an equitable way. The Plan recommends a record level of \$39 billion in investments that will improve San Francisco's resilience through critical seismic repairs and strengthening; transportation and utility system improvements; a stronger Seawall; modern public health and safety facilities; and safer streets for pedestrians, bicyclists, and drivers.

Even with this record level of investment, the Plan defers five billion dollars in identified capital needs for General Fund departments. Assuming continued seven percent annual growth in the Pay-As-You-Go Program, the state of good repair needs for those departments is not fully funded until FY2027. We must continue to invest in our infrastructure to contain costs and deliver the quality of life that our residents, workers, and visitors deserve.

We know that programmatic investments alone will not solve the problems San Francisco faces. Near-term investments to build additional affordable housing, mitigate seismic risks in our public health buildings, and ensure the safety and operational capability of our public safety departments in the wake of disaster will help safeguard our long-term viability.

San Francisco has long been a city resilient in the face of environmental, economic, and social challenges. The Capital Plan not only guides infrastructure investments but also builds public trust in the City's ability to do smart long-term planning. I look forward to working with the Mayor and the Board of Supervisors to enact the recommendations of this Plan and continuing to build a stronger San Francisco.

A handwritten signature in black ink that reads "Naomi M. Kelly". The signature is fluid and cursive, with a long, sweeping tail on the final letter.

Naomi M. Kelly  
City Administrator

# Acknowledgements

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# 01. Executive Summary

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- 09** Enterprise and External Agencies
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# 01. EXECUTIVE SUMMARY

The Fiscal Year FY2020-29 City and County of San Francisco Capital Plan (the Plan) is the City's commitment to building a more resilient and vibrant future for the residents, workers, and visitors of San Francisco. Updated every odd-numbered year, the Plan is a fiscally constrained expenditure plan that lays out anticipated infrastructure investments over the next decade. This document is the product of input from Citywide stakeholders, who have put forth their best ideas and most realistic estimates of San Francisco's future needs.

Projects in the Plan are divided into seven Service Areas: Economic and Neighborhood Development; General Government; Health and Human Services; Infrastructure and Streets; Public Safety; Recreation, Culture, and Education; and Transportation. Each Service Area chapter describes the associated Renewal Program, Enhancement Projects, Deferred Projects, and Emerging Needs. General Fund, Enterprise, and external agencies are all represented to give as full a picture of San Francisco's capital needs as possible.

A growing Bay Area economy has given rise to historic levels of capital investment in recent years. Spurred by a growing tax base, increases in General Fund revenues and debt issuance capacity have allowed San Francisco to fund a record level of capital projects over the last 10 years. As a result, San Francisco is now better positioned to build a healthy infrastructure program and meet the challenges ahead.

# Plan By the Numbers

The FY2020-29 Capital Plan generally retains most policies and practices set in prior year plans, including restrictions around issuing debt and priorities for certain capital programs such as the City's Americans with Disability Act (ADA) barrier removal efforts and street resurfacing. Policies governing the Plan are discussed in the Introduction as well as the Capital Sources chapter. The Plan also lays out a number of goals that continue key objectives from previous years, including robust funding for asset preservation, relocating critical City services to seismically sound facilities, and construction on hundreds of other public infrastructure projects to improve services and quality of life.

As shown in **Table 1.1**, this Plan captures \$27 billion in recommended direct City investments and \$12 billion in external agency investment, which total \$39 billion in capital improvements citywide. This work is estimated to create over 230,000 local jobs over the next decade.

**TABLE 1.1**

Capital Plan Summary in Five-Year Intervals (Dollars in Millions)	FY20-24	FY25-29	Plan Total
<b>BY SERVICE AREA</b>			
Public Safety	818	815	1,632
Health and Human Services	493	123	616
Infrastructure & Streets	6,344	3,306	9,650
Recreation, Culture, and Education	1,610	493	2,103
Economic & Neighborhood Development	4,229	2,923	7,152
Transportation	13,703	3,962	17,665
General Government	162	162	324
<b>TOTAL</b>	<b>27,359</b>	<b>11,784</b>	<b>39,143</b>
<b>BY DEPARTMENT TYPE</b>			
General Fund Departments	2,731	2,333	5,064
Enterprise Departments	14,954	5,308	20,261
City & County Subtotal	17,646	7,669	25,315
External Agencies	9,475	4,143	13,618
<b>TOTAL</b>	<b>27,359</b>	<b>11,784</b>	<b>39,143</b>

# Planned Project Highlights

San Francisco has many competing needs, and the capital program is no exception. Major projects with funding identified in this Plan include:

## General Fund Departments

- New homelessness services and health center
- Closure and demolition of the unsafe Hall of Justice
- Park system renovations, including Portsmouth Square
- Neighborhood Fire Stations program
- District Police Stations program
- Replacement fire training facility
- Department of Emergency Management 911 floor expansion
- ADA facilities and right-of-way barrier removal
- Zuckerberg San Francisco General and Laguna Honda Hospital campus improvements

## Enterprise Departments

- Fortification of the Seawall
- Pier 70 and Seawall Lot 337
- SFMTA facilities
- Muni Forward
- Vision Zero Pedestrian Safety Program
- Van Ness and Geary Bus Rapid Transit
- Water, Sewer, and Power Enterprise improvements
- SFO Terminal 1 and 3 improvements

## External Agencies

- Affordable housing developments
- Treasure Island redevelopment
- City College seismic and code upgrades
- Modernization of SFUSD sites



UN Plaza

# General Fund Departments

General Fund departments primarily rely on the General Fund to support their infrastructure needs. **Table 1.2** outlines a program summary of planned General Fund department investments, as well as projects deferred from the Plan due to funding limitations. These projects and more are discussed in the Plan's Service Area chapters.

TABLE 1.2

General Fund Department Program Summary (Dollars in Millions)		
Renewal Investments	FUNDED	DEFERRED
Facilities	738	723
Streets	897	478
Other Right-of-Way Assets	382	136
<i>Subtotal, Renewals</i>	<b>2,017</b>	<b>1,337</b>
Capital Enhancement Investments	FUNDED	DEFERRED
<b>Earthquake and Safety Improvements</b>		
HOJ Relocation Projects	603	
Public Safety Training Facility	150	
SFFD Neighborhood Stations	125	
Emergency Firefighting Water System	154	
Treasure Island Neighborhood Fire House Replacement	20	
District Police Stations and Facilities	121	
ZSFG Building 80/90 Renovation & Seismic Retrofit	150	
Clinics Seismic Upgrade and Improvements	70	
Family Services Center / City Offices	50	
911 Center Workstation Upgrades and Renovation	9	
DEM 1011 Turk Street/Headquarters Expansion		48
SFFD Bureau of Equipment Relocation		98
SFPD Central District Station Replacement		81
Other Earthquake & Safety Improvements	342	41
<i>Subtotal</i>	<b>1,793</b>	<b>268</b>

Enhancements (continued)	FUNDED	DEFERRED
<b>Disability Access Improvements</b>		
Facilities	10	
Sidewalk Improvements and Repair Program	50	
Ongoing Curb Ramp Program	94	
<i>Subtotal</i>	<b>153</b>	
<b>Parks, Open Space &amp; Greening Improvements</b>		
Parks and Open Space G.O. Bond Projects	455	
Other Parks, Open Space & Greening Improvements	150	7
<i>Subtotal</i>	<b>605</b>	<b>7</b>
<b>Street Infrastructure Improvements</b>		
Better Market Street	129	546
Islais Creek and 4th St Bridge Rehabilitation	36	
Other Street Infrastructure Improvements	27	1,015
<i>Subtotal</i>	<b>193</b>	<b>1,561</b>
<b>Other Improvements</b>		
Branch Library Renovations	38	
Utility Undergrounding		1,552
Other Projects	265	245
<i>Subtotal</i>	<b>303</b>	<b>1,796</b>
<b>SUBTOTAL, ENHANCEMENTS</b>	<b>3,047</b>	<b>3,633</b>
<b>PLAN TOTAL</b>	<b>5,064</b>	<b>4,970</b>

# Pay-As-You-Go Program

The Plan proposes funding the majority of the City's ongoing annual needs with General Fund dollars and SB1 funds through the Pay-As-You-Go (Pay-Go) Program. These are typically smaller investments to maintain facilities and infrastructure in a state of good repair or fund critical infrastructure needs. Within the Pay-Go Program, projects are categorized as Routine Maintenance, ADA Facilities, ADA Public Right-of-Way, Street Resurfacing, Critical Enhancements, Facility Renewal, and Right-of-Way Infrastructure Renewal.

**Table 1.3** provides a summary of the Plan's planned funding for the Pay-Go Program by expenditure category.

TABLE 1.3

Pay-Go Program Funding (Dollars in Millions)	FY20-24	FY25-29	Plan Total
Routine Maintenance	74	95	169
ADA: Facilities	5	5	10
ADA: Public Right-of-Way	44	56	99
Street Resurfacing	351	450	801
Enhancements	50	50	100
Recreation and Parks Base Commitment	75	75	150
Capital Contribution to Street Tree Set-aside	28	36	64
ROW Infrastructure Renewal	45	81	126
Facility Renewal	232	421	653
<b>Total Projected Funding</b>	<b>904</b>	<b>1,268</b>	<b>2,172</b>

# Enterprise and External Agencies

This Plan compiles information provided by the City’s Enterprise departments—the Port of San Francisco, the San Francisco Metropolitan Transportation Agency, San Francisco International Airport, and the San Francisco Public Utilities Commission. Those departments have their own timelines and Commissions that govern their capital processes. The information in this Plan represents the best available at the time of publication.

The Plan captures over \$20 billion in Enterprise department capital investments during the next 10 years.

Major projects identified in the last Plan such as the Seawall, Central Subway, the Transbay Transit Center, Pier 70, and SFO terminal improvements, are proceeding. Additional Enterprise department needs have arisen, notably the need to build adequate facilities to support our growing transit fleet.

TABLE 1.4

Planned Revenue Bond Issuances FY2020-29 (Dollars in Millions)			
Agency	FY20-24	FY25-29	Total
PUC	4,556	1,233	5,789
Airport	4,363	-	4,363
SFMTA	0.2	-	0.2
<b>Total</b>	<b>8,919</b>	<b>1,233</b>	<b>10,152</b>

Enterprise departments appear in this Plan’s G.O. Bond Program. The SFMTA passed a \$500 million Transportation G.O. Bond in 2014, and the Seawall won approval for a \$425 million G.O. Bond in 2018. The next Transportation G.O. Bond is here planned for 2022.

The Enterprise departments also issue revenue bonds against the revenues generated from user fees, taxes, and surcharges. **Table 1.4** shows the current amount of revenue bonds to be issued for each department over the 10-year term of this Plan.

As with the G.O. Bond and COP Programs, all revenue bond issuances are subject to change based on market conditions and cash flow needs of the associated projects.

For external agencies—City College of San Francisco, San Francisco Unified School District, the San Francisco Housing Authority, Treasure Island Development Agency, and the Office of Community Investment & Infrastructure (the successor agency to the Redevelopment Authority)—the Plan shows \$14 billion in capital investments over the next 10 years. As affordable housing funding supports the development of units that will ultimately be held and managed by third parties, planned investments in that area are represented as external.

# General Obligation Bonds

The Plan anticipates \$2.7 billion in General Obligation (G.O.) Bonds over the next 10 years. G.O. Bonds are backed by the City’s property tax revenue and are repaid directly out of property taxes through a fund held by the Treasurer’s Office.

**Table 1.5** shows the Capital Plan’s G.O. Bond Program for the next 10 years.

**Chart 1.1** illustrates the relationship between the G.O. Bond Program and the local property tax rate, including existing and outstanding issuance and voter-approved Bonds. This view shows the City’s policy constraint that G.O. Bonds will not increase the property tax rate above 2006 levels.

All amounts attributed to future debt programs are estimates and may need to be adjusted.

TABLE 1.5

G.O. Bond Program (Dollars in Millions)		
Election Date	Bond Program	Amount
Nov 2019	Affordable Housing	500
Mar 2020	Earthquake Safety & Emergency Response	628.5
Nov 2020	Parks & Open Space	255
Jun 2022	Transportation	500
Nov 2023	Public Health	220
Nov 2026	Waterfront Safety	150
Nov 2027	Earthquake Safety & Emergency Response	271.5
Nov 2028	Parks & Open Space	200
<b>Total</b>		<b>2,725</b>

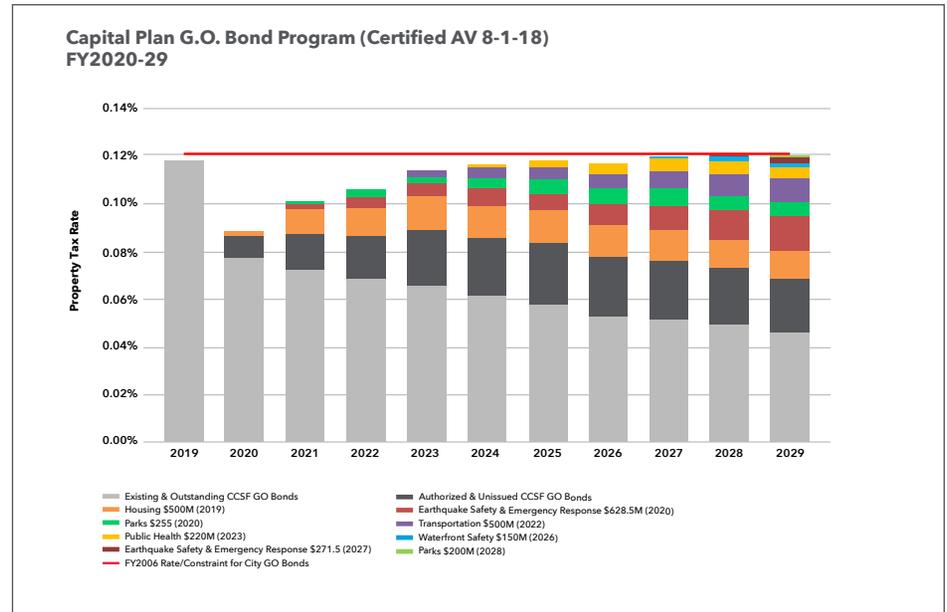


CHART 1.1

# Certificates of Participation

The Plan anticipates \$963 million in Certificates of Participation (COPs), also known as General Fund debt, over the next 10 years. COPs are backed by a physical asset in the City’s capital portfolio, and repayments are appropriated each year out of the General Fund.

**Table 1.6** shows the Capital Plan’s COP Program for the next 10 years.

**Chart 1.2** illustrates the COP program against the City’s policy constraint for General Fund debt not to exceed 3.25% of General Fund Discretionary Revenue.

All amounts attributed to future debt programs are estimates and may need to be adjusted.

TABLE 1.6

COP Program (Dollars in Millions)		
Fiscal Year of Issuance	Project	Amount
FY2019	Public Health 101 Grove Exit	108
FY2019	HOPE SF Horizontal Infrastructure	57
FY2020	Family Services Center/City Offices	50
FY2020	Hall of Justice Relocation Projects	131
FY2022	Critical Repairs Recession Allowance	60
FY2023	Critical Repairs Recession Allowance	60
FY2025	Hall of Justice Demolition & Enclosure	55
FY2026	Public Works Yards Consolidation	25
FY2028	Hall of Justice Consolidation Plan	417
<b>Total</b>		<b>963</b>

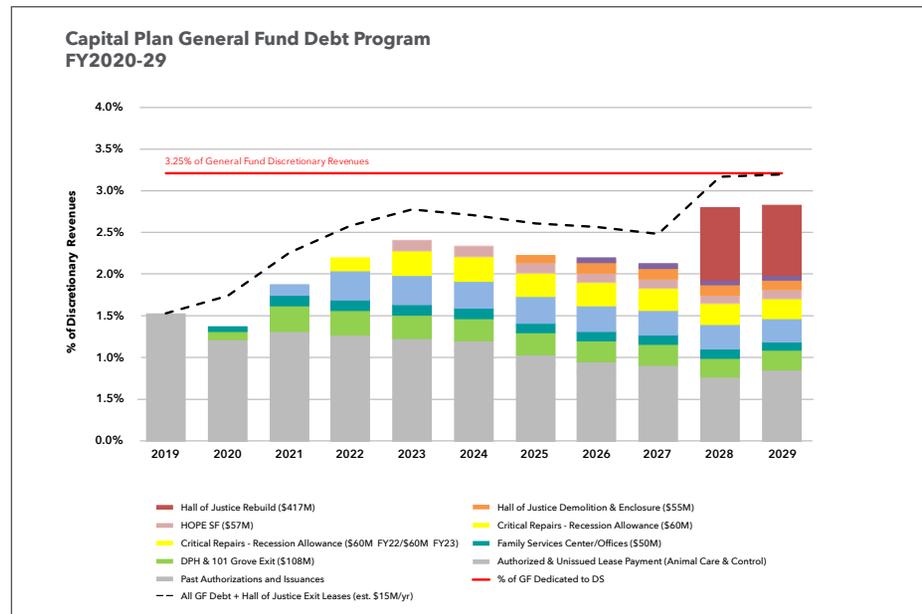


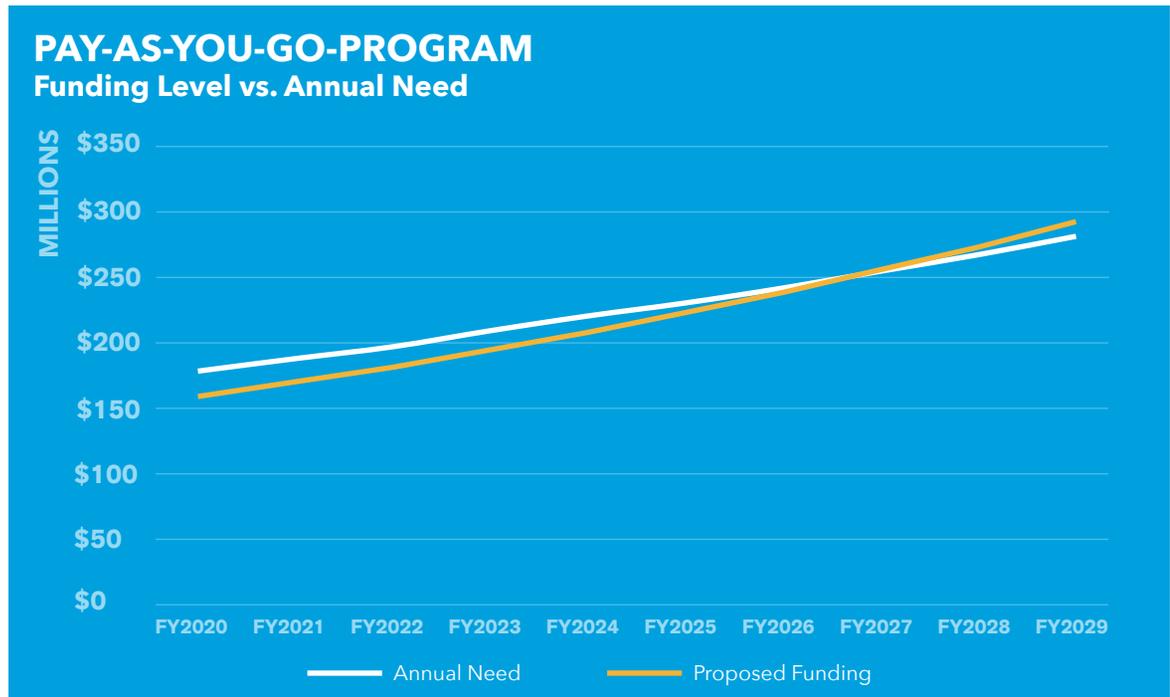
CHART 1.2

# Towards Resilience

This Capital Plan recommends historic levels of funding at \$39 billion over 10 years, compared to \$35 billion in the last Plan two years ago. Despite this, the Plan defers nearly \$5 billion in identified needs for General Fund departments.

**Chart 1.3** shows that San Francisco will begin to fully address its annual renewal needs starting in FY2027 if the Pay-Go Program is funded at Plan-recommended levels. This is the first time in recent years that the backlog is expected to decrease in the Plan's timeframe. It is important that the City take advantage of current economic conditions to achieve or exceed the recommendations of this Plan to continue to make progress against the backlog.

San Francisco's growing Capital Plan reflects confidence in the City's capacity to administer our capital program in a responsible and transparent manner that employs best practices in financial management. This includes establishing



**CHART 1.3**

financial constraints around each funding program to promote its long-term viability, listing unfunded and deferred projects, and establishing funding principles.

Taking care of our capital infrastructure is an important part of building a resilient

city. Throughout this Plan, San Francisco has prioritized projects and initiatives that build the capacity of individuals, communities, institutions, businesses, and systems to survive, adapt, and grow, no matter what kind of chronic stresses and acute shocks they may experience.



## 02. Introduction

- 16** Capital Planning in San Francisco
- 18** Policies, Principles, and Goals
- 22** Resilience and Sustainability
- 22** Capital Outlook

# Capital Planning in San Francisco

The Fiscal Year FY2020-29 City and County of San Francisco Capital Plan (the Plan) is the City's commitment to building a more resilient and vibrant future for the residents, workers, and visitors of San Francisco. Updated every odd-numbered year, the Plan is a fiscally constrained expenditure plan that lays out anticipated infrastructure investments over the next decade. This document is the product of input from Citywide stakeholders, who have put forth their best ideas and most realistic estimates of San Francisco's future capital needs.

Through the application of consistent funding principles and fiscal policies, the Plan prioritizes departmental capital needs within defined fiscal constraints. The result is a road map for investments in San Francisco's streets, facilities, utilities, parks, waterfront, and transportation systems.

Developed on the centennial of the 1906 earthquake, San Francisco's first Capital Plan described the City's renewed dedication to investing in public facilities and infrastructure for FY2007-2016. Since that first Plan, the City's commitment to our capital portfolio has grown substantially. The first Plan called for \$15.7 billion to address earthquake safety, modernization, and maintenance needs for City buildings and infrastructure. The level of recommended funding steadily grew as better capital planning practices were employed, infrastructure systems and facilities reached the end of their useful life, and the City dug out of extremely low levels of investment from the mid-1970s to 2008.

**The current Plan recommends a record \$39 billion in critical infrastructure improvements over the next 10 years. This is \$4 billion more than the previous Plan.**

Drivers of this increase include (1) large investments in and fees from developing areas in the southeastern part of the city and at Treasure Island; (2) continued use of G.O. Bonds against growing assessed

value to address the transportation network, parks and open space, sewers, and critical facilities; (3) strong capital programs from San Francisco's enterprise departments; and (4) year-over-year growth to keep existing City assets in a state of good repair.

The planned growth reflects confidence in the City's capacity to administer capital projects and programs in a responsible, transparent manner using best practices in financial management. Such practices include establishing constraints around each funding program to promote long-term viability, listing what is unfunded or deferred, and establishing funding principles, among others. It also recognizes San Francisco's appreciation for the long-term benefits of investing in public infrastructure.

San Francisco's voters have approved nearly \$4 billion in G.O. Bonds since 2008, more than the previous 50 years of G.O. Bonds combined.

**TABLE 2.1: G.O. Bonds Passed Since 2008**

Year	G.O. Bond Program	Amount (Dollars in Millions)
2008	Neighborhood Parks & Open Space	180
2008	Public Health Seismic Facilities	887
2010	Earthquake Safety & Emergency Response	412
2011	Road Resurfacing & Street Safety	248
2012	Neighborhood Parks & Open Space	195
2014	Earthquake Safety & Emergency Response	400
2014	Transportation	500
2015	Affordable Housing	310
2016	Public Health & Safety	350
2018	Seawall Program	425
<b>Total</b>		<b>3,907</b>



Street Repaving

# Policies, Principles, and Goals

The FY2020-29 Capital Plan retains many of the policies set in prior years to ensure good stewardship of public funds and assets. These include the application of funding principles, restrictions around issuing debt, and setting funding targets for priority programs. The Plan's policies govern the level and distribution of funds that feed into the Plan while the funding principles show how the funds will be prioritized.

## Pay-Go Program Policies

The Capital Plan recommends a funding level in line with the previous Plan: \$157.2 million in Pay-As-You-Go (Pay-Go) in FY2020, escalated by 7% annually thereafter.

The Pay-Go Program policies are:

- The Pay-Go funding level will grow at an annual rate of 7%. This enables the program to grow at a higher rate than inflation so that the existing backlog and ongoing needs can be addressed.

TABLE 2.2

Pay-Go Program Funding (Dollars in Millions)	FY20-24	FY25-29	Plan Total
Routine Maintenance	74	95	169
ADA: Facilities	5	5	10
ADA: Public Right-of-Way	44	56	99
Street Resurfacing	351	450	801
Enhancements	50	50	100
Recreation and Parks Base Commitment	75	75	150
Capital Contribution to Street Tree Set-aside	28	36	64
ROW Infrastructure Renewal	45	81	126
Facility Renewal	232	421	653
<b>Total Projected Funding</b>	<b>904</b>	<b>1,268</b>	<b>2,172</b>

- The Street Resurfacing Program will be funded at the level needed to achieve a “Good” Pavement Condition Index (PCI) score of 75 by FY2025.
- ADA barrier access removal projects will continue to be prioritized, with the ongoing Curb Ramps right-of-way program fully funded.
- Ten million dollars of Pay-Go funds each year are expected to fund critical emergencies and enhancement projects not covered through debt programs.

Several voter-determined outcomes over the past two years have affected the Pay-Go Program. Recently approved set-asides for the Recreation and Parks Department and street trees maintenance without associated revenue sources have resulted in restrictions on General Fund spending. These measures have reduced the flexibility of the Pay-Go Program.

For more information on the Pay-Go Program, please **Chapter Five: Sources of Funds**.

## Debt Program Policies

The policy constraint for the G.O. Bond Program is:

- G.O. Bonds under the control of the City will not increase long-term property tax rates above FY2006 levels. In other words, G.O. Bonds under control of the City and County of San Francisco will only be used as existing bonds are retired and/or the city's assessed value grows.

Consistent with the March 2019 update of the Five-Year Financial Plan, the G.O. Bond Program assumes growth in Net Assessed Value of 6.49% in FY2020, 4.51% in FY2021, 4.31% in FY2022, 4.03% in FY2023, 4.03% in FY2024, and 3.50% annually thereafter.

The policy constraint for the Certificates of Participation (General Fund Debt) Program is:

- The amount spent on debt service in the General Fund Debt Program will not exceed 3.25% of General Fund discretionary revenues.

Consistent with the Five-Year Financial Plan, the Plan assumes that General Fund discretionary revenues grow 4.50% in FY2020, 3.79% in FY2021, and 3.15% in FY2022, 2.97% in FY2023, 3.19% in FY2024, and 3.50% annually thereafter.

## General Policies

The Capital Plan uses the Annual Infrastructure Construction Cost Inflation Estimate (AICCIE) developed by the Office of Resilience and Capital Planning and approved by the Capital Planning Committee for the first two years of the Capital Plan. For this Plan, that figure is 6.0%. Thereafter, the Plan assumes an annual escalation rate of 5.0% unless otherwise noted.

The City uses a revolving Capital Planning Fund primarily to support pre-development of projects for inclusion in bonds with the expectation that these funds will be reimbursed at bond issuance.

Departments with major building projects within the Plan's time horizon

are expected to develop estimates for the impact on the City's operating budget as part of project development. Those impacts appear in the Plan to the extent they are known at publication and are further discussed as a standard component of requests made to the Capital Planning Committee. Operating impacts are also considered during the City's annual budget development process. The financial impact of operations is not recorded in the Plan but is addressed for major projects in the City's Five-Year Financial Plan.



## Funding Principles

The funding principles for the Capital Plan are the categories used to make trade-offs between competing needs. They help San Francisco to keep our long-term perspective when it comes time to make choices about major projects and offer a consistent and logical framework for some of the City's most difficult conversations.

**San Francisco strives for equity across our programs and investments.** For capital, this means enabling access and supporting departments in their respective equity plans, which include considerations of race, age, income, geography, ability, and more.



## FUNDING PRINCIPLE 1: ADDRESSES LEGAL OR REGULATORY MANDATE

Improvement is necessary to comply with a federal, state, or local legal or regulatory mandate.

The City faces a wide range of directives and requirements for our facilities, some with significant consequences for failure to perform. Action in these cases is required by law, legal judgment, or court order, or it can proactively reduce the City's exposure to legal liability. The legal, financial, operating, and accreditation consequences for failure to perform are all weighed when considering these types of projects.



## FUNDING PRINCIPLE 2: PROTECTS LIFE SAFETY AND ENHANCES RESILIENCE

Improvement provides for the imminent life, health, safety, and/or security of occupants and/or the public or prevents the loss of use of an asset.

Life safety projects minimize physical danger to those who use and work in City facilities, including protection during seismic events and from hazardous materials. Considerations for these projects include the seismic rating of a facility, the potential for increased resilience in the face of disaster, and the mitigation of material and environmental hazards for those who visit, use, and work in City facilities.



### **FUNDING PRINCIPLE 3: ENSURES ASSET PRESERVATION AND SUSTAINABILITY**

Asset preservation projects ensure timely maintenance and renewal of existing infrastructure.

It is imperative to maintain the City's infrastructure in a state of good repair so that the City's operations are not compromised and resources are not squandered by failing to care for what we own. It is also important to support projects that lessen the City's impact on the environment. Some assets are more critical than others; for example, some facilities provide services that cannot be easily reproduced at another location or serve as emergency operations centers. Considerations for these projects include the effect on the asset's long-term life, importance for government operations, and environmental impact.



### **FUNDING PRINCIPLE 4: SERVES PROGRAMMATIC OR PLANNED NEEDS**

This set of projects supports formal programs or objectives of an adopted plan or action by the City's elected officials.

Integrated with departmental and Citywide goals and objectives, this funding principle aims to align capital projects with operational priorities. Considerations for this type of project include confirmation that they will contribute to a formally adopted plan or action from the Board of Supervisors or the Mayor.



### **FUNDING PRINCIPLE 5: PROMOTES ECONOMIC DEVELOPMENT**

Economic development projects enhance the City's economic vitality by stimulating the local economy, increasing revenue, improving government effectiveness, or reducing operating costs.

These projects may have a direct or indirect effect on the City's revenues or may help to realize cost savings. Considerations for this type of project include the potential for savings, the level of revenue generation (either direct through leases, fees, service charges, or other sources; or indirect, such as increased tax base, business attraction or retention, etc.), and any improvements to government service delivery, such as faster response times, improved customer service, or increased departmental coordination.

## Resilience and Sustainability

As the stewards of San Francisco's public infrastructure, capital planning stakeholders in San Francisco look for ways to increase the City's resilience and sustainability via our capital program. Resilience describes the capacity of San Francisco's individuals, communities, institutions, businesses, and systems to survive, adapt, and grow, no matter what kind of chronic stresses and acute shocks they may experience. For San Francisco this means (1) the ability to quickly respond to a disaster or large shock; (2) the ability to recover from systemic crises such as economic downturns, poverty, and housing shortages; and (3) the ability to prepare for and address slow-moving disasters like climate change and sea level rise.

As a coastal city in a dense metropolitan region, San Francisco faces a wide range of challenges when it comes to promoting sustainability in our infrastructural programs and projects. Sustainability in San Francisco means promoting green building, clean energy,



King Tides on the Embarcadero

mass transit, urban forestry, and careful planning, as well as preserving our existing assets to reduce the need for additional building.

For more information about capital-related efforts supporting these goals, please see **Chapter Four: Building Our Future.**

## Capital Outlook

The booming Bay Area economy and the support of the Mayor, Board of Supervisors, and citizens of San Francisco have given rise to historic levels of capital investment in recent years. As a result, San Francisco is better positioned to build a healthy and well-balanced infrastructure program for future generations. However, there are challenges ahead. A potential economic slowdown or downturn looms. The age of the City's infrastructure, combined with the large population growth in formerly industrial areas, some large replacement projects, persistent construction cost escalation, and rising sea levels all translate into substantial demands on the City's limited resources.

The Plan recommends a record level of funding at \$39 billion over 10 years. Despite this, the Plan defers \$5 billion in identified needs for General Fund departments and does not fully fund annual state of good repair needs until FY2027, assuming recommended Pay-As-You-Go program funding levels as shown in **Chart 2.1**. With this in mind, it is important that the City strive to

take advantage of current economic conditions and one-time revenues to achieve or exceed the recommendations of this Plan.

Years of historic underinvestment in the City's capital program has resulted in a current backlog of \$799 million for streets and General Fund facilities. The backlog is defined as the difference between the total current renewal need and the portion of this need that is funded in the first year of the Plan. The total current renewal need includes both items identified by departments as deferred maintenance, as well as first-year renewal needs.

Under this Plan, if the City meets the Plan's funding recommendations, the existing backlog is projected to start trending downward after FY2027. As compared to the current level, the backlog is still projected to increase 106% to approximately \$1.1 billion by FY2029, as shown in **Chart 2.2**. This expected increase is the result of needs accumulated during low spending periods and projected cost escalation of today's backlog. To address the gap, the City continues to investigate

various approaches, including revising funding benchmarks, leveraging the value of City-owned assets for debt financing, preparing projects for voter consideration at the ballot, forming public-private partnerships, and exploring new revenue sources.

In addition to the formidable backlog, there are a number of other issues that the City will face with regard to our capital program, and the associated risks will have to be managed.

The regional boom in private sector construction continues to drive up demand for construction services, and with it, overall construction costs. While this activity buoys the local economy, the rising cost of construction strains available resources. Recovery efforts from natural disasters across northern California are further exacerbating the already tight labor market. Meanwhile, the prospect of a downturn continues to linger on the horizon.

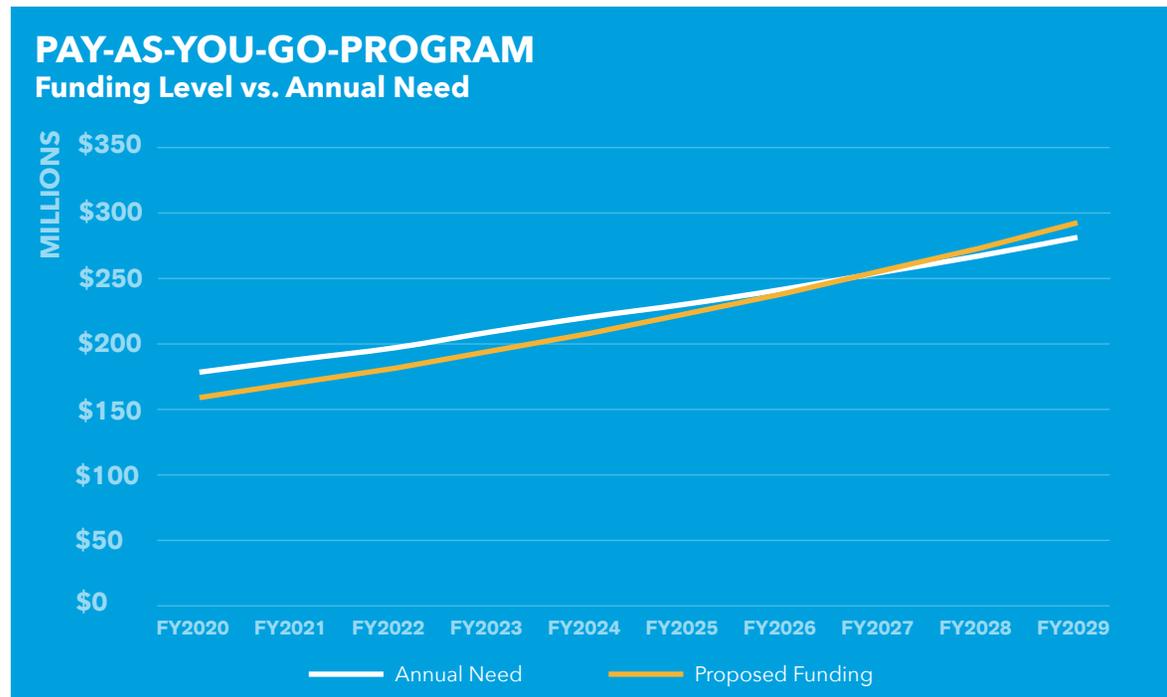


CHART 2.1

New construction in the formerly industrial eastern reaches of the city continues to accelerate demand for and usage of transit, streets and other right-of-way infrastructure, and open spaces. San Francisco must accommodate that growth while balancing state-of-good-repair needs and absorbing greater operating and renewal costs.

