City of SANTA BARBARA

ONE WATER
CITY OF SANTA BARBARA

PUBLIC WORKS DEPARTMENT

WATER RESOURCES DIVISION

AUTOMATED METERING INFRASTRUCTURE PROJECT

Exhibit for Review by Architectural Board of Review

Proposal to Install 19 Data Collector Units in the City

April 4, 2022

SantaBarbaraCA.gov/Water

How it Works

1

An AMI radio device is connected to your existing water meter.

2

Network sites receive water usage information securely over a radio network.

3

The City uses the meter readings for monthly billing, leak alerts, and customer service.

4

You can view hourly water usage and set notifications through the customer portal.

ONE WATER
CITY OF SANTA BARBARA
2
3
4
1
METER

ABR approval for 19 proposed DCUs

The proposed DCU installations consist of the following:

- 19 total DCUs would be installed within the City limits
  - 15 DCUs would be mounted onto existing concrete street light poles
  - 3 DCUs would be mounted on new wood poles at existing Water Department Facilities
    - Note that the new pole and DCU at Vic Trace Reservoir location will not be visible from public right-of-way
  - 1 DCU would be mounted on a new metal pole at an existing Water Resources Facility (Hope Reservoir)
    - Note that this new pole and DCU will not be visible from public right-of-way

All DCUs would be installed in the public right-of-way or on City owned land.

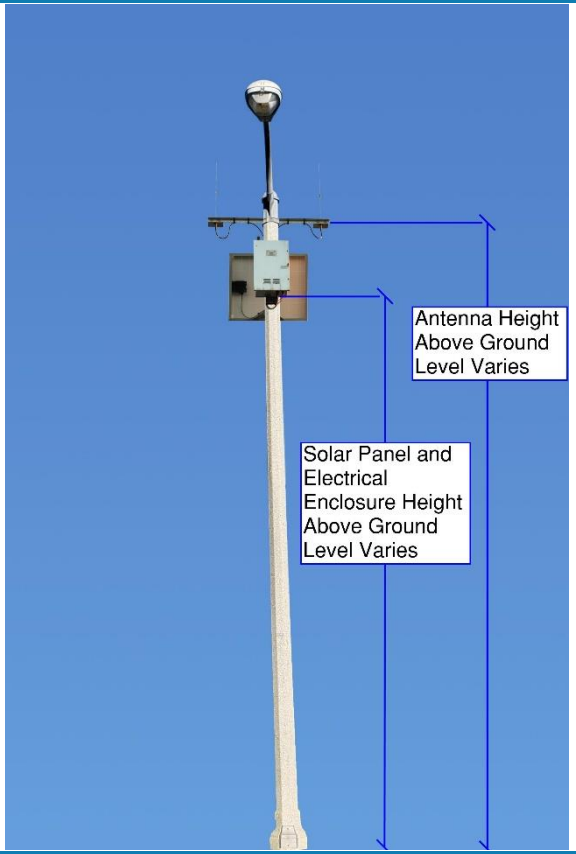
SoCal Gas DCUs in City Limits

Architectural Board of Review reviewed and approved Southern California Gas Company (SoCal Gas) installation of DCUs for use on their gas meter AMI system in 2014. The project Community Development application number is MST2014-00103.

- 13 SoCal Gas DCUs approved by ABR for use within the City limits
  - 10 new wood poles
  - 3 existing concrete poles

Simulations of DCUs on Street Lights

DCU Component Heights



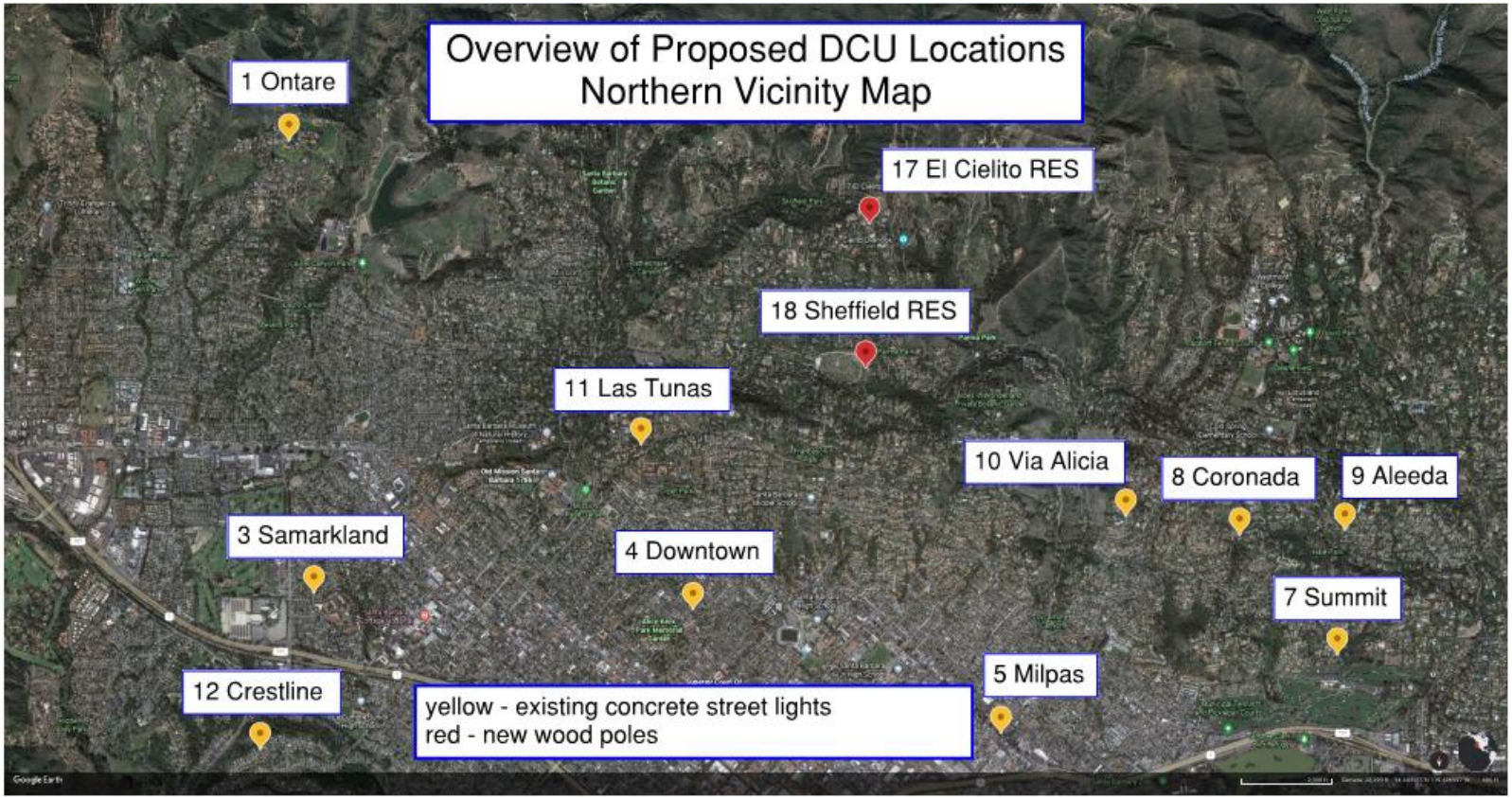
Design Considerations

- Outside of El Pueblo Viejo District
- Minimized number of units within City limits
- No added lighting
- No added sound
- Sleek modern design
- Uniform design
- Avoided pedestrian traffic line-of-sight
- Historic structures were avoided
- Limited installation onto ornamental fixtures to one location
- Co-located onto existing infrastructure
- Limited tree trimming impacts
- Color matching (as feasible)

