Commercial Wireless Facilities within Historic Districts

Wide Area Small Cell Deployment, within the Public Right-of-Way, at various historic districts in the northeast and SOMA

Architectural Review Committee of the San Francisco Historic Preservation Commission

Hearing Date | March 4, 2015

Staff | Omar Masry, Wireless Planner

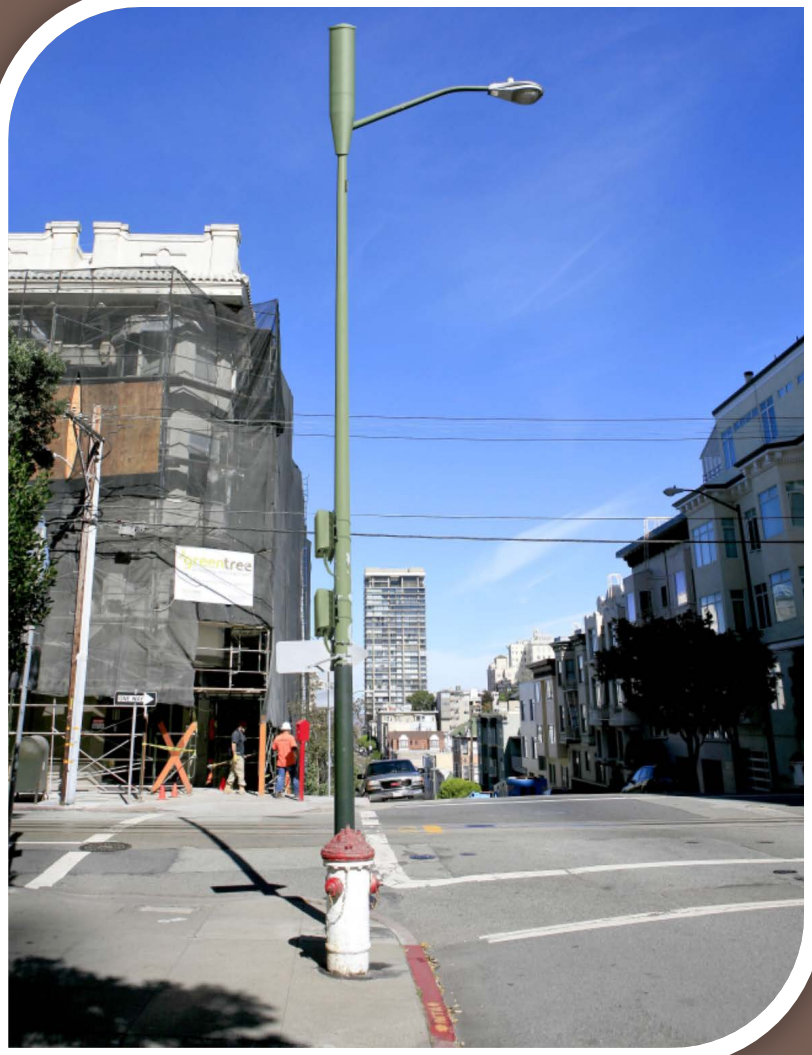

Photo simulation as seen looking southwest from Greenwich Street

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at&t

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Typical Macro rooftop wireless Facility