Finally, San Francisco's resilience mindset presents its own challenges. As a densely populated, aging city situated between two fault lines and surrounded by water on three sides, the threats of disaster and climate change raise serious safety concerns. At the same time, obstacles both physical and financial threaten the fabric of San Francisco's communities. Without letting any one fade, the City must balance our efforts on these fronts to keep all of them moving forward.

Aligning the capital budget with the Plan's recommendations in the years to come will be challenging as competing needs persist and arise. However, San Francisco has taken many steps that demonstrate our commitment to carrying out the Capital Plan's

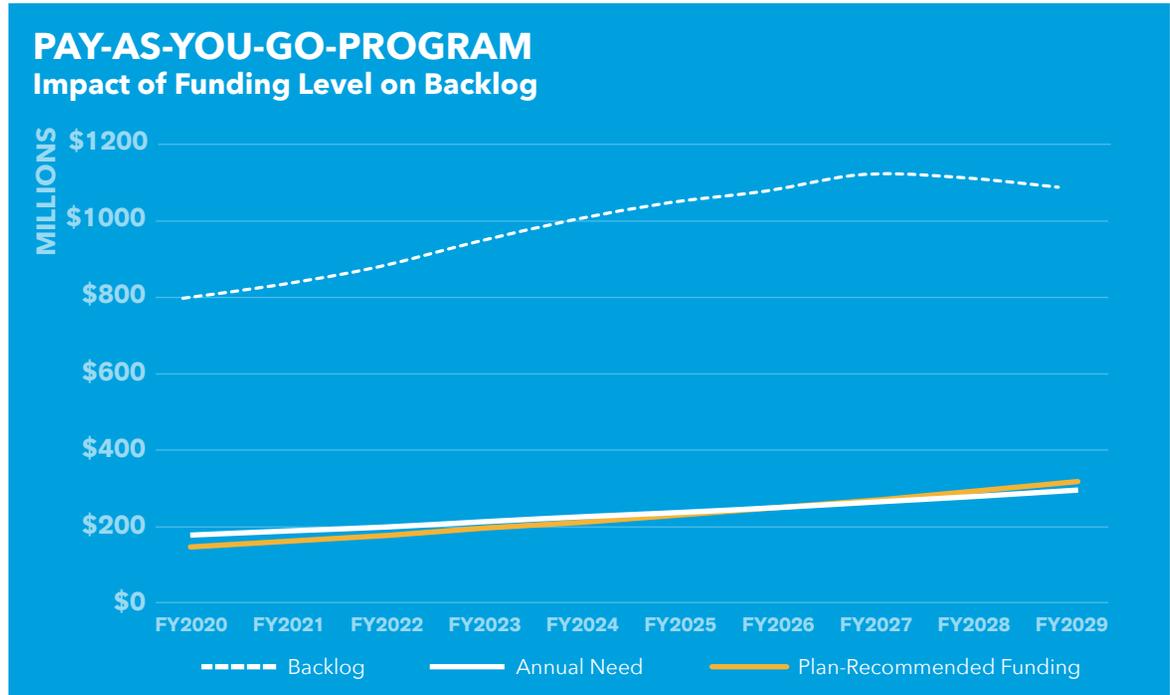


CHART 2.2

recommendations, including but not limited to: increasing the General Fund contribution to the capital budget, continuing “smart” General Obligation and General Fund Debt Programs that tackle critical needs, and developing strategies for addressing infrastructure demands associated with projected growth.

This Capital Plan puts forth a robust plan that balances maintaining current

assets in a state of good repair with meeting San Francisco's growing service and population needs. Though there are risks associated with rising construction costs, a substantial capital backlog, the scale of our resilience goals, and a potential economic slowdown or downturn, the City's capital program is undoubtedly much better positioned than it was at the time of the first Capital Plan in 2006.

## Appendix E

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### **Order Instituting Rulemaking to Consider Revisions To Electric Rule 20 and Related Matters**

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to  
Consider Revisions to Electric Rule 20  
and Related Matters.

FILED  
PUBLIC UTILITIES COMMISSION  
MAY 11, 2017  
MERCED, CALIFORNIA  
RULEMAKING 17-05-010

**ORDER INSTITUTING RULEMAKING TO CONSIDER REVISIONS  
TO ELECTRIC RULE 20 AND RELATED MATTERS**

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## **ORDER INSTITUTING RULEMAKING TO CONSIDER REVISIONS TO ELECTRIC RULE 20 AND RELATED MATTERS**

### **Summary**

This Order institutes a rulemaking proceeding to consider revisions to Rule 20, the Commission's program for replacement of overhead with underground electric facilities.

The Commission may revise or otherwise modify Rule 20, or take another course of action based on the Commission's assessment of which option is most likely to enhance the fair, efficient allocation of ratepayer funds to communities for the undergrounding of electric infrastructure in specified locations and circumstances. The Commission will primarily focus on revisions to Electric Tariff Rule 20A but may make conforming changes to the other parts of Rule 20.

### **1. Summary of Electric Tariff Rule 20A**

Rule 20 defines the policies and procedures followed by the electric utilities to convert overhead power lines and other equipment to underground facilities. Rule 20A is part of Electric Tariff Rule 20 of the California investor-owned electric utilities, including Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), PacifiCorp, Bear Valley Electric Service Company (BVES), and Liberty Utilities (Liberty).<sup>1</sup> Under Rule 20A, these utilities annually allocate work credits to California's communities – either cities or unincorporated areas of counties – to convert overhead electric facilities to underground. The

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<sup>1</sup> Rule 20 includes four sets of rules – Rule 20A, 20B, 20C and 20D. While the rules are interrelated, the scope of this updated rulemaking focuses on revisions to Rule 20A and conforming changes to Rules 20B, 20C and 20D.

communities accumulate their annual allocations until they have enough credits to fund an undergrounding project. After the local communities work with their utility to complete the project, the utility requests authorization from the Commission to include completed projects in its rate base and recover project costs from ratepayers.

As discussed in earlier Commission decisions, the public overwhelmingly supports the undergrounding of electric facilities for a variety of reasons. Undergrounding enhances safety and reliability, provides aesthetic benefits, and increases property values.<sup>2</sup> In general, undergrounding a facility may make the system more reliable (since the facility is protected by being underground). At the same time, undergrounding may make the electric system less resilient since accessing the line/facility is made more complicated (and therefore taking longer when compared to above-ground facilities).

The Commission has also approved parallel rules to Rule 20A for the undergrounding of communications lines and facilities. Undergrounding of electric and communication facilities often needs to be coordinated because utilities attach different types of infrastructure to utility poles; undergrounding only the electric facility may not achieve the public interest benefits of undergrounding.

When it established the Rule 20A undergrounding program, the Commission required that any such projects must have been determined, by the

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<sup>2</sup> See, for example, Decision (D.) 73078 (67 CPUC 490, 512) and D.01-12-009 at 19.

governing body of the community, to be in the public interest for one or more of the following reasons:<sup>3</sup>

1. Undergrounding will avoid or eliminate an unusual heavy concentration of overhead electric facilities;
2. The street or road or right-of-way is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic;
3. The street or road or right-of-way adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public; and
4. The street or road or right-of-way is considered an arterial street or major collector as defined in the Governor's Office of Planning and Research Guidelines.

We note that the Rule 20A tariffs of PG&E and SDG&E also require that the governing body to acknowledge that wheelchair access is in the public interest and will be considered as a basis for defining the boundaries of projects that otherwise qualify for Rule 20A under the four criteria listed above.

Currently, annual work credit allocations are based on the amount allocated to a city or a county in 1990 as the base and adjusted for the following:

- 50% of the change from the 1990 total budgeted amount is allocated in the same ratio as the number of overhead meters in any city or unincorporated area to the total system overhead meters; and
- 50% of the change from the 1990 total budgeted amount is allocated in the same ratio as the total number of meters in any city or the unincorporated area to the total system meters.

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<sup>3</sup> The first three criteria date back to the 1967 creation of the program in D.73078. The Commission added the fourth criterion in 2001.

The intent of this allocation formula is to insure that work credits are allocated equitably to all communities that need undergrounding of their overhead electric lines, but with slightly more weight given to those communities that have a greater undergrounding need.

In addition to meeting the public interest criteria listed above, the Rule 20A tariff requires that the local community has adopted an ordinance creating an underground district in the project area, requiring, among other things, (1) that all existing overhead communication and electric distribution facilities in such district shall be removed, (2) that each property installs the electrical facilities necessary to receive service from the utility's underground facilities, and (3) authorizing the utility to discontinue its overhead service.

The utilities work with the communities to plan and schedule conversion work. Each electric utility forecasts annual spending on these projects during its three-year General Rate Case (GRC) cycle based on its estimate on the projects that communities will be initiating during those years. Medium and large telecommunications and cable companies do not have GRCs and do not earn a rate of return on capital investment nor collect revenues from their customers in the same manner as the electric utilities. The cost to underground electric lines and facilities varies dramatically by location, with large differences between urban and rural settings. Once approved by the Commission, the utility earns a return on these capital investments.

## **2. Legislative and Procedural Background**

The Commission has a long history when it comes to Rule 20. In 1965, the Commission opened Case 8209, which was an "Investigation on the Commission's Own Motion into the Tariff Schedules, Rates, Rules, Charges, Operations, Practices, Contracts, Service, and Aesthetics and Economics of

Facilities of All Electric and Communication Public Utilities in California.”

In 1967, the Commission issued Decision (D.) 73078 which promulgated the first rules concerning service connections and overhead conversions, and directed that they be filed by all of the electric and communication utilities. For the electric utilities, these rules became Rule 20. Rule 20A continued to be updated and refined periodically over time – perhaps most notably in D.82-01-18 and in D.90-05-032. While some of the modifications were more technical in nature, D.90-05-032 addressed the issue of equity in the allocation formula. In that decision, the Commission modified the allocation formula in order to assist communities that have eligible projects but insufficient allocations, and to address concerns that while all ratepayers contribute to Rule 20 funding, some have only a very small fraction of their contributions returned for use by their communities.<sup>4</sup> The allocation methodology described above is a result of the Commission’s action in D.90-05-032.

As we consider updates to Rule 20A, we also look to any relevant guidance given to the Commission by the California Legislature. As first enacted in 1971, California Public Utilities (Pub. Util.) Code § 320 states:<sup>5</sup>

The Legislature hereby declares that it is the policy of this state to achieve, whenever feasible and not inconsistent with sound environmental planning, the undergrounding of all future electric and communication distribution facilities which are proposed to be erected in proximity to any highway designated a state scenic highway pursuant to Article 2.5 (commencing with Section 260) of Chapter 2 of Division 1 of the Streets and Highways Code and which would be visible

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<sup>4</sup> See D.90-05-032, Finding of Fact 2.

<sup>5</sup> Stats. 1971, Ch. 1697.

from such scenic highways if erected above ground. The commission shall prepare and adopt by December 31, 1972, a statewide plan and schedule for the undergrounding of all such utility distribution facilities in accordance with the aforesaid policy and the rules of the commission relating to the underground of facilities.

The commission shall coordinate its activities regarding the plan with local governments and planning commissions concerned.

The commission shall require compliance with the plan upon its adoption.

This section shall not apply to facilities necessary to the operation of any railroad.

While § 320 is limited to undergrounding of facilities in proximity to scenic highways, it provides relevant history for the Commission's actions in undergrounding. While the due date for the statewide plan is no longer relevant, § 320 informs the Commission with legislative guidance in terms of the need for an overall plan and set of rules for undergrounding in general.

In 1999, the California Legislature adopted Assembly Bill 1149.<sup>6</sup> This legislation directed the Commission to complete a study on ways to amend, revise, and improve rules governing the replacement of overhead electric and communications facilities with underground facilities. The Commission opened Rulemaking (R.) 00-01-005 in response to this legislation.

As part of R.00-01-005, the Commission held numerous Public Participation Hearings in a variety of geographic locations. The Commission's rulemaking process was also informed by broad participation from electric and telecommunications companies, cable companies, consumer groups and several

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<sup>6</sup> Stats. 1999, Ch. 844.

municipalities. D.01-12-009, which mandated the current rules that provide for the uniformity of Rule 20A, benefitted from all of this participation. In that decision, the Commission directed PG&E, SDG&E and SCE to draft and file by Advice Letter a model Tariff Rule 20. D.01-12-009 also expanded Rule 20A “public interest” criteria to include projects where the street or road or right-of-way is considered an arterial street or major collector; extended the use of Rule 20A funds by allowing cities to (a) leverage funds with Rule 20B funds and (b) mortgage Rule 20A funds by borrowing up to five years’ worth of credits ahead of time;<sup>7</sup> required standardized reporting from the utilities; improved communication between utilities and residents; and ordered the creation of an updated Undergrounding Planning Guide.

In D.01-12-009, the Commission envisioned that there would be a second phase of R.00-01-005. Subjects contemplated in D.01-12-009 for this second phase included, but were not limited to, the following:<sup>8</sup>

- whether or not to establish standards for conversion projects so that third parties can competitively bid on projects with no compromise of quality, safety, or reliability;
- whether incentive mechanisms are a better way to manage costs and encourage timely completion of projects;

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<sup>7</sup> Local communities may accumulate their Rule 20A credits and bank them for future projects and can also borrow against future anticipated allocations to facilitate the undergrounding of particular projects. D.01-12-009 lengthened the borrowing timeline from three to five years.

<sup>8</sup> D.01-12-009 at 25-26.

- investigation of whether there should be a “breakpoint” in allowing new overhead pole and line installation or whether the current exemption process is working;<sup>9</sup>
- explore the value of charging for undergrounding via a line item on utility bills;
- the creation of a fair, equitable, and competitively neutral recovery mechanism for telecommunications carriers and cable companies to recover their undergrounding costs;
- whether adjustments in the Rule 20A allocation formula are appropriate; and
- are there reforms to the undergrounding program that are more properly within the legislative domain?

The Commission ultimately closed R.00-01-005 before reaching this second phase. As discussed nearly four years later in D.05-04-038, “Overtaking events in the electric industry required the Commission to manage and control its resources such that Phase 2 of the proceeding was never fully initiated...”

D.05-04-038 closed the rulemaking and directed that the Interim Order issued in D.01-12-009 revising the rules for converting overhead utility lines to underground will stay in place until the Commission opens a new proceeding, or until further order of the Commission.

In 2001, the City of San Diego (City) adopted an ordinance to underground all of its utility facilities in the next 20 years, including infrastructure that went beyond the established public interest criteria for undergrounding and would therefore be ineligible for recovery under Rule 20. In 2002, the Commission

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<sup>9</sup> D.01-12-009, footnote 1: “In this context, a break point would denote where there would be no further installations of overhead lines.” The footnote states that “the granting of exemptions for new construction is frustrating the overall goals of the program.”

approved Resolution E-3788, which authorized a franchise fee surcharge within the City for electric conversions not eligible under Rule 20. As part of this effort, there was need for greater coordination in the City between SDG&E's implementation of Rule 20 and SBC (later AT&T California, Inc.) use of its Tariff Rule 32. In D.06-12-039, the Commission authorized AT&T California to collect from its customers a limited-time surcharge to help pay for the undergrounding of its lines in the service area that overlapped with the city of San Diego.<sup>10</sup> The Commission deemed AT&T California's circumstances "unique" given the transition from traditional rate regulation to the Universal Regulatory Framework, and directed Commission staff to advise any utilities seeking similar measures, either as surcharges or increases in franchise fees, that the statewide plan (established as summarized above) continues to control utility undergrounding. In 2014, the Commission authorized SDG&E the ability to consider wildfires when converting electric facilities to underground. The Commission agreed with SDG&E that undergrounding could "mitigate the risks of wildfires in the more fire-prone areas of SDG&E's service territory."<sup>11</sup> The Commission approved a SDG&E-specific version of Rule 20D that is modeled on Rule 20A, but limited to areas where the governing body has determined that such undergrounding will occur in the SDG&E Fire Threat Zone as developed in accordance with D.09-08-029 and will occur in an area where the SDG&E has determined that undergrounding is a preferred method to reduce fire risk and enhance the reliability of the facilities to be undergrounded.

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<sup>10</sup> See Application (A.) 05-03-005 for additional background.

<sup>11</sup> D.14-01-002, Finding of Fact 6.

### 3. Current Status of Rule 20A Implementation

In the over 15 years since the current version of Rule 20A was adopted, we have considered on a case-by-case basis changes to the Rule 20A program established in D.01-12-009. For example, the Commission temporarily revised annual allocation amounts in a previous PG&E GRC decision.<sup>12</sup> The Commission has also issued resolutions concerning Rule 20A allocations and policy, including Resolutions E-3788, E-4731, E-4001, E-3637, and E-4146.

In November 2016, the Commission's Policy and Planning Division authored a staff report reviewing Rule 20A entitled, "Program Review: California Overhead Conversion Program, Rule 20A for Years 2011-2015."<sup>13</sup> The staff report's review of the Rule 20A allocations over this five year period indicates that there is a large balance of unclaimed credit allocations: local communities have been allocated but have not yet redeemed the equivalent of approximately one billion dollars of Rule 20A credits. It is unclear at this time how many of these allocated credits will be redeemed in the future and on what time horizon.

The staff report shows that costs to underground an electric line or facility can vary significantly based on whether the project is in an urban, suburban or rural location. Rule 20A may not adequately accommodate this cost differential between the urban, suburban and rural locations in allocating the credits to local communities. Some local communities are simply unaware of the existence of

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<sup>12</sup> See, D.11-05-018 in PG&E's 2011 GRC Application (A.) 09-12-020.

<sup>13</sup> Available online at [http://www.cpuc.ca.gov/uploadedFiles/CPUC\\_Public\\_Website/Content/About\\_Us/Organization/Divisions/Policy\\_and\\_Planning/PPD\\_Work\\_Products\\_\(2014\\_forward\)\(1\)/PPD\\_Rule\\_20-A.pdf](http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Divisions/Policy_and_Planning/PPD_Work_Products_(2014_forward)(1)/PPD_Rule_20-A.pdf)

their allocations and do not consider undergrounding facilities in their local planning process. Some local communities are so small that their work credit allocations are marginal and not sufficient to conduct an undergrounding project of even modest size. The staff report also observes that there is a need for additional coordination between electric and telecommunication companies on conversion projects, a subject envisioned for Phase 2 of R.00-01-005.

#### **4. Discussion**

Based on issues identified in the staff report such as the large number of unredeemed Rule 20A credits and the urban/suburban/rural differences in costs of undergrounding a facility, as well as various ratemaking issues noted in the GRC process and the potential need to re-examine the criteria that makes up the “public interest” as being a rationale for redeeming the Rule 20A credits, we conclude that it is reasonable to institute this new rulemaking.

In this rulemaking, the Commission will also require additional information about how joint infrastructure above-ground poles and other facilities can be converted to undergrounding. We also intend to examine whether there is a need to modify the allocation methodology to local jurisdictions depending on the types of attachments to the above-ground pole/facility.

The Commission should also consider updates to Rule 20A that would leverage the undergrounding opportunity and maximize the local community investment with all utility facilities. Accordingly, we include in the scope of this rulemaking any revisions to Rule 20A that are necessary to leverage undergrounding opportunities with communications facilities. We name as respondents to this rulemaking the Facilities-Based Competitive Local Exchange Carriers, including the telecommunications Incumbent Local Exchange Carriers

(ILECs) AT&T California, Cal-Ore Telephone Company, Calaveras Telephone Company, Citizens Telecommunications Company of California, Ducor Telephone Company, Foresthill Telephone Company, Happy Valley Telephone Company, Hornitos Telephone Company, Kerman Telephone Company, Pinnacles Telephone Company, Ponderosa Telephone Company, Sierra Telephone Company, Siskiyou Telephone Company, Frontier California, Volcano Telephone Company, Consolidated Communications of California, Winterhaven Telephone Company and the other Facilities-Based Companies. We invite other communication providers that have an interest in electric undergrounding, including but not limited to cable companies and wireless companies to seek party status and to participate in this rulemaking. In addition, we also invite local municipalities who are allocated the work credits to participate.

As noted above, the electric utilities seek recovery of Rule 20A project costs as part of their General Rate Case process, based on annual budgets for project expenditures established in those proceedings. Since the Commission's action in D.01-12-009, we have considered on a case-by-case basis the reduction of work credit allocations and whether there is a mismatch between funds authorized and spent. While we do not make any determinations about any pending GRCs in this order, we do think it is appropriate to examine the ratemaking issues associated with Rule 20A to ensure that there is a proper match between the demand to underground, the design of the Rule 20A allocation methodology, and the regulatory process to ensure that Commission-approved budgets for Rule 20A projects are spent in a reasonable manner.

## **5. Preliminary Scoping Memo**

This rulemaking will be conducted in accordance with Article 6 of the Commission's Rules of Practice and Procedure, "Rulemaking."<sup>14</sup> As required by Rule 7.1(d), this order instituting rulemaking includes a preliminary scoping memo as set forth below, and preliminarily determines the category of this proceeding and the need for hearing.

### **5.1. Scope**

The scope of this rulemaking proceeding is to consider whether to revise or otherwise modify Rule 20 to enhance the fair, efficient allocation of ratepayer funds to communities for the undergrounding of electric infrastructure in specified locations and circumstances. The Commission will primarily focus on revision of Electric Tariff Rule 20A but may also consider conforming changes to other parts of Rule 20.

The scope shall also include consideration of changes to Rule 20A to facilitate the undergrounding of other utility infrastructure at the same time as the electric lines and facilities are converted to underground.

Also included in the scope are a series of broad questions listed below in Section 5.1.2. A subset of these questions were previously identified in D.01-12-009, including whether or not we should establish standards for conversion projects so third parties can competitively bid on projects with no compromise of quality, safety or reliability, whether adjustments in the Rule 20A allocation formula is appropriate, and whether or not there are benefits to listing the charges for undergrounding as a line item on utility bills.

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<sup>14</sup> All references to "Rules" are to the Commission's Rules of Practice and Procedure, which are available on the Commission's website.

We also include in the scope general consideration of undergrounding in urban/suburban/rural local communities, whether disadvantaged communities fully benefit from the program, and whether the criteria for considering the public interest should be updated.<sup>15</sup>

The scope of the proceeding will broadly consider the fair and equitable distribution of ratepayer dollars allocated to undergrounding, including equal access and potential to enjoy benefits from undergrounding at reasonable cost.

The scope of this proceeding will also include potential modifications to Rule 20 to account for changes to the communications regulatory system created by switching to the Uniform Regulatory Framework in 2006 in D.06-08-030, which occurred after the Commission last revised Rule 20. When last examined in R.00-01-005, both electric utilities and ILECs were under traditional rate-of-return regulation. With the changes starting in 2006, the landscape has changed and assumption embedded in Rule 20 about ILECs may no longer be valid. In light of the communications transition, Rule 20 may also need to be revised to account for competitive neutrality, since in 1998 the Commission granted SCE a Certificate of Public Convenience and Necessity (CPCN) for limited communications transport service and PG&E has recently filed an application for similar authority.<sup>16</sup> In addition, the number and type of communication companies which make use of utility poles has grown

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<sup>15</sup> The CalEnviroScreen, as produced by the state's Office of Environmental Health Hazard Assessment, contains one definition of disadvantaged communities. (See <https://oehha.ca.gov/calenviroscreen/> for additional information.)

<sup>16</sup> SCE was granted a CPCN in D.98-12-083; PG&E filed its request for a CPCN in A.17-04-010. We note that the electric utilities may also provide communication services, with Southern California Edison already doing so.

considerably, including video, broadband, mobile. Moreover, these providers are competing in the same geographic area where access to the utility pole is a significant issue. The scope of this rulemaking will consider revisions to Rule 20 to promote equitable and competitively neutral recovery of underground project costs.

Consistent with Rule 6.3(a) of the Commission's Rules of Practice and Procedure, any decision by the Commission in this proceeding to modify or amend Rule 20 will apply prospectively.

## **5.2. Initial Questions and Information**

To support this rulemaking, the Commission intends to seek extensive information from the electric utilities and the Facilities-Based Competitive Local Exchange Carriers and the ILECs regarding the Rule 20A program, and to seek responses to a wide range of questions about the program. The preliminary list of information we intend to seek, and the initial list of the questions we intend to ask, are provided below. Respondents and interested persons are asked to file comments evaluating the appropriateness of the wording of the questions and the validity of the data sources identified herein. Respondents and interested persons are also encouraged to recommend additional questions or data that that may facilitate the Commission's review of the Rule 20A program. Following receipt of these comments, the Commission will hold a workshop and prehearing conference to discuss and refine the list of data and the initial questions and will thereafter, by ruling, issue a final list of questions for comment.

### **5.2.1. Preliminary Information from Electric Utilities**

As part of this Order Instituting Rulemaking (OIR), we anticipate directing each electric utility to file and serve the following data for the 2005-2016 calendar

years. This data will create a common baseline on the relevant issues identified in this rulemaking.

- A complete list of Rule 20A-eligible communities;
- The amount of work credit allocations available to each community each year;
- The number of projects in the following categories:
  - initiated for the next ten years (process has started but no Utilities Conversion Plan);
  - (in planning phase with a Utilities Conversion Plan);
  - in progress (construction); or
  - completed.

The data should denote whether these projects are in urban, suburban or rural locations or if the project is located in a disadvantaged community.

- The estimated cost of individual projects initiated and/or in progress;
- The total cost of each completed project, including both the ratepayer and non-ratepayer cost of each completed project;
- The number of work credit allocations used for each project, including the number of mortgaged or borrowed credit allocations;
- The number of projects completed or underway that relied on credits that were bought or traded, if any; the percentage of the project funding provided by those credits; the cost to acquire those credits (if known).
- The utility's total annual Rule 20A spending;
- The CalEnviroScreen Score of the locations with completed projects;
- A general description of the utility's Rule 20A-related outreach and education efforts plans, partnerships, staffing and resources. To the extent applicable, describe how and

in what ways these strategies vary by region (including urban/suburban/rural and whether the project is in a disadvantaged community);

- The number of meters installed each year using new electric lines that were granted an exemption from the requirement to underground and the number of meters installed using new electric lines that were not exempt from requirement to underground; and
- A list of communities that have never completed a Rule 20A project nor utilized Rule 20A work credit allocations for projects.

### **5.2.2. Audit of Electric Utilities' Rule 20A Programs**

Each electric utility shall file and serve a programmatic and financial audit of its administration of its Rule 20A program, conducted by an independent firm in consultation with the Commission's Utility Audit Finance & Compliance Branch and Energy Division. The audit will review compliance with the Commission's prior decisions, as well as review for the proper financial oversight of the use of Rule 20A ratepayer funds. Each electric utility shall send a copy of their proposed audit scope to the Director of the Commission's Energy Division and the manager of the Commission's Utility Audit Finance & Compliance Branch, and provide a copy to the service list within 60 days of today's Order. The Energy Division director shall have 30 days to respond in writing to each utility's proposed scope. The audit shall examine issues including but not limited to:

- 1) Percentages of cost spent on project overhead, labor, materials, and any other cost categories;
- 2) Whether communities are receiving credits but have not used them for extended periods of time;
- 3) Identification of factors that contribute to any identified project cost overruns;

- 4) Percentages of project cost paid by utilities, local government, residents, and any other entities with cost responsibility; and
- 5) The audit shall also address: the utility Rule 20A program communication and outreach efforts; the utility process for developing Rule 20A revenue requirements for its GRC; whether Rule 20A credit trading and transfer takes place between communities and how the utility is involved in that process; and the utility's communication practices for coordinating with other utilities that have facilities that are co-located on the pole.

The deadline for the audit will be 180 days after the Pre-Hearing Conference unless otherwise revised or determined by the Assigned Commissioner's Scoping Memo.

### **5.2.3. Preliminary Information from Facilities-Based Providers**

As part of this OIR, we anticipate directing each Facility-Based Provider named as a respondent to this rulemaking to provide a summary of current undergrounding practices, including any coordination or collaboration with the electric utilities, and any relevant overlaps with Rule 20A. The summary should include the timelines, funding, coordination outreach efforts with local communities, coordination with electric utilities, and best practices from their existing undergrounding tariffs.

### **5.2.4. Initial Scoping Questions**

To accomplish the goals of this rulemaking, our review will address, but may not be limited to, the following questions:

#### **Rule 20A Work Credits**

- 1) For the purposes of allocating Rule 20A work credits, is it reasonable to have a different methodology within each utility service territory for urban, suburban and rural areas? Would changing the work credit allocation

methodology promote additional conversion of lines and facilities to underground in a more fair and equitable manner than current practices?

- 2) In addition to banking and borrowing Rule 20A allocation credits, should a local government be allowed to buy/sell/trade its Rule 20A credits with other local jurisdictions so long as the total number of allocations redeemed does not exceed total project cost? If yes, should the electric utility be the entity to monitor and record this market activity? Should trading be limited to local jurisdictions within the same utility service territory?
- 3) Should rules be developed to increase Rule 20A participation from small municipalities, rural areas, and un-incorporated areas? What about projects located in disadvantaged communities?
- 4) Should the Commission examine appropriate ratemaking treatment options, such as one-way memorandum accounts, for tracking Commission-authorized Rule 20A budgets to prevent these funds from being used for other purposes?

#### **Public Interest Criteria**

- 5) Should current criteria listed in the Rule 20A tariff for determining “the public interest” be augmented to include updates to existing factors (including safety and reliability) or newer factors, such as wheelchair access, new forms of public safety promotion, or other environmental factors beyond scenic and aesthetic benefits?
- 6) Should the criteria to determine “the public interest” be different depending on whether the project area is an urban, suburban, or rural location? Are the “safety and reliability” benefits of undergrounding different for these different locations?
- 7) Should the public interest criteria be revised to balance the trade-offs between promoting safety and reliability versus concerns of resiliency and recovery? Does the geographic

region of the underground project (urban/suburban/rural) influence this distinction?

**Allocation Methodology/Funding**

- 8) Should the Rule 20A allocation methodology be modified to prioritize undergrounding utility infrastructure located in high fire areas, as defined in R.15-05-006, the Commission's rulemaking to develop and adopt fire-threat maps and fire-safety regulations? If yes, are there any safety concerns the Commission should consider when undergrounding in these high-fire areas?
- 9) Should Rule 20A be modified to have a different allocation methodology if the overhead pole (or other eligible facility) being replaced has telecommunications or other public use infrastructure co-located on the pole? Are there other modifications to Rule 20A that would help promote the simultaneous undergrounding of telecommunications infrastructure?
- 10) Should the Rule 20A allocation methodology take into account different ownership models of the above-ground infrastructure? For example, if the utility pole is owned solely by the electric utility versus co-owned by another entity, such as an ILEC or another facilities-based communications service provider?
- 11) Should entities with facilities attached to the above-ground pole bear any financial responsibility when a Rule 20A project is implemented?
- 12) How do pole ownership/leasing agreements influence the undergrounding process, if at all?
- 13) How, if at all, should the allocation methodology be modified to ensure competitive neutrality between the electric utilities and the facilities based providers?
- 14) Should the allocation methodology be modified to leverage grant or public-use programs or other sources of non-electric-ratepayer funds to help promote the new undergrounding of additional projects?

- 15) Besides Rule 20A funds, how else could local governments finance undergrounding of utility infrastructure? Are there non-ratepayer sources of funds that could be better leveraged to promote undergrounding? Should the allocation methodology be revised to recognize different local tax bases/financial resources of communities that are located in urban/suburban/rural parts of the state, or those potential projects located in disadvantaged communities?
- 16) Should there be an overall cap on Rule 20A credits allocated to local communities? Should an electric utility suspend the issuance of new credits to a community if it attests that it does not plan to use an allocation in the next five years? Would letting Rule 20A credits expire or be transferred to another community if they are not used by a certain time improve or limit achieving Rule 20A objectives? Should the Commission examine the disposition of historic unused work allocation credits? For example, will communities be able to redeem unused work allocation credits?

#### **Outreach Strategies**

- 17) Should the electric utilities modify their local government outreach, existing partnerships or other approaches to facilitate a more equitable uptake of Rule 20A credits allocated to local communities? Should there be different strategies for coordination with local governments if they are in an urban, suburban or rural setting? What if the potential project is located in a disadvantaged community?

#### **Additional Rule 20 Concerns**

- 18) Should the Commission consider different revisions to Rule 20 for the small multi-jurisdictional electric utilities (BVES, Liberty, and PacifiCorp) to promote the undergrounding of lines and facilities in their service territories?

- 19) Should third parties be allowed to bid on Rule 20A projects? If so, what rules must the Commission establish to ensure the projects are high quality and meet all relevant safety and reliability standards? What contract provisions should the Commission establish to ensure proper labor protections?
- 20) Should the Commission consider how incentive mechanisms could be used as a way to manage costs and encourage timely completion of projects?
- 21) Should the Commission consider whether there should be a “breakpoint” in allowing new overhead pole and line installation, or is the current exemption process working?
- 22) Should the Commission change how the utility bill presents the costs of undergrounding facilities?
- 23) Should the Commission consider the use of Rule 20A allocations for conversion-related work like grid hardening, subsurface transformers, hazardous waste cleanup, etc.?
- 24) Does the undergrounding of existing utility infrastructure prevent the deployment of future infrastructure or upgrades of existing equipment?
- 25) Should the Commission review or modify Rules 20B, 20C or 20D as part of our comprehensive review of Rule 20A? If so, suggest what modifications, if any, are needed to better align Rules 20B, 20C or 20D with the suggested changes to Rule 20A?
- 26) Should poles that include wireless antennas be exempt from underground conversions? Alternatively, is it possible to mitigate the impact of underground conversions by relocating wireless facilities to other poles?
- 27) Should the Commission modify Rule 20 to better leverage or coordinate with existing broadband grant programs, such as the California Advanced Services Fund? Should the Commission consider exempting the undergrounding of poles where grants have already been given?

### **5.3. Proceeding Category and Need for Hearings**

Pursuant to Rule 7.1(d), we preliminarily determine that (1) the category for this rulemaking proceeding is quasi-legislative as that term is defined in Rule 1.3(d), and (2) there is no need for evidentiary hearings in this proceeding. As permitted by Rule 6.2, parties may address these preliminary determinations in their written comments that are to be filed and served in accordance with the preliminary schedule for this proceeding. The assigned Commissioner will make a final determination regarding the category of this proceeding and the need for hearings in a scoping memo issued pursuant to Rules 7.1(d) and 7.3(a).

Pursuant to Pub. Util. Code § 1708.5(f), the Commission intends to conduct this proceeding using notice and comment rulemaking procedures. Accordingly, the comments and reply comments submitted pursuant to the preliminary schedule may constitute the record used by the Commission to decide matters within the scope of this proceeding. In addition to responding to those questions, parties should include in their comments and reply comments all information they want the Commission to consider in this proceeding, as there may not be another opportunity for parties to present such information to the Commission.