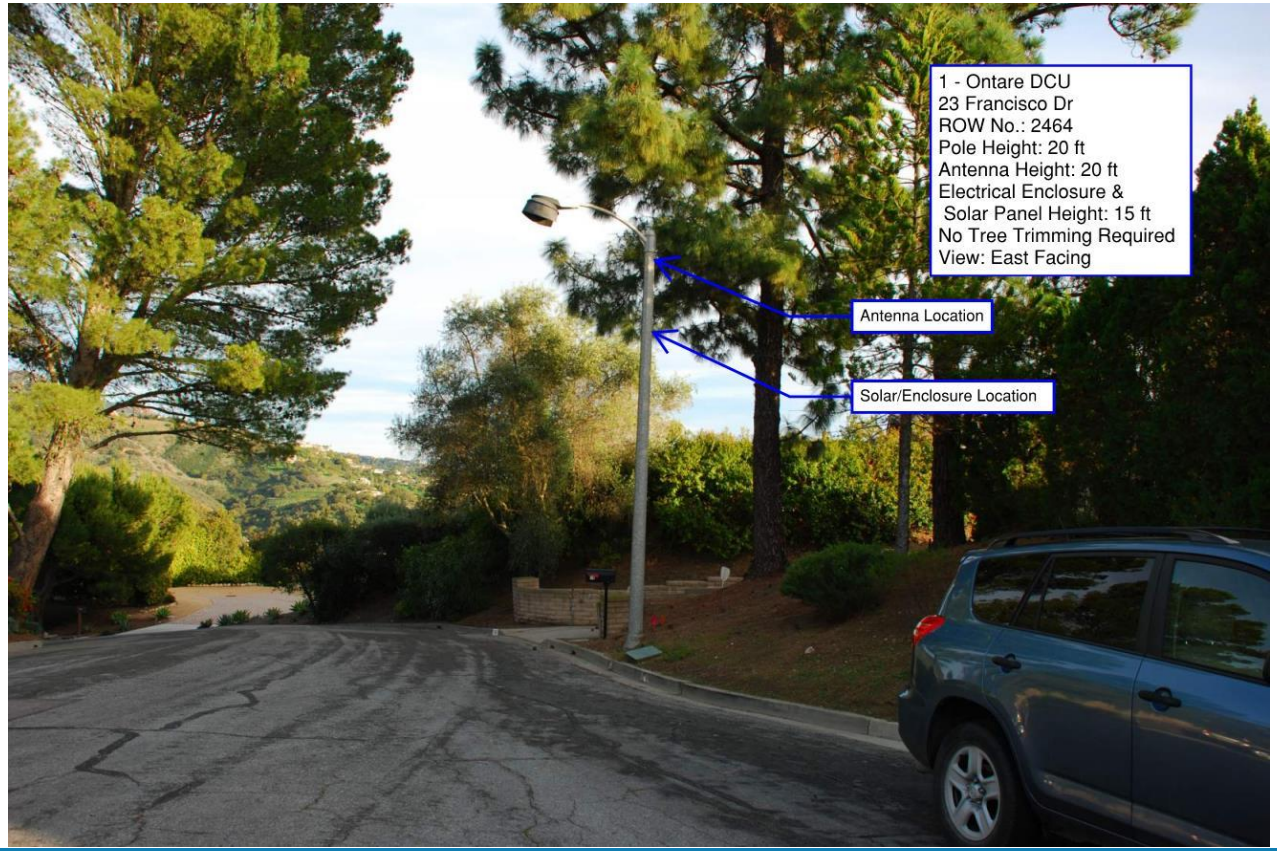
Color Matching

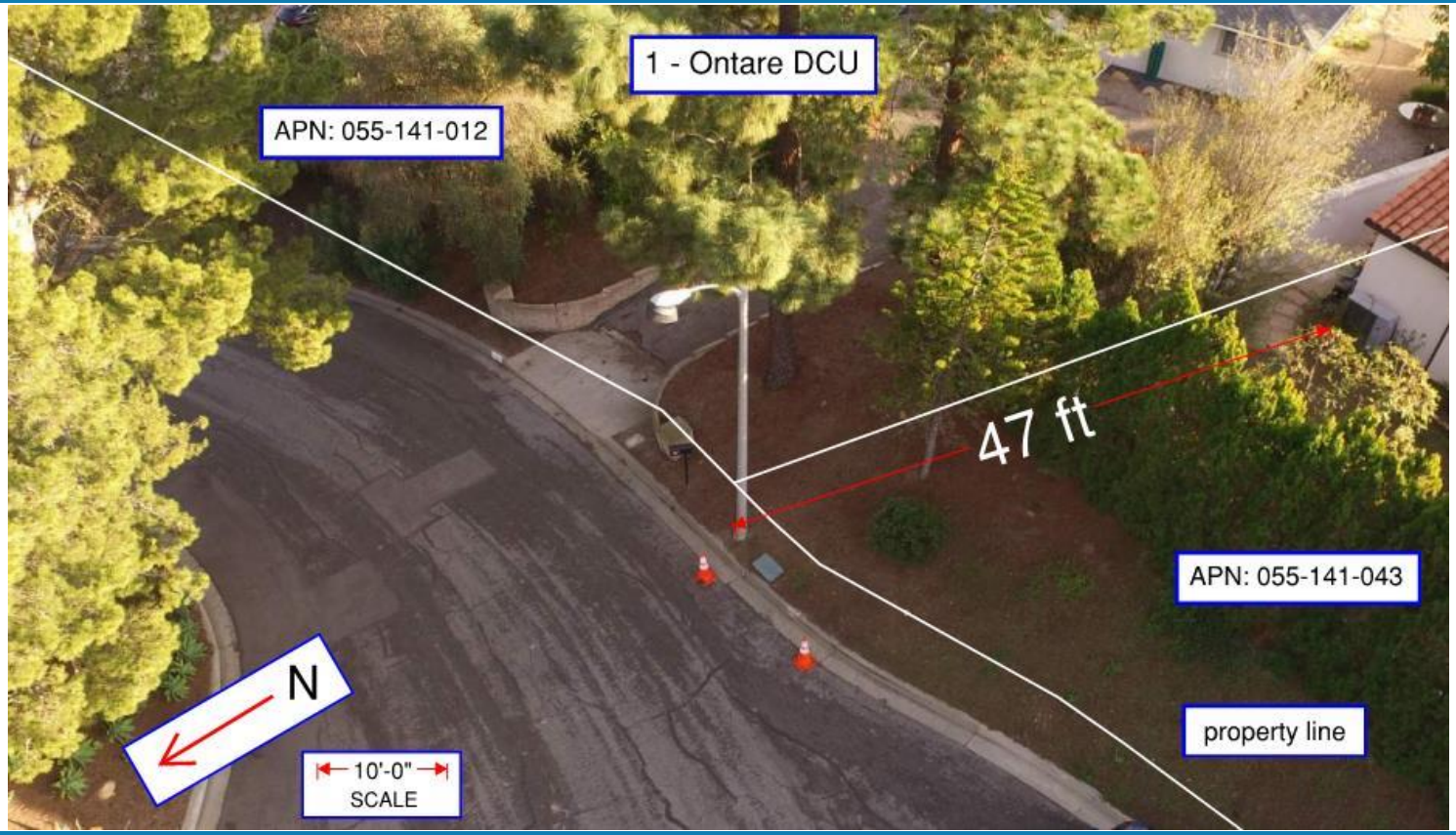
- Concrete poles
  - Pole equipment will be painted matching grey
- Wooden poles
  - Pole equipment will be painted matching brown
- Luminaire pole
  - Pole equipment will be painted matching green

