

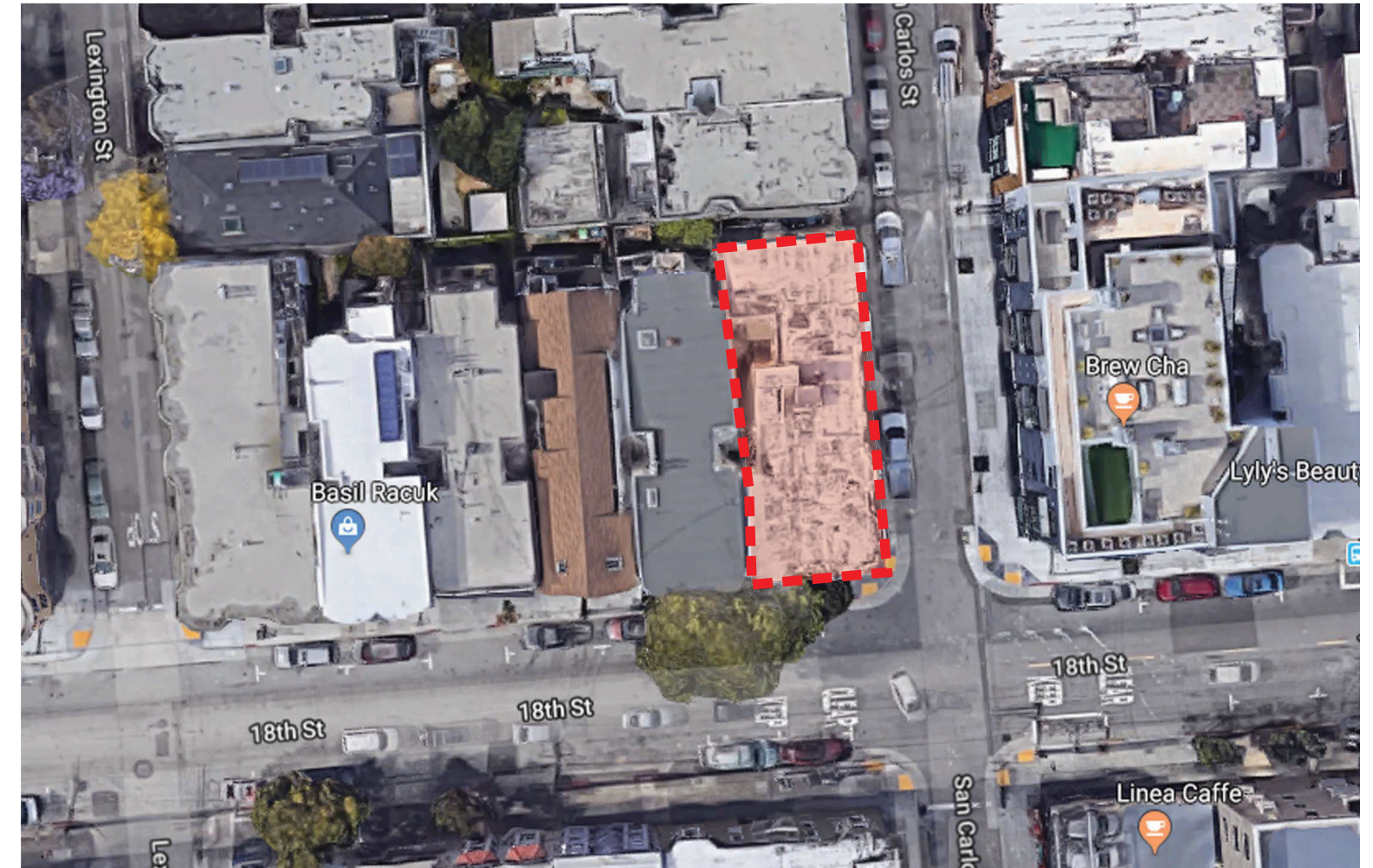


**MISSION
HOUSING**

DEVELOPMENT
CORPORATION

**3434 18th Street
ADU's & Electrification**

Mehmet Aladimir



3434 18th Street

<u>Construction</u>	V-B
<u>Occupancy</u>	R-2, RESIDENTAL
<u>Zoning</u>	RTO-M RESIDENTAL TRANSIT ORIENTED - MISSION
<u>Block and Lot</u>	3576 - 032
<u>Year Built</u>	1924
<u>Historic Status</u>	B - UNKNOWN / AGE ELIGIBLE
<u>Unit Quantity</u>	8 UNITS
<u>Building Height</u>	55-X HEIGHT AND BULK DISTRICT
<u>Existing</u>	3 STORIES
<u>Proposed</u>	-
<u>Building</u>	
<u>Existing</u>	4,348 SF
<u>Proposed</u>	4,348 SF (NO CHANGE)
<u>Parking</u>	6 PARKING SPACES



APPROACH

ADUs provide benefits for both society and individuals. As infill development, they make efficient and “green” use of existing infrastructure and help increase densities to levels at which transit becomes viable — yet with lower costs and quicker permitting processes than for larger, multi-family building types. Because ADUs tend to be relatively small and their amenities modest, they provide more affordable housing options (at less than one-third of the cost of comparable units in multi-family buildings). Oftentimes, these units are the only rental housing available in older, predominantly single-family neighborhoods, making it possible for people from all walks of life to live in the area. Yet, they also significantly improve the value of the property, in essence constituting an asset-building strategy for homeowners.