Pub. Util. Code § 1708.5(f) also provides that “the commission may conduct any proceeding to adopt, amend, or repeal a regulation using notice and comment rulemaking procedures, without an evidentiary hearing, except with respect to a regulation being amended or repealed that was adopted after an evidentiary hearing, in which case the parties to the original proceeding shall retain any right to an evidentiary hearing accorded by Section 1708.” Because the Commission adopted and subsequently amended the model Rule 20A in R.00-01-005 without an evidentiary hearing, Pub. Util. Code § 1708.5(f) allows the

Commission to amend Rule 20A in this rulemaking proceeding without an evidentiary hearing.<sup>17</sup>

#### 5.4. Preliminary Schedule

For purposes of meeting the preliminary scoping memo requirements and to expedite the proceeding, we establish the following preliminary schedule:

<b>Event</b>	<b>Date</b>
OIR issued	May 11, 2017
Comments on OIR Scope/Schedule/Questions/Data filed and served	45 days after OIR issued
Preliminary Information from ILECs filed and served	45 days after OIR issued
Prehearing Conference/Initial Public Workshop to discuss (1) best questions (2) best data (3) audit scope	No later than 60 days after OIR issued
Electric IOUs filed and serve audit scope	60 days after OIR issued
The Energy Division director provides written response to each utility's proposed audit scope	30 days after IOUs file and serve audit scope
Scoping Memo (including final data and questions)	No later than 90 days after OIR issued
Intervenor Compensation NOIs filed and served	30 days after Prehearing Conference
Electric IOU data served	60 days after Prehearing Conference
Responses to Scoping Memo questions filed and served	30 days after Electric IOUs serve data
Replies to Responses filed and served	21 days after responses to Scoping Memo questions filed and served
Public Participation Hearings	September -- October 2017
Electric IOU audits filed and served	180 days after audit scope is filed
Comments on Electric IOU audits filed and served	30 days after Electric IOU audits filed and served
Reply Comments on Electric IOU audits filed and served	14 days after Comments on Electric IOU audits filed and served
Submittal date (based on this Preliminary Schedule)	February 2018
ALJ Proposed Decision	May 2018
Final Decision	July 2018

<sup>17</sup> Parties may request evidentiary hearings as set forth in this Order and consistent with the Rules of Practice and Procedure.

### **5.5. Modification Process**

Any person filing comments on this OIR shall state any objections to the preliminary scoping memo regarding the category, need for hearing, issues to be considered or schedule. (Rule 6.2.)

The assigned Commissioner through his/her ruling on the scoping memo and subsequent rulings, and the assigned Administrative Law Judge (ALJ) by ruling with the assigned Commissioner's concurrence, may modify the schedule as necessary during the course of the proceeding to promote the efficient and fair resolution of the rulemaking. We anticipate this proceeding will be resolved within 18 months from the issuance of the scoping memo.

### **6. Service of this OIR**

The Commission's Executive Director shall cause copies of this order to be served on named respondents to this Order Instituting Rulemaking and the service lists for R.17-03-009, Investigation (I.) 15-11-007, A.16-09-001, A.15-09-001 and A.14-11-003.

Pursuant to Pub. Util. Code § 1711(a), the Commission shall, where feasible and appropriate and before determining the scope of the proceeding, seek the participation of those who are likely to be affected, including those who are likely to benefit from, and those who are potentially subject to, a decision in that proceeding. The Commission shall demonstrate its efforts to comply with this Section in the text of the initial scoping memo of the proceeding. Therefore, the Commission's Executive Director is hereby directed to work with the Commission's News and Outreach Office to ensure that notice of this OIR is provided to communities and counties in the service areas of the respondents, since they are likely to be directly impacted by this proceeding.

## **7. Parties, Service List, and Subscription Service**

PG&E, SCE, SDG&E, Liberty, BVES, and PacifiCorp are named as respondents to this rulemaking.

We also name as respondents the Facilities-Based Competitive Local Exchange Carriers, including the ILECs, namely AT&T California, Cal-Ore Telephone Company, Calaveras Telephone Company, Citizens Telecommunications Company of California, Ducor Telephone Company, Foresthill Telephone Company, Happy Valley Telephone Company, Hornitos Telephone Company, Kerman Telephone Company, Pinnacles Telephone Company, Ponderosa Telephone Company, Sierra Telephone Company, Siskiyou Telephone Company, Frontier California, Volcano Telephone Company, Consolidated Communications of California, Winterhaven Telephone and the other facilities-based communication providers.

We also invite, but do not require, other communication providers that attach to the pole, cable companies, and wireless companies to seek party status and to participate in this rulemaking. We also encourage participation from local municipalities who are allocated Rule 20 work credits and participate in undergrounding.

Addition to the official service list is governed by Rule 1.9(f). Any person will be added to the "Information Only" category of the official service list upon request, for electronic service of all documents in the proceeding, and should do so promptly in order to ensure timely service of comments and other documents and correspondence in the proceeding. (*See* Rule 1.9(f).) The request must be sent to the Process Office by e-mail ([process\\_office@cpuc.ca.gov](mailto:process_office@cpuc.ca.gov)) or letter (Process Office, California Public Utilities Commission, 505 Van Ness Avenue,

San Francisco, California 94102). Please include the Docket Number of this Rulemaking in the request.

Persons who file responsive comments pursuant to the preliminary schedule of this proceeding thereby become parties to the proceeding (see Rule 1.4(a)(2)) and will be added to the “Parties” category of the official service list upon such filing. Nevertheless, in order to assure service of comments and other documents and correspondence in advance of obtaining party status, persons should promptly request addition to the “Information Only” category as described above. Requests for party status made independent of the comment process shall be governed by Rule 1.4.

The Commission’s practice is to list only one representative per party in the “Party” category of the official service list. Other representatives for the same party may be placed on the service list in the “State Service” category or the “Information Only” category. The Commission’s Process Office will publish the official service list on the Commission’s website ([www.cpuc.ca.gov](http://www.cpuc.ca.gov)) and will update the list as necessary. Prior to serving any document, each party must ensure that it is using the most up-to-date service list. The list on the Commission's website meets this definition.

## **8. Subscription Service**

Persons may monitor this proceeding by subscribing to receive electronic copies of documents in this proceeding that are published on the Commission's website. There is no need to be on the service list in order to use the subscription service. Instructions for enrolling in the subscription service are available at <http://subscribecpuc.cpuc.ca.gov>.

## **9. Filing and Serving Documents**

This proceeding will utilize the electronic service protocols adopted by the Commission in Rule 1.10 for all documents, whether formally filed or only served. This Rule provides for electronic service of documents, in a searchable format, unless the appearance or state service list member did not provide an e-mail address. If no e-mail address was provided, service should be made by United States mail. In this proceeding, concurrent e-mail service to all persons on the service list for whom an e-mail address is available will be required, including those listed under "Information Only." Parties are expected to provide paper copies of served documents upon request. E-mail communication about this OIR proceeding should include, at a minimum, the following information on the subject line of the e-mail: R.17-05-010 – Rule 20A Rulemaking. In addition, the party sending the e-mail should briefly describe the attached communication; for example, "Comments." As required by Rule 1.10(e) paper format copies, in addition to electronic copies, shall be served on the assigned ALJ.

Rules 1.9 and 1.10 govern service of documents only and do not change the Rules regarding the tendering of documents for filing. Information about electronic filing of documents is available at [www.cpuc.ca.gov/PUC/efiling](http://www.cpuc.ca.gov/PUC/efiling). All documents formally filed with the Commission's Docket Office must include the caption approved by the Docket Office.

## **10. Public Advisor**

Any person interested in participating in this proceeding who is unfamiliar with the Commission's procedures may obtain more information by visiting the Commission's website at <http://consumers.cpuc.ca.gov/pao>, by calling the Commission's Public Advisor at 866-849-8390 or 415-703-2074 or

866-836-7825 (TTY)), or by e-mailing the Public Advisor at [public.advisor@cpuc.ca.gov](mailto:public.advisor@cpuc.ca.gov).

### **11. Intervenor Compensation**

In accordance with Pub. Util. Code § 1804(a)(1) and Rule 17.1, a customer who intends to seek an award of compensation must file and serve a notice of intent to claim compensation no later than 30 days after the date of the prehearing conference or as otherwise directed by the assigned Commissioner or ALJ.

### **12. *Ex Parte* Communications**

This proceeding is preliminarily categorized as quasi-legislative. In a quasi-legislative proceeding, *ex parte* communications with the assigned Commissioner, other Commissioners, their advisors, and the ALJ are permitted without restriction or reporting as described in Pub. Util. Code § 1701.4(b) and Article 8 of the Commission's Rules.

Any workshops in this proceeding shall be open to the public and noticed in the Commission's Daily Calendar. The notice in the Daily Calendar shall inform the public that a decision-maker or an advisor may be present at the workshop. Parties shall check the Daily Calendar regularly for such notices.

## **O R D E R**

Therefore, **IT IS ORDERED** that:

1. The Commission institutes this Rulemaking on its own motion to revise or otherwise modify Electric Tariff Rule 20, or take another course of action based on the Commission's assessment of which option is most likely to enhance the fair, efficient allocation of ratepayer funds to communities for the undergrounding of electric infrastructure in specified locations and circumstances.

2. The California investor owned electric utilities, Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, Bear Valley Electric Service Company, Liberty Utilities, and PacifiCorp, are named as respondents to this Rulemaking.

3. The California Facilities-Based Communication Providers, including the Incumbent Local Exchange Carriers, AT&T California, Cal-Ore Telephone Company, Calaveras Telephone Company, Citizens Telecommunications Company of California, Ducor Telephone Company, Foresthill Telephone Company, Happy Valley Telephone Company, Hornitos Telephone Company, Kerman Telephone Company, Pinnacles Telephone Company, Ponderosa Telephone Company, Sierra Telephone Company, Siskiyou Telephone Company, Frontier California, Volcano Telephone Company, Consolidated Communications of California, Winterhaven Telephone Company and other facilities based communication providers are named as respondents to this Rulemaking.

4. The electric utilities, Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, Liberty Utilities, Bear Valley Electric Service Company, and PacifiCorp, shall serve a copy of the proposed audit scope as outlined in Section 5.2.2 of this Order within 60 days of today's Order. The Energy Division director shall have 30 days to respond in writing to each utility's proposed scope. The electric utilities shall file and serve the results of the independent funded audit, as specified in Section 5.2.2 of this Order, within 180 days of the prehearing conference, unless otherwise specified by the Assigned Commissioner's Scoping Memo. The electric utilities shall also provide a copy of the audit to the Director of the

Commission's Energy Division and the manager of the Commission's Utility Audit Finance & Compliance Branch.

5. The preliminary category for this rulemaking proceeding is quasi-legislative as that term is defined in Rule 1.3(d) of the Commission's Rules of Practice and Procedure.

6. It is determined on a preliminary basis that there is no need for evidentiary hearings in this rulemaking proceeding.

7. Any persons objecting to the preliminary categorization or to the preliminary determination on the need for hearings, issues to be considered, or schedule shall state their objections in their opening comments on this Order Instituting Rulemaking.

8. The preliminary schedule for this rulemaking proceeding is set forth in Section 5.3 of this Order. The assigned Commissioner through his/her ruling on the scoping memo and subsequent rulings, and the assigned Administrative Law Judge by ruling with the assigned Commissioner's concurrence, may modify the schedule as necessary during the course of the proceeding to promote the efficient and fair resolution of the rulemaking.

9. Respondents and interested persons are asked to file comments evaluating the appropriateness of the wording of the questions and the validity of the data sources identified in Section 5.2 of this Order.

10. Commenters shall include in their opening comments any objections regarding the category, need for hearing, issues to be considered, or schedule. The deadline in this Rulemaking proceeding to file and serve notices of intent to claim intervenor compensation is 30 days after the date of the prehearing conference or as otherwise directed by the assigned Commissioner or the assigned Administrative Law Judge.

11. The Commission's Executive Director shall cause notice of this Rulemaking to the following service lists: Rulemaking 17-03-009, Investigation 15-11-007, and Application (A.) 16-09-001, A.15-09-001, A.17-04-010 and A.14-11-003 et al.

12. The Commission's Executive Director shall work with the Commission's News and Outreach Office to ensure that notice of this Order Instituting Rulemaking is provided to communities and counties in the service areas of the respondents, since they are likely to be directly impacted by this proceeding.

This order is effective today.

Dated May 11, 2017, at Merced, California.

MICHAEL PICKER

President

CARLA J. PETERMAN

LIANE M. RANDOLPH

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

Commissioners

# Appendix F

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## PG&E Rule 20A Ledger

**City/County of San Francisco Rule 20A Work Credits**

2018 balance	-45,669,326
2019 allocation	2,970,435
5-year borrow	14,852,175
<b>Total available credits</b>	<b>-27,846,716</b>

Pacific Gas & Electric Company  
 Rule 20A Electric Underground Conversion Program  
 1995 -2017 Allocation ledger: City and County of San Francisco

Description	Ledger Amount
Ending Balance - 1995	\$23,517,342
1996 Allocation	\$4,271,474
Total Projects - 1996	<u>(\$2,888,311)</u>
Ending Balance - 1996	\$24,900,505
1997 Allocation	\$4,386,614
Total Projects - 1997	<u>(\$2,119,070)</u>
Ending Balance - 1997	\$27,168,049
1998 Allocation	\$4,511,625
Total Projects - 1998	<u>(\$2,422,982)</u>
Ending Balance - 1998	\$29,256,692
1999 Allocation	\$4,642,745
Total Projects - 1999	<u>(\$2,755,369)</u>
Ending Balance - 1999	\$31,144,068
2000 Allocation	\$4,785,112
Total Projects - 2000	<u>(\$4,988,584)</u>
Ending Balance - 2000	\$30,940,596
2001 Allocation	\$4,982,587
Total Projects - 2001	<u>(\$7,363,450)</u>
Ending Balance - 2001	\$28,559,733
2002 Allocation	\$5,143,770
Total Projects - 2002	<u>(\$19,521,981)</u>
Ending Balance - 2002	\$14,181,522
2003 Allocation	\$5,305,021
Total Projects - 2003	<u>(\$41,076,686)</u>
Ending Balance - 2003	<u>(\$21,590,143)</u>
2004 Allocation	\$5,650,052
Total Projects - 2004	<u>(\$32,062,878)</u>
Ending Balance - 2004	<u>(\$48,002,969)</u>
Ledger modification	\$100,248,511
Adjusted Ending Balance - 2004	\$52,245,542
2005 Allocation	\$5,914,561
Total Closed/Cancelled Projects - 2005	<u>(\$3,409,133)</u>
Ending Balance - 2005	\$54,750,970
2006 Allocation	\$6,151,049
Total Closed/Cancelled Projects - 2006	<u>(\$12,901,194)</u>
Ending Balance - 2006	\$48,000,825

2007 Allocation	\$6,103,134
Total Closed/Cancelled Projects - 2007	<u>(\$4,376,963)</u>
Ending Balance - 2007	\$49,726,996
2008 Allocation	\$6,074,339
CCSF share, City of Patterson alloc.balance	\$35,452
Total Closed/Cancelled Projects - 2008	<u>(\$29,440,198)</u>
Ending Balance - 2008	\$26,396,589
2009 Allocation	\$6,065,515
Total Closed/Cancelled Projects - 2009	<u>(\$11,097,087)</u>
Ending Balance - 2009	\$21,365,017
2010 Allocation	\$6,072,752
Total Closed/Cancelled Projects - 2010	<u>(\$36,716,392)</u>
Ending Balance - 2010	(\$9,278,623)
2011 Allocation	\$3,069,182
Closed/Cancelled Projects - 2011	<u>(\$24,074,760)</u>
2011 Ledger Review corrections	\$6,363,376
Correction from GPRP audit	<u>\$10,637,697</u>
Ending Balance - 2011	(\$13,283,128)
2012 Allocation	\$3,068,101
Closed/Cancelled Projects - 2012	<u>(\$45,737,458)</u>
Ending Balance - 2012	(\$55,952,485)
2013 Allocation	\$3,071,904
Closed/Cancelled Projects - 2013	<u>\$0</u>
Ending Balance - 2013	(\$52,880,581)
2014 Allocation	\$3,107,572
Closed/Cancelled Projects - 2014	<u>\$0</u>
Ending Balance - 2014	(\$49,773,009)
2015 Allocation	\$3,109,290
Closed/Cancelled Projects - 2015	<u>(\$7,097,063)</u>
Ending Balance - 2015	(\$53,760,782)
2016 Allocation	\$3,089,938
Closed/Cancelled Projects - 2016	<u>\$0</u>
Ending Balance - 2016	(\$50,670,844)
2017 Allocation	\$3,134,676
Closed/Cancelled Projects - 2017	<u>\$0</u>
Ending Balance - 2017	(\$47,536,168)

SUMMARY	
Total Projects & Corrections	(\$172,764,523)
Total Allocations	<u>\$125,228,355</u>
Balance	(\$47,536,168)

## Appendix G

---

### **PG&E Allocation Calculators 2010, 2011, 2017**

<b>2010 Rule 20A Work Credit Allocation calculation - City &amp; County of San Francisco</b>						
(Amounts in Red do not change for each community)						
<b>Step 1:</b>						
2010 Work Credit Total distributable under "50/50" formula				34,048,400	A	
<b>Step 2:</b>						
Multiply Total in Step 1 by 50% (This 50% amount is prorated twice in Steps 3 & 4 below)				17,024,200	B = 50% of A	
<b>Step 3</b>						
1st 50% proration: CCSF overhead meters to Systemwide overhead meters						
	# overhead meters CCSF:	C	225,182			
	# overhead meters systemwide:	D	2,948,411	7.64%	1,300,207	B x ( C / D )
<b>Step 4</b>						
2nd 50% proration: Total meters in CCSF to Total meters systemwide						
	# meters (both OH & UG) CCSF:	E	384,357			
	# meters (both OH & UG) systemwide:	F	5,335,335	7.20%	1,226,422	B x ( E / F )
<b>Step 5:</b>						
1990 Base Allocaton (see Note)				3,546,122		
<b>Step 6:</b>						
Rounding					2	
<b>Step 7:</b>						
Add amounts from Steps 3 - 6 (This is the amount allocated to CCSF for 2010)				<b>6,072,752</b>		
<b>Note</b>						
The 1990 Base Allocation was subsequently discontinued starting in 2011 after CPUC approved reduction of the overall allocation from approximately \$81M to \$41.3M.						

<b>2011 Rule 20A Work Credit Allocation calculation - City &amp; County of San Francisco</b>						
(Amounts in Red do not change for each community)						
<b>Step 1:</b>						
2011 Work Credit Total distributable under "50/50" formula				41,300,000		A
<b>Step 2:</b>						
Multiply Total in Step 1 by 50%				20,650,000		B = 50% of A
(This 50% amount is prorated twice in Steps 3 & 4 below)						
<b>Step 3</b>						
1st 50% proration: CCSF overhead meters to Systemwide overhead meters						
	# overhead meters CCSF:	C	226,227			
	# overhead meters systemwide:	D	2,954,355	7.66%	1,581,255	B x ( C / D )
<b>Step 4</b>						
2nd 50% proration: Total meters in CCSF to Total meters systemwide						
	# meters (both OH & UG) CCSF:	E	386,499			
	# meters (both OH & UG) systemwide:	F	5,363,963	7.21%	1,487,931	B x ( E / F )
<b>Step 5:</b>						
1990 Base Allocaton (see Note)					N/A	
<b>Step 6:</b>						
Rounding					(3)	
<b>Step 7:</b>						
Add amounts from Steps 3 - 6				<b>3,069,182</b>		
(This is the amount allocated to CCSF for 2011)						
<b>Note</b>						
The 1990 Base Allocation was discontinued starting in 2011 after CPUC approved reduction of the overall allocation from approximately \$81M to \$41.3M.						

---

**How a community's annual Rule 20A allocation is presently calculated**  
**City & County of San Francisco - 2017 Allocation**

**Step 1:**

Total Systemwide Allocation \$41,300,000 **A**

**Step 2:**

Multiply amount in Step 1 by 50% \$20,650,000 **50% of A**  
(This 50% amount is prorated twice in Steps 3 & 4 below)

**Step 3**

1st 50% proration: CCSF overhead meters to Systemwide overhead meters

# overhead meters CCSF:	<b>B</b>	228,262		
# overhead meters systemwide:	<b>C</b>	<u>2,908,842</u>	7.85%	\$1,620,442 <b>(50% of A) x (B / C)</b>

**Step 4**

2nd 50% proration: Total meters in CCSF to Total meters systemwide

# meters (both OH & UG) CCSF:	<b>D</b>	401,216		
# meters (both OH & UG) systemwide:	<b>E</b>	<u>5,471,463</u>	7.33%	\$1,514,240 <b>(50% of A) x (D / E)</b>

**Step 5:**

Other Adjustment plus/(minus) -\$7

**Step 6:**

Total 2017 Work Credit Allocation (sum of steps 3-5) **\$3,134,676**

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## Appendix H

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### Community Outreach Presentation



# San Francisco Public Works Utility Undergrounding Program

Master Workplan Study Community  
Update

September 18, 2019



**TELAMON**  
ENGINEERING CONSULTANTS, INC.



# Agenda

- Goal of the study
- Undergrounding status
- Create framework
- Next steps

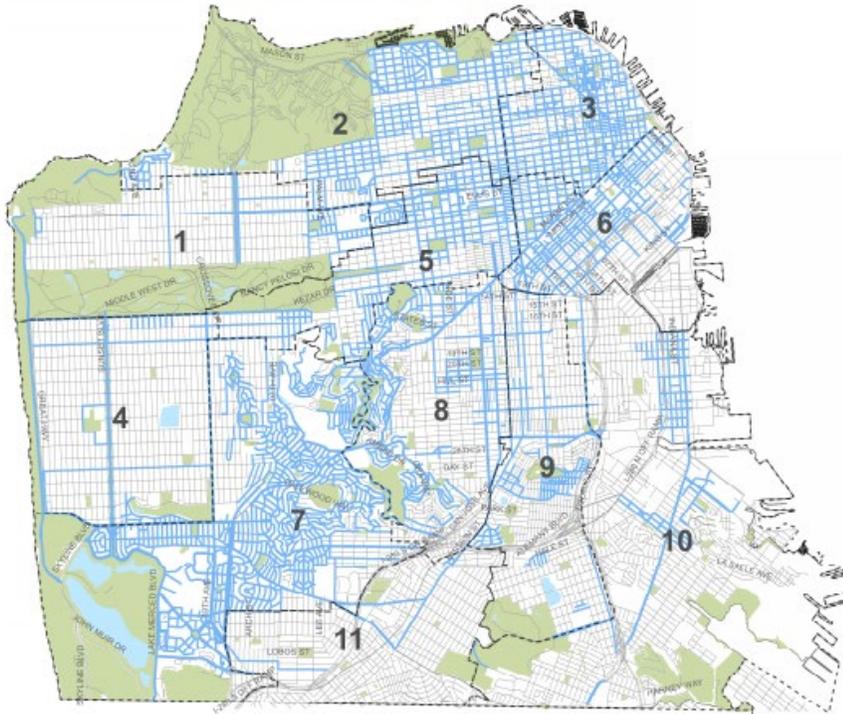


# Goal of the Study

- Identify key issues, opportunities and constraints
- Develop framework defining steps towards a long-term masterplan
  - What is a Masterplan? A governing document that sets guidelines to implement the Underground Utility process.
- Study is scheduled to be completed by end of 2019



# Undergrounding Status – UG vs. OH



**Legend**  
- - - BOS Districts  
— Undergrounded Streets

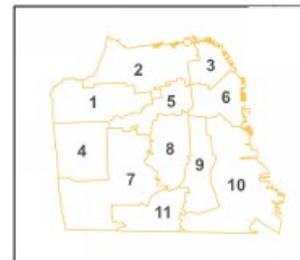
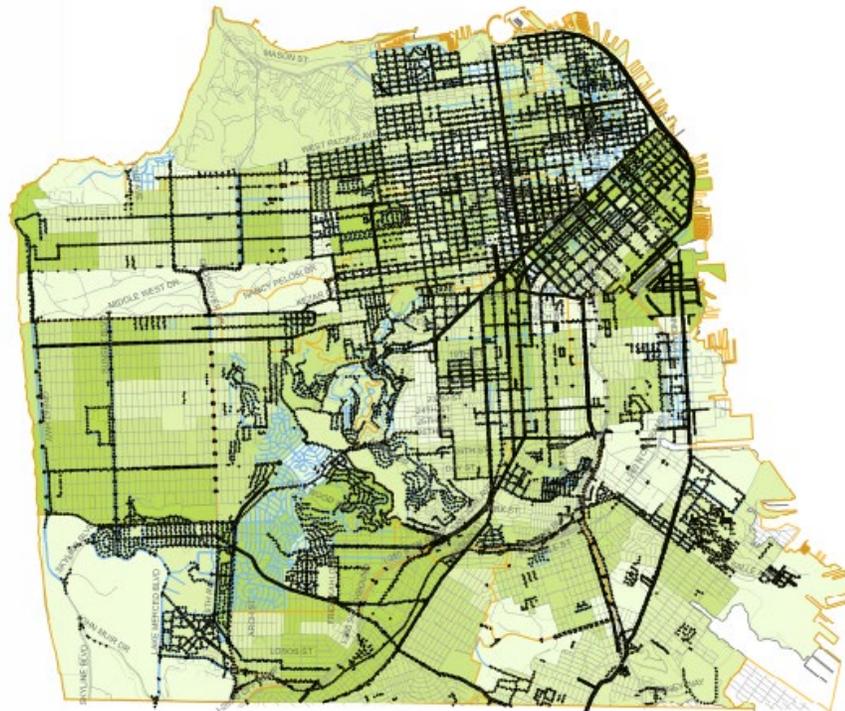


0 0.5 1 2 Miles  
City and County of San Francisco  
Department of Public Works  
Source: Public Works, SFPUC, US Census Bureau  
Date: August 2019

- The Underground Utilities Program (UUP) was started by CPUC in 1967
- San Francisco currently has 520 miles of underground wires and roughly 470 miles of overhead (OH) wires remain
- Since the 2006 UUP, the City has undergrounded approximately an additional eight miles through various opportunities:
  - New subdivisions
  - Private development
  - Agencies construction projects



# Undergrounding Status - Cost



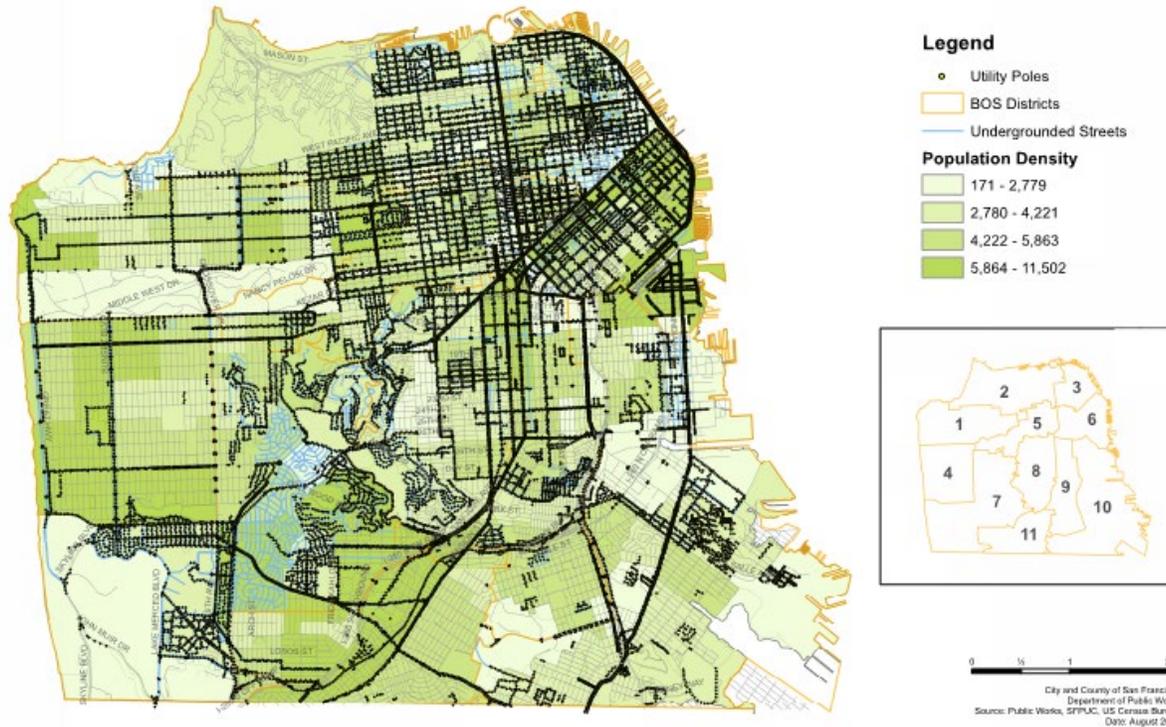
0 1/2 1 2 Miles  
City and County of San Francisco  
Department of Public Works  
Source: Public Works, SFPUC, US Census Bureau  
Date: August 2019

Cost to undergrounding overhead utilities varies based on location in San Francisco:

- Geographical density
  - residential vs. downtown
- Population density
  - 99 - 161,528 people/sq mi



# Undergrounding Status - Cost

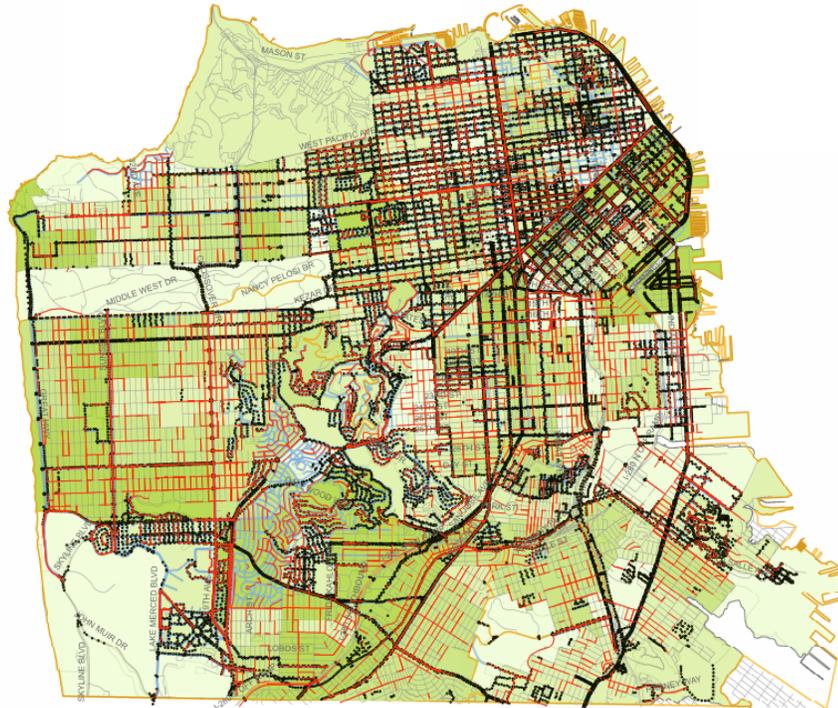


Cost to undergrounding overhead utilities varies based on the type of pole:

- Pole density
  - single utility vs. joint distribution
- Utility owner
  - power vs. tel data



# Undergrounding Status – Cost Sharing

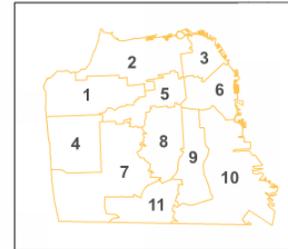


### Legend

- Utility Poles
- Current/Planned Construction Projects
- Undergrounded Streets
- BOS Districts

### Population Density

- 171 - 2,779
- 2,780 - 4,221
- 4,222 - 5,863
- 5,864 - 11,502



0 1/4 1 2 Miles

City and County of San Francisco  
Department of Public Works  
Source: Public Works, SFPUC, US Census Bureau  
Date: August 2019

Cost sharing opportunities to assist with undergrounding projects and prioritization.