ABR Project Compatibility Findings	Automated Metering Infrastructure Project
Consistency with Design Guidelines	Yes. Public infrastructure consistent with guidelines.
Compatible with Architectural Character of City and Neighborhood	Yes. Project avoided historic El Pueblo Viejo District.
Appropriate size, mass, bulk, height, and scale	Yes. Project is installing the minimum number of DCUs to cover the service area.
Sensitivity to Adjacent Landmarks and Historic Resources	Yes. Project avoided historic El Pueblo Viejo District.
Public Views of the Ocean and Mountains	Yes. Minimized locations of DCUs in the Coastal Zone. Units are being mounted onto existing infrastructure to minimize potential effects on views and are outside of line-of-site.
Use of Open Space and Landscaping	Not applicable


Overview of Proposed DCU Locations
Northern Vicinity Map
1 Ontare
17 El Cielito RES
18 Sheffield RES
11 Las Tunas
10 Via Alicia
8 Coronada
9 Aleeda
3 Samarkland
4 Downtown
7 Summit
5 Milpas
12 Crestline
yellow - existing concrete street lights
red - new wood poles

Overview of Proposed DCU Locations
Southern Vicinity Map
16 Hope RES
12 Andalucia
6 Island View
14 Miramonte
19 Vic Trace RES
2 Mesa West
15 Terrace
yellow - existing concrete street lights
red - new wood poles
blue - new metal pole
Google Earth


1 - Ontare DCU
23 Francisco Dr
ROW No.: 2464
Pole Height: 20 ft
Antenna Height: 20 ft
Electrical Enclosure &
Solar Panel Height: 15 ft
No Tree Trimming Required
View: East Facing
Antenna Location
Solar/Enclosure Location


1 - Ontare DCU
APN: 055-141-012
47 ft
APN: 055-141-043
property line
N
10'-0"
SCALE

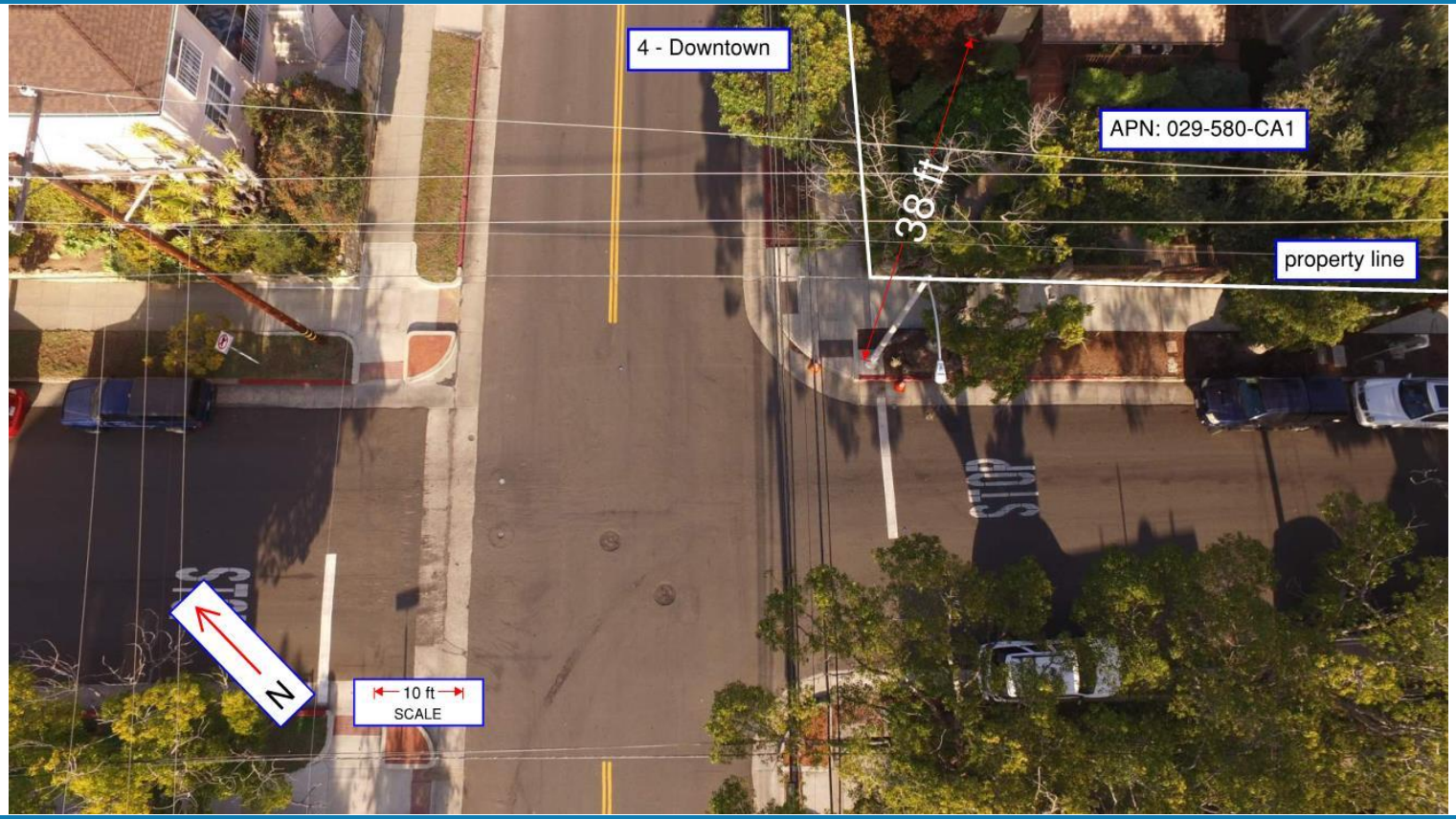
2 - Mesa West DCU
2618 Borton Dr
ROW No.: 2958
Pole Height: 20 ft
Antenna Height: 20 ft
Electrical Enclosure &
Solar Panel Height: 15 ft
View: West Facing
Antenna Location
Solar/Enclosure Location

APN: 041-260-021
2 - Mesa West DCU
APN: 041-260-020
39 ft
39 ft
property line
N
10'-0"
SCALE