SITE :

ADU’s first goal is to create a symbiotic relationship to adaptate to existing building and surroundings. While ADU’s will start the building upgrading progress, existing building will be providing a shelter and outline to ADU’s.

LIGHT:

While adaptating the existing building, ADU’s first priority to use the natural light as much they can. Sometimes they use the existing architectural elements like light wells, balconies, stairwells, skylights, windows or doors, sometimes they create their own way to reach out to natural light.

GREEN:

Environmental friendly design consideration, and using green materials, ADU’s will start the healing progress on the existing site.

USER:

ADU’s will not only adaptate to city or existing building. They will also adaptate to user type. Using ADA compliancy and UFAS guidelines, ADU’s will give equal opportunity to our tenants.

	EXTERIOR LIGHTS	HVAC SYSTEMS	HOT WATER SYSTEMS	APPLIANCES	MISC. TENANT IMP.	PV PANELS	
MARIA ALICIA APARTMENTS							90% CONST.
3434 18TH STREET							
UPPER UNITS							98% CONST.
ADUS							80% CONST.
3019 23RD STREET							
3025 23RD STREET							PERMIT
2800 BRYANT STREET							
SOFT STORY							100% CONST.
ADU’S							PERMIT READY
UPPER UNITS							DEVELOPMENT
MARIPOSA GARDENS							
							CONST. READY