- Joint construction projects
  - project management cost
  - permitting cost
  - paving cost
- Rule 20A Credit (not available until 2036)
- Owner's funding
  - rule 20B
  - rule 20C



# Undergrounding Status – Funding

Some of the following funding sources will require further review and political support in order to implement

## Funding Governing Policies

- CPUC Rule 20
- Tariff Rule 15 and 16 (new subdivisions)

## Alternative Funding:

- Utility User Tax
- General Fund



# Undergrounding Status - Photos



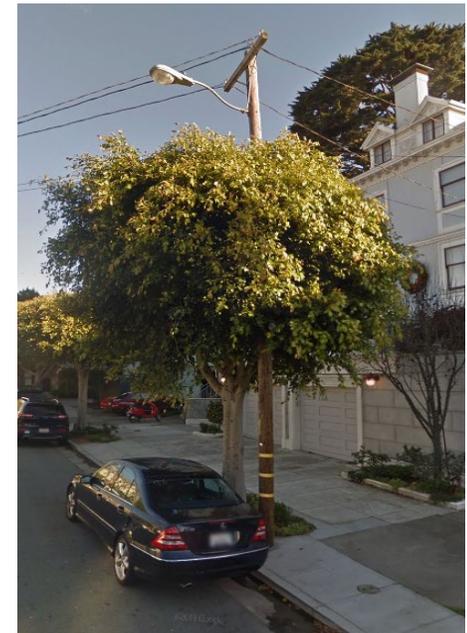
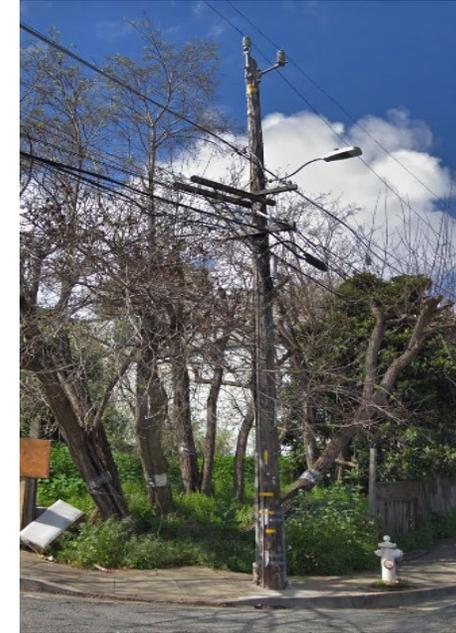
**Overhead wires above Interstate 280**



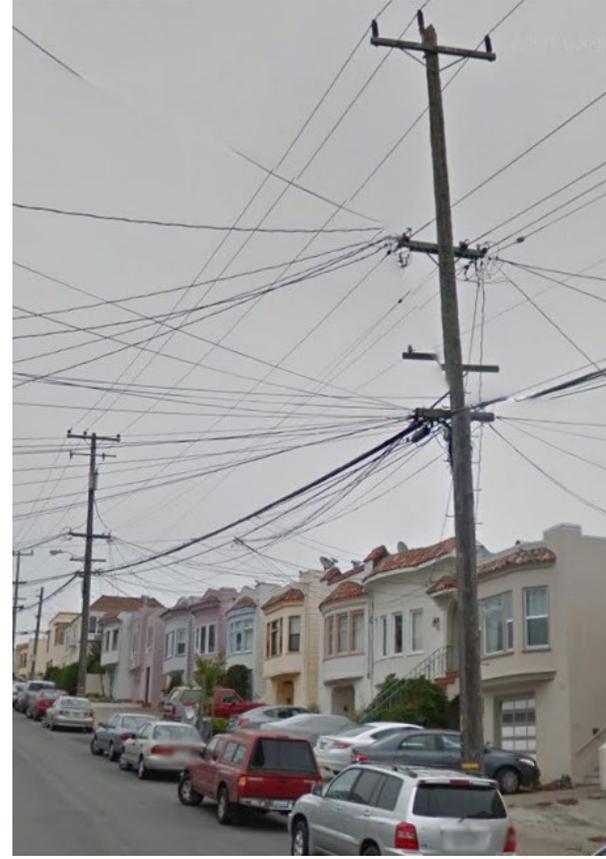
# Undergrounding Status - Photos



Overhead poles  
and wires  
through trees



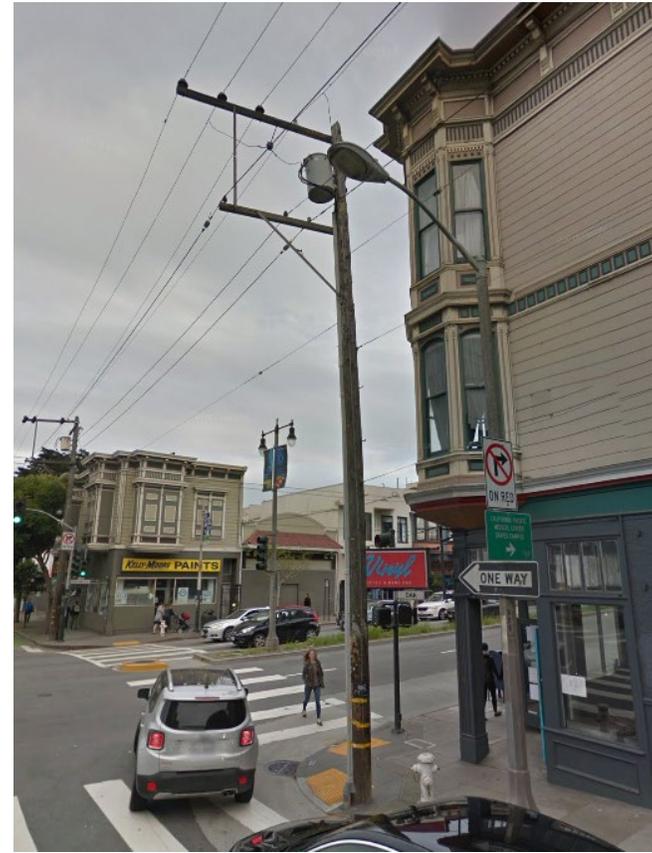
# Undergrounding Status - Photos



High congestion of wires



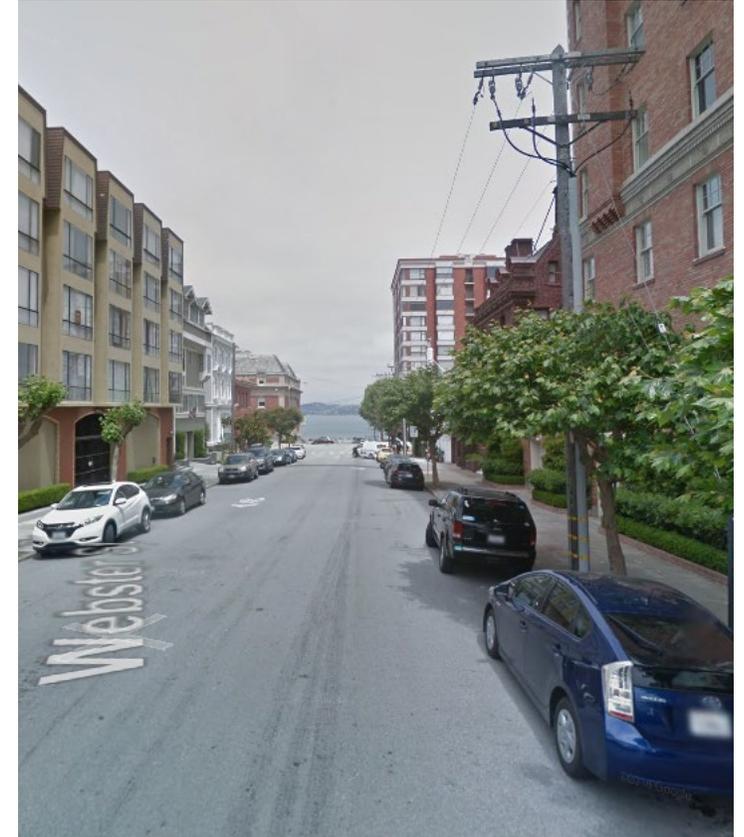
# Undergrounding Status - Photos



Medium congestion of wires



# Undergrounding Status - Photos



Light congestion of wires



# Undergrounding Status - Photos



**Fully undergrounded  
SFMTA/OCS/streetlights**



# Create Framework - Planning



## Planning

- Physical locations by district
- Cost to underground
- Funding source
- Opportunities

Population Per Square Mile	Density Category
99-10,739	A
10,740-20,608	B
20,609-31,097	C
31,098-52,795	D
52,796-161,528	E

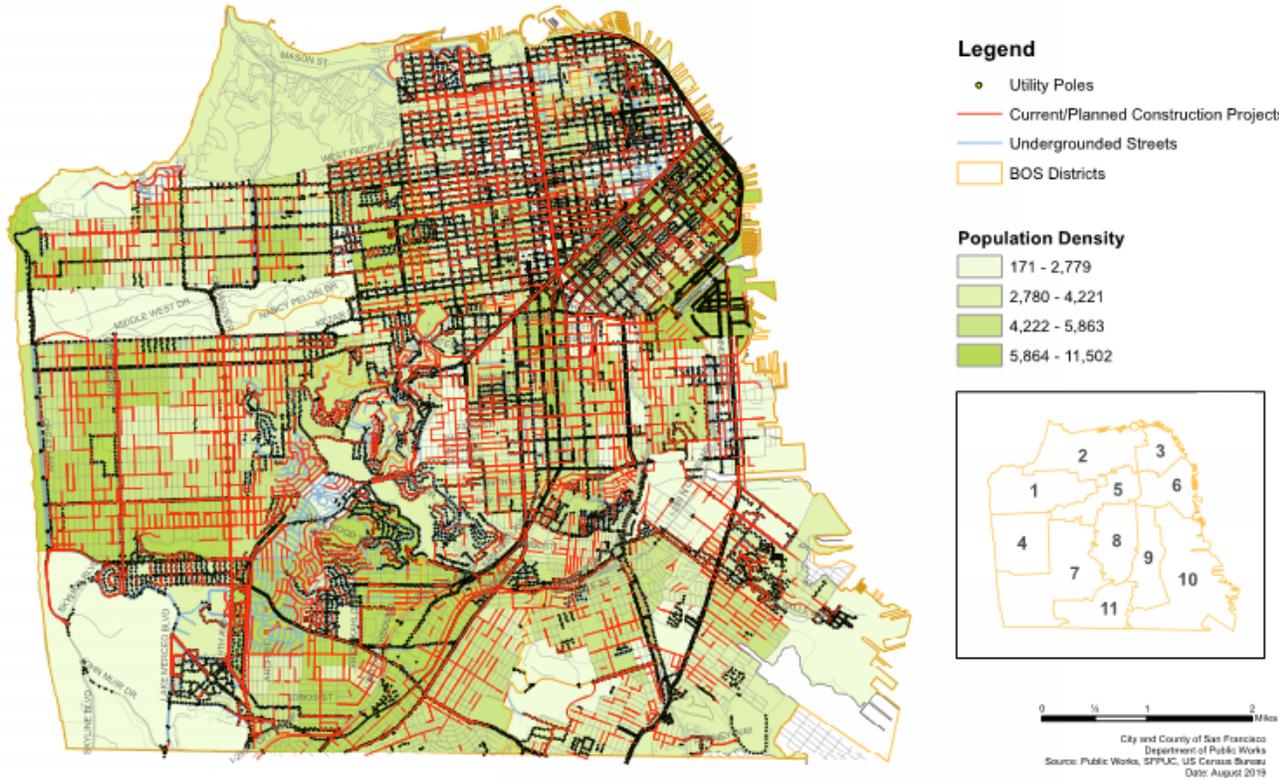
Pole Categories	Category Definition
I	Telecommunications only
II	Electric Only
III	Joint Points
IV	Joint Point with Wireless

DISTRICT X															
DENSITY CATEGORY	POLE TYPE	UNIT COST/MILE	OH MILES	TOTAL COST	COST SAVINGS								REMAINING COST	% SAVINGS	
					New Development	SFDPW Projects	SFPUC Projects	PG&E Projects	SFMTA Projects	Rule 20B	Rule 20C	Others			
A	I	\$1,000,000.00	5	\$5,000,000	-\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,750,000	5%
	II	\$1,500,000.00	1	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	0%
	III	\$2,000,000.00	2	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0	-\$4,000,000	\$0	\$0	\$0	100%
	IV	\$2,500,000.00	1	\$2,500,000	\$0	\$0	\$0	\$0	\$0	-\$1,000,000	\$0	\$0	\$0	\$1,500,000	40%
B	I	\$1,000,000.00	15	\$15,000,000	\$0	-\$3,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000,000	20%
	II	\$2,000,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	III	\$3,000,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	IV	\$3,500,000.00	1	\$3,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,500,000	0%
C	I	\$2,500,000.00	1	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	II	\$3,000,000.00	2	\$6,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000,000	0%
	III	\$3,000,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	IV	\$3,750,000.00	5	\$18,750,000	\$0	\$0	\$0	-\$3,000,000	\$0	\$0	\$0	\$0	\$0	\$15,750,000	16%
D	I	\$3,000,000.00	2	\$6,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000,000	0%
	II	\$2,000,000.00	2	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,000,000	0%
	III	\$4,000,000.00	2	\$8,000,000	\$0	\$0	-\$1,200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$6,800,000	15%
	IV	\$4,250,000.00	3	\$12,750,000	\$0	\$0	\$0	\$0	-\$2,000,000	\$0	\$0	\$0	\$0	\$10,750,000	16%
E	I	\$4,000,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
	II	\$3,500,000.00	5	\$17,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,500,000	0%
	III	\$5,000,000.00	5	\$25,000,000	\$0	\$0	\$0	-\$1,250,000	\$0	\$0	\$0	\$0	\$0	\$23,750,000	5%
	IV	\$5,500,000.00	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
DISTRICT X TOTAL			51	\$129,500,000	-\$250,000	-\$3,000,000	-\$1,200,000	-\$4,250,000	-\$2,000,000	\$0	-\$4,000,000	\$0	\$113,800,000	12%	

Note: The above table does not reflect actual costs and is being shown for reference only.



# Create Framework - Prioritization



- Emergency priority routes
- System reliability
- “Underground Utility District” (UUD): four definitions, Rule 20A
- Privately established UUD with funding
- Joint construction opportunities
- Level of overhead utilities congestion



# Create Framework – Prioritization Cont'd

If we set a goal to underground all OH wires in next 50 years:

- Remaining OH wires  $\approx$  470 miles
- No. of miles to UG per yr  $\approx$  10
- Cost per mile = \$6M - \$25M
- Total Cost per yr = \$60M - \$250M

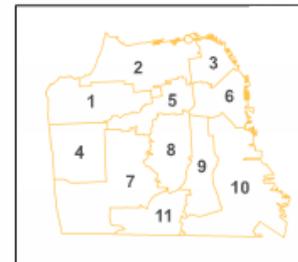


## Legend

- Utility Poles
- Emergency Routes
- Undergrounded Streets
- BOS Districts

## Population Density

- 171 - 2,779
- 2,780 - 4,221
- 4,222 - 5,863
- 5,864 - 11,502



0 1/2 1 2 Miles

City and County of San Francisco  
Department of Public Works  
Source: Public Works, SRPUC, US Census Bureau  
Date: August 2019



# Community Survey

- Paper survey or online survey at:  
[https://www.surveymonkey.com/r/UU\\_Community\\_Feedback\\_Survey](https://www.surveymonkey.com/r/UU_Community_Feedback_Survey)
- Please complete/return survey by September 30, 2019
- We will incorporate survey responses into our study





# Questions or Comments



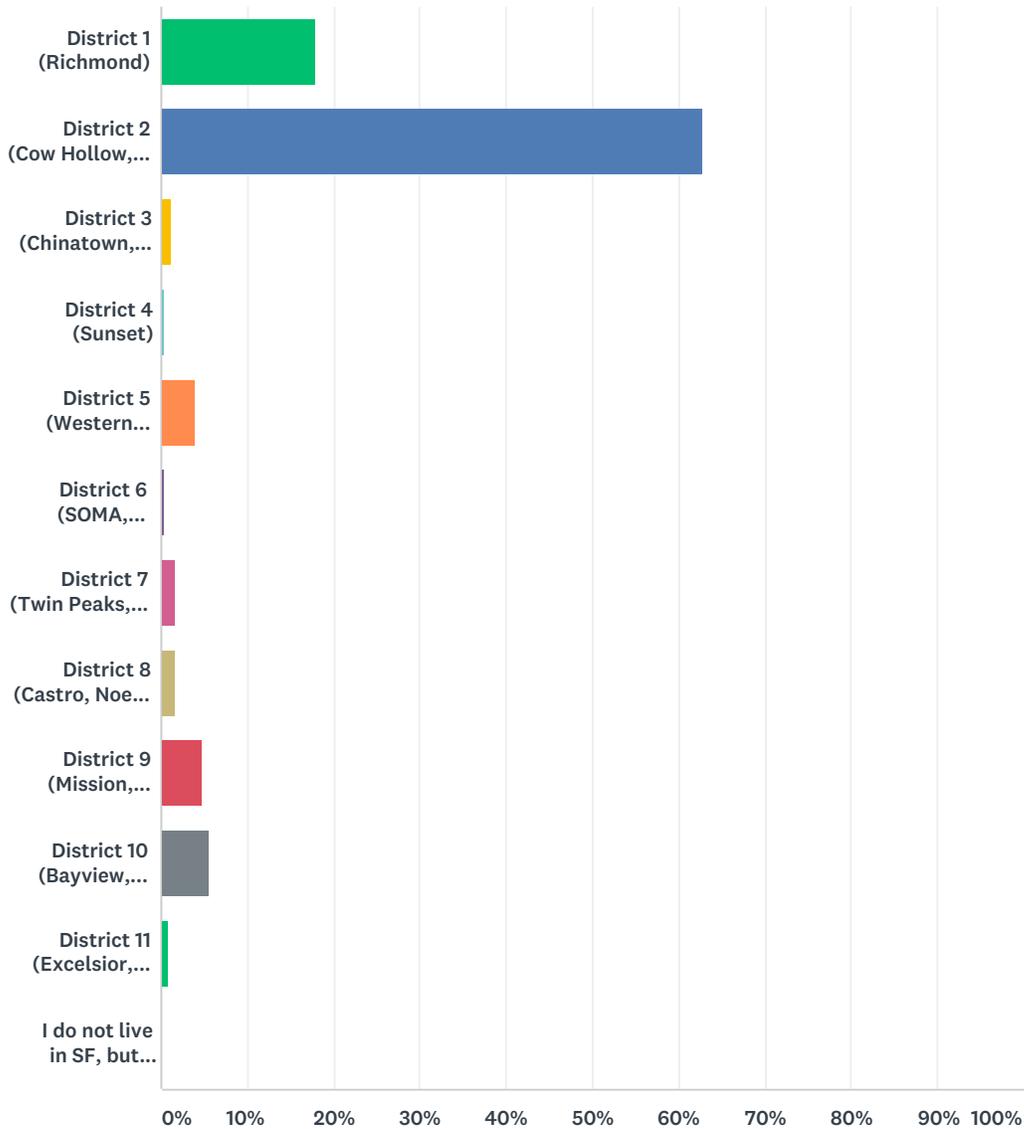
# Appendix I

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## Community Survey Results

# Q1 What Supervisorial District do you live in or represent?

Answered: 250 Skipped: 1

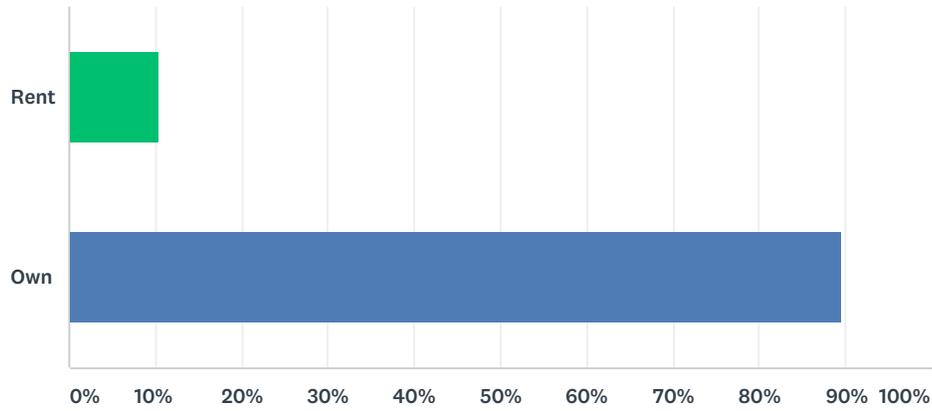


ANSWER CHOICES	RESPONSES	
District 1 (Richmond)	18.00%	45
District 2 (Cow Hollow, Marina, Pacific Heights)	62.80%	157
District 3 (Chinatown, North Beach, Russian Hill, Nob Hill)	1.20%	3
District 4 (Sunset)	0.40%	1
District 5 (Western Addition, Hayes Valley, Haight)	4.00%	10
District 6 (SOMA, Tenderloin)	0.40%	1
District 7 (Twin Peaks, Park Merced, SF State)	1.60%	4
District 8 (Castro, Noe Valley, Glen Park)	1.60%	4

District 9 (Mission, Bernal Heights)	4.80%	12
District 10 (Bayview, Hunter's Point, Potrero Hill, Portola, Visitacion Valley)	5.60%	14
District 11 (Excelsior, Ingleside, Ocean View, Outer Mission)	0.80%	2
I do not live in SF, but represent ALL Districts	0.00%	0
Total Respondents: 250		

## Q2 Do you own or rent your residence?

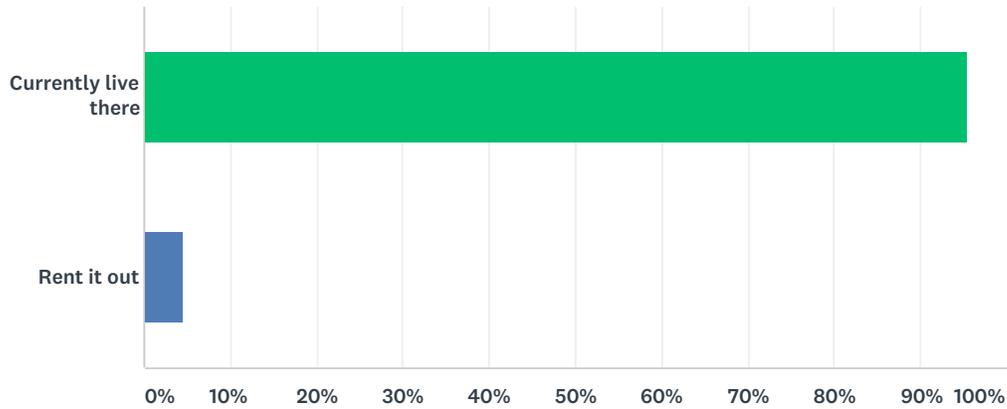
Answered: 250 Skipped: 1



ANSWER CHOICES	RESPONSES	
Rent	10.40%	26
Own	89.60%	224
TOTAL		250

### Q3 If you own your residence do you currently live there or rent it out?

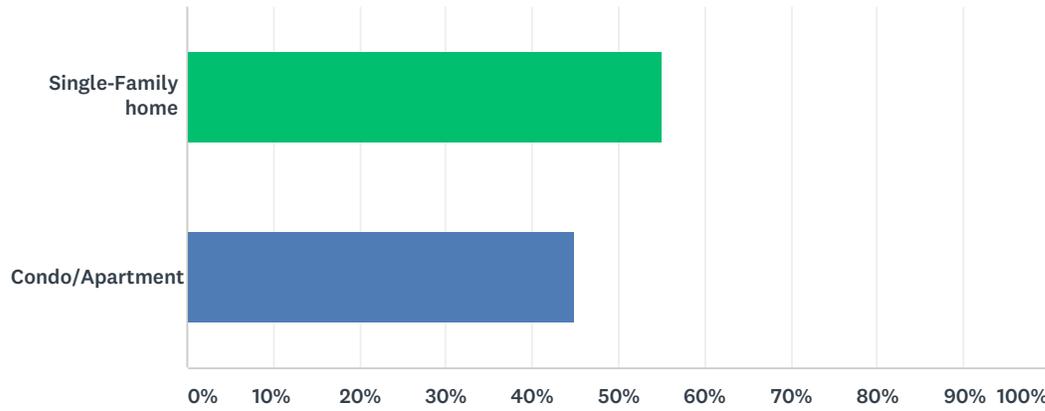
Answered: 218 Skipped: 33



ANSWER CHOICES	RESPONSES	
Currently live there	95.41%	208
Rent it out	4.59%	10
TOTAL		218

### Q4 Do you live in a single residence or a condo/apartment complex?

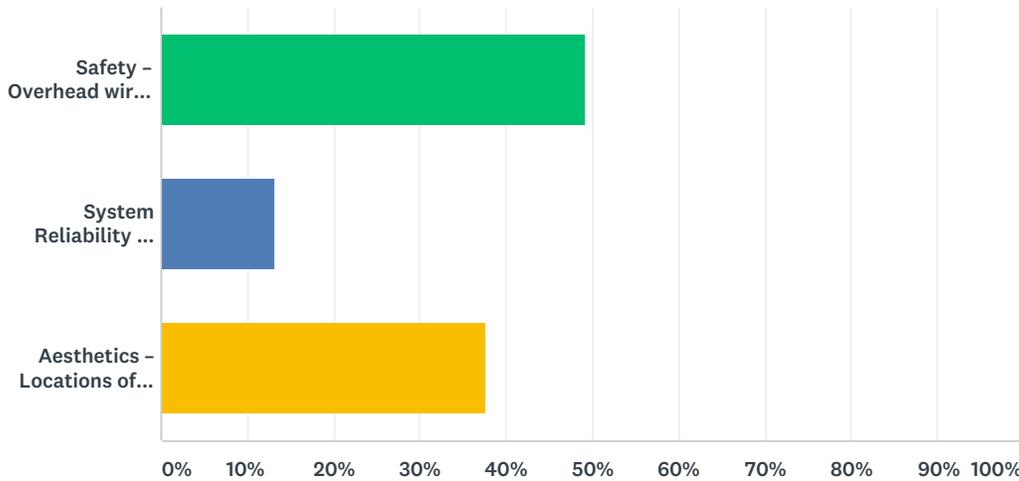
Answered: 242 Skipped: 9



ANSWER CHOICES	RESPONSES	
Single-Family home	54.96%	133
Condo/Apartment	45.04%	109
TOTAL		242

## Q5 When it comes to undergrounding overhead wires, what is the most important factor to you in determining where to prioritize undergrounding? (PICK ONE)

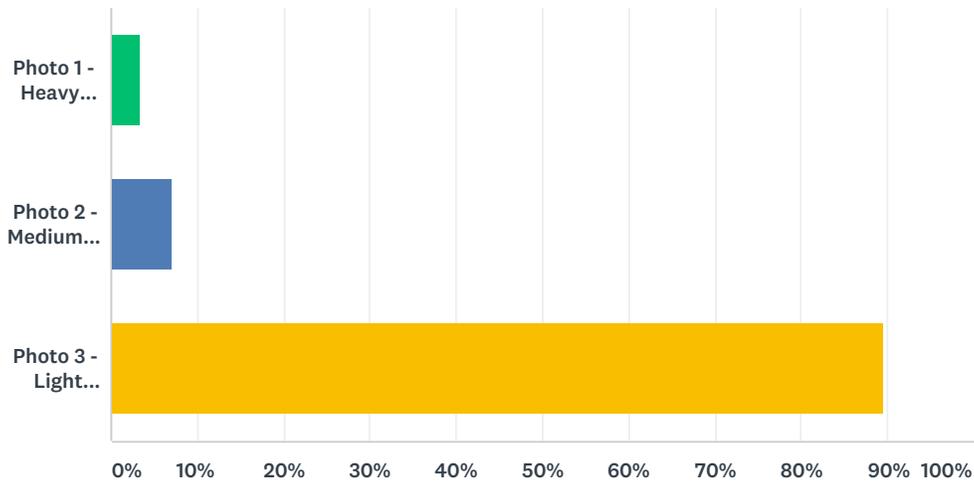
Answered: 242 Skipped: 9



ANSWER CHOICES	RESPONSES
Safety – Overhead wires that are located in areas extensively used by the general public and where a heavy volume of pedestrian or vehicular traffic occur. Locations that pose a potential threat to the general public if line is damaged or goes down in an emergency.	49.17% 119
System Reliability – Locations where routine maintenance occurs or where a major utility line passes, that when down, would impact many users.	13.22% 32
Aesthetics – Locations of scenic interest to the general public, passes through a recreation or civic area or has visual impaired public/private views.	37.60% 91
<b>TOTAL</b>	<b>242</b>

## Q6 What aesthetic look would be acceptable in your community regarding overhead utilities? (Choose One)

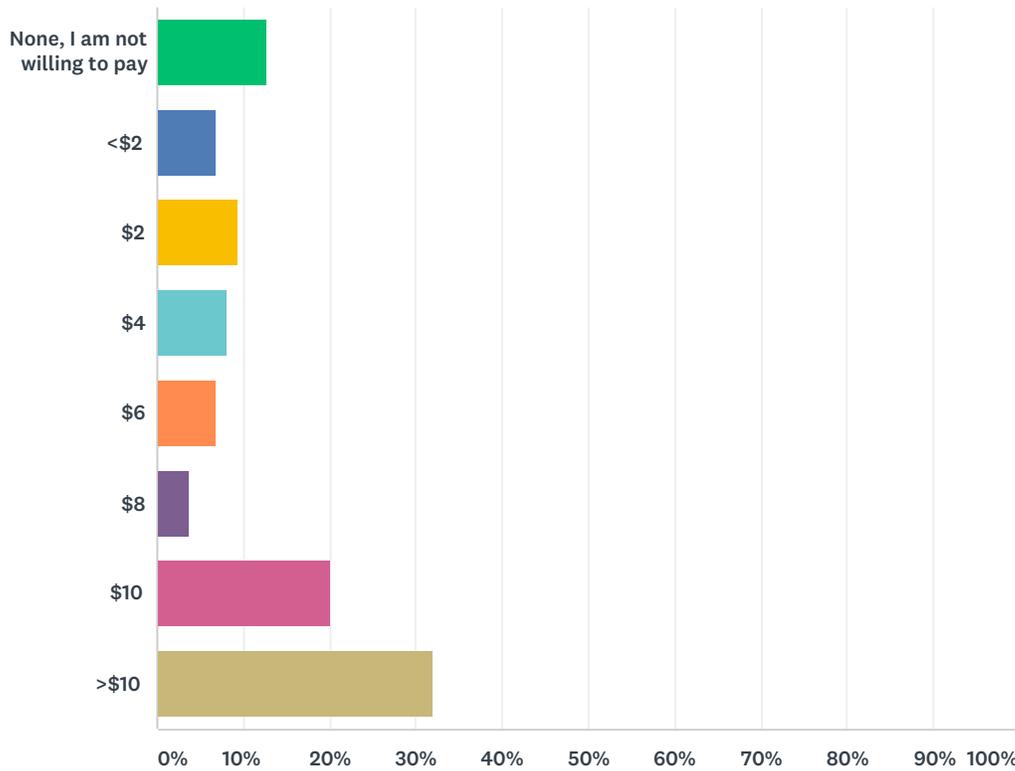
Answered: 238 Skipped: 13



ANSWER CHOICES	RESPONSES
Photo 1 - Heavy Congestion	3.36% 8
Photo 2 - Medium Congestion	7.14% 17
Photo 3 - Light Congestion	89.50% 213
TOTAL	238

### Q7 How much would you be willing to pay each month, in addition to current taxes and/or fees, for the sole purpose of undergrounding utility wires throughout all of San Francisco?

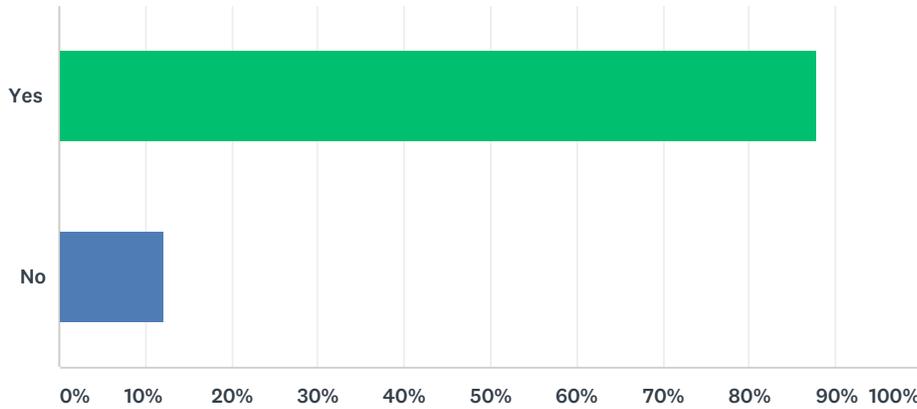
Answered: 244 Skipped: 7



ANSWER CHOICES	RESPONSES	
None, I am not willing to pay	12.70%	31
<\$2	6.97%	17
\$2	9.43%	23
\$4	8.20%	20
\$6	6.97%	17
\$8	3.69%	9
\$10	20.08%	49
>\$10	31.97%	78
<b>TOTAL</b>		<b>244</b>

# Q8 Would you vote for a bond to pay for undergrounding utilities in San Francisco?

Answered: 241 Skipped: 10



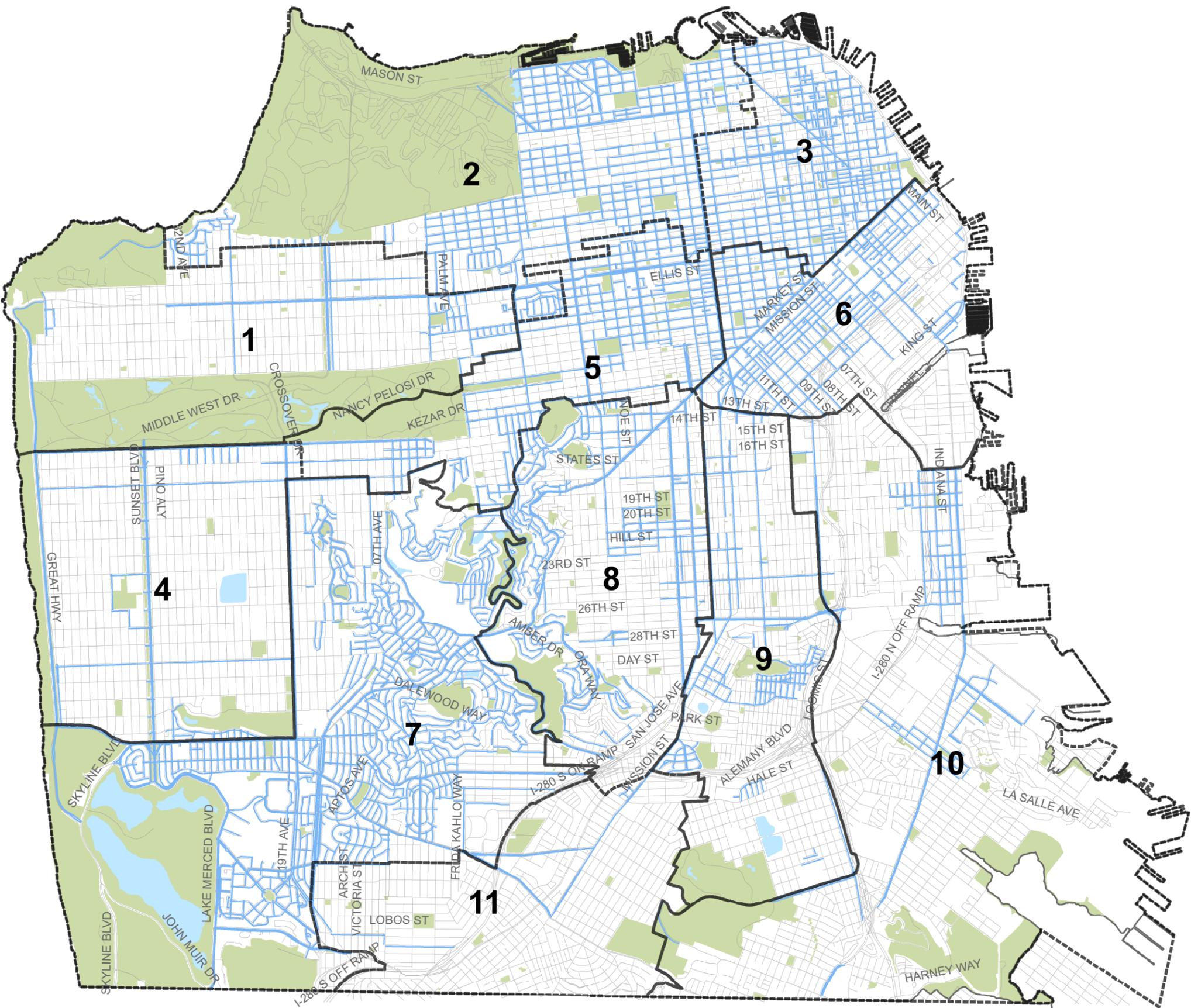
ANSWER CHOICES	RESPONSES	
Yes	87.97%	212
No	12.03%	29
TOTAL		241

# Appendix J

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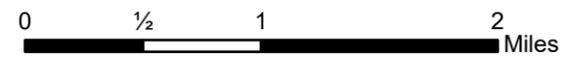
## City Database Maps

# Utility System Map (Undergrounded vs Overhead)



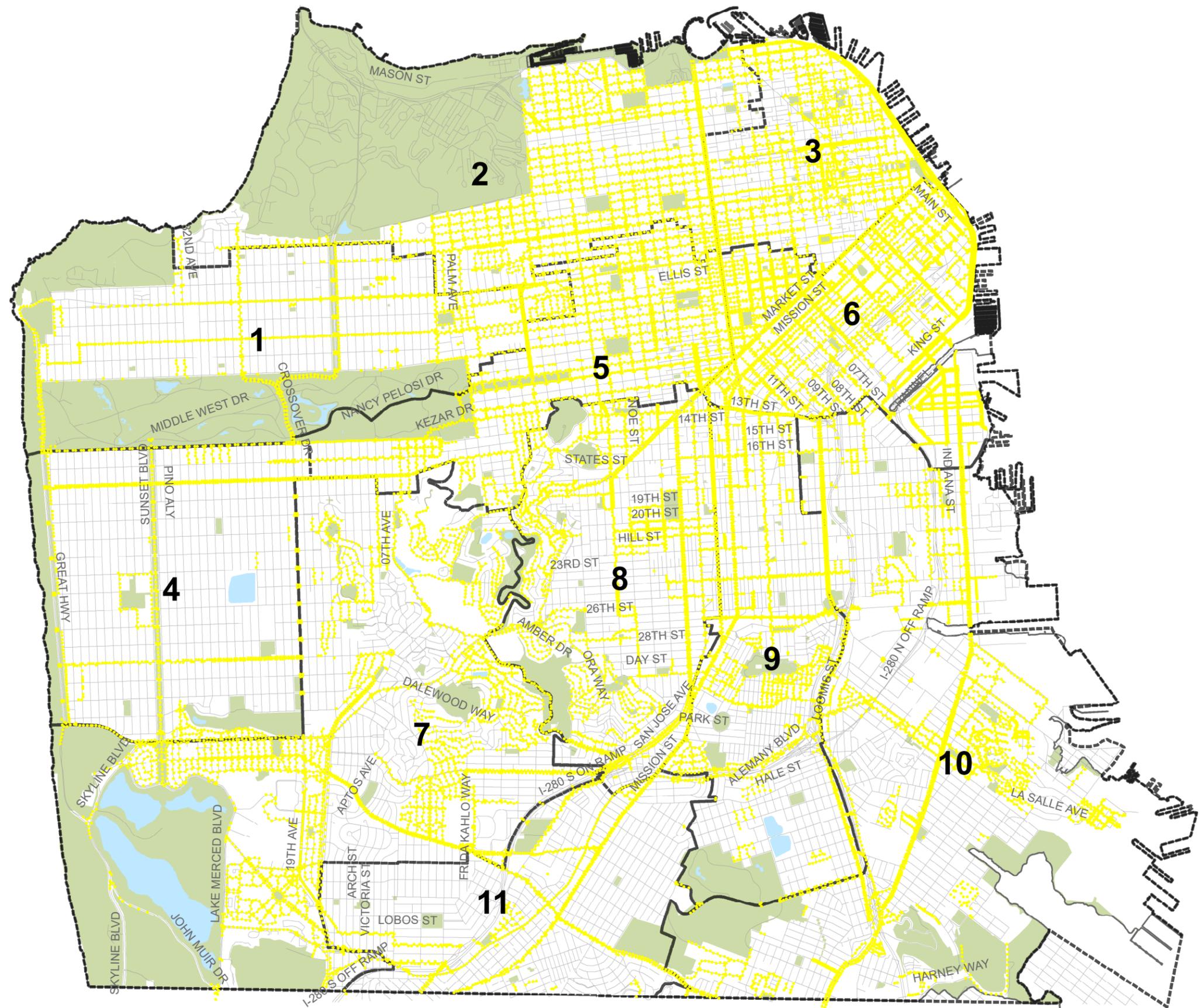
### Legend

- BOS Districts
- Undergrounded Streets



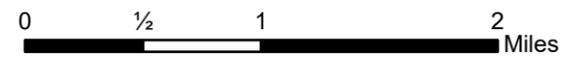
City and County of San Francisco  
Department of Public Works  
Source: Public Works  
Date: October 2019