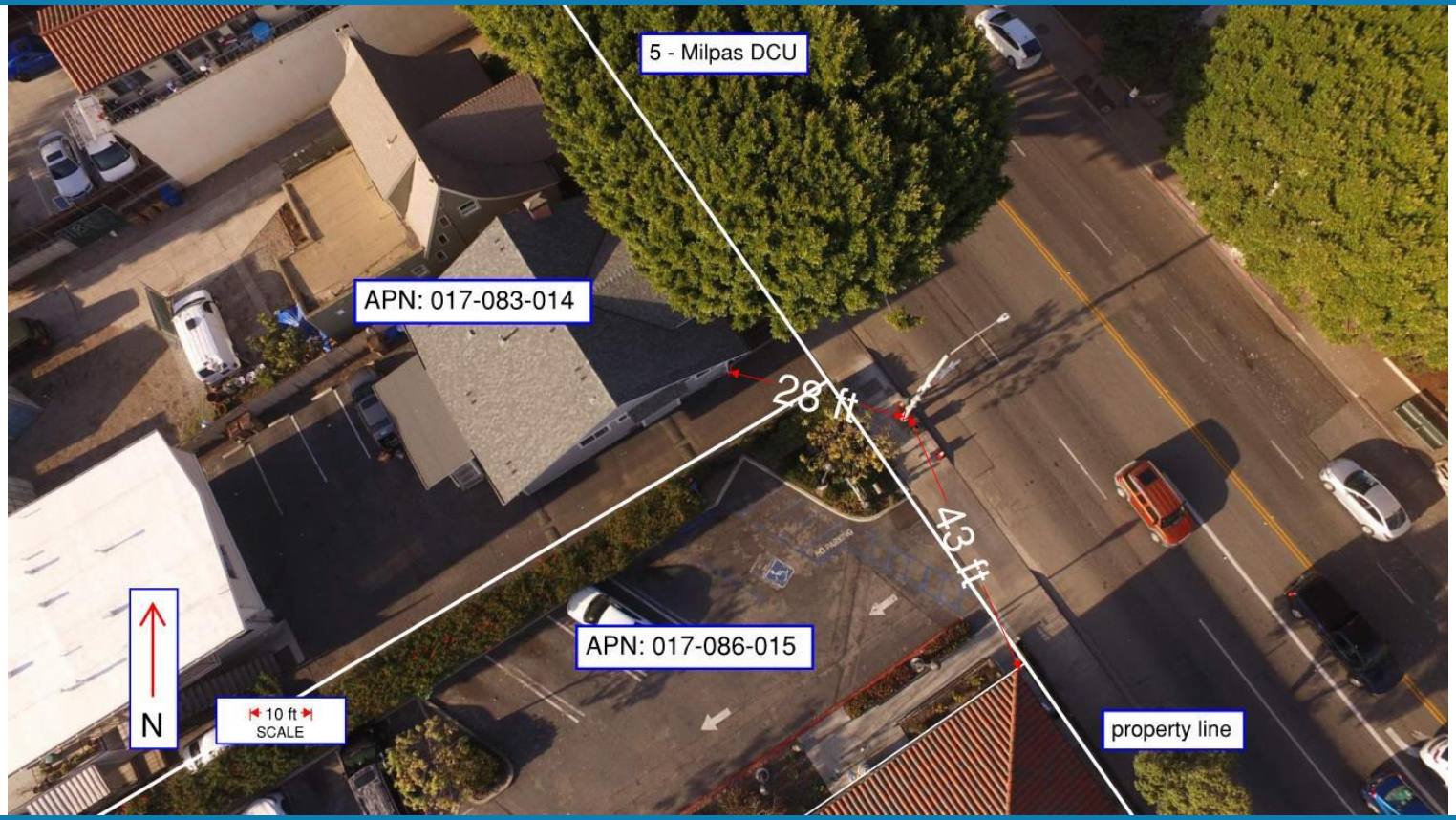
3 - Samarkand DCU
2605 Clinton Terrace x
Tallant Rd
ROW No.: 676
Pole Height: 27 ft
Antenna Height: 27 ft
Electrical Enclosure &
Solar Panel Height: 20 ft
View: Southeast Facing
Antenna Location
Solar/Enclosure Location
TALLANT
CLINTON
TERRACE

3 - Samarkland DCU
No Structures Within 50-ft
STOP
property line
APN: 051-330-003
N
10 ft
SCALE

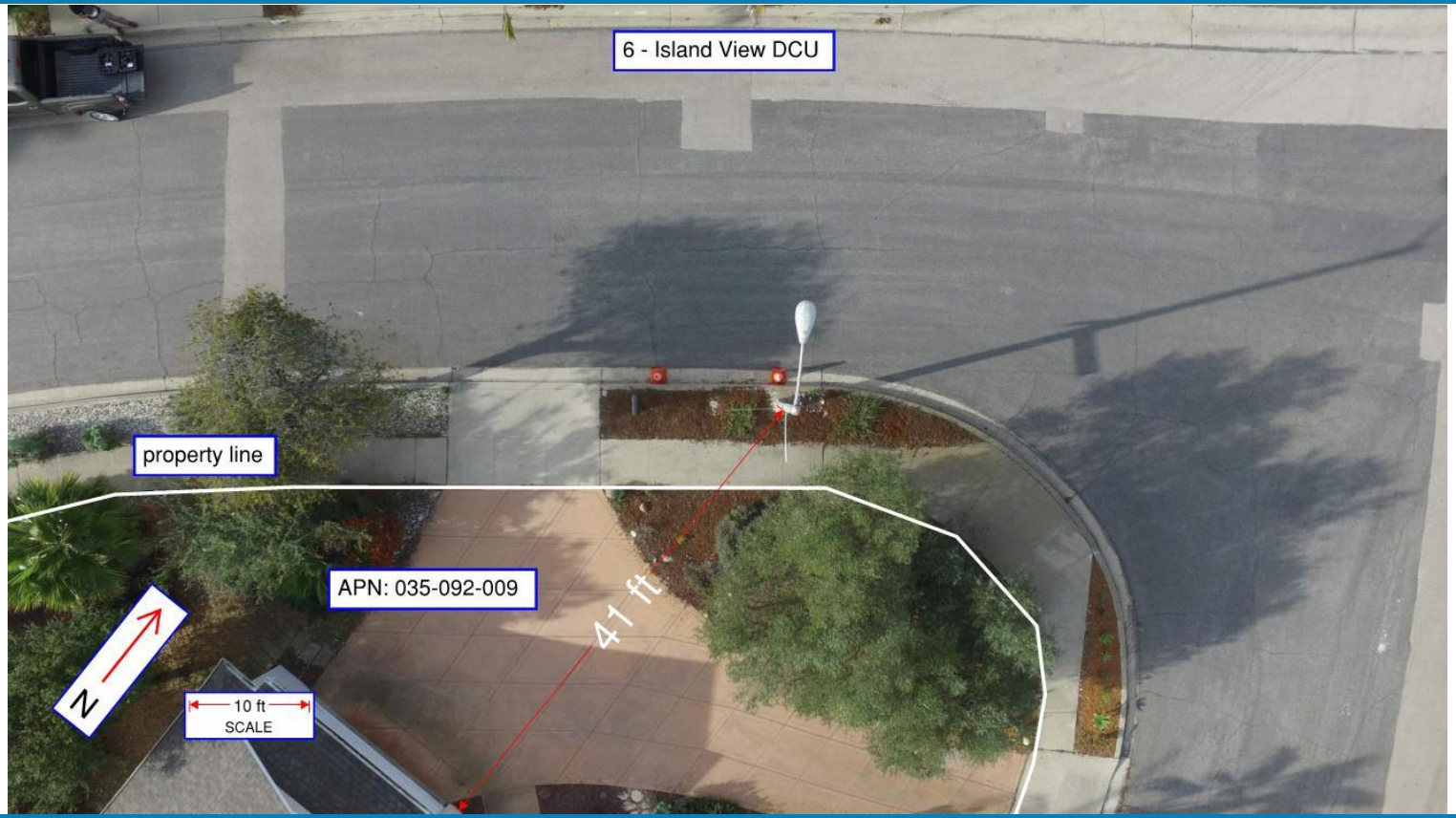
4 - Downtown
1436 Laguna St x
Micheltorena St
ROW No.: 984
Pole Height: 27 ft
Antenna Height: 27 ft
Electrical Enclosure &
Solar Panel Height: 25 ft
View: Southeast Facing
Antenna Location
Solar/Enclosure Location