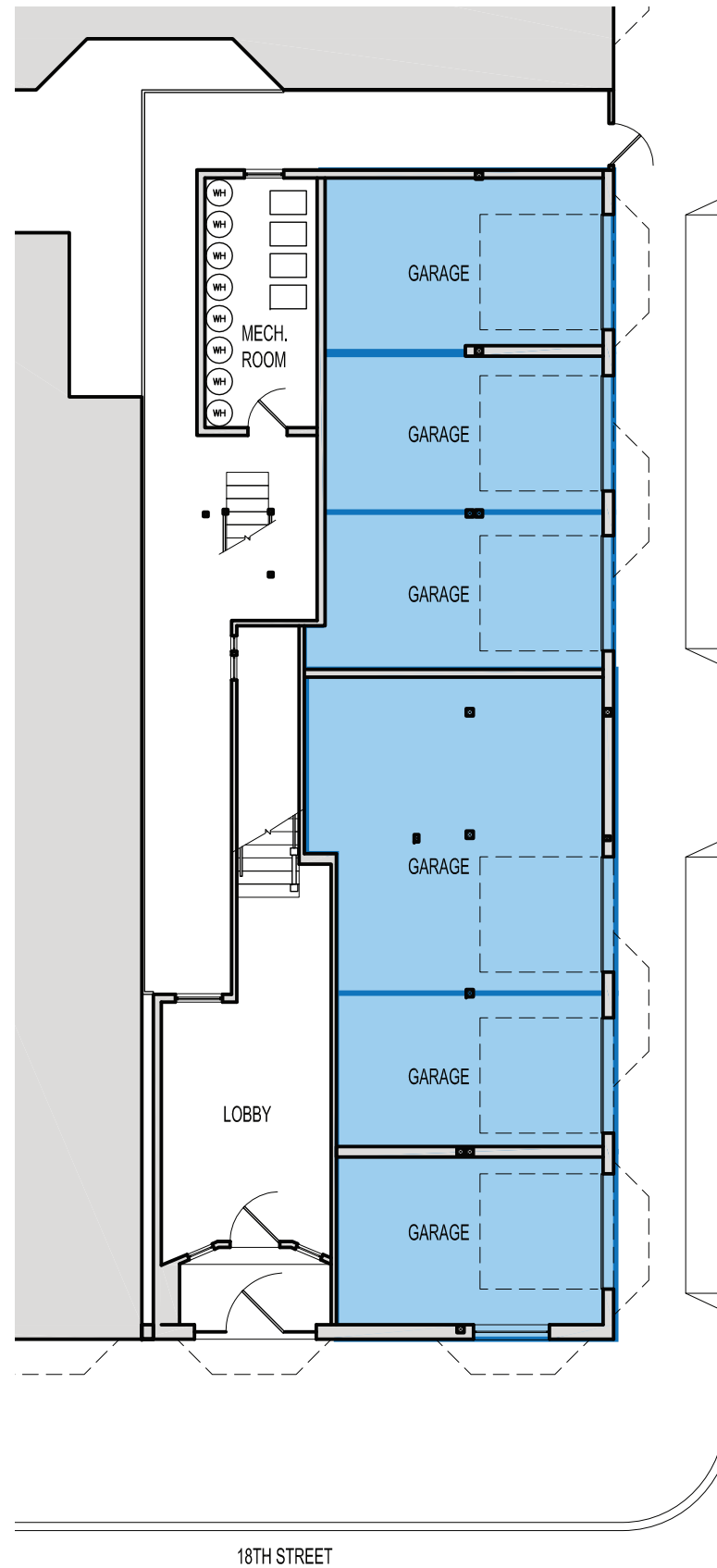
BEFORE



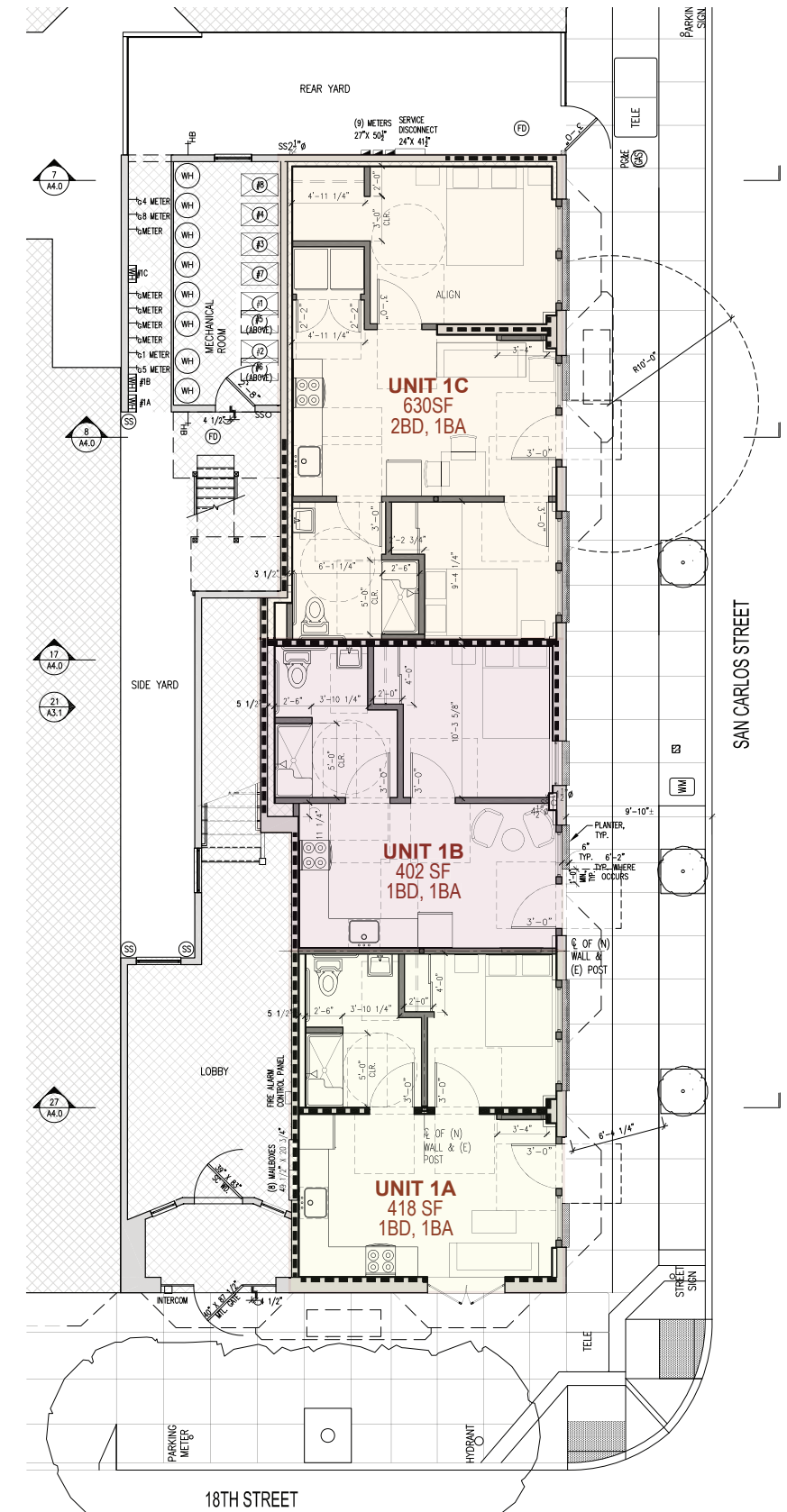
AFTER

Project Goals: ADU's

- Create Accessory Dwelling Units (ADUs)
3 comfortable all-electric and energy-efficient ADUs from 6 underutilized garages
- Adaptable 1 & 2 Bedroom ADUs for a range of tenants
- Modification of building systems in garages (fire protection, space conditioning and water heating) opportunity for energy-efficient mechanical systems.
- Use tall garages to provide above-ceiling Heat Pump units within each ADU