# Utility Poles



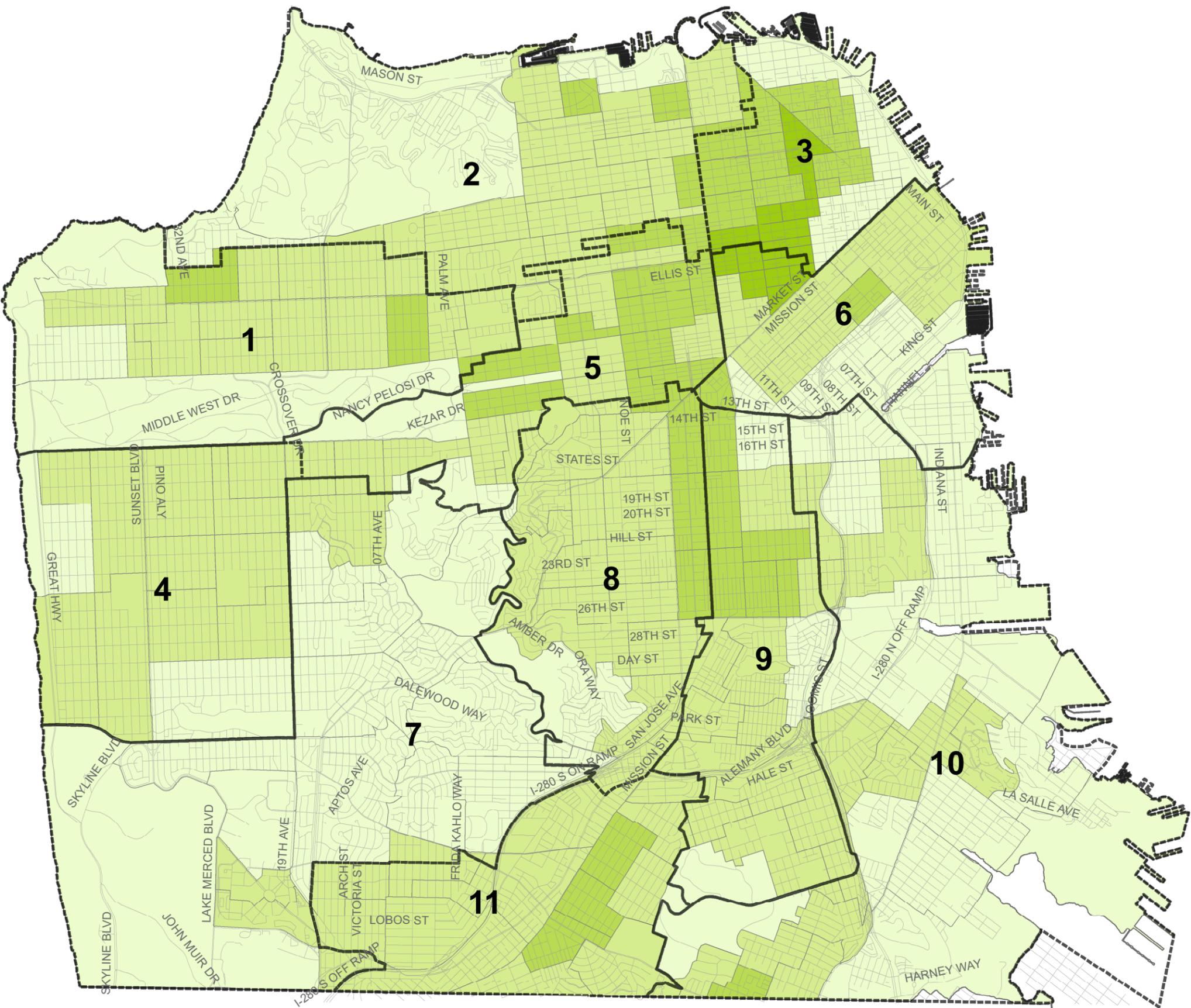
**Legend**

- City-owned Utility Poles
- BOS Districts



City and County of San Francisco  
Department of Public Works  
Source: Public Works  
Date: October 2019

# Population Density

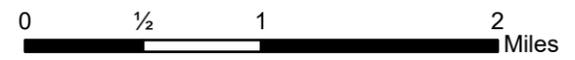


## Legend

BOS Districts

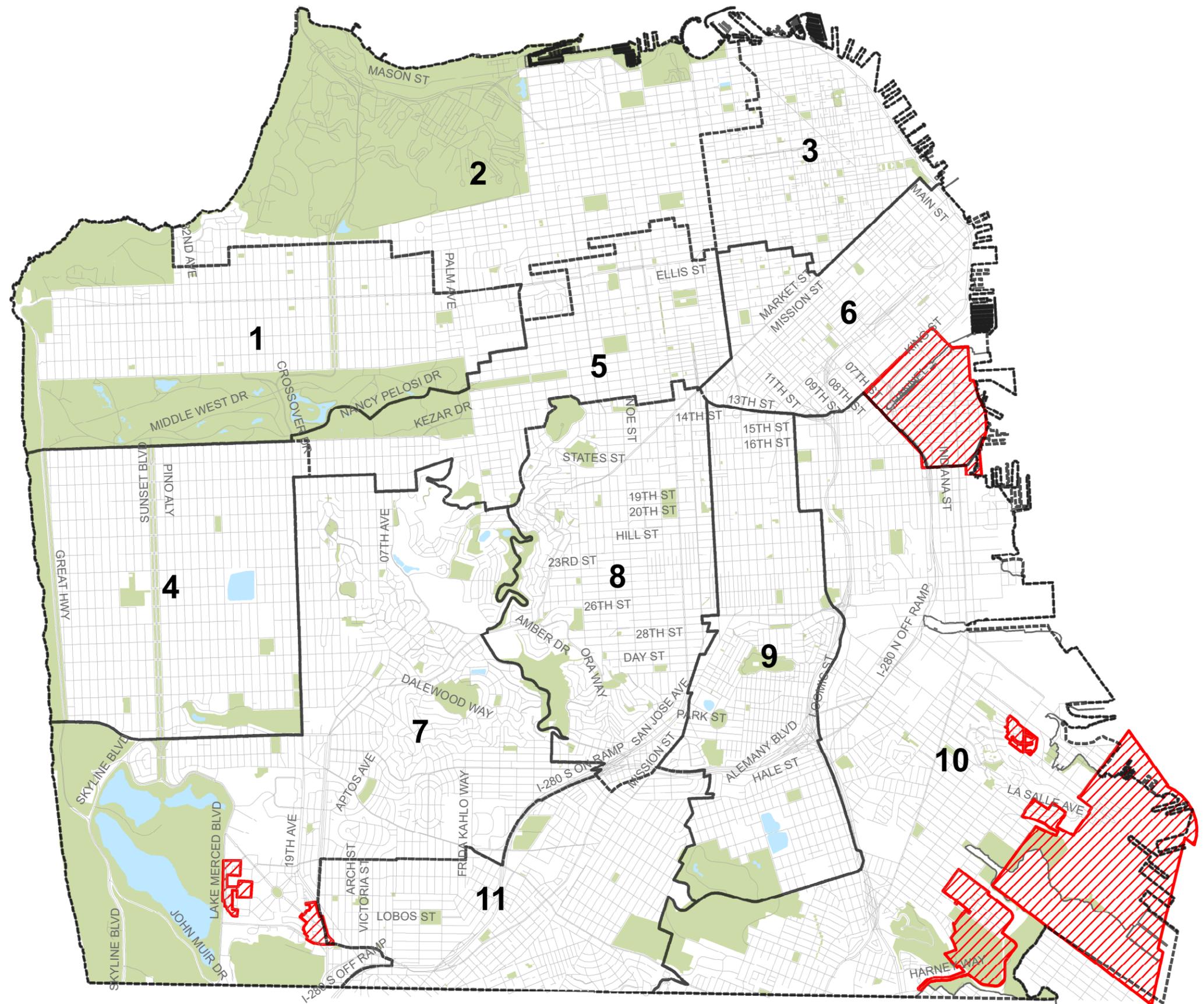
## Population Density

	A	101.92 - 15406.45
	B	15406.46 - 32509.61
	C	32509.62 - 68683.33
	D	68683.34 - 161500.05



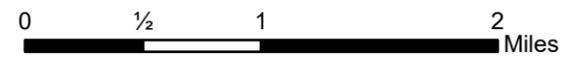
City and County of San Francisco  
Department of Public Works  
Source: Public Works  
Date: October 2019

# New Developments



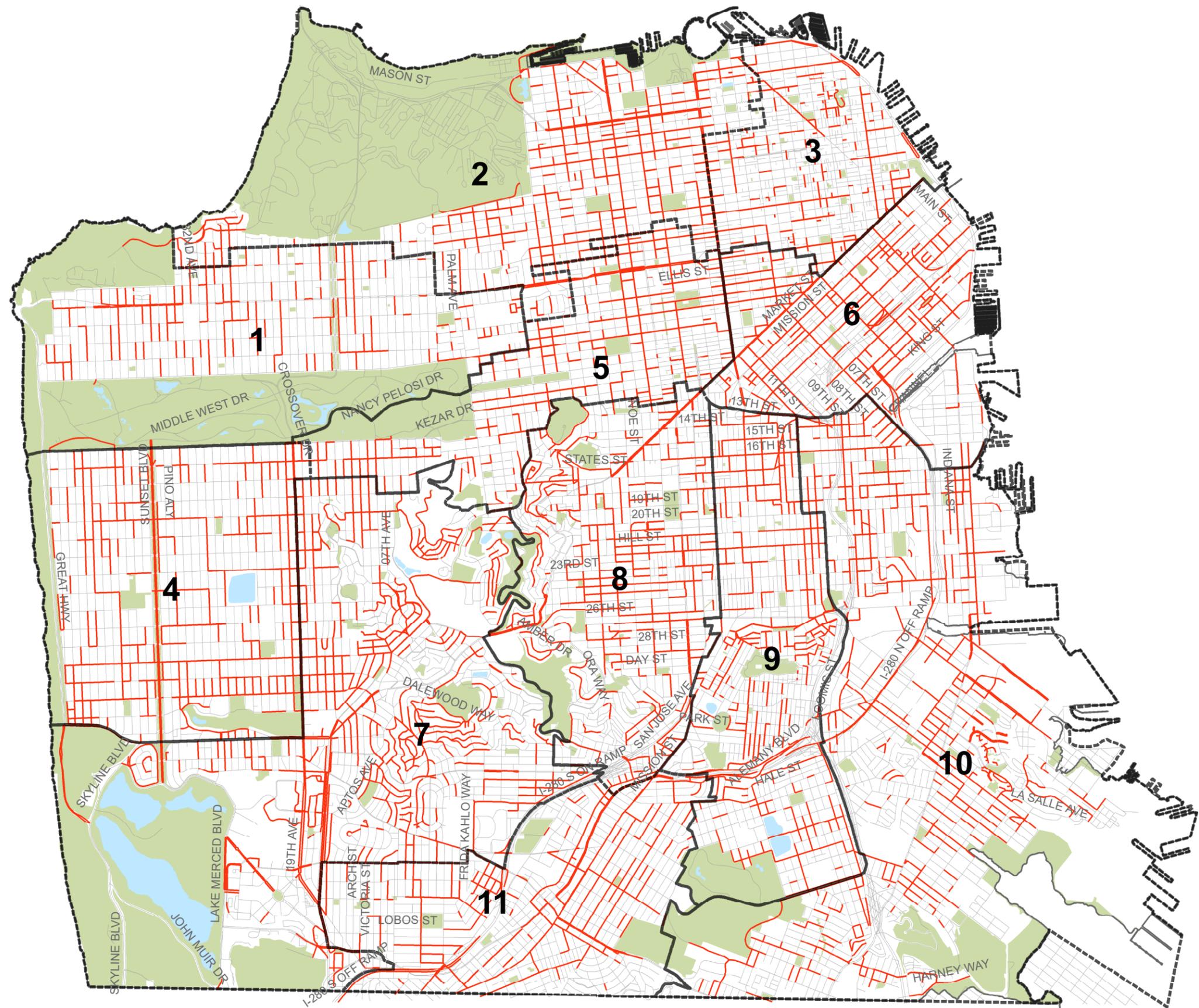
## Legend

-  BOS Districts
-  New Developments



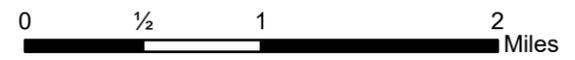
City and County of San Francisco  
Department of Public Works  
Source: Public Works  
Date: October 2019

# Current/Planned Construction Projects



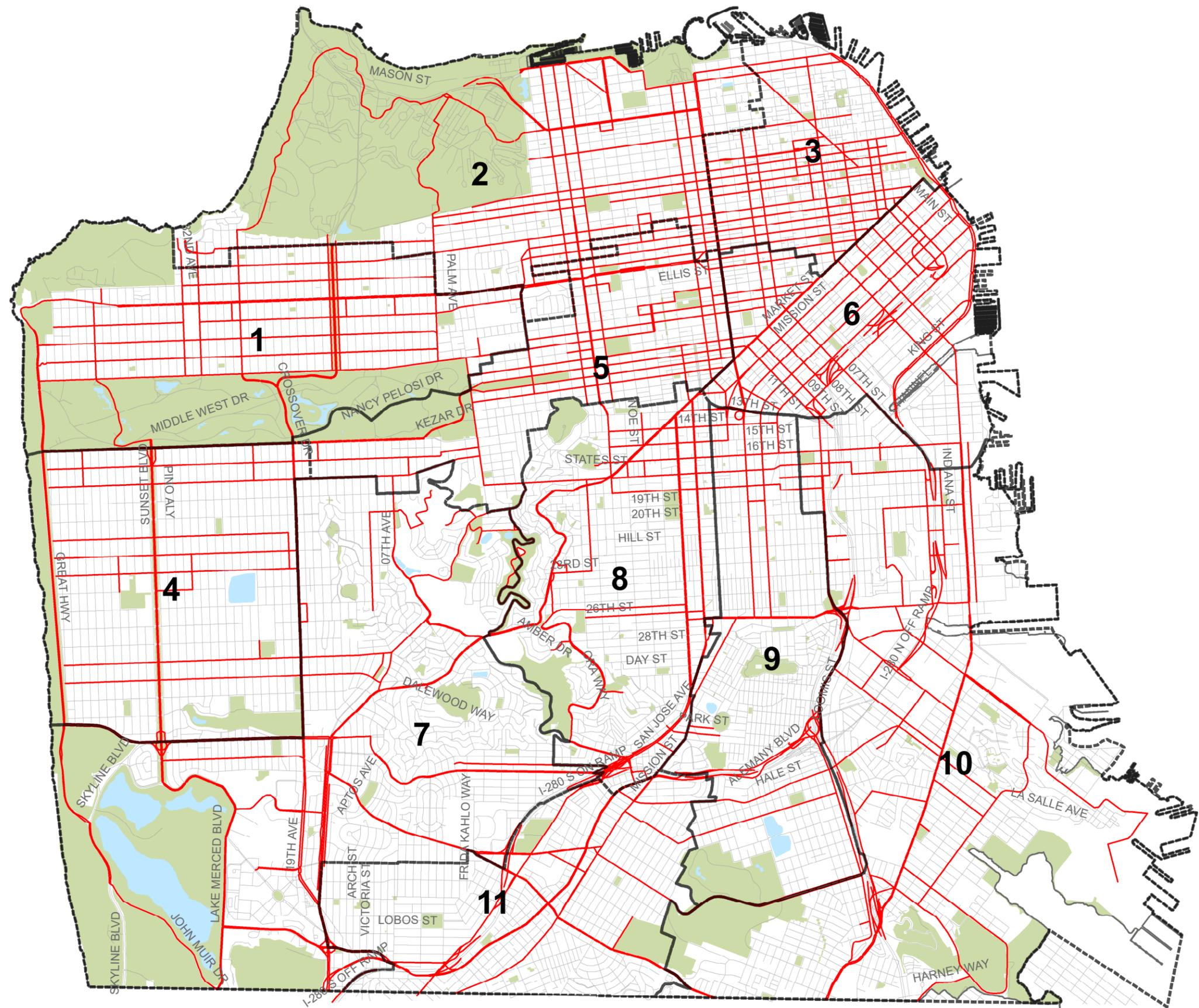
## Legend

- BOS Districts
- Current/Planned Construction Projects



City and County of San Francisco  
Department of Public Works  
Source: Public Works  
Date: October 2019

# Emergency Routes



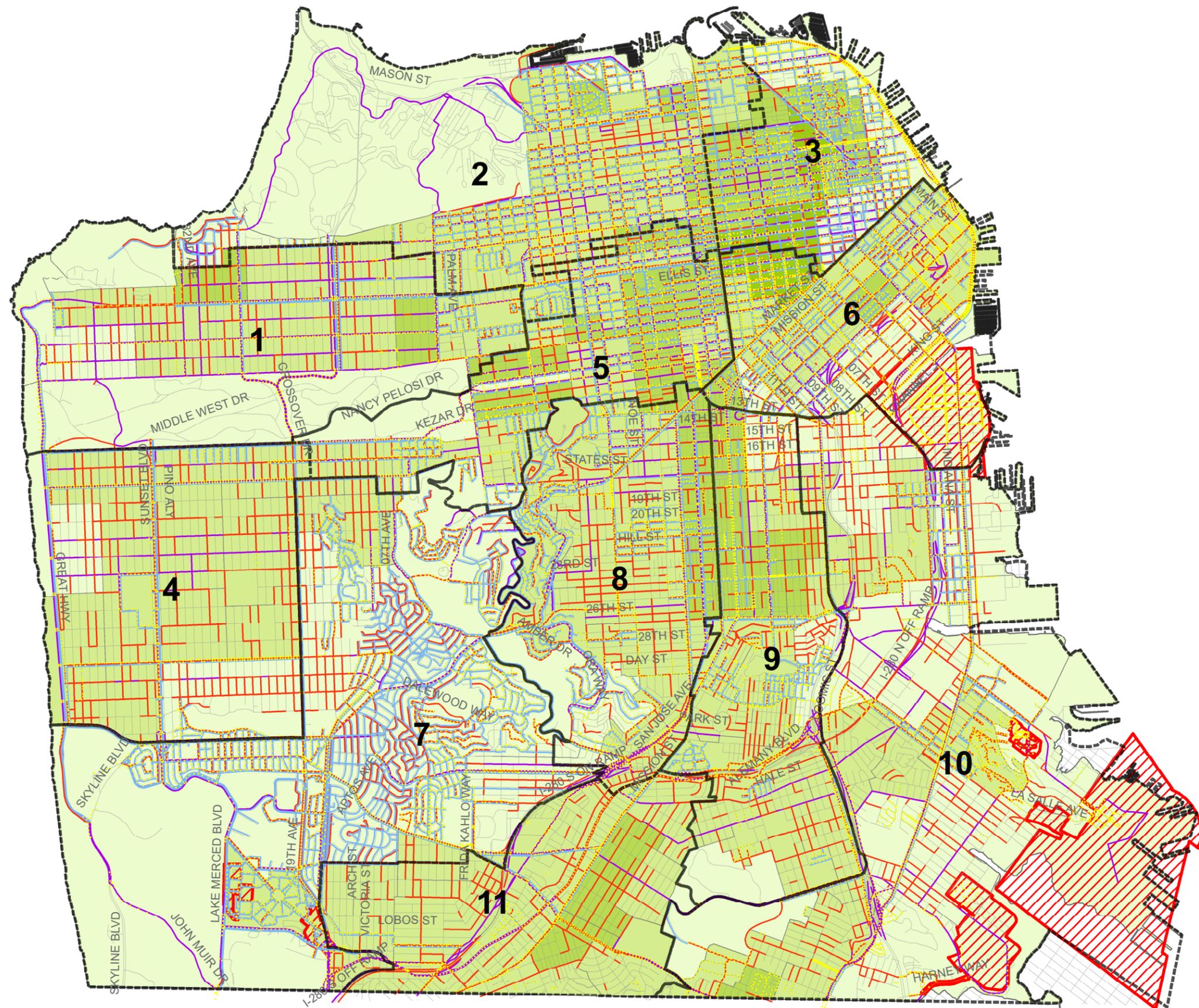
## Legend

-  BOS Districts
-  Emergency Routes



City and County of San Francisco  
Department of Public Works  
Source: Public Works  
Date: October 2019

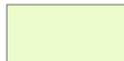
# Composite

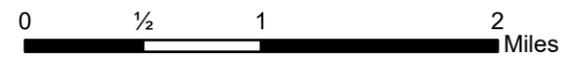


## Legend

-  BOS Districts
-  City-owned Utility Poles
-  Undergrounded Streets
-  Current/Planned Construction Projects
-  Emergency Routes
-  New Developments

## Population Density

-  101.92 - 15406.45
-  15406.46 - 32509.61
-  32509.62 - 68683.33
-  68683.34 - 161500.05



# Appendix K

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## AT&T Rule 32 Tariff

NETWORK AND EXCHANGE SERVICES

A2. GENERAL REGULATIONS

2.1 RULES (Cont'd)

2.1.32 RULE NO. 32 - FACILITIES TO PROVIDE REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES

A. REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES

1. In Areas Affected By General Public Interest.

The Company will, at its expense, replace its existing aerial facilities (T) with underground facilities along public streets and roads and on public lands and private property across which rights-of-way satisfactory to the Company have been obtained or may be obtained without cost or (T) condemnation, by the Company, provided that the governing body of the (T) city or county in which such facilities are located has:

a. Determined after consultation with the Company and after holding public (T) hearings on the subject, that undergrounding is in the general public interest in a specified area for one or more of the following reasons:

- (1) Such undergrounding will avoid or eliminate an unusually heavy concentration of aerial facilities;
- (2) Said street, or road or right-of-way is in an area extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic;
- (3) Said street, road or right-of-way adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public.

b. Adopted an ordinance creating an underground district in the area requiring, among other things:

- (1) That all existing and future electric and communication distribution facilities will be placed underground, and
- (2) That each property owner will provide and maintain the underground supporting structure needed on their property to furnish service to them from the underground facilities of the Company when such are (T) available, except as provided in A.1.c following.

Continued

NETWORK AND EXCHANGE SERVICES

A2. GENERAL REGULATIONS

2.1 RULES (Cont'd)

2.1.32 RULE NO. 32 - FACILITIES TO PROVIDE REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES (Cont'd)

A. REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES (Cont'd)

1. In Areas Affected By General Public Interest (Cont'd)

- c. Upon request of the governing body the Company will pay for the installation of no more than 100 feet of each customer's underground service connection facility occasioned by the undergrounding. The governing body may establish a smaller footage allowance or may limit the amount of money to be expended on a single customer's service, or the total amount to be expended on consumer services in a particular project. The Company will pay for the installation of each customer's underground service connection facility at the time and only to the extent that the electric utility pays for the customer's underground electric service lateral. (T)
- d. The Company will replace its aerial facilities at the time and only to the extent that the overhead electric distribution facilities are replaced. (T)

2. At the Request of Governmental Agencies or Groups of Applicants.

In circumstances other than those covered by 1. preceding, the Company will replace its aerial facilities located in a specified area with underground facilities along public streets and roads and on public lands and private property across which rights-of-way satisfactory to the Company have been obtained, or may be obtained without cost or condemnation, by the Company upon request by a responsible party representing a governmental agency or group of applicants where all of the following conditions are met: (T)

- a. All property owners served by the aerial facilities to be replaced within a specific area designated by the governmental agency or group of applicants first agree in writing or are required by suitable legislation to pay the cost or to provide and to transfer ownership to the Company of the underground supporting structure along the public way and other Company rights-of-way in the area<sup>1</sup>, and (T)
- b. All property owners in the area are required by ordinance or other legislation, or all agree in writing, to provide and maintain the underground supporting structure on their property, and (T)

NOTE 1: Includes Income Tax gross-up amount, as listed in ScheduleCal.P.U.C. No. A2.1.3,D.

Continued

NETWORK AND EXCHANGE SERVICES

A2. GENERAL REGULATIONS

2.1 RULES (Cont'd)

2.1.32 RULE NO. 32 - FACILITIES TO PROVIDE REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES (Cont'd)

A. REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES (Cont'd)

2. At the Request of Governmental Agencies or Groups of Applicants. (Cont'd)

c. The area to be undergrounded includes both sides of a street for at least one block, and

d. Arrangements are made for the concurrent removal of all electric and communication aerial distribution facilities in the area. 2(T)  
2(T)

3. At the Request of Individual Applicants.

In circumstances other than those covered by 1. or 2. preceding, where mutually agreed upon by the Company and an applicant, aerial facilities may be replaced with underground facilities, provided the applicant requesting the change pays, in advance, an amount equal to the estimated cost of construction less the estimated net salvage value of the replaced aerial facilities<sup>1</sup>. At the conclusion of the project, the Company shall reimburse the applicant for any amount paid in excess of the actual cost. If the estimated cost paid by the applicant was less than the actual cost incurred by the Company, the applicant shall pay the Company the difference at the conclusion of the project. (C)  
(N)  
(N)

Pursuant to Government Code § 66473.6, whenever a city or county imposes as a condition to its approval of a tentative map or a parcel map a requirement that necessitates replacing, undergrounding, or permanently or temporarily relocating existing facilities, the applicant shall pay the Company, in advance, a sum equal to the estimated cost of construction less the estimated net salvage value of the replaced aerial facilities. At the conclusion of the project, the Company shall reimburse the applicant for any amount paid in excess of the actual cost. If the estimated cost paid by the applicant was less than the actual cost incurred by the Company, the applicant shall pay the Company the difference at the conclusion of the project. 2(N)  
2(N)

4. At Company Initiative.

The Company may from time to time replace sections of its aerial facilities with underground facilities at Company expense for structural design considerations or its operating convenience.

NOTE 1: Includes Income Tax gross-up amount, as listed in Schedule Cal.P.U.C. No. A2.1.3,D.

NOTE 2: Pending CPUC approval of Advice Letter No. 40390. (N)

Continued

NETWORK AND EXCHANGE SERVICES

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A2. GENERAL REGULATIONS

2.1 RULES (Cont'd)

2.1.32 RULE NO. 32 - FACILITIES TO PROVIDE REPLACEMENT OF AERIAL WITH  
UNDERGROUND FACILITIES (Cont'd)

A. REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES (Cont'd)

5. Reserved

(T)

(D)

(D)

Continued

## Appendix L

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### **Public Works Tool Kit**

### **How to Form a Property Owner Funded Utility Undergrounding District in Your Neighborhood**

# How to Form a Property-Owner Funded Utility Undergrounding District in Your Neighborhood

The purpose of this “Tool-Kit” is to provide local residents with a step-by-step approach to forming a property-owner funded undergrounding utility district.<sup>1</sup>

## Step 1 – Determine District Boundaries (1-2 months)

### A. Local Residents Form a Neighborhood Committee

Public Works strongly recommends that local residents interested in establishing utility undergrounding assessment districts start by forming a neighborhood committee of six or fewer interested property owners. The committee will be responsible for organizing neighborhood meetings, gathering support and signatures and distributing information about the projects to property owners.

The committee should include at least one person from every block. The committee should identify a block captain who will become the coordinator and point of contact for that block.

### B. Neighborhood Committee Determines the Proposed Boundaries for the Undergrounding District.

The neighborhood committee should determine the proposed boundaries for the utility undergrounding district based on where there are known or anticipated areas of support for property-owner supported utility undergrounding.

Ideally, utility undergrounding district boundaries should be no more than 300 homes (equivalent to approximately three to four blocks, depending on density), should fall along natural breaking points (entire blocks must be undergrounded, including the curb return area). Under PG&E’s undergrounding rules, a utility undergrounding district must be at least 600 linear feet (or an entire block segment).

---

<sup>1</sup> This tool-kit is intended for informational purposes only. It is neither legal advice nor a guarantee that local residents can establish an utility undergrounding.

## **Step 2 – Circulate Petition (2-4 months)**

### **A. Neighborhood Committee Meets with Public Works**

Once the neighborhood committee has defined the proposed utility undergrounding district, the committee can contact Public Works at (415) 554-5810 to schedule a meeting to confirm the proposed district boundaries.

As a point of reference only, in 2009 the estimated cost for undergrounding residential neighborhoods was \$1,360 per linear foot of trenching, including the costs of installing new streetlights (approximately \$34,000 for an average lot with a 25-foot frontage).<sup>2</sup> Actual costs will depend on market conditions at the time the project is priced and constructed.

The simplest way to estimate costs is to measure the frontage length of each property in the proposed district and assign a percentage for each property based on the project's total linear footage. More complex formulas can be developed that account for enhanced property values, scenic views, etc. How to allocate the total costs of the project will ultimately be up to property owners in the utility undergrounding district.

### **B. Neighborhood Committee Gauges Support for Project**

The neighborhood committee should prepare a presentation for property owners in the proposed utility undergrounding district discussing the nature of the project and the estimated costs. If there is consensus among property owners to move the project forward, the next step is to collect signatures on a petition.

### **C. Neighborhood Committee Collects Signatures on a Petition**

The neighborhood committee must circulate a formal petition in the form attached hereto. Public Works requires that signatures be collected from at least 60 percent of the property owners on any block proposed to be undergrounded in order for the project to move forward. Public Works can provide the committee with a list of all property owners for this purpose.

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<sup>2</sup> This figure takes into account that the California Public Utilities Commission will require utilities to partially subsidize these undergrounding projects.

## **Step 3 – Legislate Underground District (4-6 months)**

### **A. Neighborhood Committee Submits Signed Petitions to Public Works**

Public Works will verify that the signatures on the petition are from property owners of record in the proposed utility undergrounding district and that 60 percent of the property owners have signed the petition. In the event that Public Works determines that the neighborhood committee has failed to meet the 60 percent signature requirement, the committee may elect either to: (a) continue to collect signatures; (b) redefine the proposed utility undergrounding district to include only those blocks where the 60 percent requirement can be met; or (c) terminate the project.

### **B. Public Works Holds a Public Hearing**

Once Public Works verifies the signatures, the Public Works Director will hold a public hearing to consider the proposed utility undergrounding district. During the Director's hearing, property owners and other interested parties will be given the opportunity to voice their support for or opposition to the proposed district.

### **C. Board of Supervisors Approves the Utility Undergrounding District**

If the Public Works Director approves the proposed utility undergrounding district at the hearing, the Director will forward legislation to the Board of Supervisors to establish the district. In order to proceed with forming a utility undergrounding district, the Board of Supervisors must approve the ordinance by a majority vote.

## **Step 4 – Form Assessment District (4-6 months)**

### **A. Property Owners Obtain Funding for Utility Design Plan and Engineering Report<sup>3</sup>**

If the Board of Supervisors approves the utility undergrounding district, property owners must obtain funding for the required utility design plan and engineering report. If property owners and the Board of Supervisors finally approve the utility undergrounding assessment district (as described below in steps 4.B through 4.F), these costs can be added to the total amount to be assessed on property owners in the district. Otherwise, property owners will not be able to recover these costs.<sup>4</sup> As a rule of thumb, the cost for preparing the report will be 10 to 15 percent of the cost of the entire project.

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<sup>3</sup> Step 4 is only for proposed utility undergrounding districts in which property owners will seek to have the City assess the cost of the project on their properties. If all property owners in the district intend to fund the undergrounding project without any assessments, Step 4 will apply only to the extent that property owners must pay for and obtain a design plan and engineering report.

<sup>4</sup> The City is unable to fund the cost of the design plan and engineering study at this time. It is therefore assumed that property owners will fund these costs.

## **B. Board of Supervisors Approves Resolution of Intention**

The Board of Supervisors may then choose to make findings and approve a resolution of intention to form a utility undergrounding assessment district. The resolution must: (a) describe the proposed improvement; (b) specify the boundaries of the district; (c) provide for the issuance of improvement bonds if required; (d) declare the City's intention to levy an assessment; and (e) refer the proposed improvements to Public Works for preparation of an engineering report.

## **C. Utilities Prepare Design Plans**

Each utility or one lead agency will complete design plans for the project. These plans will provide the basis for pricing the project and completing construction. Property owners will be given the opportunity to review and comment on the plans before they are finalized.

## **D. Consultants Prepare Engineering Report**

The engineering consultant must prepare a report containing the following information: (a) plans and specifications for the improvements; (b) an estimate of the costs of the improvements; (c) an estimate of the amount to be assessed on each parcel in the proposed district; and (d) diagrams showing the boundaries of the proposed district. The Board of Supervisors must then consider whether to approve the engineering report.

## **E. Property Owners Approve the Assessment**

The Board of Supervisors must then hold a public hearing on the proposed utility undergrounding assessment district. The Board of Supervisors will mail ballots to all property owners in the district and notify them of the date and time for the hearing. All ballots must be submitted prior to the conclusion of the hearing.

At the hearing, the Board of Supervisors will consider all protests against the proposed assessment and tabulate the ballots. The Board of Supervisors may not impose an assessment if a majority of property owners protest the assessment. In tabulating the ballots, the Board of Supervisors must weigh them according to the proportional financial obligation of the affected properties.

## **F. Board of Supervisors Approves Formation of the Assessment District**

If the ballots support forming the utility undergrounding assessment district, the Board of Supervisors may choose to make findings and approve a resolution forming the district, authorizing the improvements, and ordering the assessments.

## **G. Assessor Records the Assessment**

If the Board of Supervisors legislates the undergrounding district and approves the assessment district, all property owners in the district will be required to participate in the undergrounding project.

The Assessor will record the assessment on each property in the utility undergrounding assessment district. Property owners may elect to prepay the assessment and avoid interest charges, or they may choose to pay a portion each year in accordance with the terms and conditions of any bonds to be issued by the City.

## **Step 5 – Construction (2 months/block)**

Public Works will notify all residents about construction details and timelines. The Public Works Utility Undergrounding Coordinator and the project engineer will be available to answer questions and concerns throughout the construction phase of the project.

During construction, multiple trenches will be cut in both the roadway and sidewalks, lateral trenches will be cut from the sidewalk to the front of each property, new utility connections will be installed on all properties, final utility connections will be completed, and overhead utility connections will be removed. New streetlights also will be installed and in some cases new curb ramps will be installed at intersections.

The final work will include the removal of all overhead utility facilities and the final restoration of the pavement. In most cases, Public Works will not resurface the streets.