4 - Downtown
APN: 029-580-CA1
38 ft
property line
N
10 ft
SCALE

5 - Milpas DCU
102 N Milpas St x
Mason St
ROW No.: 1528
Pole Height: 27 ft
Antenna Height: 27 ft
Electrical Enclosure &
Solar Panel Height: 20 ft
No Tree Trimming Required
View: West Facing
Antenna Location
Solar/Enclosure Location


5 - Milpas DCU
APN: 017-083-014
28 ft
43 ft
APN: 017-086-015
N
10 ft
SCALE
property line

6 - Island View DCU
716 Island View Dr x
Surf View Dr
ROW No.: 2242
Pole Height: 20 ft
Antenna Height: 20 ft
Electrical Enclosure &
Solar Panel Height: 18 ft
View: East Facing
Antenna Location
Solar/Enclosure Location


6 - Island View DCU
property line
APN: 035-092-009
41 ft
N
10 ft
SCALE

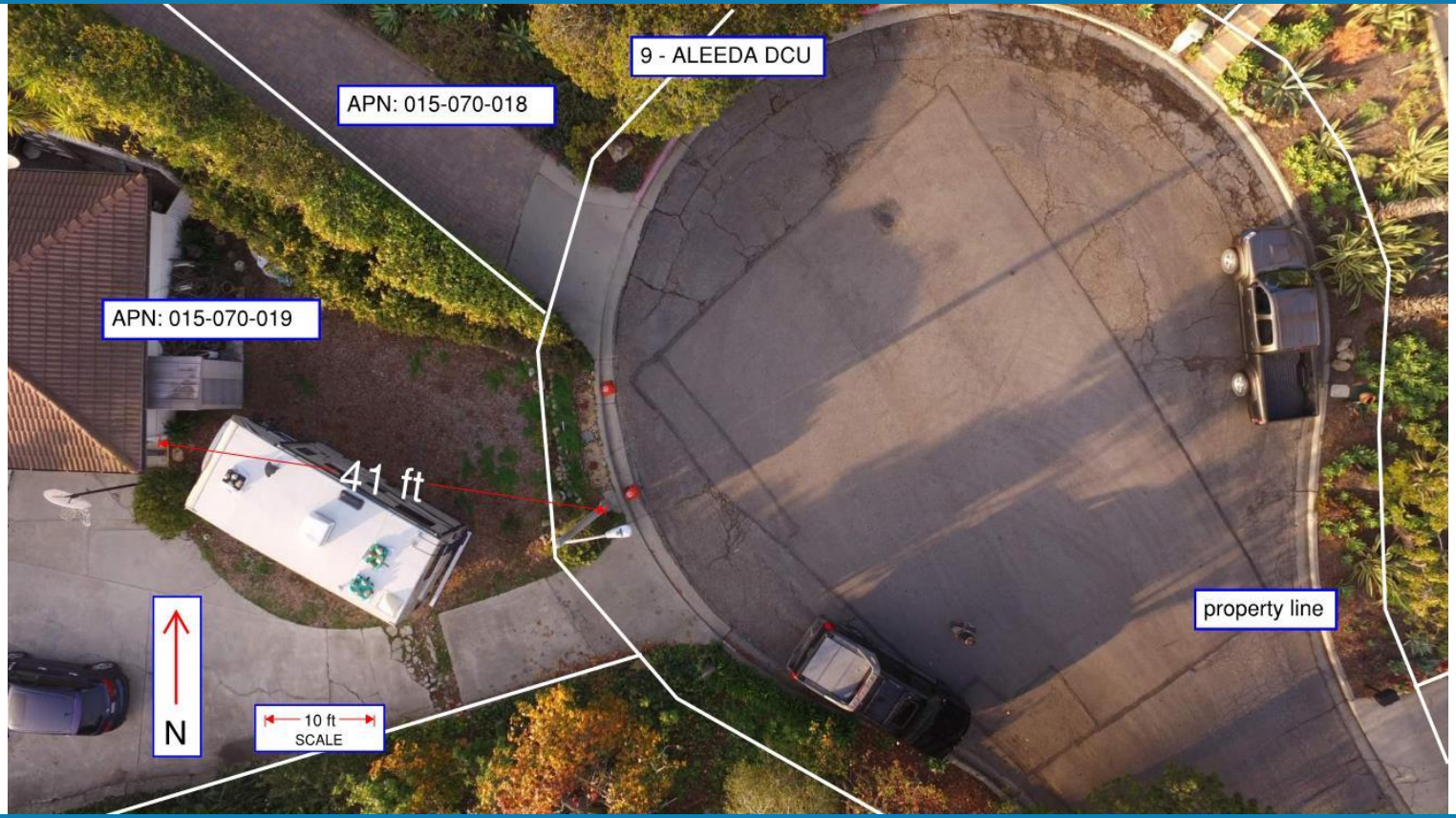
7 - Summit DCU
877 Summit Rd x
Rametto Rd
ROW No.: 2757
Pole Height: 25 ft
Antenna Height: 25 ft
Electrical Enclosure &
Solar Panel Height: 20 ft
View: Northwest Facing
Antenna Location
Solar/Enclosure Location
RAMETTO

7 - Summit DCU
APN: 015-320-009
property line
43 ft
APN: 015-213-004
N
10 ft
SCALE

8 - Coronada DCU
100 Coronada Cir x
Eucalyptus Hill Rd
ROW No.: 2686
Pole Height: 20 ft
Antenna Height: 20 ft
Electrical Enclosure &
Solar Panel Height: 18 ft
View: Northeast Facing
Antenna Location
Solar/Enclosure Location