Existing Garages

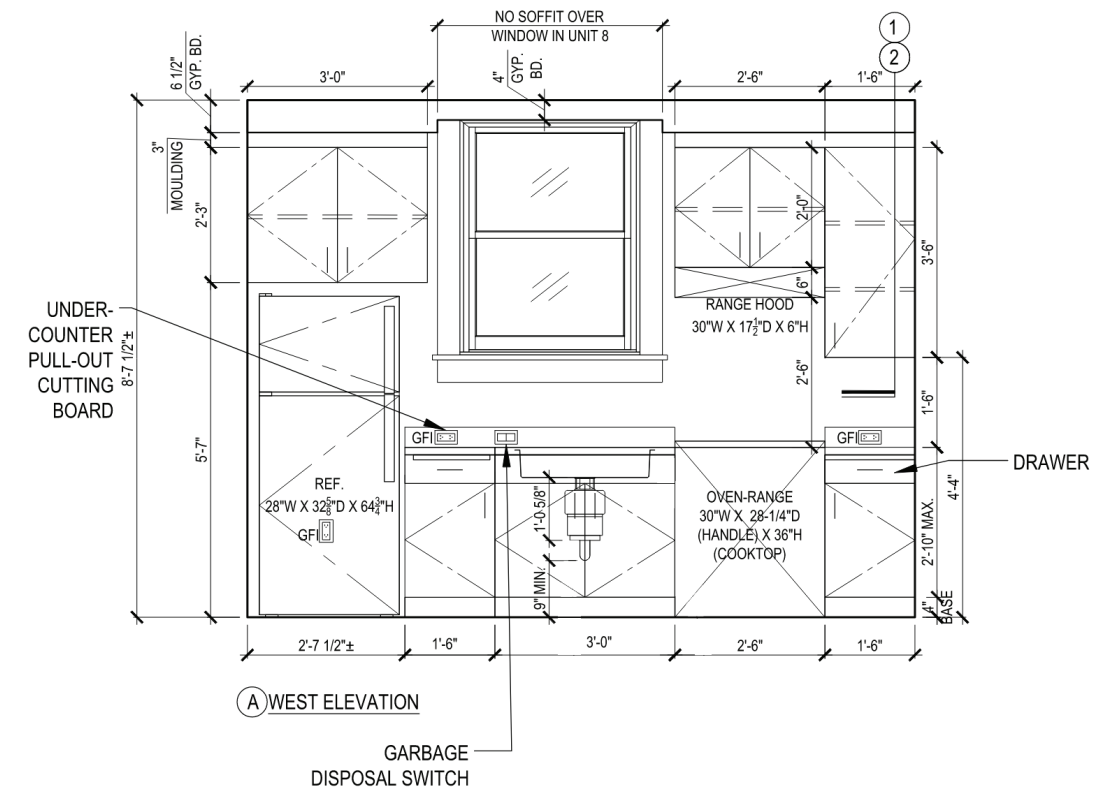
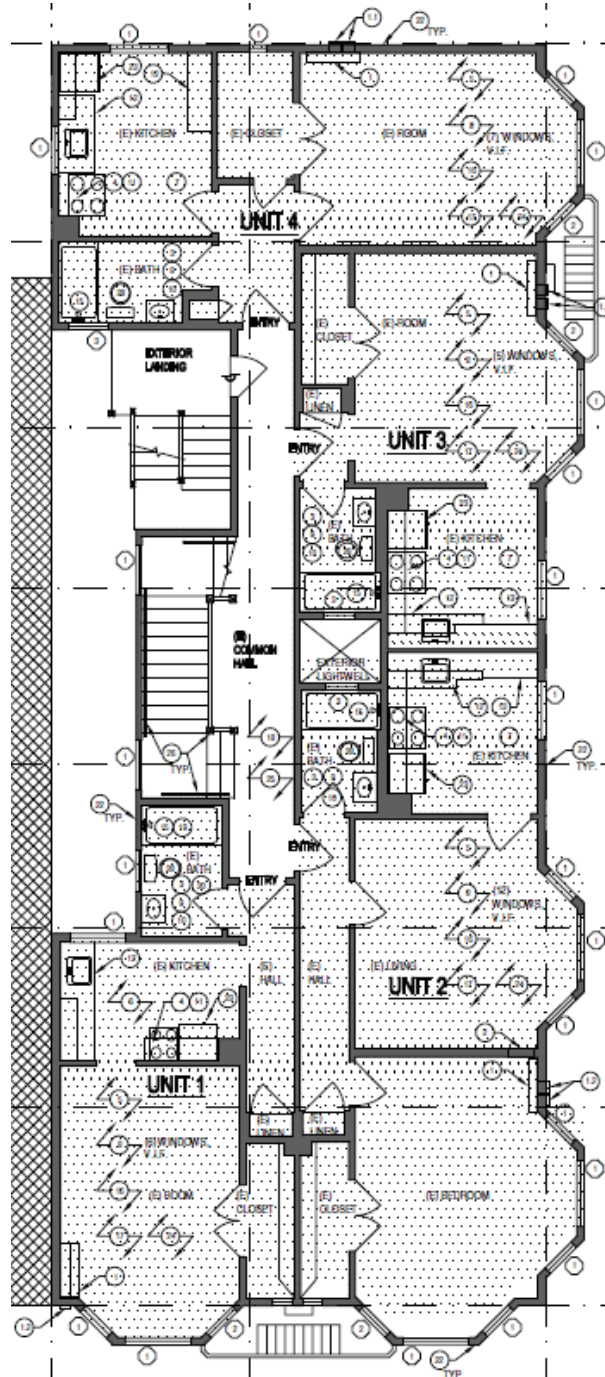