After construction is completed, the property owners must gift the sub-structure and all appurtenances (pull boxes, wires, etc.) to PG&E and the streetlights to the City. PG&E and the City then will be responsible for maintaining these facilities



## Appendix M

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### **PG&E's San Francisco Total Customer Count and Annual Revenue 2016-208**

## San Francisco Total Customer Count and Annual Revenue 2016-2018

	January 2017	
<b>Customer Type</b>	<b>Customer Count</b>	<b>Annual Revenue - 2016</b>
Residential	366,447	245,948,947.89
Commercial*	34,657	515,067,591.41
Total	401,104	761,016,539.30

	January 2018	
<b>Customer Type</b>	<b>Customer Count</b>	<b>Annual Revenue - 2017</b>
Residential	369,474	254,377,132.05
Commercial*	35,831	528,404,570.79
Total	405,305	782,781,702.84

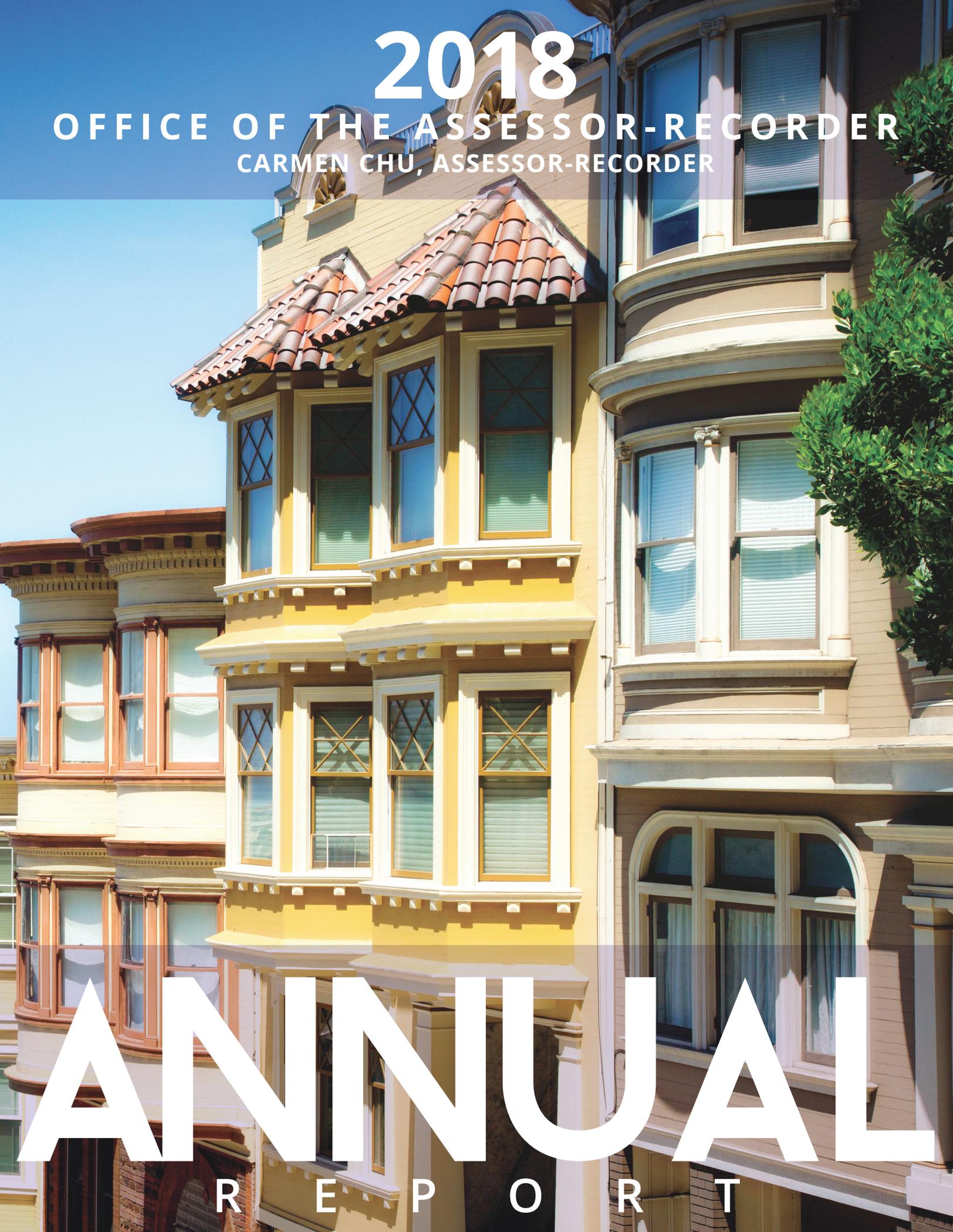
	January 2019	
<b>Customer Type</b>	<b>Customer Count</b>	<b>Annual Revenue - 2018</b>
Residential	384,546	240,525,102.15
Commercial*	35,957	462,912,616.56
Total	420,503	703,437,718.71

\*Commercial includes all non-residential accounts (commercial, industrial, agricultural, others)

## Appendix N

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### **2018 Office of the Assessor-Recorder Annual Report**



2018

OFFICE OF THE ASSESSOR-RECORDER  
CARMEN CHU, ASSESSOR-RECORDER

ANNUAL

R E P O R T

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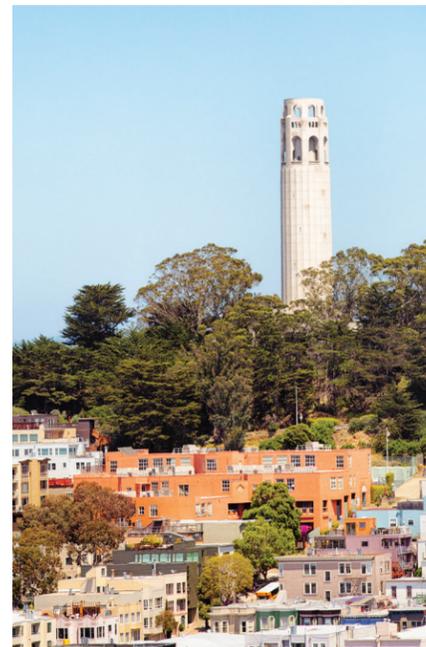
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# MESSAGE FROM THE ASSESSOR CARMEN CHU



As Fiscal Year 2017-2018 draws to a close, I reflect upon the extraordinary accomplishments and major milestones we have achieved over the last few years. I am proud to lead a dedicated team who has embraced new technologies and smarter business practices to make a meaningful difference for our customers and our City. Together, we are delivering real results for San Francisco - results that allow our City to meet the immense challenges and opportunities of the day.

Last year, San Francisco's total taxable property value grew by 10.8%, topping California's 58 counties. In the last two years alone, our total value has grown by over 20% - representing a significant increase in property tax revenue in a relatively

short amount of time compared to historical growth. Much of this growth is fed by new construction activity in the City and a continued healthy market for San Francisco properties. Last year, new construction added \$11 billion in new assessments in the City and we collected \$302 million in transfer taxes from over 6,000 ownership transactions.

Cumulatively, these results have had a direct impact on San Francisco's ability to maintain operations and expand services in areas like education, public safety, homelessness and affordable housing. In fact, over the last five years, our Office has identified close to \$40 million in underreported transfer taxes and has cumulatively met and **exceeded** revenue expectations by over a half a billion dollars!

## Raising the Bar on Production

Critical to our success has been raising the bar on service and expectations when it comes to timely assessments. When I became the Assessor a few years ago, one of our key challenges was a persistent backlog in assessment cases exacerbated by the Great Recession. As soon as assessments were worked, new assessments and appeals came in outpacing our capacity. The result was assessments that were years behind, negatively impacting taxpayers and the City's ability to collect. Over last few years, we've consistently focused on bringing this gap to a close by implementing a series of strategies to overhaul our work. By employing smarter resource allocation, using data and regression tools for expedited enrollments and holding to clear production metrics, our Office closed the fiscal year with a 3-month backlog as opposed to three year backlog when I started. Assessment appeals are down 84% from 7,421 open appeals cases at the 2013 fiscal year end. In the coming year, our goal is to close the roll on time for the first time in over 25 years!

## Proactive Partners in Affordable Housing

Despite the lowest unemployment rate in San Francisco history, many working families are still struggling. A significant component of this is the high cost of housing in the City and surrounding Bay Area. And while market factors around housing policy and development are complex, our Office is finding ways to be a part of the solution.

One of the ways in which we are helping is by removing the bureaucratic barriers to parcel mapping and subdivisions that can slow down the pace of building and financing for housing projects. Over the last few years, we have worked intently with partner departments, like Public Works to streamline our parcel management process, and the Port of San Francisco and Office of Community Investment and Infrastructure to track large

housing developments. By combining resources and coordinating information early, we mitigate costly delays that impact the delivery of new housing for San Franciscans. We believe efforts like these, and our direct work with affordable housing providers and community land trusts, can help move projects forward more quickly and provide financing or tax exemptions critical to their projects' completion.

## Resources to Working Families

We are also bringing community partners together with working families to provide practical financial planning and resources to be successful. This year, we launched a series of neighborhood financial education workshops across the City called the Family Wealth Forum. Recognized in 2018 by the California Association of Public Information Officials with an Award of Excellence, the Family Wealth Forum is a one-stop shop for families with questions around financial and estate planning and property taxation. So far, we have served over 1,000 families and individuals, including mostly seniors, women and those with language barriers.

As a daughter of immigrants, the importance of an inclusive government that serves our City's rich diversity is core to how I run this office. This year we succeeded in co-drafting and passing State legislation, which extends property tax benefits to locally registered domestic partners who did not have the ability to marry. We developed a series of public educational videos and fact sheets to help over 211,000 property owners and over 48,500 business owners understand complex property tax laws - all translated for language access. These communications earned our office the 2018 CAPIO Communications Excellence Award.

## Embracing New Technology and Transparency

Finally, I close by recognizing our shift within the last five years to modernize tools that improve efficiency and provide transparency. By Fiscal Year 2018 we accomplished our goals of transitioning and safeguarding close to 3 million images to searchable digital records that are secured for disaster recovery, including vital real estate records, maps and ownership information. We have automated business statement filings, implemented online recording of public documents and continue to advance our public portals to provide access to real time information directly to you on our website. Internally, we have replaced cumbersome paper time-keeping practices with more transparent electronic time-keeping tools and calendars, developed automated production reports across all divisions and deployed advanced printing technologies to minimize paper waste.

Even more exciting are the milestones we have reached to overhaul our City's property tax and public records systems. Identified as one of the City's top technology initiatives, we completed a rigorous process to identify system requirements with the Controller and Tax-Collector and finalized a competitive procurement for the replacement of our decades old property tax system. In the coming years, this system overhaul and the migration of critical data will be a focus and priority of our operation. In addition, we are excited to revamp our public records system for improved functionality and processing. Every year over 162,000 documents, including public marriage licenses and deeds are recorded with our office. Modernizing the public records system will ensure we maintain the integrity of these public records well into the future.

It has been an honor and privilege to serve San Franciscans and to lead the talented staff of the Assessor-Recorder's Office. I look forward to a productive year ahead.

Sincerely,

A handwritten signature in black ink that reads "Carmen Chu". The signature is written in a cursive, flowing style.

Carmen Chu  
Assessor  
City & County of San Francisco

## CORE RESPONSIBILITIES

We are responsible for carrying out the property tax-related functions governed by the State Constitution and state and local laws.

Our core responsibilities include locating all taxable property in San Francisco (CCSF), identifying ownership, establishing a taxable value, and applying all legal exemptions. Property broadly includes both real property (land and improvements) and personal property owned by businesses. We are also responsible for recording documents and maintaining those public records. Over 400 different types of documents are recorded annually, including documents like deeds of trust, reconveyances, liens, and public marriage licenses. We also collect any transfer tax due upon a change in property ownership.

## OUR WORK

### Travel with us through the different functions of our office!

#### Public Service

Many people start with our Public Service team. Here we serve close to 43,000 people per year through walk-ins, phone, email, and 311 requests. Most of our customers are looking for public documents like marriage certificates or deeds, or wanting to understand their property taxes.

#### Real Property

If there is no tax exclusion and a transaction triggers reassessment, the action makes its way to Real Property for valuation. Our Real Property team valued over 25,000 change in ownership and new construction cases last year.

#### Exemptions

After the property value is set, our Exemptions team applies eligible tax exemptions to reduce the assessed value. This year, we granted over \$13 billion worth of exemptions to benefit charitable organizations, homeowners and veterans.



#### Recorder

Some of our customers come to our office to record public documents. Our Recorder team records over 160,000 public documents annually including deeds, maps, and marriage licenses. When deeds are recorded, we may collect transfer tax and it kicks-off our assessment review.

#### Transactions

Over 28,000 recorded documents that indicate a change in ownership makes its way to this division for review. Our Transactions team updates ownership information and apply property tax exclusions to qualified properties.

#### Business Personal Property

Business Personal Property team works with over 48,500 business owners to account for items like machinery and equipment used to run businesses in San Francisco.

#### Final Assessment

Property owners are notified of their final taxable value.

#### Appeals

If property owners disagree with the value, they can file a formal appeal with the independent Assessment Appeals Board. In 2018, we closed over 1,600 appeals.

# ACCOMPLISHMENTS

REVENUE

**\$3,000,000,000**  
generated in property tax



**\$302 million**  
collected in transfer tax



**\$35 million**  
Underreported transfer tax and penalties identified through audit program



**10.8% increase** in total property assessment roll in one year,  
among the highest across CA counties



**84% decrease** in assessment appeal cases compared to five years ago



RESULTS



Value over  
**211,000 properties**  
in San Francisco

# IMPACT BY THE NUMBERS

COMMUNITY BENEFIT



**64%**  
of tax-exempted value granted to community non-profits

**\$12.5 billion**  
in tax exemption value granted to charitable organizations



Worked with  
**48,500**  
business owners to identify their taxable property



served **43,000**  
customers



through walk-ins, phone, emails and 311 requests per year

**88,000 homeowners and veterans**  
received tax reductions on their homes



**943,000**  
page views  
on our newly designed user-friendly website



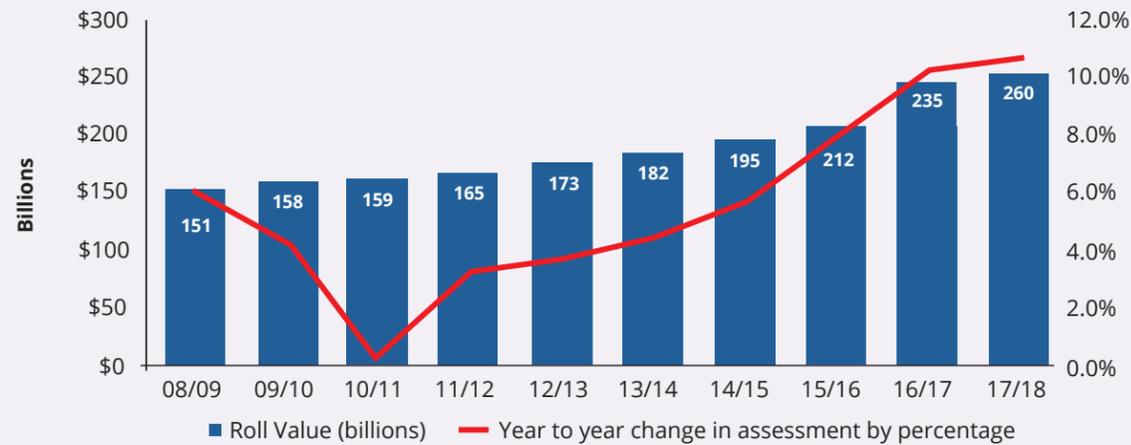
CUSTOMER SERVICE

# LEADING CALIFORNIA IN PROPERTY TAX ROLL GROWTH

Fueled by continued strength in the real estate market, rapid new construction, and our office's ability to capture assessments more quickly. The total assessment roll of our seven-mile by seven-mile City grew by 10.8%!

At a cumulative value of \$260 billion, the percentage increase is the highest among the 58 counties in California. This translates to close to \$272 million in increased revenues compared to the previous year.

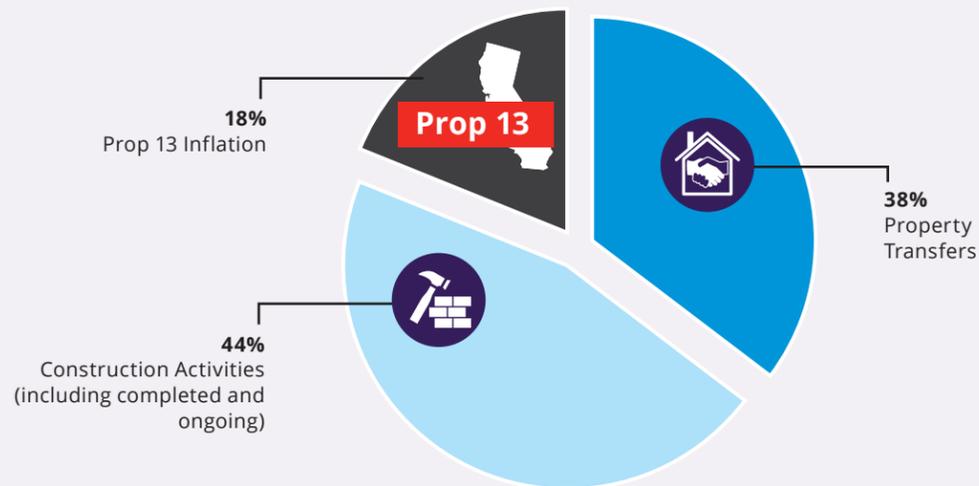
## Total Assessment Roll



Source: Office of the Controller, City & County of San Francisco

## What Drives Assessment Growth?

The over \$25 billion growth was largely generated through new construction activity at 44%. Reassessments as properties transfer and the annual inflationary increases under Proposition 13 contributed 38% and 18%, respectively.



## Where Your Property Tax Dollar Goes?

The \$260 billion in total assessed value is the basis used to estimate property tax revenue. With a tax rate of 1.163% (rate for FY 2018-19), it means roughly \$3 billion in property tax revenue will be collected to support important public services.

For each \$1 collected, here is where it goes:



<h3>65¢</h3> <p>CITY SERVICES</p>	<h3>34¢</h3> <p>SCHOOLS</p>	<h3>1¢</h3> <p>OTHER</p>
<p><b>INCLUDING:</b></p> <ul style="list-style-type: none"> <li>Public Safety: Police, Fire</li> <li>Recreation &amp; Parks</li> <li>Libraries</li> <li>Community Health</li> <li>Human Welfare &amp; Neighborhood Development</li> <li>Public Works (street cleaning)</li> <li>Family Support Services</li> </ul>	<p><b>INCLUDING:</b></p> <ul style="list-style-type: none"> <li>San Francisco Unified School District (SFUSD)</li> <li>San Francisco Community College District (SFCCD)</li> <li>Education Revenue Augmentation Fund (ERAF, supporting California public school system)</li> </ul>	<p><b>INCLUDING:</b></p> <ul style="list-style-type: none"> <li>Bay Area Rapid Transit District (BARTD)</li> <li>Bay Area Air Quality Management District (BAAQMD)</li> </ul>

\*Source: Office of the Controller, City & County of San Francisco

## CHAMPIONING CUSTOMER SERVICE AT CITY HALL AND IN YOUR NEIGHBORHOOD

At the Assessor-Recorder's Office customer service is at the forefront of our work, not an after-thought. That's why our public service team stands ready to serve! Last year, over 42,000 customers contacted our office through in-person visits, phone calls, emails, and 311 requests. Over 90% reached us through phone calls or in-person office visits.

As part of our commitment to inclusive and accessible services, our public service team is trained to accommodate limited-English proficient taxpayers and have a direct, on-demand line to translation services. According to our annual customer service survey, close to 95% of our customers rated our service as excellent!



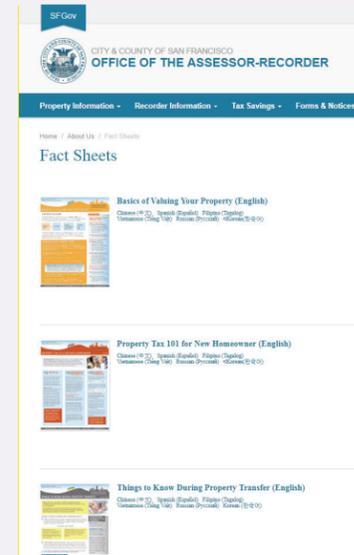
### Interesting Fact:

Close to 30% of all inquiries are requests for official copies of marriage certificates. In addition to marriage certificates, we maintain vital public records like deeds and liens.

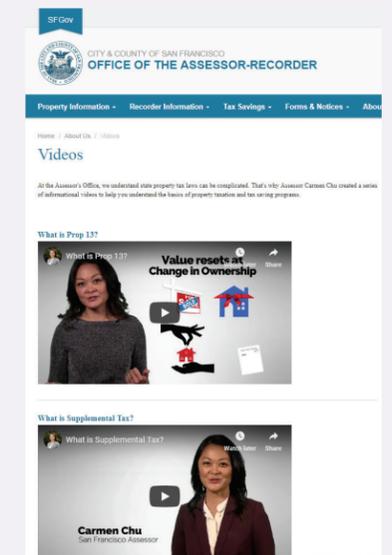
## Access Online Resources through User-Friendly Website

In addition, customers can learn more and obtain information directly through our website 24 hours a day. Annually, over 943,000 pageviews and touchpoints are initiated through our website!

This year, we introduced a new series of educational videos online covering topics such as Basics of Proposition 13 (1978), Understanding Supplemental Taxes, Tax Saving for Families and Seniors on our website. These videos are available with Chinese and Spanish subtitles. On top of the online videos, we have made available answers to the ten most common topics and through our community fact sheets. These fact sheets have also been translated to numerous languages to ensure improved access. See the links below to access these resources.



Community Fact Sheet Series in six languages at <https://sfassessor.org/about-us/fact-sheets>



Online Video Series with subtitles at <https://sfassessor.org/videos>

## In Your Neighborhood

At the Assessor-Recorder's Office, we understand that asking questions in-person may be preferred especially when it comes to complicated tax laws. Partnering with local housing nonprofits and neighborhood groups we have attended over 21 community meetings and workshops in the last year to be on-hand as a resource to you in your neighborhoods. If you would like us to attend a neighborhood meeting to present the work of our office and help provide information to residents, please contact us directly at 415-554-4734.

This fiscal year we also successfully launched our Family Wealth Forum. Recognized in 2018 by the California Association of Public Information Officials with an Award of Excellence, the Family Wealth Forum is a one-stop shop for families with questions around financial and estate planning and property taxation. The free event offers multi-lingual workshops, one-on-one counseling with experts, and staffing from a variety of service providers in the area of affordable housing, credit counseling, education planning, etc. So far we have held Family Wealth Forums in multiple locations across the City, including at City College on Mission Street, City College on Ocean Avenue, Lincoln High School and the Eureka Valley Recreation center. Over 1,000 families and individuals, mostly seniors, women and those with language barriers, have been connected to resources through the Family Wealth Forum.



Financial Education Workshop at Family Wealth Forum



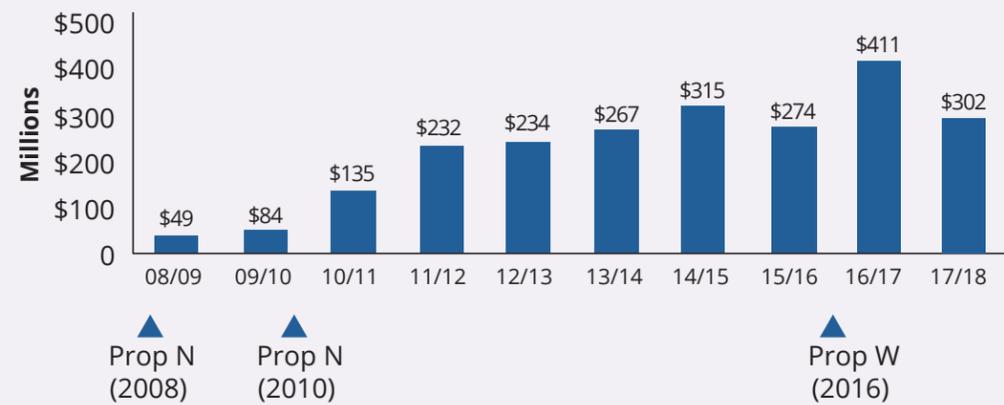
Tabling at Homeownership SF annual housing expo.

## TRANSACTION IN THE MARKET

Our office has a unique window into the real estate market as we are often the first to see purchase transactions when these transactions are publicly recorded. As part of our work, we collect transfer tax when real property is transferred to new ownership.

In fiscal year 2017, San Francisco saw the highest level of transfer tax collection in history at \$411 million dollars. This past year, we observed a settling in transfer tax collections as fewer large value transactions occurred. In FY18 we collected \$302 million dollars in transfer taxes as the chart below illustrates.

### Transfer Tax Revenue Over Time



*Prop N (2008): Created a new tier for transfers above \$5 million*  
*Prop N (2010): Created a new tier for transfers above \$10 million*  
*Prop W(2016): Created a new tier for transfers above \$25 million*

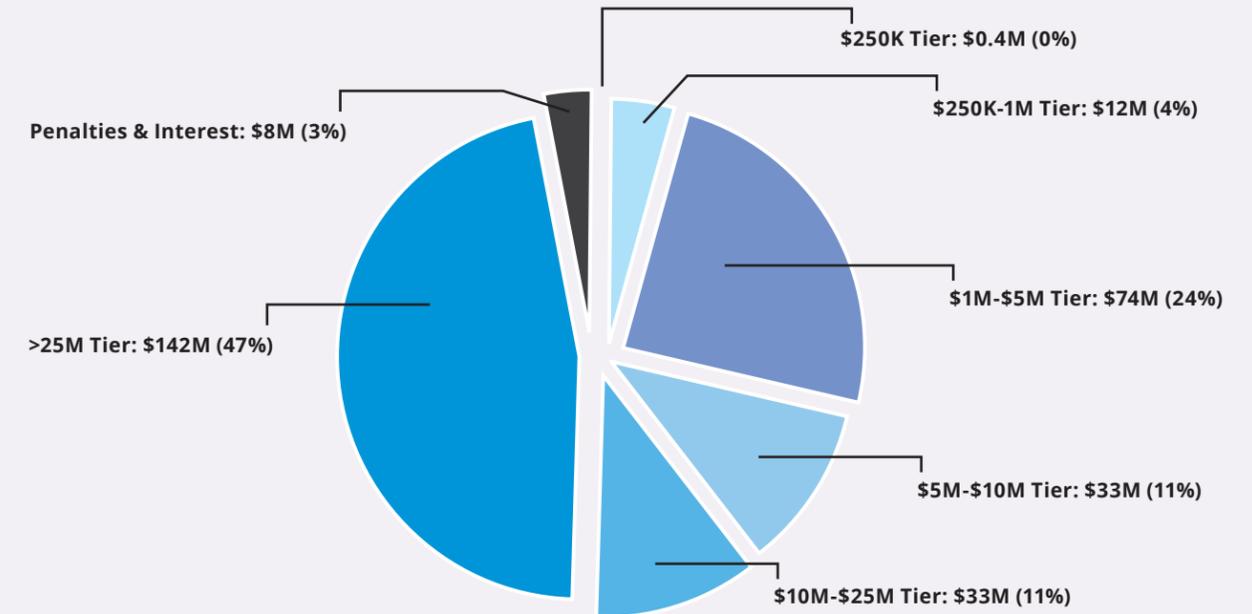
## Transfer Tax Audit Program Continues to Hold Taxpayer Accountable

At over \$300 million, transfer taxes are a significant component of revenue for the City. Over the last few years, our office has worked with the Board of Supervisors to close loopholes and clarify expectations around when transfer taxes are applied. In 2014, our office launched a new transfer tax audit program to review and confirm high value sales, especially among legal entity transfers. Since implementation, over \$35 million in underreported transfer tax, penalties and interest has been identified.

## Transfer Tax Revenue by Tax Tiers

Interesting, of all the transfer tax revenues collected, 58% was disproportionately generated by transfers among higher value properties, defined as properties valued at \$10 million or more. This is not surprising given that San Francisco's transfer tax rates are structured with higher value properties subject to a higher transfer tax rate. For comparison, properties worth more than \$10 million accounted for 74% of total transfer tax revenues in FY17, again confirming that the drop in transfer tax revenues year-to-year is a direct result of changes to high-value transfers.

### FY17-18 Transfer Tax Revenue by Property Value Tax Tier

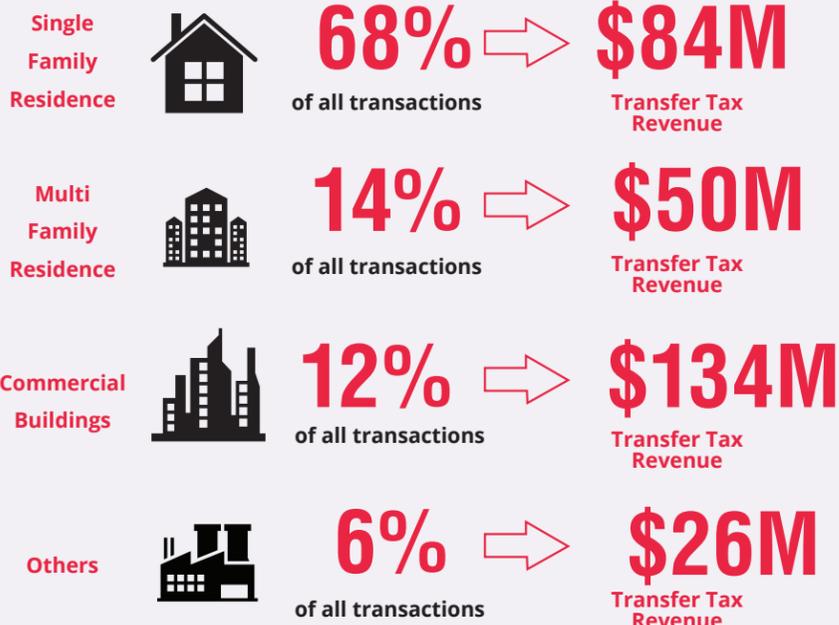


# Drivers for Transfer Tax Collections

The total number of change in ownership transactions in San Francisco has hovered around 9,400 for the past two years. However, there has been a reduction in the total number of transactions occurring for commercial properties. According to our records, there were 1,190 commercial transactions in FY18, compared to 1,287 transactions the year before in FY17, representing a 7% drop.

Since commercial properties tend to be much higher in assessed value, there has been an impact on total transfer tax revenue collected. Year-over-year, transfer tax revenue generated by commercial transactions has dropped by \$96 million dollars moving from \$230 million to \$134 million.

## Transactions and Transfer Tax Revenue Breakdown by Property Types



It is important to note that the number of transactions among residential properties, including single family residences (single family homes, condominiums) and multi-family residences (flats, apartments) dominates, comprising over 80% of all sales (equivalent to roughly 7,700 transactions).

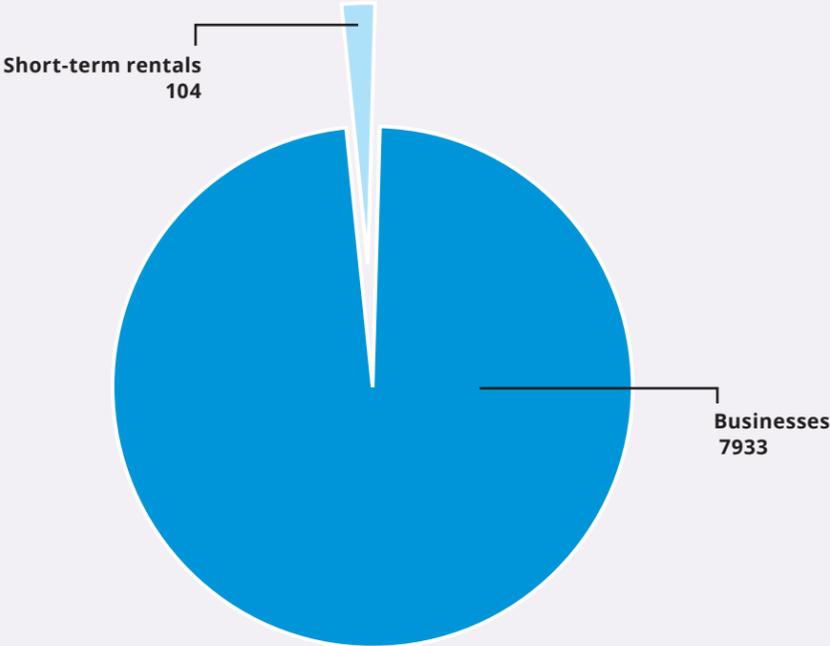
# MAKING IT EASIER TO DO BUSINESS WITH US

Aside from real property like land and improvements, other property, such as property used to run businesses are also taxable under State law. Annually, we work with over 48,500 businesses to help them report items they use to conduct business, such as furniture, machinery or equipment. This year, that value increased by \$393 million, for a total of \$14.4 billion in taxable business personal property.

## Eliminated Duplicative New Business Registration Process

Beginning in late 2016, our office spearheaded an effort to remove redundancy and obstacles for our small businesses and to ensure we communicate better with business taxpayers. By pursuing data sharing agreements, we no longer require businesses who already file with the Treasurer Tax-Collector to separately register with our office and we are accessing more accurate data. For example, by connecting our records with the Treasurer Tax-Collector's unique assigned business account numbers, we are better able to track when businesses move or make changes rather than issuing multiple filing requirements and bills for the same entity. Through our combined efforts to reflect accurate records, we added 8,000 more new businesses to the assessment roll this year.

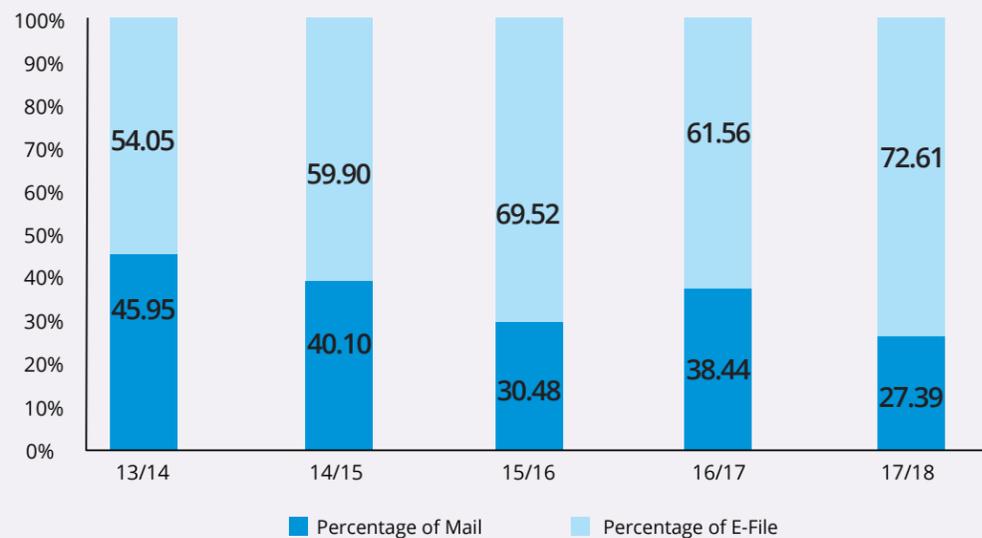
New businesses discovered for 2018



## Convenience through Online Filing Option

Currently over 70% of businesses update their annual business personal property filings through our electronic-filing portal. We launched online filing so that businesses can provide information directly online, saving time, entry error, postage costs, and the aggravation of lost mail. E-filing users also have the added benefit of viewing a summary of their previous year's filing before completing a new form. This year, 13,000 businesses filed online.