Average of 3 to 16 panel antennas

Known Historic Resource

3 Panel Antennas within faux vent pipes and equipment cabinets inside building

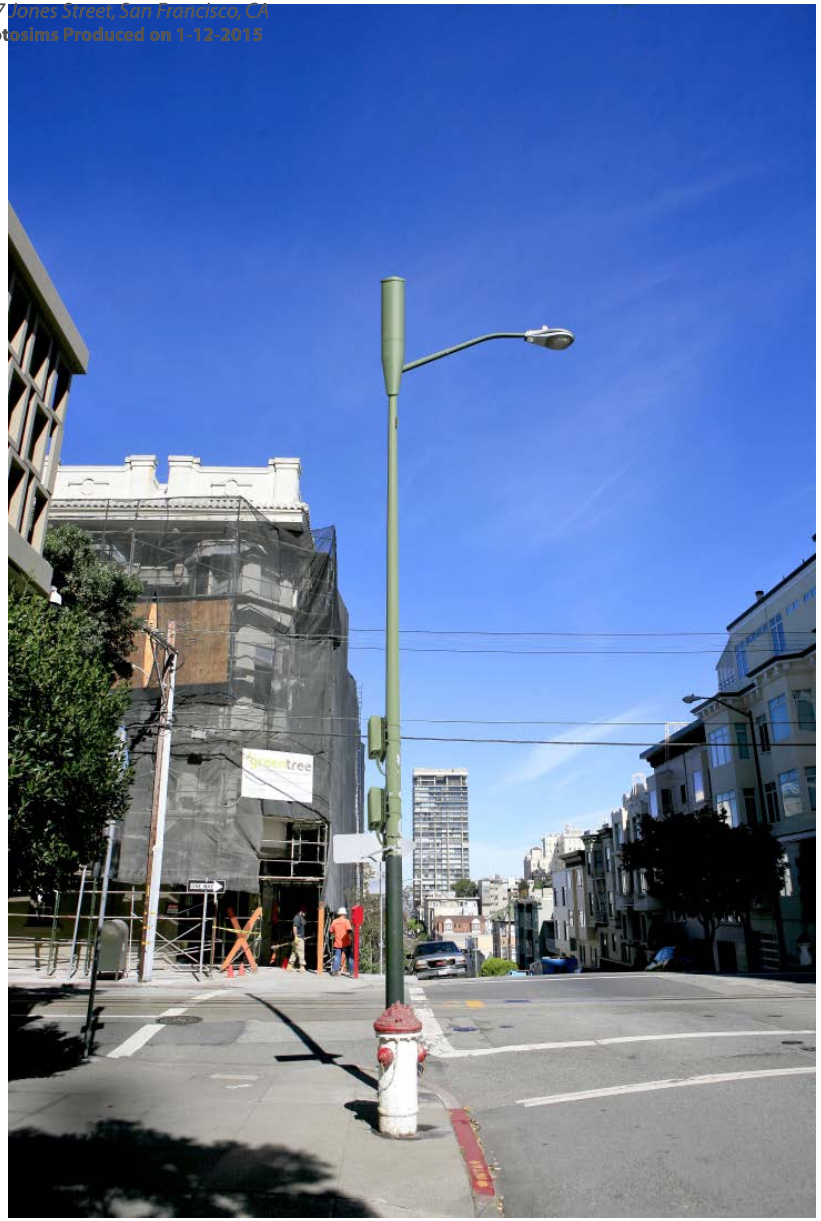
Approved Design

view from Jones Street looking north at site

MTAPOLY-VZW Node 211

1367 Jones Street, San Francisco, CA

Photosims Produced on 1-12-2015



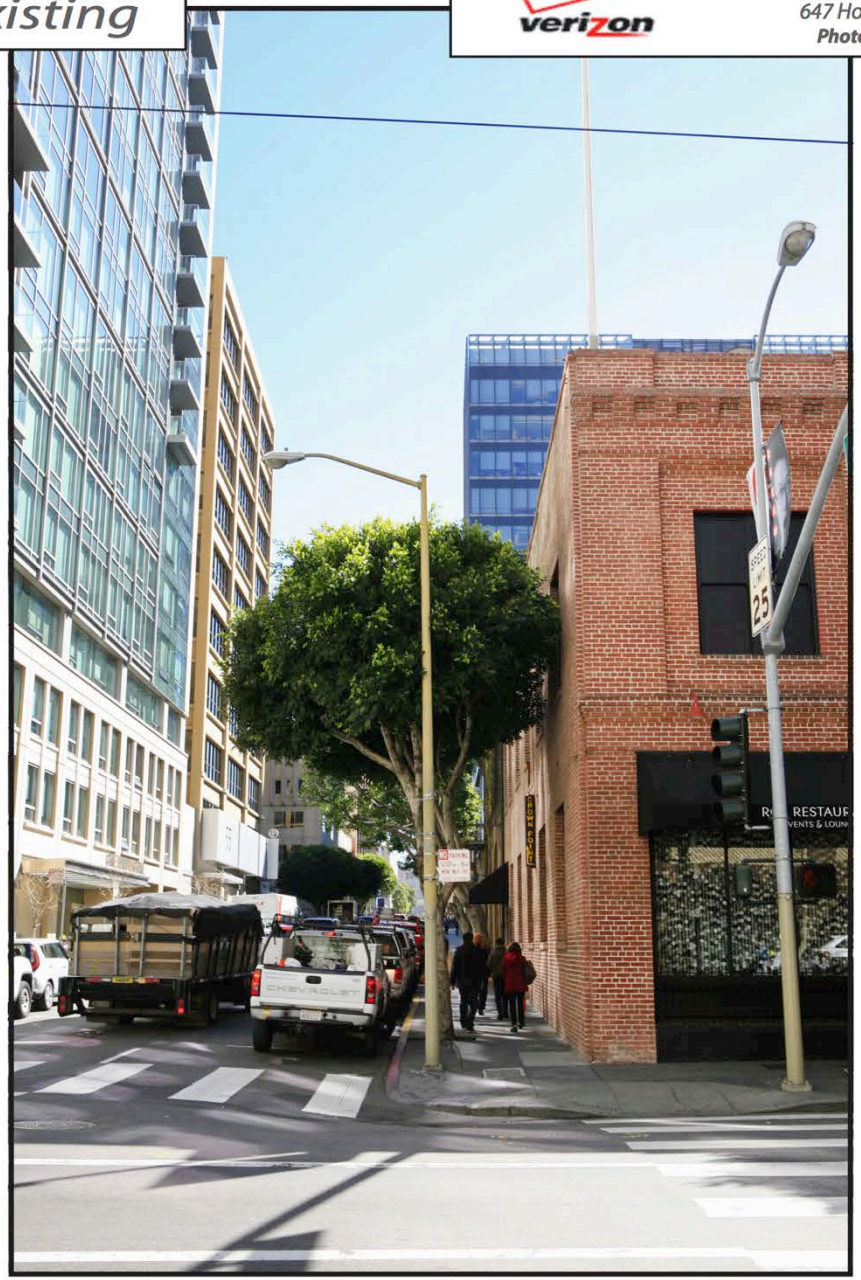
Current Proposed Small Cell on SFPUC Light poles, by Extenet, for Verizon Wireless