New ADUs



Project Goals: Existing Units

- Renovate Existing Dwelling Units
Refresh 8 apartments with new finishes and appliances
- Opportunity to install energy-efficient heat pumps, hybrid water heaters and induction cooking to eliminate gas.
- Remove obsolete building features (shafts, ducts, etc.) to improve living environment
- New wall-mount heat pump within each dwelling unit is space-efficient and energy efficient



Existing Units

3434 18TH STREET TEAM

Architect - Blecher Building + Urban Design

Contractor - Nibbi Brothers Associates, Inc.

Structural Engineer - ZFA Structural Engineers (ZFA)

M.E.P Engineer - MHC Engineers

Civil Engineering - Massoudi Consultant Engineers

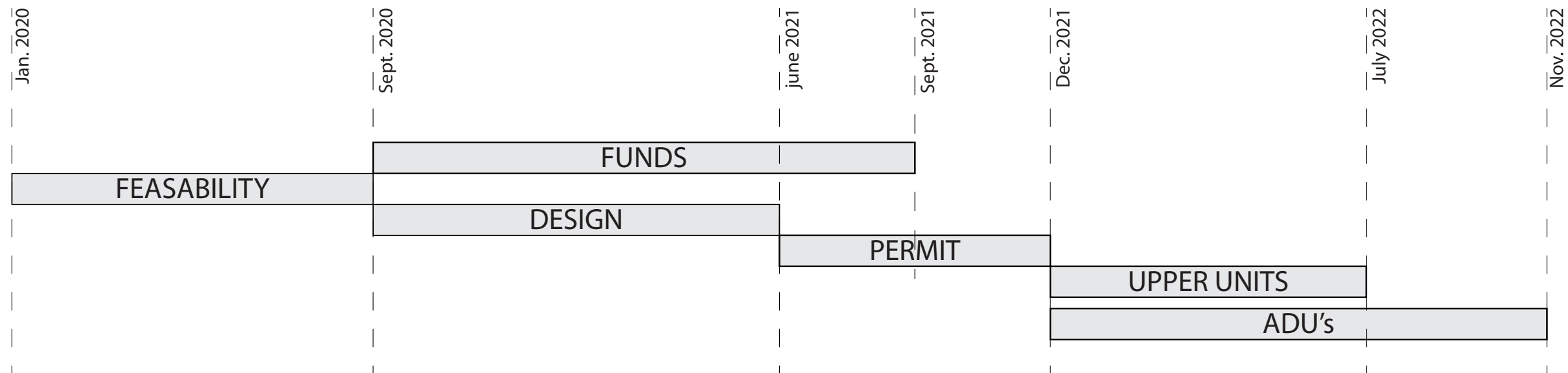
Accessibility Consultant - Lerner + Associates

Energy Consultant - Association For Energy Affordability (AEA)

Survey - Lea & Braze Engineering, Inc.