### Percentage of Form 571-L Business Property Statements



## New Easy Form for Short-Term Rentals

San Francisco has led the state in enacting laws governing short-term rentals in the City. In previous years, our office has worked with short-term rental businesses on their requirement to report and file like other businesses. This year, we further streamlined the administration burden by developing a new form (Form 571-STR) with the State Board of Equalization that is more concise and relevant to this emerging industry. Approximately 1,200 short-term rentals file statements with our office.

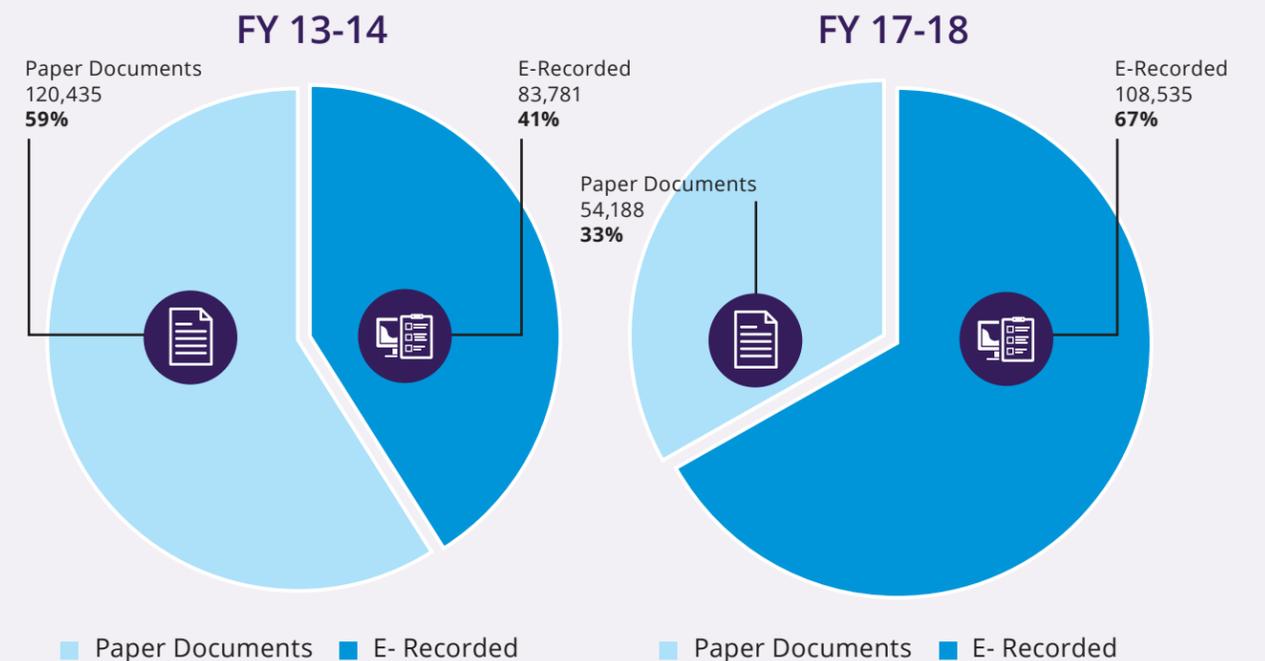
## ONLINE RECORDING REACHES NEW MILESTONE

This year we recorded 162,723 documents into the public record including items like public marriage licenses and property deeds. A vast majority of those documents are securely submitted electronically through our online recording portal, adding convenience and efficiencies for our operations and submitters. Since the launch of e-recording, we have seen a steady increase in the number of electronic submissions. In FY18, for example, 67% of documents were recorded online compared to 41% in FY14. We expect this number to increase in the coming years as the State finalizing and broadens the universe of entities eligible to submit online.

Remember, currently title companies, banks and escrow agents have to be certified by the California Department of Justice before being able to submit documents electronically. And because of the efficiencies online recording provides us, we record all documents electronically submitted before 2pm on the same day!

Many residents ask us why this public recording function is important. In a nutshell, the system of public records helps provide transparency for all of us. Imagine not having a trusted source to verify ownership before you make a big purchase like buying a home from a private party. Or imagine not having a place to verify you have married when you want to designate a beneficiary for medical or social security benefits! Our job is to make sure these public records can be accessed well into the future -- some of our documents date back to 1906!

### Number of E-Recorded versus Paper-Recorded Documents



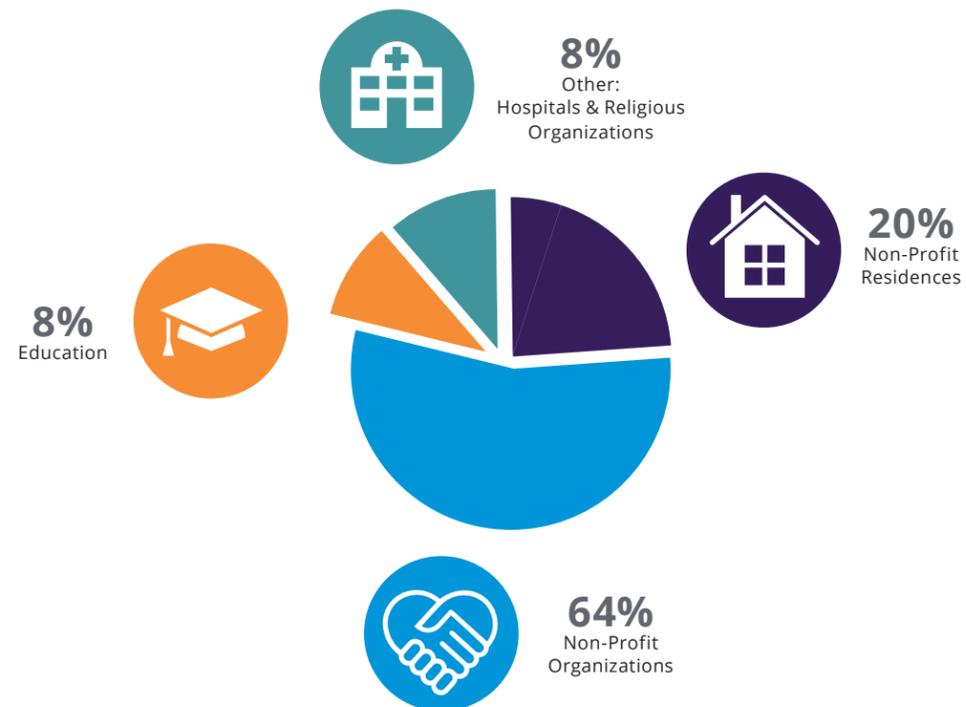
\* E-Recording began in March 2013. Documents were submitted electronically for a full year in Fiscal Year 2013-14.

## \$13 BILLION IN COMMUNITY BENEFITS THROUGH TAX EXEMPTION

Supporting local community organizations through tax exemptions is a direct way in which we help build stronger communities. This fiscal year we granted close to \$12.5 billion in exemptions to support non-profit organizations, religious entities, hospitals and schools. This represents a 39% increase compared to the previous year in which over \$9 billion in exemptions were granted. This increase is largely due to efficiencies we have enacted to more quickly process qualified applications. Using our new document management system, we are now better able to track incoming exemption applications and consolidate related applications together, allowing for efficiencies in processing.

For every \$10 in exemptions granted, about \$2 went towards non-profit residential uses, \$6.50 towards other non-profit organizations, and the remaining \$1.50 towards hospitals and private educational and religious organizations.

### Distribution of \$12.5 Billion Tax Exemption



## Exemptions for Homeowners

The State of California has an exemption program for homeowners and veterans. \$638 million in exemptions were granted to veterans and homeowners in FY18. Roughly 90,000 property owners received a \$7,000 reduction in the taxable value of their home, or roughly \$70-80 in property tax reduction. Approximately \$18 million was granted in veteran exemptions to benefit disabled veterans and their families.

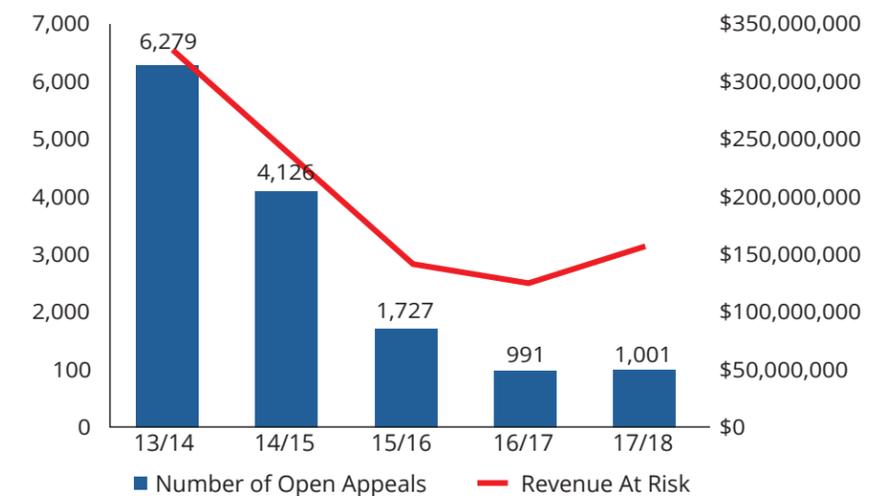
## DRIVING DOWN APPEAL CASES

The assessment appeal process is administered by the Assessment Appeals Board (AAB), an independent body appointed by the San Francisco Board of Supervisors. Our office's role is to review scheduled cases and provide a recommendation on value.

With an improved market and concerted efforts in resolving appeals, the number of open appeals has finally returned to pre-recession levels. With 1,001 appeals remaining open at the end of this fiscal year, the number dropped by a 84% decrease from the 7,421 appeals outstanding at the end of fiscal year 2013.

During the Great Recession, San Francisco saw a record number of assessment appeals filed. With fewer appeals filed and the ability to more quickly resolve outstanding cases, San Francisco has seen a corresponding reduction in revenue at risk, roughly \$167 million when comparing FY13 to the FY18.

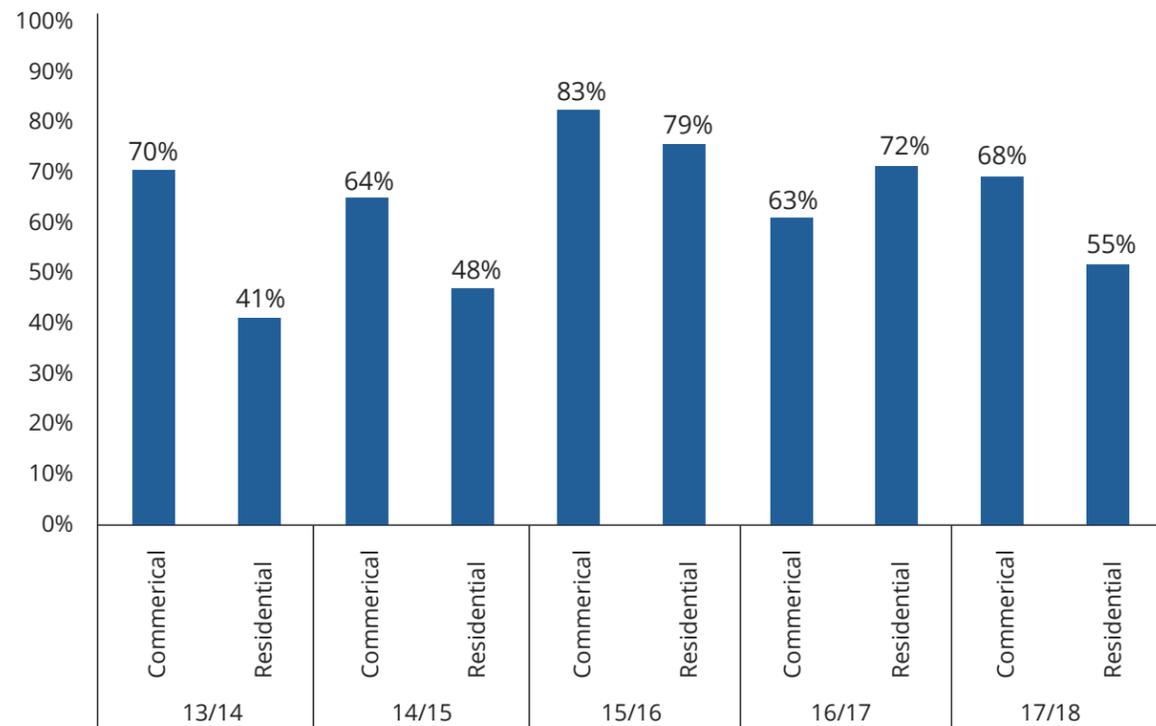
### Number of Open Appeals from FY 2013-14 to FY 2017-18



## Proactive Practices to Close Appeals

One way in which we have proactively managed down active assessment appeals cases has been to engage the Assessment Appeals Board and filing taxpayers in pre-hearing conferences and early exchange of information. Through these proactive measures, our office has been able to arrive at more accurate values and avoid the costly process of preparing for cases that are never heard or cancelled. Now more cases without merit are not filed or withdrawn earlier by taxpayers avoiding costly investment in resources by our office and the Assessment Appeals Board.

Percentage of Withdrawn Appeals from FY 2013-14 to FY 2017-18





# NEIGHBORHOOD DATA

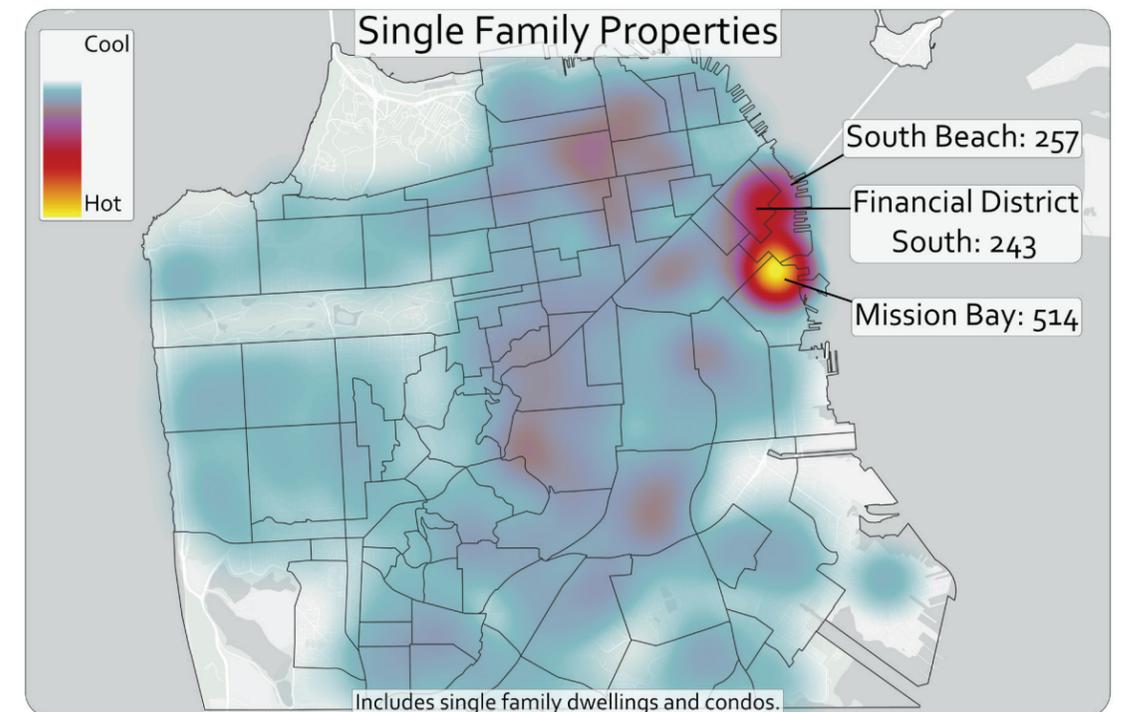
Our office monitors market activity through property valuation and transfer tax collection. Here are some interesting facts we see which paints a picture of real estate movements in our City.

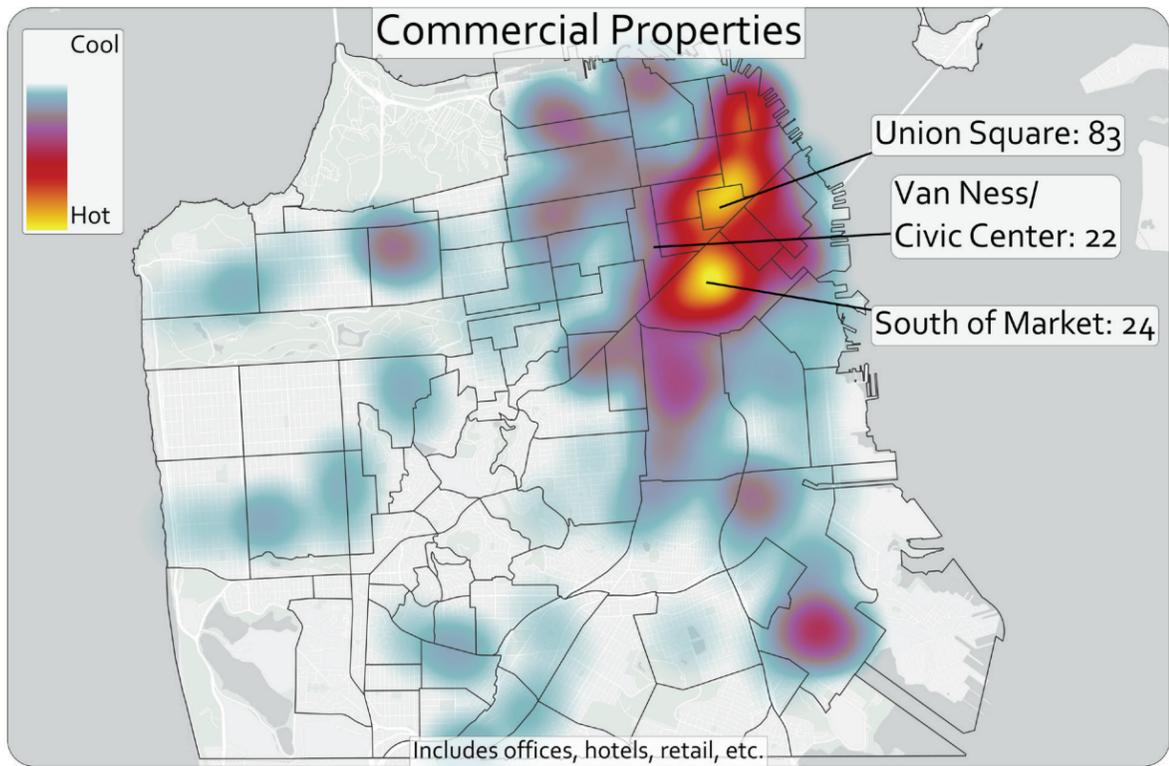
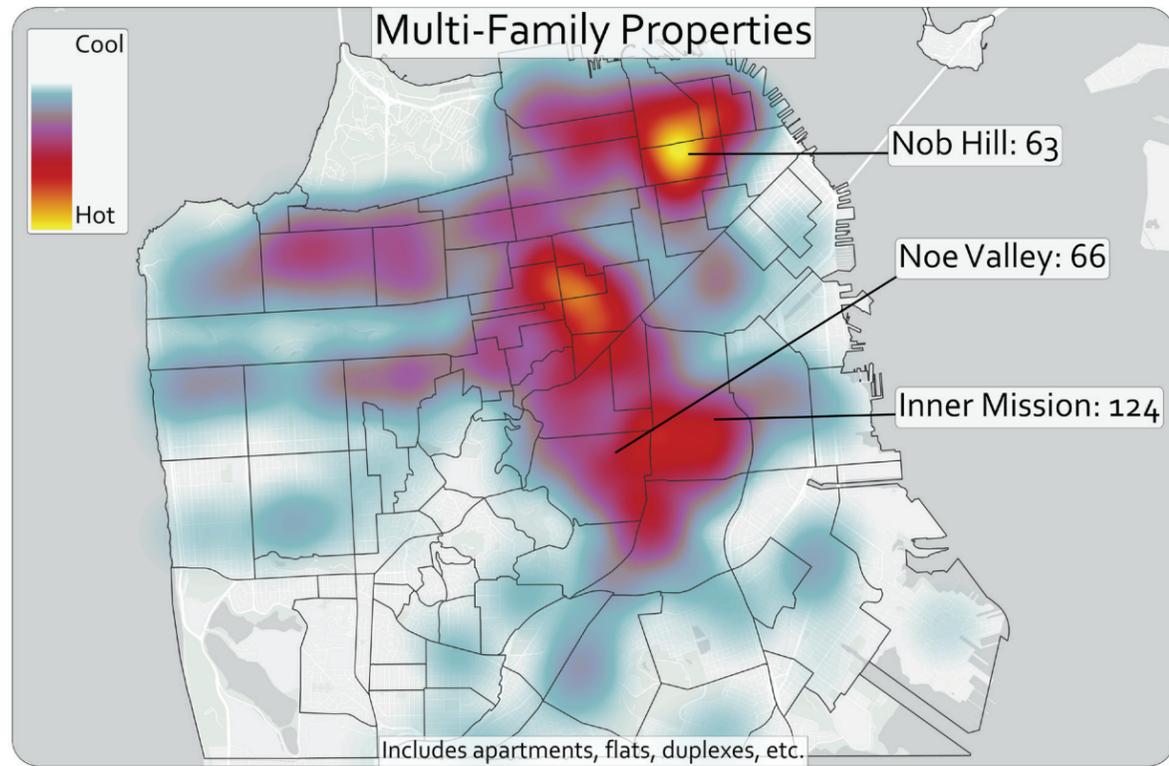
## Hottest Areas for Sales?

**Mission Bay for single family residences!** This year, there were a total of 6,344 ownership transfers among single family residential properties citywide. 8% were located in Mission Bay, followed by South Beach and Financial District South at 4% each.

There were 1,320 sales of multi-family residential properties. The most active multi-family market was in the Inner Mission. Meanwhile, Union Square remains the most active area for commercial property sales, representing 7% of the 1,190 commercial sales citywide.

	1st Neighborhood	No. of Transactions	2nd Neighborhood	No. of Transactions	3rd Neighborhood	No. of Transactions
Single Family	Mission Bay	514	South Beach	257	Financial District South	243
Multi-Family	Inner Mission	124	Noe Valley	66	Nob Hill	63
Commercial	Union Square	83	South of Market	24	Van Ness/ Civic Center	22





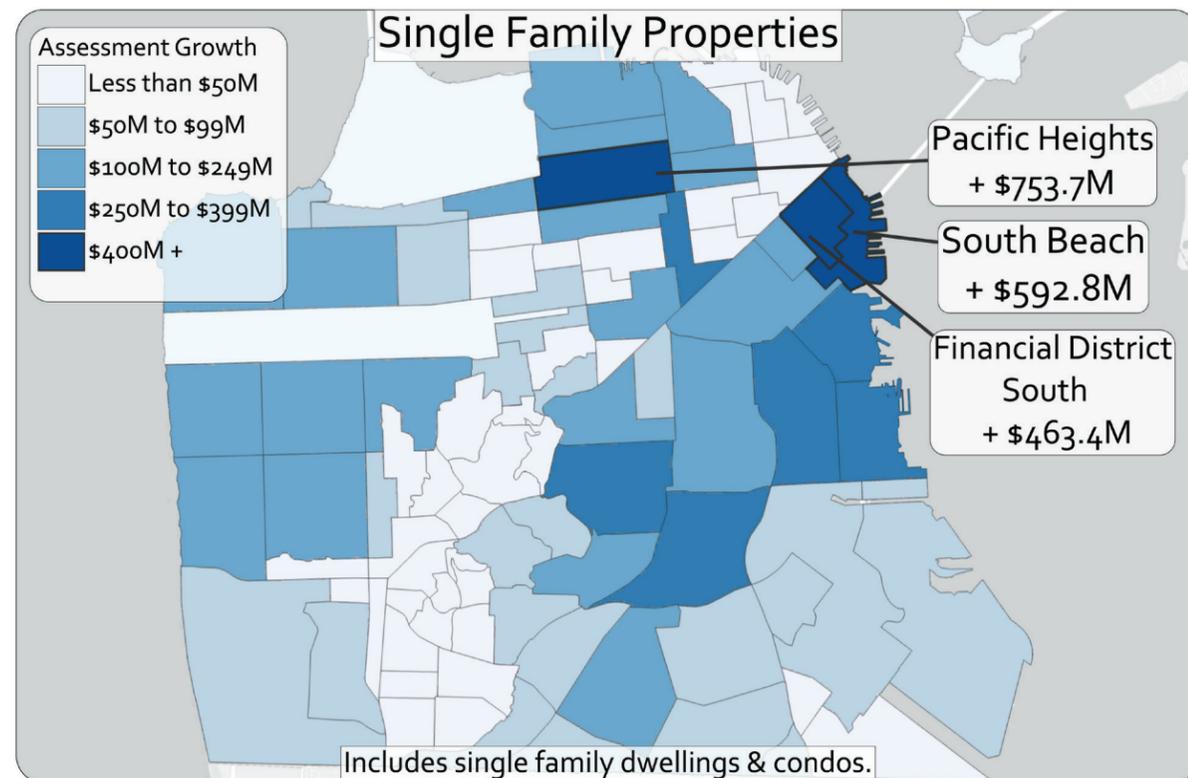
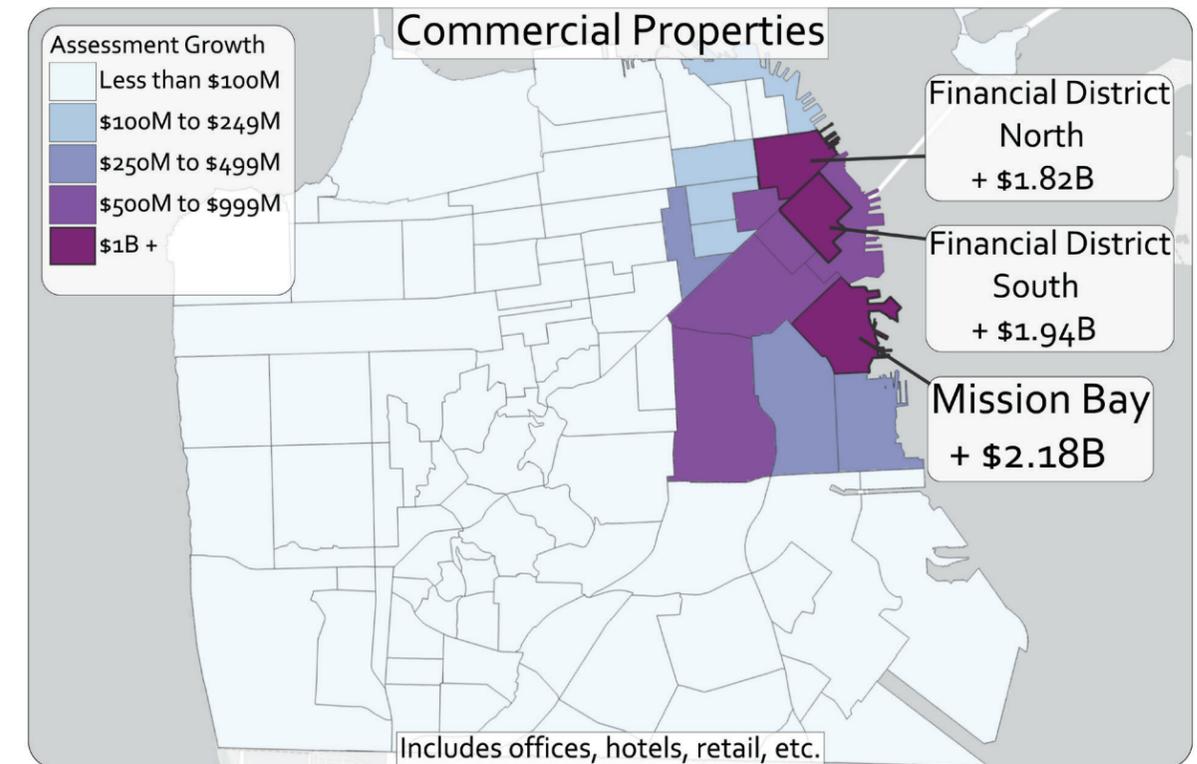
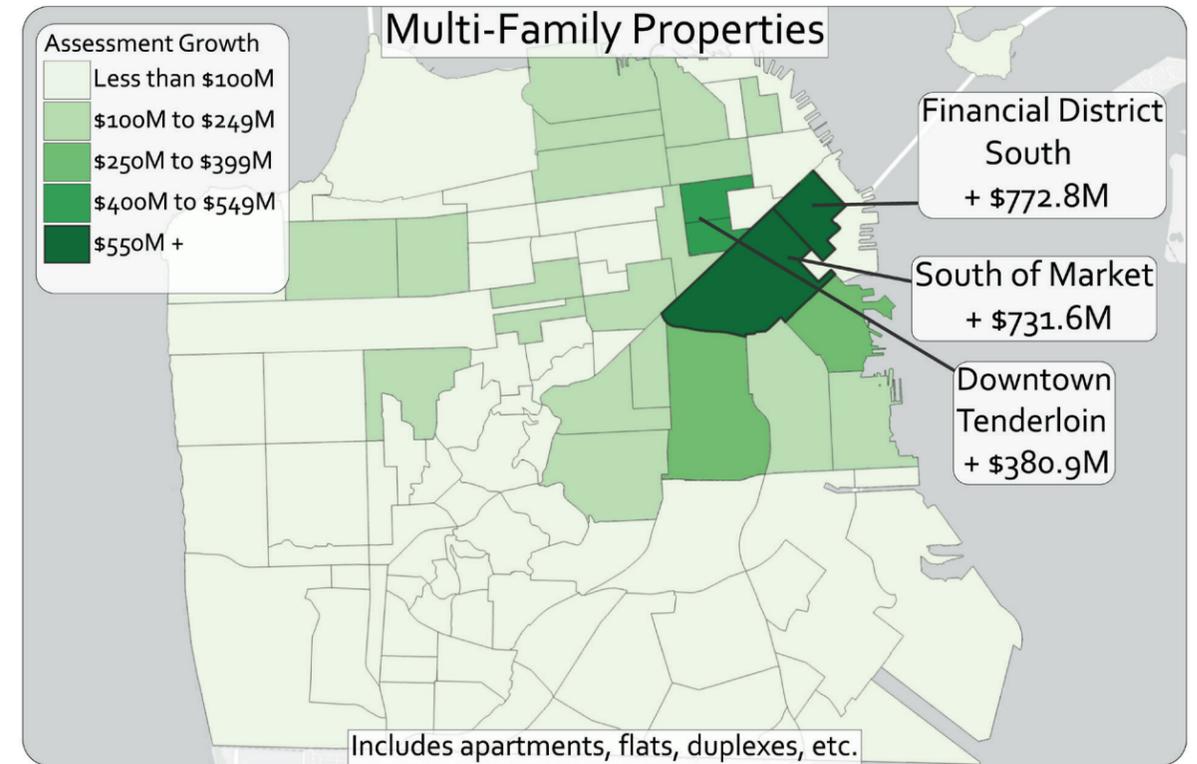
## What Areas Had the Highest Assessment Growth?

Increases to San Francisco's assessment roll is mainly driven by changes in ownership of existing properties, or assessments due to new construction. The areas with the largest growth in assessed value continue to be areas in which there was significant development or changes.

Financial District South continues to lead in overall assessment growth with \$3.7 billion in added value among all neighborhoods. It is followed by Mission Bay and South of Market with \$2.6 billion and \$2 billion in assessment growth, respectively.

It is also important to note that Financial District South is one of the top three neighborhoods with the highest assessment growth in single family, multi-family residential and commercial properties, while Mission Bay ranks first in assessment growth in commercial properties.

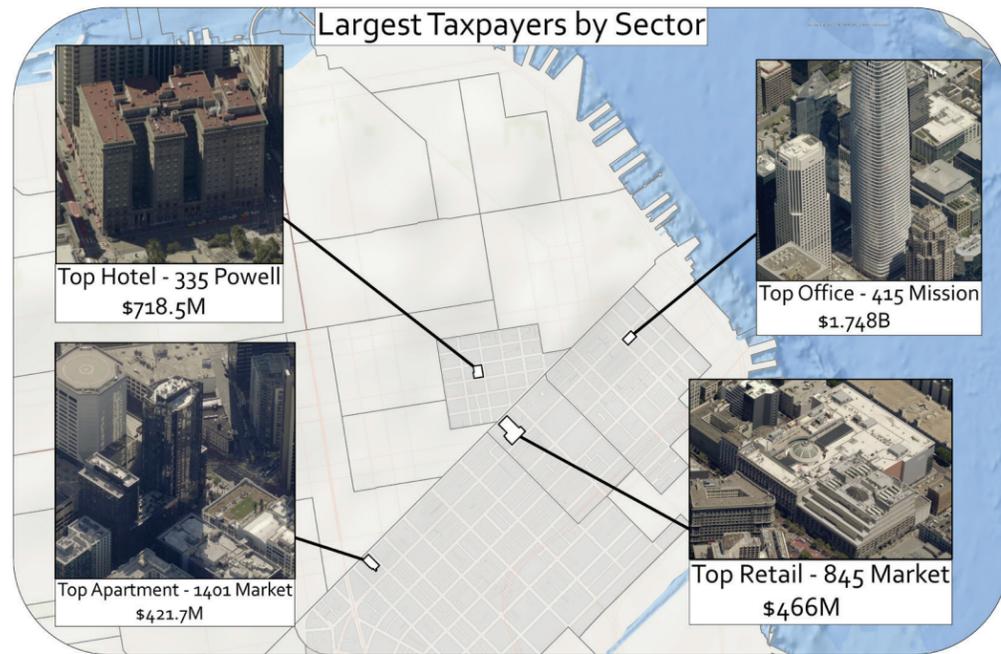
	1st Neighborhood	Added Value	2nd Neighborhood	Added Value	3rd Neighborhood	Added Value
Single Family	Pacific Heights	753.7M	South South Beach	592.8M	Financial District South	463.4M
Multi-Family	Financial District South	772.8M	South of Market	731.6M	Downtown Tenderloin	380.9M
Commercial	Mission Bay	2.18B	Financial District South	1.94B	Financial District North	1.82B



## Who Are Our Largest Taxpayers By Sector?

San Francisco's real property roll is varied and includes a multitude of building types and uses. The map below identifies the properties with the largest assessed values by sectors.

Currently, the parcel with the largest assessed value in San Francisco is the new Salesforce Tower located at 415 Mission Street, followed by 555 California and 101 California.



### Fun Fact:

The Warriors' new Chase Stadium is approximately 12 acres and has been subdivided into eight parcels. The total value of the parcels is just over \$900 million, and this number only reflects partial completion of the new construction.

PROPERTY ADDRESS	ASSESSEE NAME	LAND	IMPROVEMENTS	TOTAL ASSESSED VALUES	TYPE
415 MISSION ST	TRANSBAY TOWER LLC	\$207,595,294	\$1,129,000,000	\$1,336,595,294	Commercial
555 CALIFORNIA ST	HWA 555 OWNERS LLC	\$300,768,467	\$717,650,080	\$1,018,418,547	Commercial
101 CALIFORNIA ST	ELM PROPERTY VENTURE LLC	\$595,243,856	\$389,614,159	\$984,858,015	Commercial
1 MARKET ST	PPF PARAMOUNT ONE MARKET PLAZA OWNER LP	\$243,909,669	\$590,397,538	\$834,307,207	Commercial
301 - 345 POWELL ST	SHR ST FRANCIS LLC	\$431,143,129	\$287,428,752	\$718,571,881	Commercial
50 FREMONT ST	SFDC 50 FREMONT LLC	\$206,795,776	\$482,523,479	\$689,319,255	Commercial
300 16TH STREET	GSW ARENA LLC	\$263,548,334	\$396,418,295	\$659,966,629	Commercial
1800 OWENS ST	KR MISSION BAY LLC	\$102,350,177	\$455,800,000	\$558,150,177	Commercial
55 CYRIL MAGNIN ST	P55 HOTEL OWNER LLC	\$307,373,435	\$204,915,623	\$512,289,058	Commercial
1 FRONT ST	ONE FRONT STREET EAT LLC	\$255,000,000	\$255,000,000	\$510,000,000	Commercial



## How Are San Francisco Parcels Characterized?

Based on the certified roll, there were 211,642 unique parcels identified in San Francisco at the fiscal year end. Approximately 71% of those parcels were single family residential properties, including single family dwellings and condominiums. An additional 17% of parcels are multi-family residential properties, including apartments, flats, and duplexes. Combined, this means that over 88% of San Francisco's parcel count are residential properties. At the same time, residential properties comprise roughly 67% of total assessment value.