view from Howard Street looking southeast at site

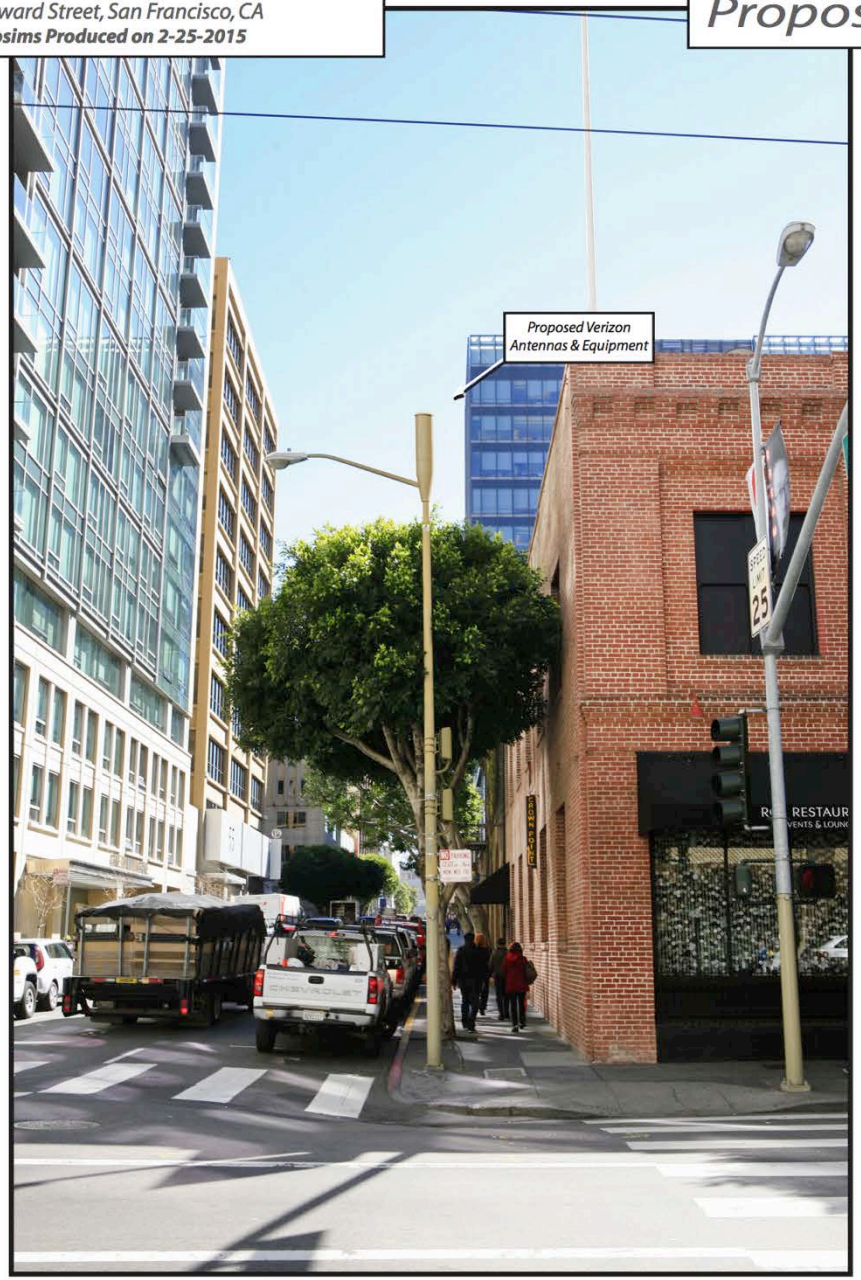
verizon

SF LM PH1 SC50
647 Howard Street, San Francisco, CA
Photosims Produced on 2-25-2015