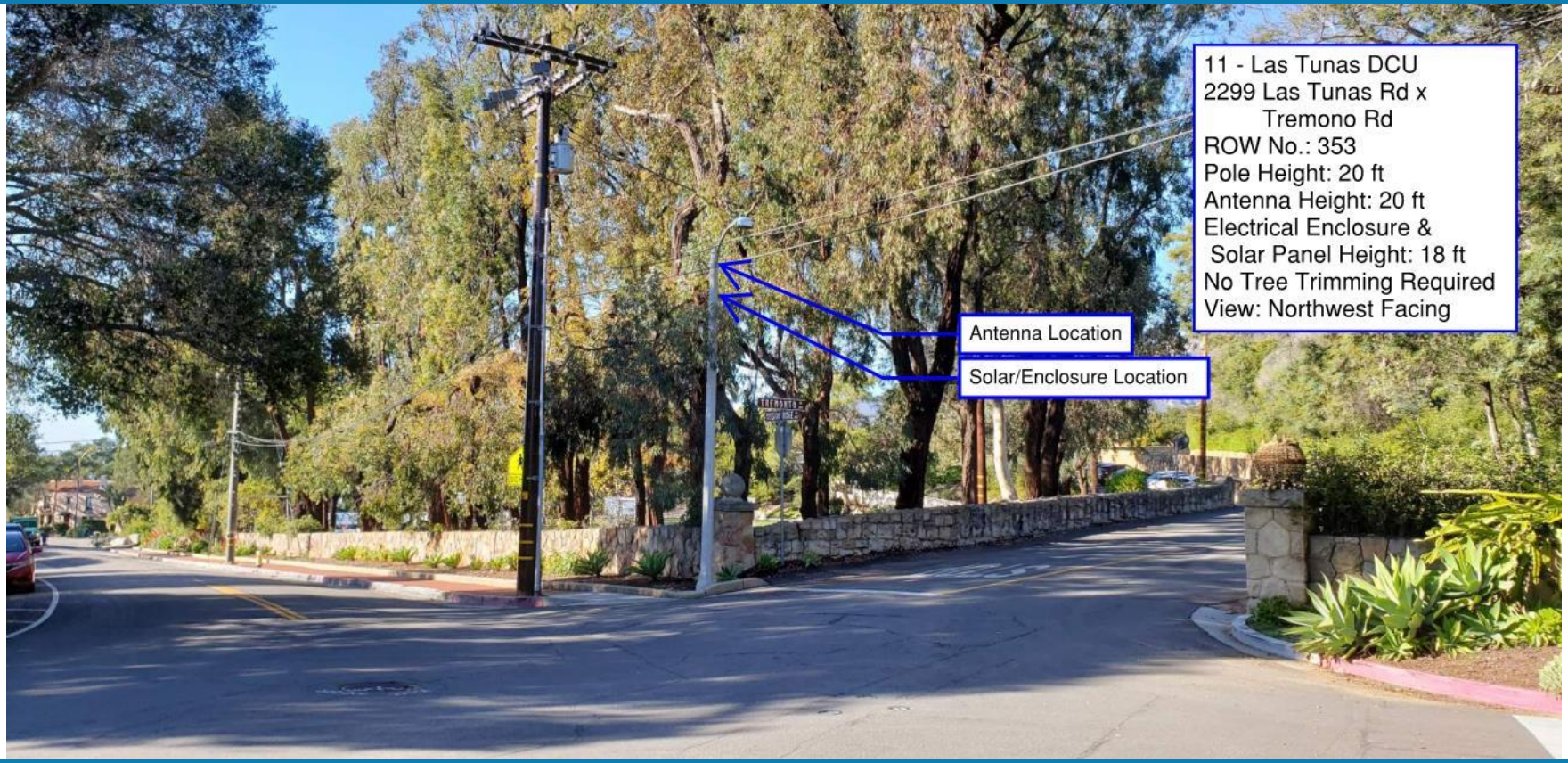
8 - CORONADA DCU
No Structures Within 50-ft
APN: 015-040-061
APN: 015-040-034
property line
N
10 ft
SCALE

9 - Aleeda DCU
900 Aleeda Ln x
Santecito Dr
ROW No.: 2688
Pole Height: 20 ft
Antenna Height: 20 ft
Electrical Enclosure &
Solar Panel Height: 18 ft
View: Southwest Facing
Antenna Location
Solar/Enclosure Location


9 - ALEEDA DCU
APN: 015-070-018
APN: 015-070-019
41 ft
property line
N
10 ft
SCALE

10 - Via Alicia DCU
49 Via Alicia
ROW No.: 2684
Pole Height: 20 ft
Antenna Height: 20 ft
Electrical Enclosure &
Solar Panel Height: 18 ft
View: North Facing
Antenna Location
Solar/Enclosure Location

10 - VIA ALICIA DCU
No Structures Within 50-ft
APN: 013-230-CA1
property line
N
10 ft
SCALE


11 - Las Tunas DCU
2299 Las Tunas Rd x
Tremono Rd
ROW No.: 353
Pole Height: 20 ft
Antenna Height: 20 ft
Electrical Enclosure &
Solar Panel Height: 18 ft
No Tree Trimming Required
View: Northwest Facing
Antenna Location
Solar/Enclosure Location

11 - LAS TUNAS DCU
APN: 019-071-012
No Structures Within 50-ft
property line
N
10 ft
SCALE

12 - Crestline DCU
1226 Crestline Dr
ROW No.: 1644
Pole Height: 16 ft
Antenna Height: 16 ft
Electrical Enclosure &
Solar Panel Height: 15 ft
No Tree Trimming Required
View: Southwest Facing
Antenna Location
Solar/Enclosure Location
SPEED LIMIT 25

12 - CRESTLINE DCU
APN: 049-181-002
APN: 049-181-003
30 ft
property line
N
10 ft
SCALE

13 - Andalucia DCU
2507 Calle Andalucia x
Calle Galicia
ROW No.: 2892
Pole Height: 20 ft
Antenna Height: 20 ft
Electrical Enclosure &
Solar Panel Height: 15 ft
View: East Facing
Antenna Location
Solar/Enclosure Location

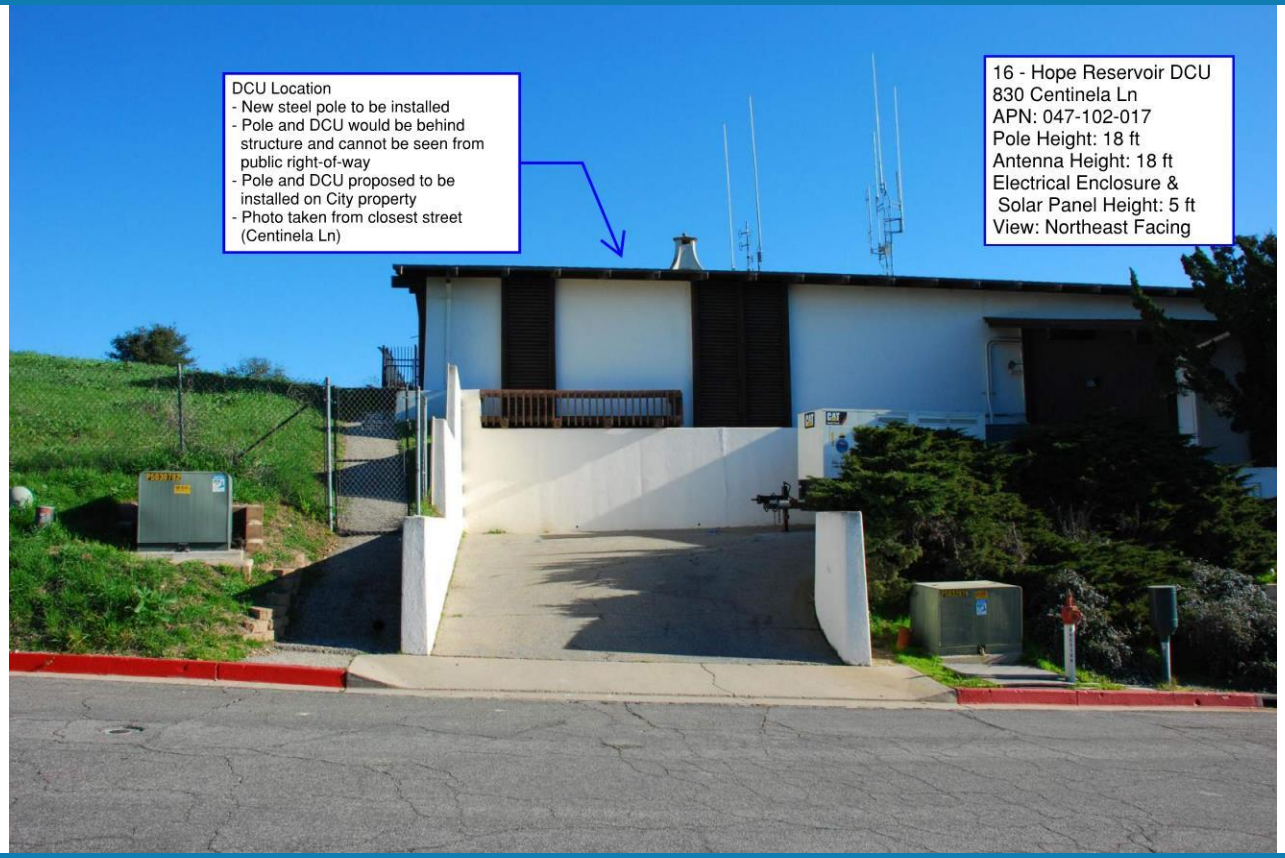
13 - ANDALUCIA DCU
APN: 041-421-001
39 ft
property line
N
10 ft
SCALE