Commercial properties, including office buildings, hotels, and retail spaces, account for only 4% of the parcel count, but their share of the City's overall property value is 29%.

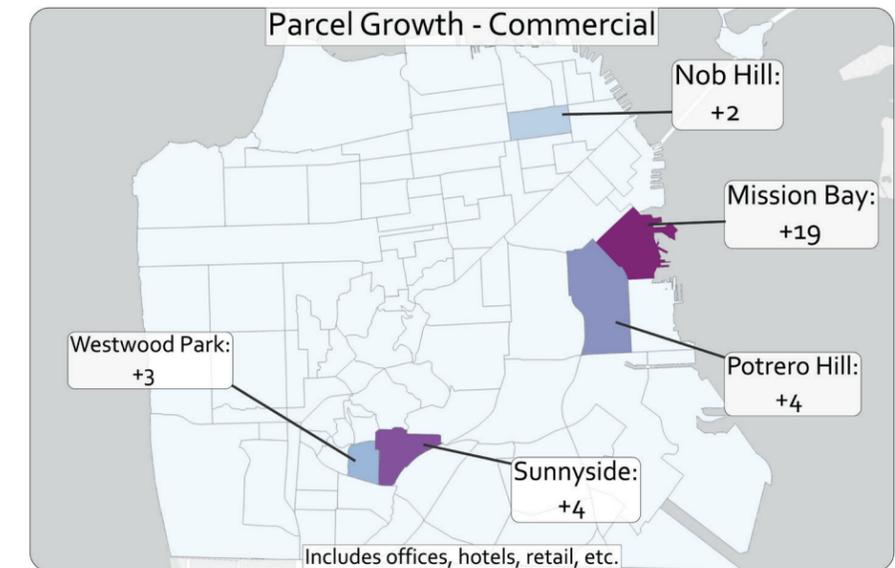
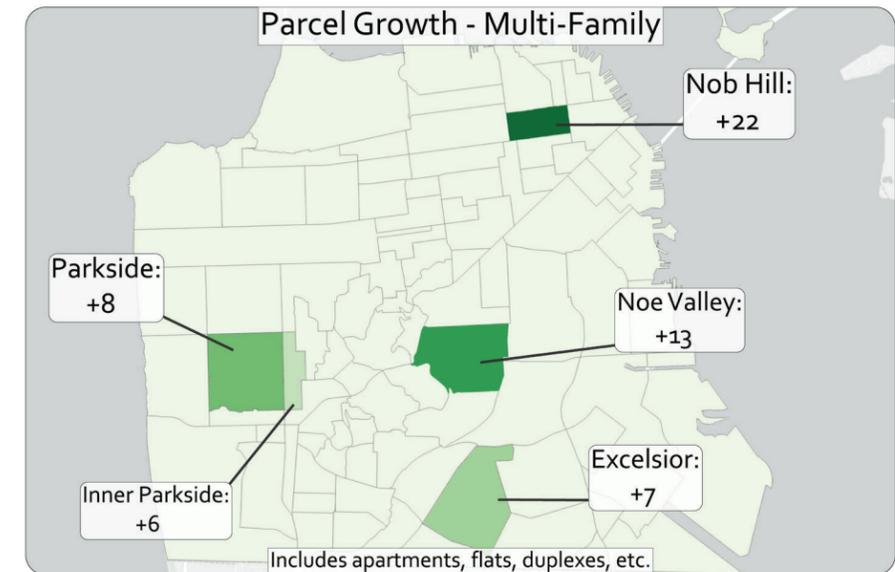
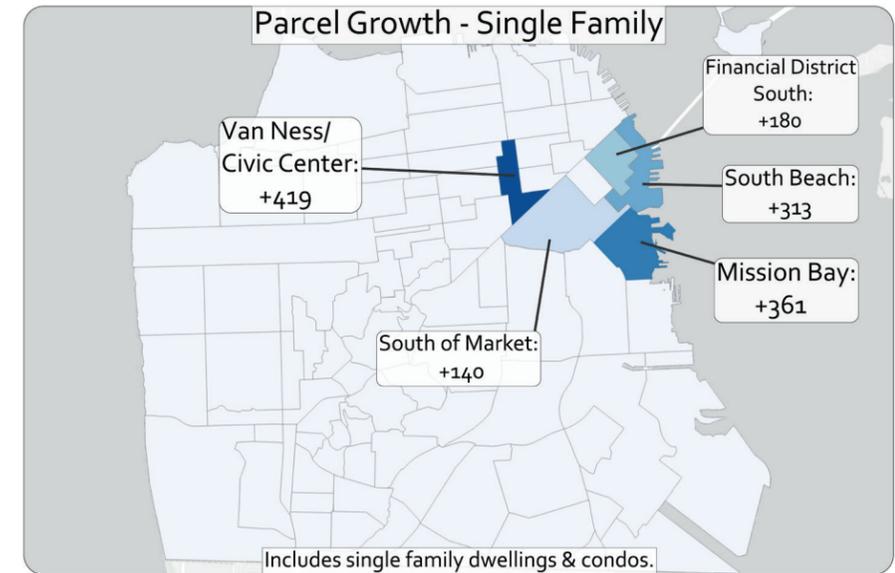
	Number of Parcel	% of Parcel	Assessment Value	% of Value
Single Family	149,979	70.86%	\$ 112,130,343,569	44.93%
Multi-Family	36,943	17.46%	\$ 54,881,658,298	21.99%
Commercial	8,554	4.04%	\$ 72,837,928,082	29.19%
Other	16,166	7.64%	\$ 9,705,061,395	3.89%
Total	211,642	100.00%	\$ 249,554,991,344	100.00%

Other properties includes industrial, government and miscellaneous/mixed use properties.

## Most Prominent Parcel Growth?

Construction across the City generally adds more parcels to our count. For example, when a 100-unit condominium project is finished, we now have 100 parcels where once only one parcel stood. Last year, close to 1,200 net new parcels were added in San Francisco for a total of 211,642 parcels. Currently, 98% of parcels are residential. The chart and map below illustrates the areas where parcel count grew the most.

	1st Neighborhood	Added Parcel	2nd Neighborhood	Added Parcel	3rd Neighborhood	Added Parcel
Single Family	Van Ness/Civic Center	419	Mission Bay	361	South Beach	313
Multi-Family	Nob Hill	22	Noe Valley	13	Parkside	8
Commercial	Mission Bay	19	Sunnyside	4	Potrero Hill	4

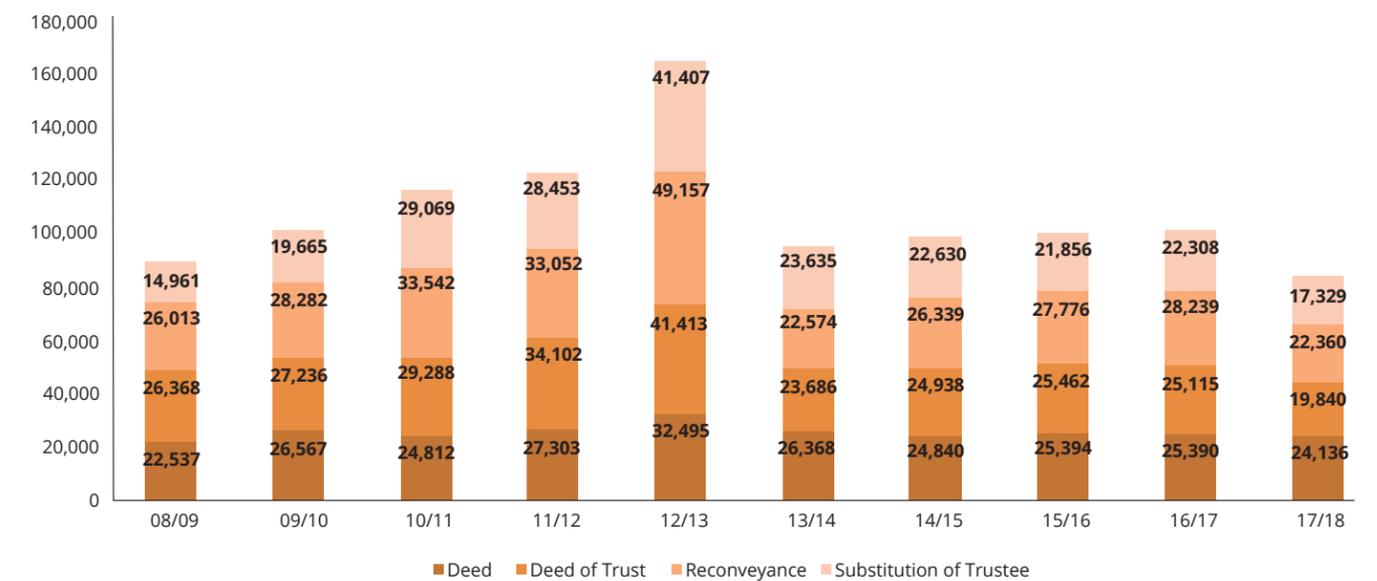


# INTERESTING TRENDS

## Recorded Documents Continue to Slow

The number of recorded documents decreased by 11% compared to the prior year. When we take a closer look at the top four most frequently recorded documents tied to market transaction, we observe the majority of reductions taking place for deeds of trust, substitutions of trustee and reconveyances, whereas deeds remain relatively steady. This is likely the result of fewer financings (institutional lending) or refinancing transactions.

## Volume of Top 4 Market Activity Driven Recorded Documents Over Time



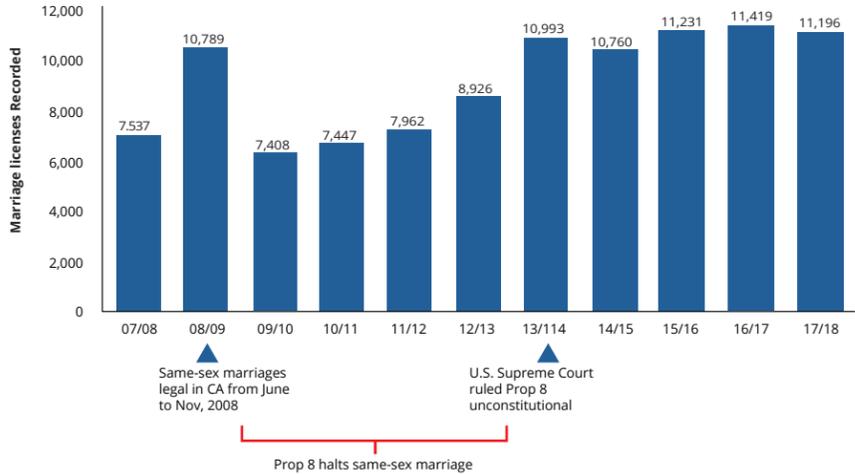
## More Public Marriage Licenses

We record and preserve public marriage licenses issued in the City. The graph below shows the number of marriage licenses recorded since FY08.

In June 2008, when same-sex marriage was first legalized in San Francisco, the number of public marriage licenses recorded locally in the City increased by over one-third. Between FY 2008-2013, same-sex marriages in California were halted due to the passage of Proposition 8 (2008).

When same-sex marriages were allowed to resume in June 2013, I was proud to lead California in being the only Recorder’s Office in the State of California to remain open through that first weekend so that couples did not have to wait any longer to marry. Close to 500 couples were married that weekend alone! Since then, the number of public marriage licenses recorded has remained consistently at a higher level at around 11,000 licenses annually.

**Marriages Recorded in San Francisco**

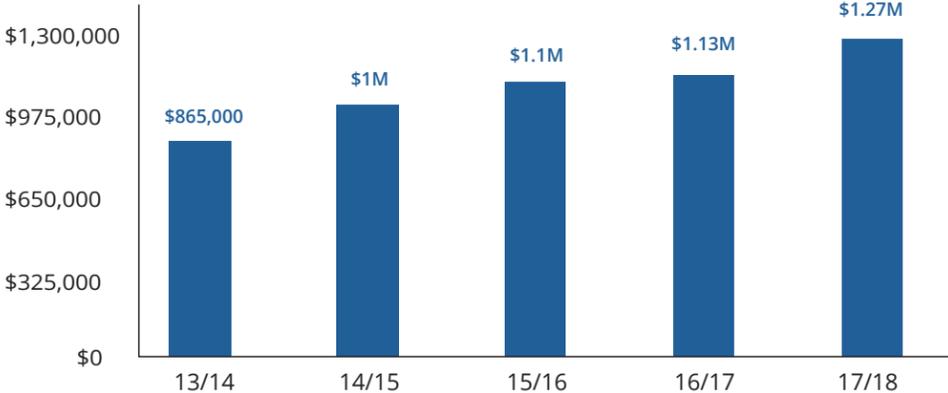


## Data Shows Single Family Median Prices are Rising

In FY18, there were a total of 6,344 single family residential property transactions, including single family dwellings, condominiums, townhouses, and co-op units. Through transfer tax data collected by our Recorder division.

We are able to analyze the median sales price of single family properties in the City over time. As expected, the median home price in San Francisco continues its upward trend through FY18. Median sales prices increased by 12% from \$1.13 million in FY17 to \$1.27 million in FY18.

**Median Sales Price of Single Family Residences Over Five Years**



Our City’s has led the way in the history of LGBT rights. In 2013, I turned over to the San Francisco Public Library archives close to 4,000 historic same-sex marriage licenses that were issued and later invalidated between February 12th and March 11th of 2004. These records were not allowed to become part of the public record as recorded documents.

*PHOTO: Sarah Rice, San Francisco Chronicle*

# PROPERTY TAX SAVINGS

## For Transfers within Family:

California tax laws allow parents to transfer ownership to their children (and vice versa) without reassessing the property to market value.

Prop 13, passed by California voters in 1978, caps the yearly assessment increase on a property at 2% or the inflation rate of the California Consumer Price Index, whichever is less. When there is a change in ownership, properties are generally reassessed to market value. However, if a claim for Prop 58 tax exclusion is submitted, property owners may be able to keep the current assessed value on the property rather than experiencing a reassessment. A similar tax benefit is also available for transfers from grandparents to grandchildren called Prop 193 exclusion. However, the requirements are different.

This year, our office granted close to 2,060 Prop 58 and Prop 193 exclusions. For more information regarding Prop 58 and Prop 193, please go to <http://sfassessor.org/about-us/fact-sheets>.



## For Seniors

Many seniors may consider moving to a smaller home or more convenient property as they grow older. However, buying a new house often means higher property taxes if the new property's market value is higher than the existing property's Prop 13 assessed value. The good news is that there is a California tax law which allows seniors to transfer their Prop 13 assessed value to a new property.

Prop 60 is a constitutional amendment passed by California voters in 1986 that allows owners who are 55 years old or older to transfer the assessed value of their existing home (original property) to their new home (replacement property) if both properties are located in the same county. For seniors who are interested in moving to another county, please check with the local County Assessor where your new property will be located to see if they accept assessment transfers from another county, also known as Prop 90.

For more information regarding Prop 60 and Prop 90, please go to <http://sfassessor.org/about-us/fact-sheets>.



## For Homeowners

Homeowners who occupy their property as their principal residence may qualify for a Homeowner's Exemption.

The Homeowner's Exemption reduces property taxes by deducting up to \$7,000 from the assessed value before applying taxes. In other words, qualified homeowners save \$70-80 dollars in property taxes every year. Only one Homeowner's Exemption can be claimed per person at a time.

Join the 88,000 homeowners who have benefited from this tax exemption in San Francisco. For more information, please go to <http://sfassessor.org/about-us/fact-sheets>.



## For Disabled Veterans

Disabled veterans may be eligible for a partial property tax reduction. Qualifying veterans must have been disabled due to a service-related injury or disease while in the armed forces, and must be a resident of California as of January 1 of the year in which they are applying for an exemption.

For more information, please go to <http://sfassessor.org/tax-savings/exemptions/disabled-veterans-property-tax-exemption>



## For Seismic Improvement

Construction of seismic retrofitting improvements or other improvements that utilize earthquake hazard mitigation technologies on an existing building are eligible for exclusion from reassessment. This means, no additional property taxes will be added for the portion of work done that is strictly for seismic improvements.

Property owners must file a completed Seismic Safety Construction Exclusion Form with our office prior to, or within 30 days of, completion of construction. Any additional documents needed to support the claim must be filed no later than 6 months after the completion of the project.



For more information, please go to <http://sfassessor.org/tax-savings/exclusions/earthquake-retrofit>

## For Disaster Relief

We join all Californians in keeping the communities impacted by recent fires in our thoughts. As our neighbors in the Northern and Southern California begin the difficult process of recovery from the fires, it is important for homeowners to know that as a property owner in California you are eligible for disaster relief due to calamities. Property owners who suffer damage to their property as the result of a calamity such as fire, earthquake or flood may be eligible for certain limited forms of property tax relief and deferral of payments.

For more information, please go to <http://sfassessor.org/tax-savings/tax-relief/disaster-relief>



## How to Contest Your Assessed Value?

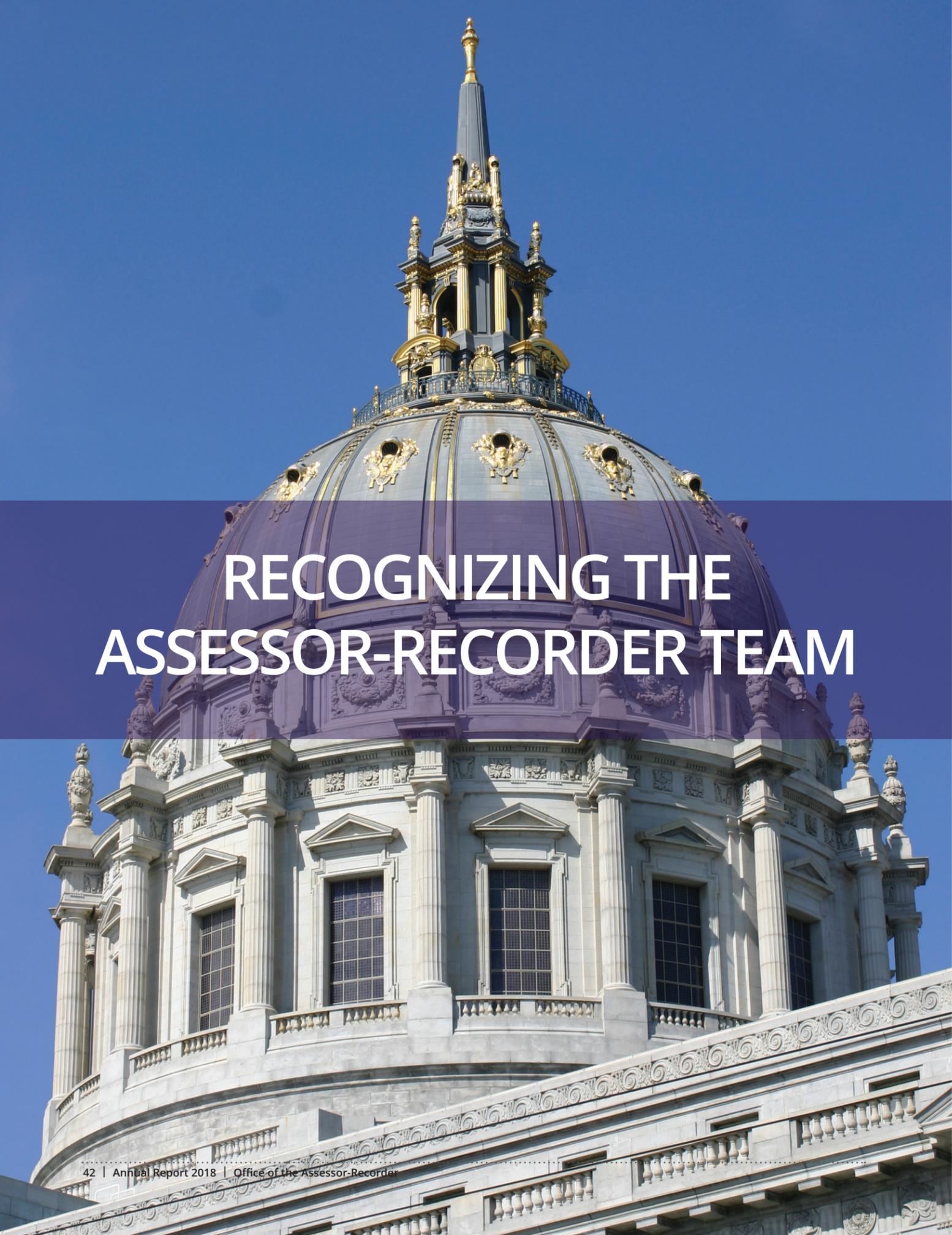
Property owners have two options to contest their assessed value.

**Informal Review:** As a courtesy to residents, our office provides a free Informal Review every year for residential properties that request review. Informal Review is only available to owners in single family dwellings, residential condominiums, townhouses, live-work lofts, and cooperative units. In Fiscal Year 2017-18, we proactively reviewed 8,212 properties and granted 4,719 temporary property tax reductions.

**Assessment Appeal:** Property owners may file a formal appeal with the Assessment Appeals Board (AAB), an independent board appointed by the Board of Supervisors to conduct fair and impartial hearings on property assessments. Under state law established by Proposition 8 (Revenue and Taxation Code Section 51(a)(2)), property owners can receive a temporary reduction to their assessed value if the current fair market value of their property is lower than the property's Proposition 13 capped assessed value. This can happen if property owners purchased properties at a peak in the market and when a subsequent real estate downturn caused property values to fall below their Proposition 13 capped assessed value.

For more information on Informal Review or the Assessment Appeal process, please go to <http://sfassessor.org/about-us/fact-sheets>





# RECOGNIZING THE ASSESSOR-RECORDER TEAM

I would like to express my appreciation to our staff for their dedication,  
hard work and service to the people of San Francisco

*Assessor Carmen Chu*

## STAFF

Nicole Agbayani	Megan Elliott	Douglas Legg	Gladys Sanchez
Derek Ah Nin	Wah Eng	Julia Leiva	Guadalupe Santana
Sally Aung	Natalie Epelbaum	Kin Leung	David Santos
Roberto Ayala-Duran	Anthony Estacio	Thida Leung	Emerson Santos
Brooke Bahador	Pio Factor	Lorraine Levy	Catherine Saul
Theresa Ballesteros	Orla Fahy	Raymond Lew	Antonio Segarra
Alfred Barber III	Anne Ferrel	Jerry Li	Patricia Segarra
Joaquin Benavides Sr	Julie Frisch	Jessica Li	Laurie Shulock
James Bias	Kurt Fuchs	Wayne Li	Richard Sin
Bryan Bibby	James Galileo	Jenny Liang	Edward Smith
Kimberly Blackfield	Abigail Galvez	Peggy Liang	Robert Spencer
Joanne Brodie	Joseph Gambucci	Curtis Lim	Ronald Sto-Domingo
Jerry Buss	Kevin Gamp	Kara Long	Thomas Swierk
Darrellyn Butler	Mary Gebrian	Ramon Loreto Jr	Dennis Tan
Dana Cano	Donna Gilliam	Maria Los Banos	Jason Tan
Joyce Castelo	Danielle Grant	Michael Louie	Susana Tan
Christopher Castle	Andre Guillory	Angela Lucas	Gilbert Tang
Alicia Chan	Carlota Hilario	Dominador Magsino III	Thomas Tang
Eric Chan	Cathleen Hoffman	Elizabeth Maier	Gary Tech
Iris Chan	Gilbert Huang	Christina Mckinnon	Sonia Tennille
Kenneth Chan	Harvey Huey	Christine McNary	Lisu Thachet
Larry Chan	Helen Hui	Shohreh Misaghi	Matthew Thomas
Marcus Chan	Alexander Hung	Arlene Mizuhara	Dinh Tran
Lolisha Chaney	Sara Hung	Jonathan Nelly	Fanny Truong
Kit Chau	Hong Hunt	Shanna Ngo	Veronica Tunucci
Anita Chen	Hakam Ibrahim	Wendy Ngo	Kathleen Uong
Huimin Chen	Simone Jacques	Tuyet Nguyen	Connie Vindell
Alice Cheung	Michael Jine	Saira Nisha	Brandon Wong
Yu Hang Chin	William Joe	Ogo Obi	Cecilia Wong
Stella Choi	Bernard Jong	Melissa Panday-Shrawder	Geoffrey Wong
Sandra Chow	Jason Jorgensen	Meesha Parker	Michelle Wong
Stella Chow	David Josefovsky	Alicia Petalver	Nicholas Wong
Carmen Chu	Myron Jung	Molly Peterson	William Wu
Suk Ping Chu	Rosita Kan	Irving Pham	Teresita Xander
Elaine Chung	Michael Kelleher	Claire Phillips	Summer Xia
Diane Cirrincione	Julie Kendall	Kathleen Pierpont	Adrienne Yan
Ellen Collaco	Barry Kwan	Vivian Po	Yuri Yan
Marol Connelly	Natalie Kwan Lloyd	Chris Powers	Beth Ybarra
Elizabeth Cooper	Kristine Lai	Daniel Quach	Stephen Yen
Lavendar Cromwell	Timothy Landregan	Saroni Ray	Johnny Yip
Mary Jane Cruz	Benjamin Lau	Allan Rayo	Kimmie Yu
Rachel Cukierman	Randy Lau	Jody Reichel	
Mateo Curimao III	Adrian Law	Daniel Reyes	
Filemon Dizon	Ardele Leavelle	Patricia Rivette	
Liliana Draper	Cliff Lee	Felix Rodriguez Jr	
Earl Dunivan	Phoebe Lee	Ana Sacayon	
Richard Duong	Richard Duong	Dinora Sanchez	

# GLOSSARY

**Ad Valorem Property Tax-**

Taxes imposed on the basis of the property's value.

**Assessed Value** - The taxable value of a property against which the tax rate is applied.

**Assessment Appeals Board** - A three member panel appointed by the Board of Supervisors, operating under State law, to review and adjust assessments upon request of a taxpayer or his or her agent. (See "assessment appeal").

**Assessment Roll** - The official list of all property within the County assessed by the Assessor-Recorder.

**Assessment Roll Year** - The year following the annual lien date and the regular assessment of property, beginning on July 1.

**Audit Escape** - The discovery of escape property resulting from an audit of the books and records of a profession, trade or business, for which an assessment is levied outside of the normal assessment period for the lien date in question.

**Base Year (Value)** - The 1975-76 regular roll value serves as the original base value. Thereafter, changes to the assessment on real property value, or a portion thereof, caused by new construction or changes in ownership create the base year value used in establishing the full cash value of such real property.

**Business Personal Property -**

Business personal property is assessable, and includes computers, supplies, office furniture and equipment, tooling, machinery and equipment. Most business inventory is exempt. (See personal property).

**Change in Ownership** - When a transfer of ownership in Real Property occurs, the Assessor-Recorder determines if a reappraisal is required under State law. If required, the reappraised value becomes the new base value of the property transferred, and a supplemental assessment is enrolled.

**CPI** - Consumer Price Index as determined annually by the California Bureau of Labor Statistics.

**Exemption** - Allowance of a deduction from the taxable assessed value of the property as prescribed by law.

**Homeowner's Exemption** - People who own and occupy a dwelling on the lien date as their principal place of residence are eligible to receive an exemption of up to \$7,000 of the dwelling's taxable value. The tax dollars reduced by the (HOX) homeowner's exemption are reimbursed to the County by the State of California.

**Exemptions** - Charitable, hospital, religious or scientific organizations, colleges, cemeteries, museums, and disabled veterans (for 100%, service-connected disabled veterans) are eligible for exemption.

**Factored Base Year Value -**

A property's base value is adjusted each year by the change in the California Consumer Price Index (CPI), not to exceed 2%. The factored base value is the upper limit of taxable value each year.

**Fiscal Year (FY)** - The period beginning July 1 and ending June 30.

**Fixture** - An improvement to real property whose purpose directly applies to or augments the process or function of a trade, industry or profession.

**Full Cash Value (FCV)** - The amount of cash or its equivalent value which property would bring if exposed for sale in the open market and as further defined in Revenue and Taxation Code 110.1.

**Lien** - The amount owed and created by the assessment of the property, or the amount levied against property by a taxing agency or revenue district.

**Lien Date** - The time when taxes for any fiscal year become a lien on property; and the time as of which property is valued for tax purposes. The lien date for California property is 12:01 a.m. on January 1 (effective January 1, 1997) preceding the fiscal year for which the taxes are collected. The lien date for prior years was March 1.

**New Base Year (Value)** - The full cash value of property on the date it changes ownership or when new construction is completed.

**New Construction** - The construction of new buildings, additions to existing buildings, or alterations which convert the property to another use or extends the economic life of the property, is reassessed, establishing a new base year value for only that portion of the property.

**Parcel** - Real property assessment unit. Land that is segregated into units by boundary lines for assessment purposes.

**Personal Property** - Any property except real estate, including airplanes, boats, and business property such as computers, supplies, furniture, machinery and equipment. (Most business inventory, household furnishings, personal effects, and pets are exempt from taxation.)

**Possessory Interest (PI)** - The possession or the right to possession of real estate whose fee title is held by a tax exempt public agency. An example of a PI includes the exclusive right to use public property at an airport such as a car rental company's service counter. The vendors are subject to property taxes. Regardless of the type of document evidencing the right to possession, a taxable PI exists whenever a private party has the exclusive right to a beneficial use of tax exempt publicly owned real property.

**Proposition 8** - Passed by California voters in November 1978, Proposition 8 requires for the temporary reduction in the assessed value when there is a decline in market value below the property's factored base year value.

**Proposition 13** - Passed by California voters in June, 1978, Proposition 13 is a Constitutional amendment that limits the taxation of property and creates a procedure for establishing the current taxable value of locally assessed real property, referencing a base year full cash value.

**Real Property** - Land and improvements to the land, which permits the possession of, claim to, ownership of, or right to possess.

**Roll** - A listing of all assessed property within the county. It identifies property, the owner, and the assessed value of the property.

**Secured Roll** - Property on which the property taxes are a lien against the real estate.

**Special Assessments** - Direct charges or flat fees against property which are included in the total tax bill but are not based upon the Assessor-Recorder's valuation of the property. Examples are a sewer charge or a school parcel tax.

**State Board of Equalization (SBE)** - The State Board of Equalization (BOE) consists of four members elected by California voters by district, and the State Controller whose duties in the field of taxation are defined by the State Constitution and the Legislature. The BOE regulates county assessment practices and administers a variety of state and local business tax programs.

**Supplemental Assessment** - When property is assessed due to a change in ownership or completed new construction, a supplemental assessment is issued. This is separate and in addition to the annual regular assessment. It is based on the net difference between the previous assessed value and the new assessment.

**Supplemental Roll** - The roll, prepared or amended, contains properties in which a change in ownership or completed new construction occurred.

**Tax Rates** - The maximum ad valorem (on the value) basic property tax rate is 1% of the net taxable value of the property. The total tax rate may be higher for various properties because of voter-approved general obligation bonds that are secured by property taxes for the annual payment of principle and interest.

**Tax Roll** - The official list of property subject to property tax, together with the amount of assessed value and the amount of taxes due, as applied and extended by the Auditor/Controller.

**Unsecured Roll** - Property on which the property taxes are not a lien against the real estate (real property) where they are situated, including personal property or improvements located on leased land.



# KEY DATES

<b>JANUARY 1</b>	The date taxes for the next fiscal year become a lien on property.
<b>FEBRUARY 15</b>	Deadline to file all exemption claims.
<b>MARCH 31</b>	Last day to file Informal Review
<b>APRIL 1</b>	Due date for filing statements for business personal property and marine vessels.
<b>APRIL 10</b>	Last day to pay second installment of secured property taxes without penalty.
<b>MAY 7</b>	Last day to file a business personal property statement without incurring a 10% penalty.
<b>JULY 1</b>	Local assessment roll is surrendered to the Controller. The local assessment roll is the official list of all taxable property within the County.
<b>MID-JULY</b>	Annual mailing of assessment notices to all San Francisco real property owners stating the taxable value of the property.
<b>JULY 2</b>	First day to file assessment appeal application with the Assessment Appeals Board.
<b>AUGUST 31</b>	Regular roll unsecured taxes due.
<b>SEPTEMBER 15</b>	Last day to file an assessment appeal application for reduced assessment with the Assessment Appeals Board, unless extended to November 30.
<b>DECEMBER 10</b>	Last day to pay first installment of secured property taxes without penalty.



1 Dr. Carlton B. Goodlett Place  
City Hall, Room 190  
San Francisco, CA 94102-4698

Phone: 3-1-1 (within San Francisco's 415 area code) / 415-701-2311 (outside of San Francisco)

Email: [assessor@sfgov.org](mailto:assessor@sfgov.org)  
Website: [www.sfassessor.org](http://www.sfassessor.org)

The Assessor-Recorder's Office is open Monday thru Friday 8:00 A. M. to 5:00 P.M., excluding legal holidays. Document recording is available 8:00 A.M. to 4:00 P.M. We have a public service desk that is staffed during business hours where you can inquire about property, tax rates and recorded documents.

If you have a question about your tax bill, please contact the Office of the Treasurer & Tax Collector at [www.sftreasurer.org](http://www.sftreasurer.org)

## Appendix O

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### Undergrounding Cost Per Mile by City

## Undergrounding Cost Per Mile by City

Cost Obtained From	Location	Cost per Project (\$)	Cost per Linear Foot (\$)	Cost per Mile (\$)
		<i>Costs are approximate &amp; based on estimates received from others or reports.</i>		
<b>PG&amp;E<sup>1</sup></b>	Albany	N/A	684	3,611,520
	Belmont/San Mateo County	N/A	1,593	8,411,040
	San Pablo	N/A	902	4,762,560
	San Mateo	N/A	2,366	12,492,480
	East Palo Alto	N/A	988	5,216,640
	Half Moon Bay	N/A	1,290	6,811,200
	San Jose	N/A	2,269	11,980,320
<b>2nd Street Project</b>	2nd Street San Francisco from (Stillman St to Townsend St)	8,650,383	N/A	23,422,576
<b>Private Firms</b>	2400 Block of Broadway San Francisco	1,000,000	N/A	10,5600,000
		N/A	1,600	8,448,000
		N/A	2,000	10,5600,000
<b>Conceptual Study for Undergrounding Utility Wires in Berkeley Report</b>	Berkeley	N/A	N/A	4,500,000
		N/A	N/A	5,200,000
	San Diego	N/A	N/A	5,000,000
<b>1996-2006 Underground Utilities Program in SF</b>	Varies	N/A	N/A	3,800,000
<b>CCSF Budget and Legislative Analyst Report</b>	Leland Avenue San Francisco (Projected)	1,603,000	N/A	9,500,000 <sup>2</sup>

<sup>1</sup>PG&E cost for Rule 20A undergrounding covers the following: PG&E project management, electric design, civil design, land review, environmental review, civil construction, electric construction, inspection, service panel conversion, customer outreach, material, AFUDC (Allowance for Funds Used During Construction), and overheads.

<sup>2</sup>This was the projected price for Leland Avenue but the undergrounding of overhead utilities project was canceled.