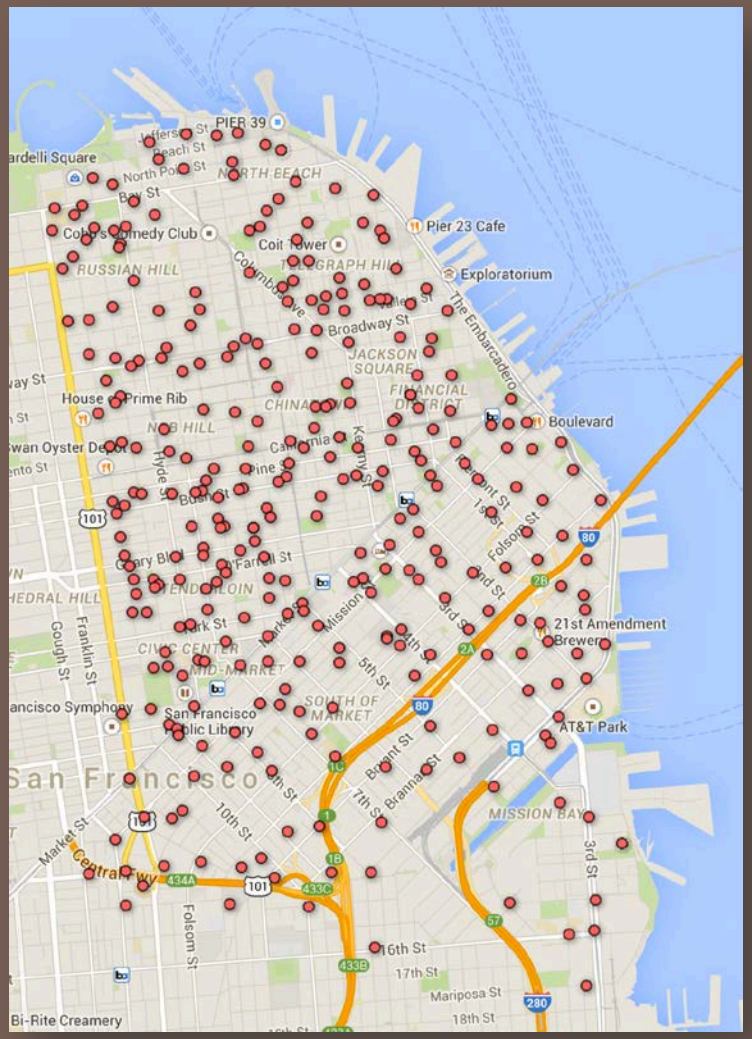
Existing

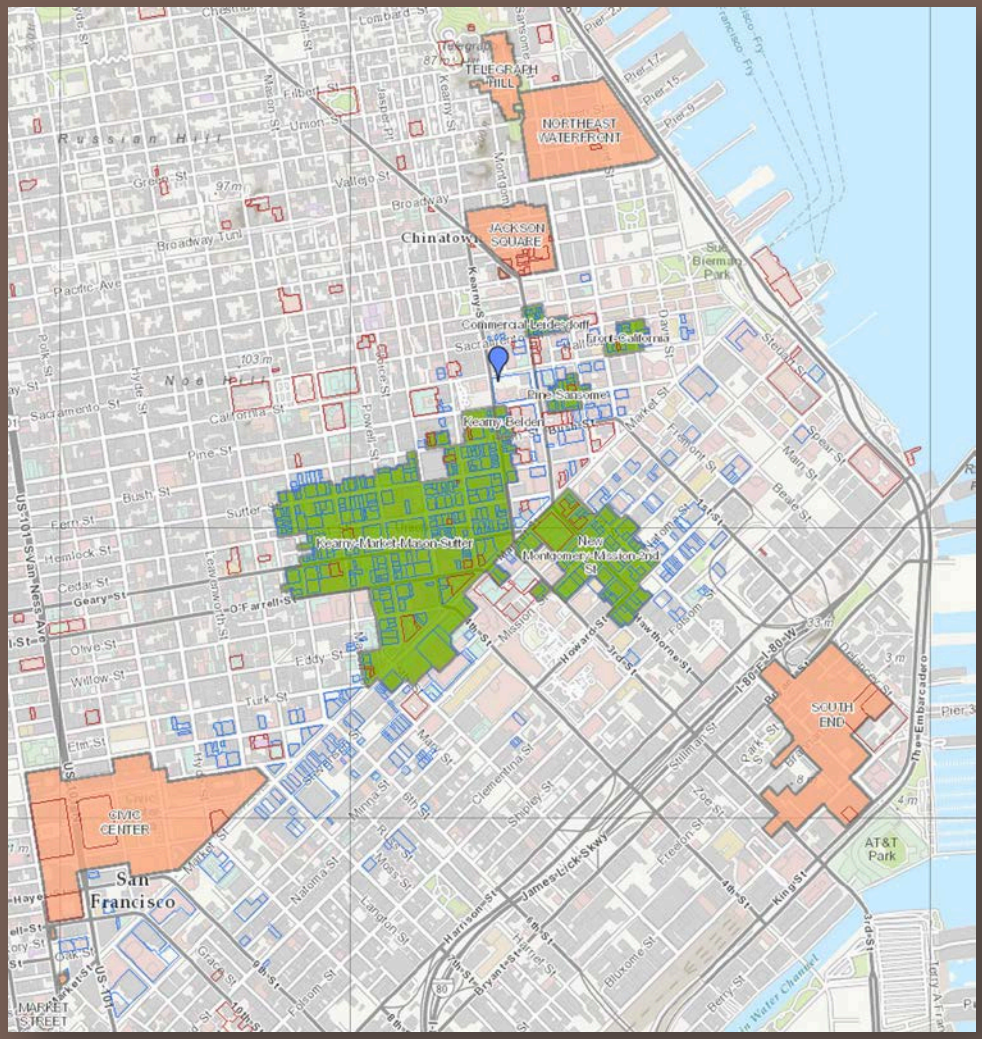


Proposed



Initial proposal includes 40+ facilities specifically within Article 10 & 11 Districts in SOMA & Northeast of City (generally east of Van Ness Avenue and north of Market Street)