14 - Miramonte DCU
726 Miramonte Dr x
Via Del Cielo
ROW No.: 2176
Pole Height: 16 ft
Antenna Height: 16 ft
Electrical Enclosure &
Solar Panel Height: 14 ft
View: North Facing
DCU Simulation
VIA DEL CIELO
MIRAMONTE

14 - MIRAMONTE DCU
APN: 035-050-059
No Structures Within 50-ft
property line
STOP
N
10 ft
SCALE

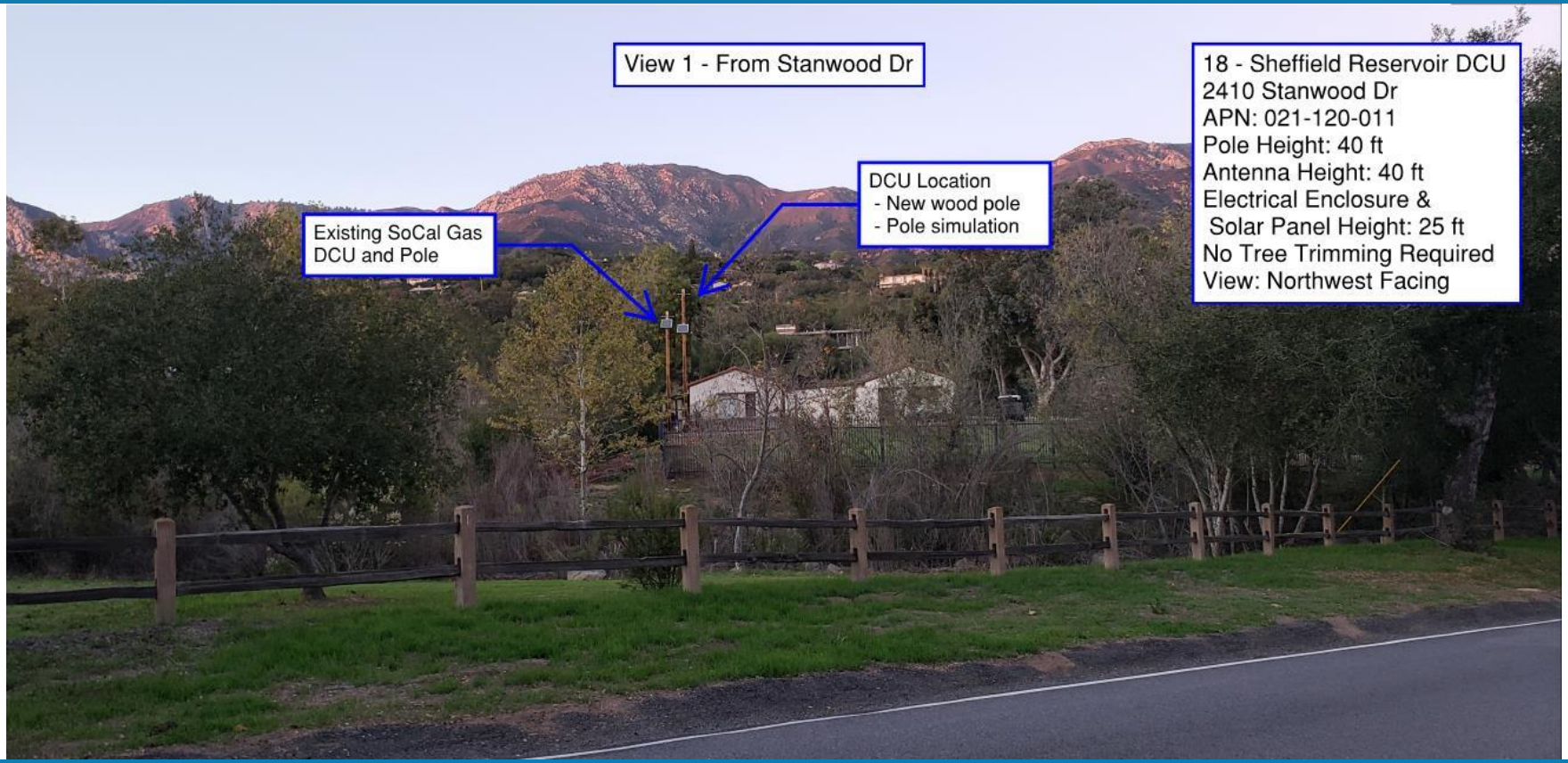
15 - Terrace DCU
411 Terrace Rd x
Cliff Dr
ROW No.: 2319
Pole Height: 16 ft
Antenna Height: 16 ft
Electrical Enclosure &
Solar Panel Height: 14 ft
View: North Facing
Antenna Location
Solar/Enclosure Location

15 - TERRACE DCU
APN: 035-192-008
APN: 035-192-007
property line
39 ft
N
10 ft
SCALE


DCU Location
- New steel pole to be installed
- Pole and DCU would be behind structure and cannot be seen from public right-of-way
- Pole and DCU proposed to be installed on City property
- Photo taken from closest street (Centinela Ln)
16 - Hope Reservoir DCU
830 Centinela Ln
APN: 047-102-017
Pole Height: 18 ft
Antenna Height: 18 ft
Electrical Enclosure &
Solar Panel Height: 5 ft
View: Northeast Facing

View 1 - View from
Mt Calvary Rd
Existing SoCal Gas
DCU and pole
DCU Location
- New wood pole
- Pole simulation
17 - El Cielito Reservoir DCU
2114 Mt Calvary Rd
APN: 021-040-028
Pole Height: 40 ft
Antenna Height: 40 ft
Electrical Enclosure &
Solar Panel Height: 25 ft
No Tree Trimming Required
View: North Facing

17 - El Cielito Reservoir DCU
View 2 - View from Mt Calvary Rd
View: West Facing
DCU Location
- New wood pole
- Pole simulation
- Pole and DCU screened by trees


View 1 - From Stanwood Dr
18 - Sheffield Reservoir DCU
2410 Stanwood Dr
APN: 021-120-011
Pole Height: 40 ft
Antenna Height: 40 ft
Electrical Enclosure &
Solar Panel Height: 25 ft
No Tree Trimming Required
View: Northwest Facing
DCU Location
- New wood pole
- Pole simulation
Existing SoCal Gas
DCU and Pole

18 - Sheffield Reservoir DCU
View 2 - From walking paths
View: East Facing
DCU Location
- New wood pole
- Pole simulation
- Pole and DCU are completely screened by trees

19 - Vic Trace Reservoir DCU
1632 La Coronilla Dr
APN: 035-033-031
Pole Height: 30 ft
Antenna Height: 30 ft
Electrical Enclosure &
Solar Panel Height: 10 ft
DCU Location
- New wood pole
- Pole and DCU cannot be seen from public right-of-way
- Pole and DCU proposed to be installed on City property
- Pole is approximately 345 ft from ROW
- Photo taken from closest street (La Coronilla Dr) 90 deg from proposed location