Property Manager - FPI Property Management

PV consultant – Sun, Light & Power



Electrification

- Decarbonization
- Building runs on renewable energy
- Efficiency
- Health and safety, resilience

HVAC Systems

- Variable speed heat pumps
- Quiet – 27 decibels
- 300%+ efficient
- Provides heating and cooling
- ADUs will use all in one heat pumps with integrated HRV
- Packaged equipment, ideal solution for urban environment



Heat Pump Water Heating

- Integrated – no outdoor unit necessary
- One per unit
- 300%+ efficient



Induction Stoves

Benefits:

- More powerful and more responsive than gas
- More efficient than gas or electric resistance
- No fire risk (hot surfaces eliminated)
- No gas combustion byproducts
- Proactive support to ensure successful transition
- Gift cards for tenants who need to replace some pots/pans
- Training for mission housing staff



Rebate Program Involvement

Low Income Weatherization Program (LIWP)

\$82,000 rebate

Implemented by AEA

Administered by the CA Department of Community

Services and Development (CSD)

- HVAC Units
- Heat Pump WH
- Low Flow Aerator
- Showerheads
- Energy Star Refrigerator
- In-unit Lighting
- Common Area Lighting

Bay Area Regional Energy Network (BayREN)

\$24,800 rebate

Implemented by AEA and SF Environment

Funded with utility ratepayer \$ through the California

Public Utilities Commission, as well as other sources

- HVAC Units
- Heat Pump WH
- Low Flow Aerator
- Showerheads
- Electric stove
- Roof Insulation
- Window replacement
- In-unit Lighting
- Hi efficiency Toilets

TECH Clean California

\$33,000 rebate

AEA acts as the TECH Multifamily Implementation Team

Developed as part of California Senate Bill 1477 and is funded by California gas corporation ratepayers under the auspices of the California Public Utilities Commission.

PG&E Process

- Conversion from Natural Gas generates significant increases in electrical loads.
 - Solar PV does not contribute to service size
 - PG&E Service size will usually need to be increased
 - 6-9 Months from application to completion start process early
- 4 possible methods for upgrade:



Pole Mounted



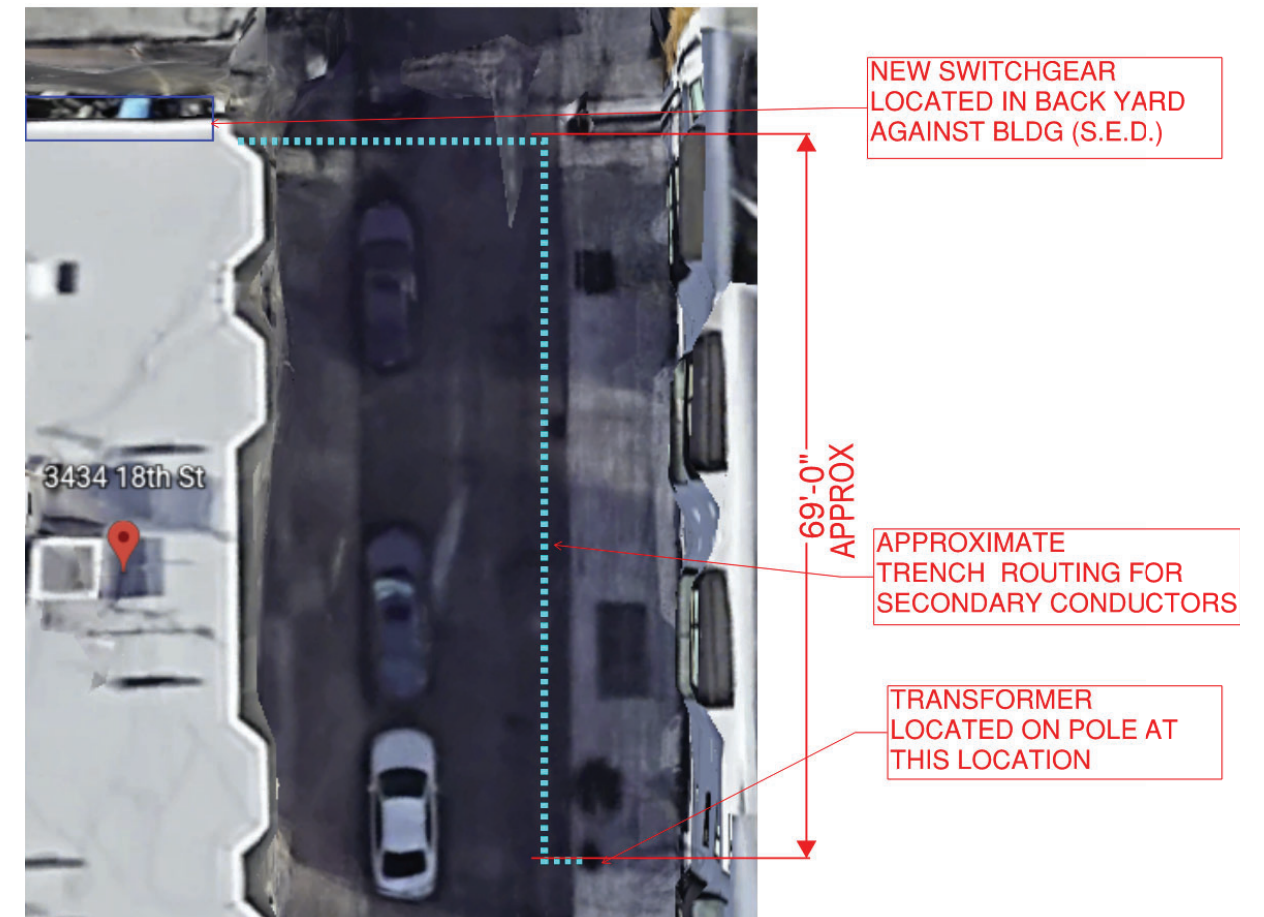
Sidewalk Vault



On Property

Process

- Complete online application
- Provide requested information
 - Site Drawings & Photos
 - EE's Load Calculations
 - Single line diagram
 - Existing utility plan (gas, water, sewer, electrical)
- PG&E completes service load calculations and advises of upgrade method
 - Until this time team needs to be prepared for any of the upgrade methods
- PG&E completes design
- Contractor completes work and obtains green tag
- PG&E energizes service



Considerations

All affected equipment must be brought up to current PG&E and DBI codes

Electrical Gear

- Location
- Clearance



Outdoor With Sufficient Service Clearance



Insufficient Clearance Encroaching on Egress

Unit Panels

- Capacity
- Location
- Clearance



Insufficient Amperage Little Expansion Space

Wiring

- Loads cannot be added to cloth insulated or knob and tube wiring.
- Grounds to be added
- GFCI Requirements



Construction

Direct Project Costs:

- PG&E Costs -Removing gas meters and gas disconnect
- Demolition subcontractor to remove gas equipment vents (from gas WH and furnaces)
- Carpenters and laborers to seal and patch wall/roof penetrations and points of attachments from gas equipment vents
- Plumber to remove house gas lines (as required) and capping stub-out lines in each unit and/or wherever required
- Upgrades to electrical unit sub-panels (if spare slots are not available for added load within each unit)
- New dedicated circuits as required by code or for new equipment/appliances
- New PTAC units and fans for heating/cooling/ventilation
- New electric water heaters
- New outlets and switches throughout units
- New light fixtures (T24) throughout units





ADUs Kitchen



Upper Units Kitchen



Upper Units Bathroom



Upper Unit with Carpet



Before



ADU's Render



June.07.22 Construction Progress



Thank you

**3434 18th Street
ADU's & Electrification**

Mehmet Alademir

**malademir@missionhousing.org
415-864-6432 x351**

Open House

June 24th between 10am - 12noon

Location:

**3434 18th Street
San Francisco
CA 94110**