300+ total facilities proposed on steel poles in Northeast, Mission Bay, & SOMA

= Article 10 Landmark Districts

= Article 11 Preservation Districts

Previous Proposals

Disapproved Design

Replacement transit (electric MUNI bus/rail) pole with panel antennas, and 4 boxes, including equipment cabinet, battery backup, disconnect, and meter

1 of 9 locations for AT&T Mobility in small-scale residential neighborhoods of Haight-Ashbury and the Marina

Context Example

Phillips/Ericsson “ZeroSite” | Composite Pole with panel antennas inside & equipment in base | Appears too large for most small-scale SF streets

Context Example

Small Cell Facility by Mobilitie in Chicago

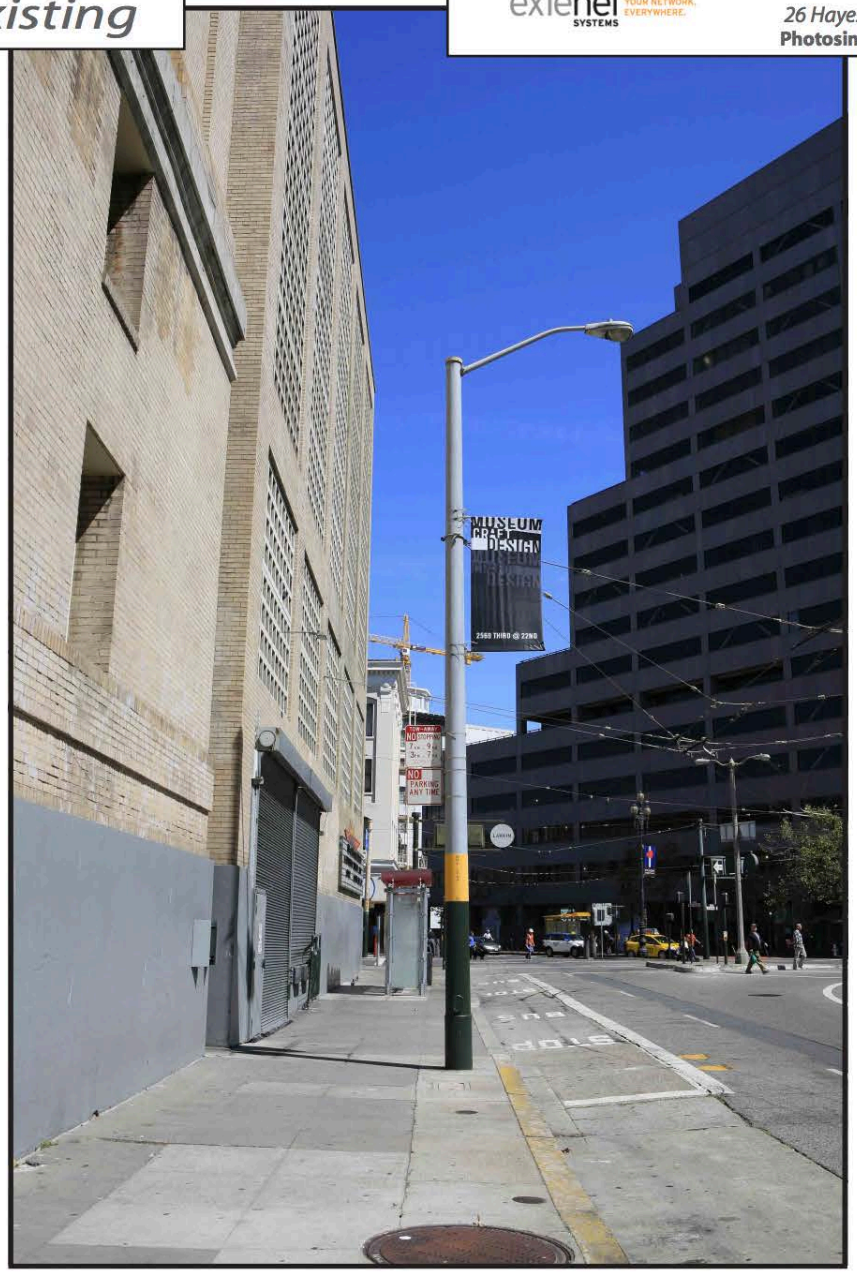
ARC Attachment | Typical SFMTA Pole

view from Hayes Street looking east at site

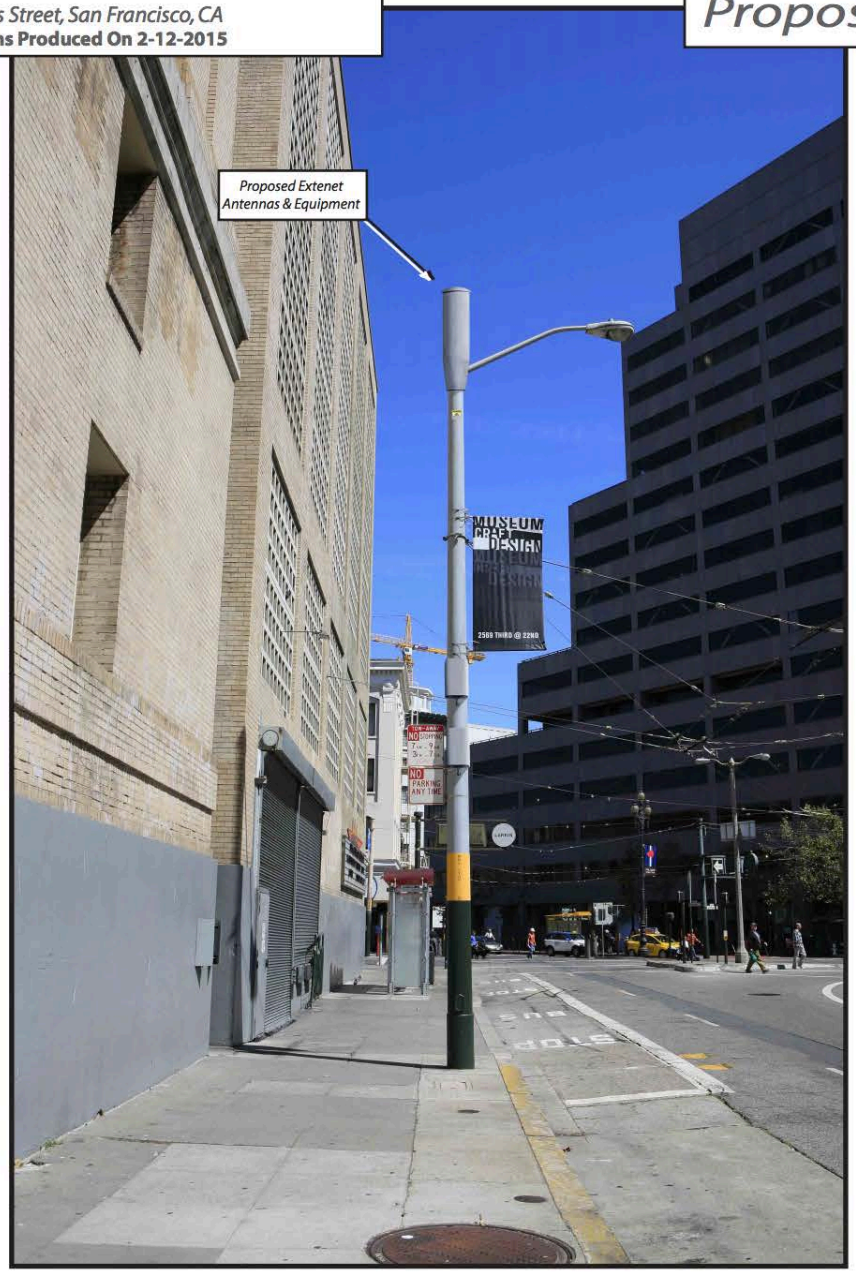
extenet SYSTEMS YOUR NETWORK, EVERYWHERE.

MTAPOLY-VZW Node 303
26 Hayes Street, San Francisco, CA
Photosims Produced On 2-12-2015

Existing



Proposed



10.5 inch antenna enclosure on slim light poles

14 inch antenna enclosure on wide transit poles

Small RF Warning Sticker (white & blue)

Cabling located inside pole

(2) Radio Relay Units
(computers for power and communications)
No fan noise, lights, logos or decals

No major street trenching required
In some instances a 2’ x 3’ sidewalk-flush vault is required

1 of 3
Pole Types

SFMTA Owned Pole | Wider pole featuring cobra head light and supporting overhead electric lines for buses and light rail

View from Market Street looking northeast at site

extenet SYSTEMS YOUR NETWORK. EVERYWHERE.

MTAPOLY-VZW Node 15
1200 Market Street, San Francisco, CA
Photosims Produced on 2-20-2015

Existing

Proposed

Proposed Design for SFMTA (MUNI) Transit Poles (with no lighting)