19 - VIC TRACE DCU
Proposed DCU cannot be seen from La Vista Del Oceano ROW
Proposed DCU Location
Existing SoCal Gas DCU
Street photo taken from here
Google Earth

Design Considerations

- Outside of El Pueblo Viejo District
- Minimized number of units within City limits
- No added lighting
- No added sound
- Sleek modern design
- Uniform design
- Limited installation onto ornamental fixtures to one location
- Avoided pedestrian traffic line-of-sight
- Historic structures were avoided
- Co-located onto existing infrastructure
- Limited tree trimming impacts

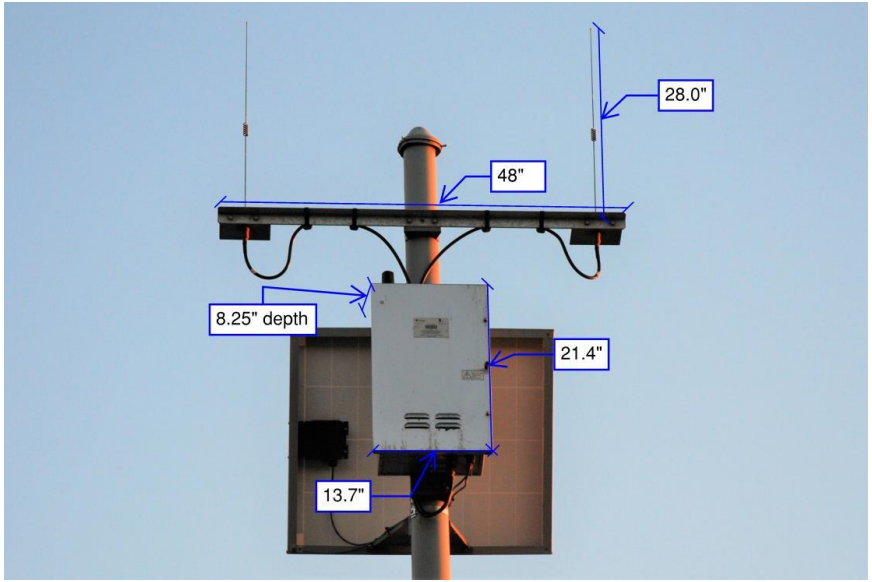
Thank You!

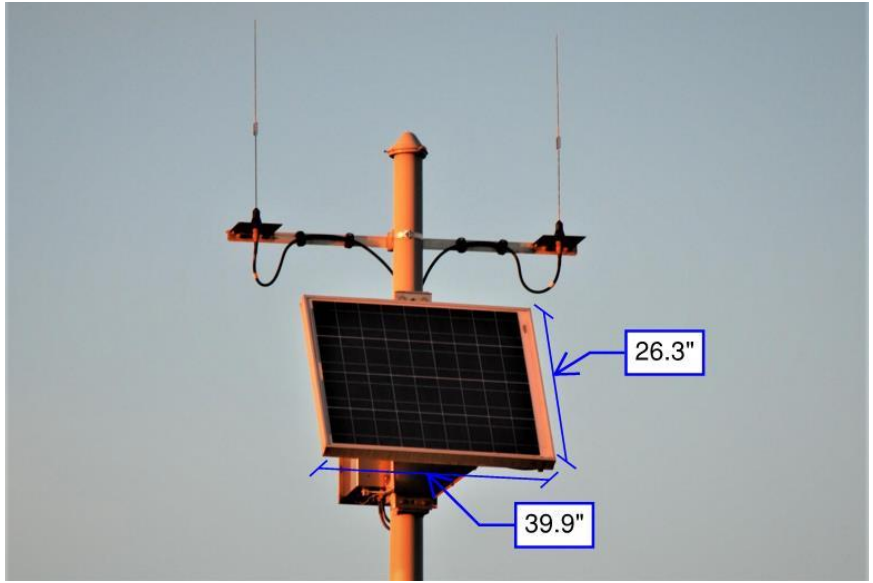
Questions?

Proposed DCU Locations

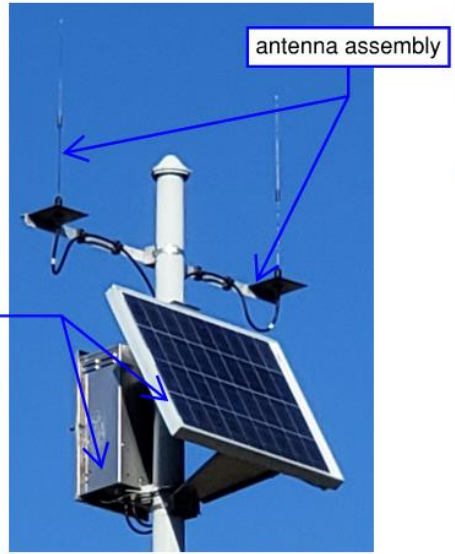
No.	Designation	Approximate Address	ROW or APN	Information on Pole to be Used for Mounting	Pole Height (ft)	Antenna Height (ft)	Electrical Enclosure / Solar Panel Height (ft)
1	ONTARE	23 Francisco Dr	2464	Existing Concrete Light Pole	20	20	15
2	MESA WEST	2619 Borton Dr	2958	Existing Concrete Light Pole	20	20	15
3	SAMARKAND	2605 Clinton Terrace	676	Existing Concrete Light Pole	27	27	20
4	DOWNTOWN	400 Micheltorena	984	Existing Concrete Light Pole	27	27	25
5	MILPAS	102 N Milpas St	1528	Existing Concrete Light Pole	27	27	20
6	ISLAND VIEW	716 Island View Dr	2242	Existing Concrete Light Pole	20	20	18
7	SUMMIT	877 Summit Rd	2757	Existing Concrete Light Pole	25	25	20
8	CORONADA	100 Coronada Cir	2686	Existing Concrete Light Pole	20	20	18
9	ALEEDA	900 Aleeda Ln	2688	Existing Concrete Light Pole	20	20	18
10	VIA ALICIA	49 Via Alicia	2684	Existing Concrete Light Pole	20	20	18
11	LAS TUNAS	2299 Las Tunas Rd	353	Existing Concrete Light Pole	20	20	18
12	CRESTLINE	1237 Crestline Dr	1644	Existing Concrete Light Pole	16	16	15
13	ANDALUCIA	2507 Calle Andalucia	2892	Existing Concrete Light Pole	20	20	15
14	MIRAMONTE	726 Miramonte Dr	2176	Existing Concrete Light Pole	16	16	14
15	TERRACE	404 Terrance Rd	2319	Existing Concrete Light Pole	16	16	14
16	HOPE RES	830 Centinela Ln	047-102-017	New Metal Pole	18	18	5
17	EL CIELITO RES	2114 Mt Calvary Rd	021-040-028	New Wood Pole	40	40	25
18	SHEFFIELD RES	2410 Stanwood Dr	021-120-011	New Wood Pole	40	40	25
19	VIC TRACE RES	1632 La Coronilla Dr	035-033-031	New Wood Pole	30	30	10

DCU Component Dimensions





A DCU is composed of an antenna assembly, solar panel, and electrical enclosure. These would be mounted in a similar way at all the proposed locations. Electrical enclosures and solar panels would be mounted at the same elevation. All new DCUs are solar powered. Solar panels would be oriented to face south towards the sun.



Link to Lighting Standard Details

- https://www.santabarbaraca.gov/civicax/filebank/blobdload.aspx?BlobID=34133