extenet SYSTEMS

PUC9 / Steel Pole

San Francisco, CA

6/25/14

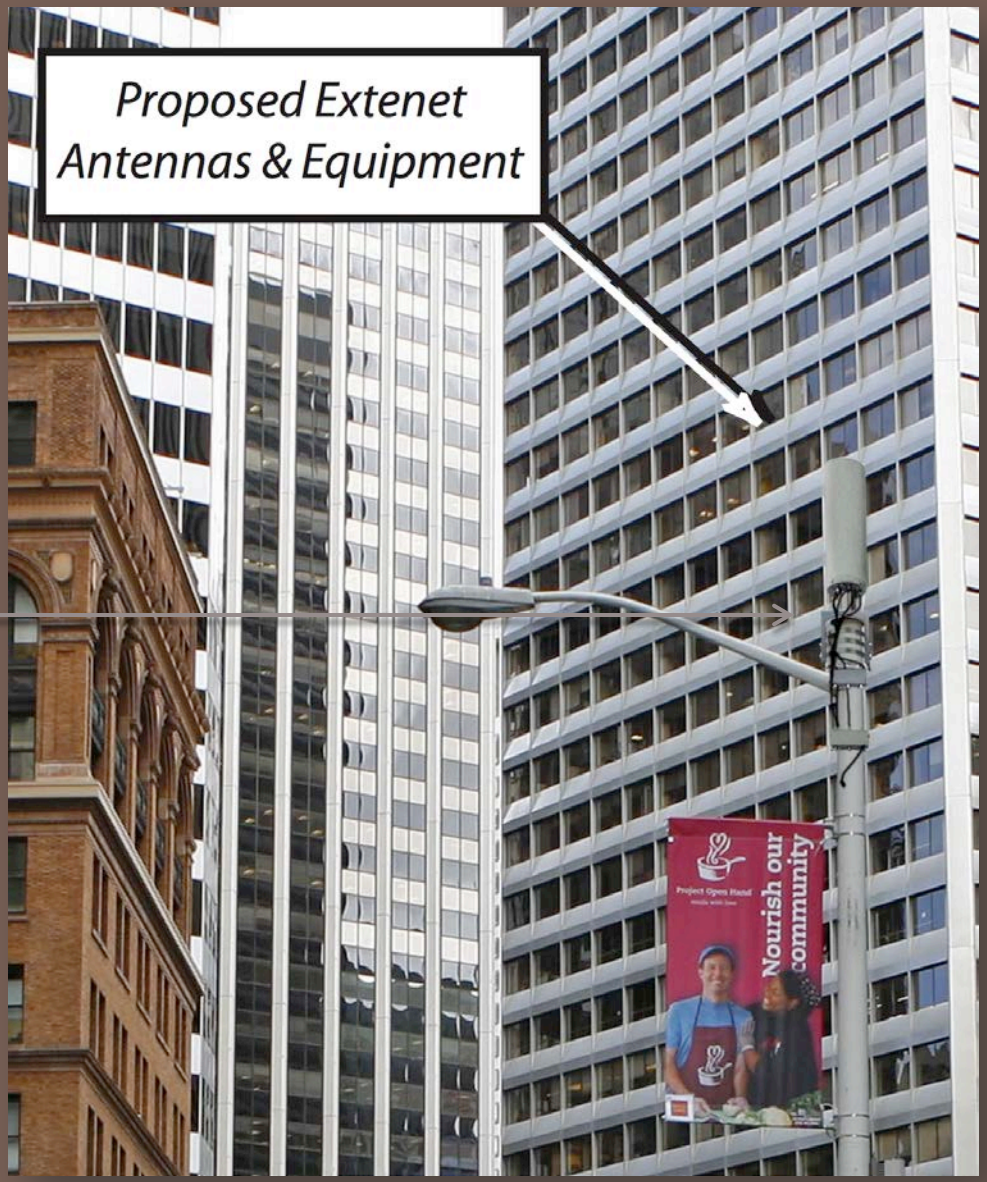
Applied Imagination 510 914-0500

Context Example

Initial Concept (1 of 2)
Offset arm not supported by Planning

Exposed cabling & passive gear not supported by Planning

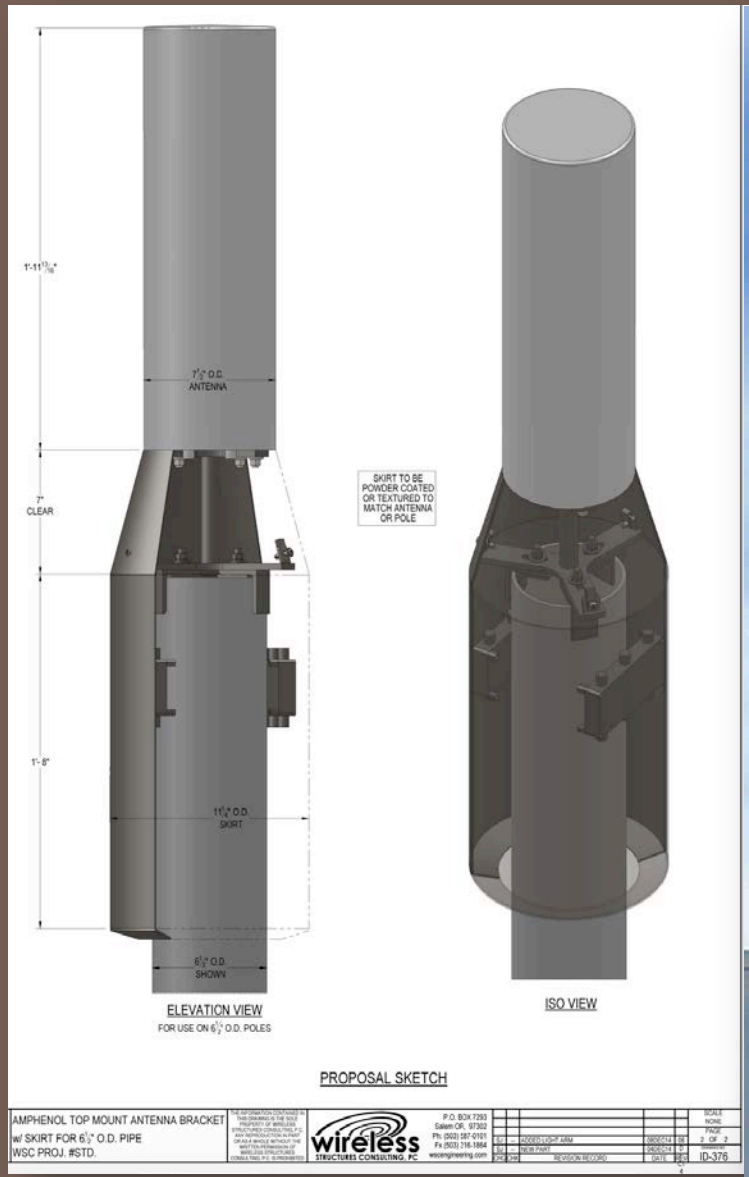
Shroud needed



Context Example

Initial mockup on standard steel tapered light pole owned by San Francisco Public Utilities Commission (SFPUC)

Context
Example

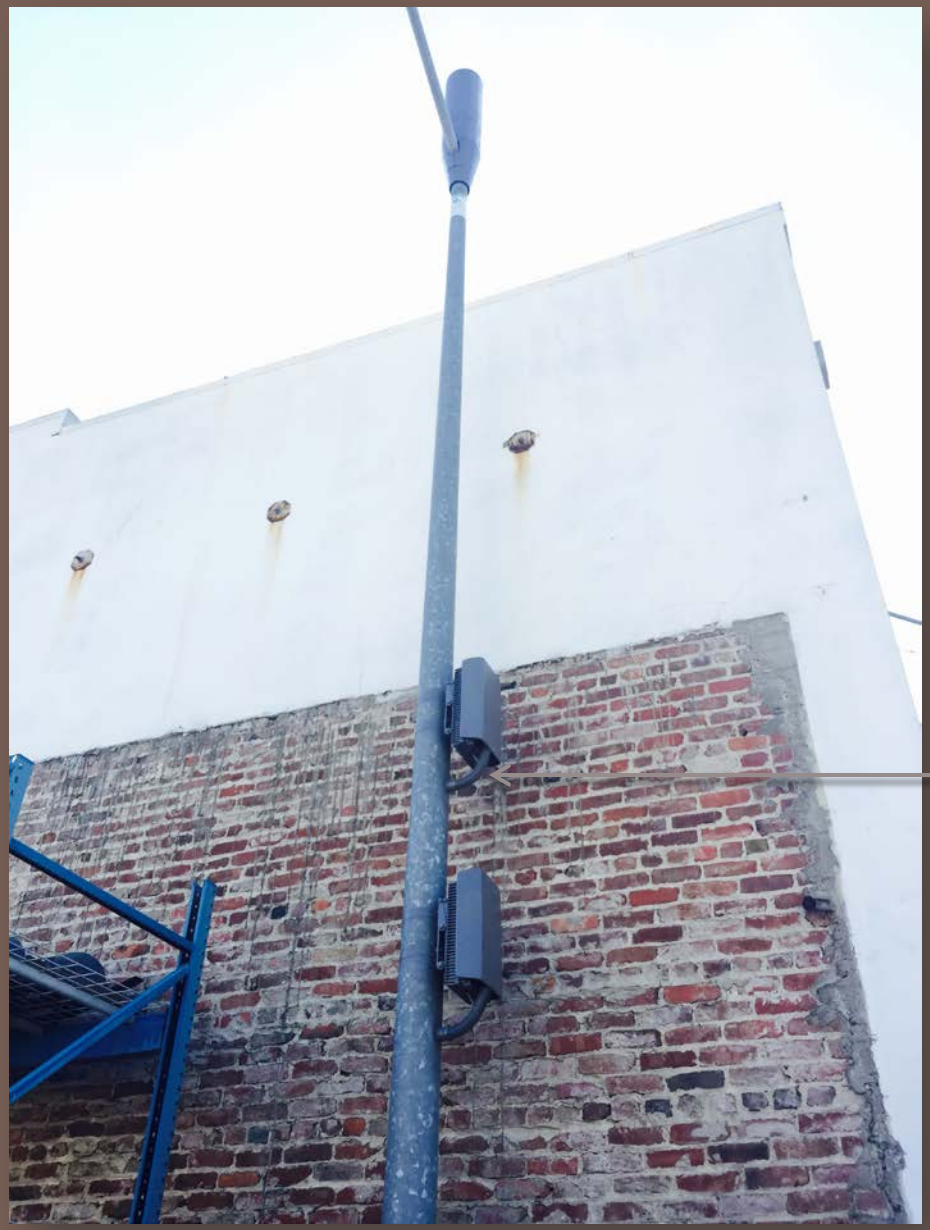


Initial Mockup

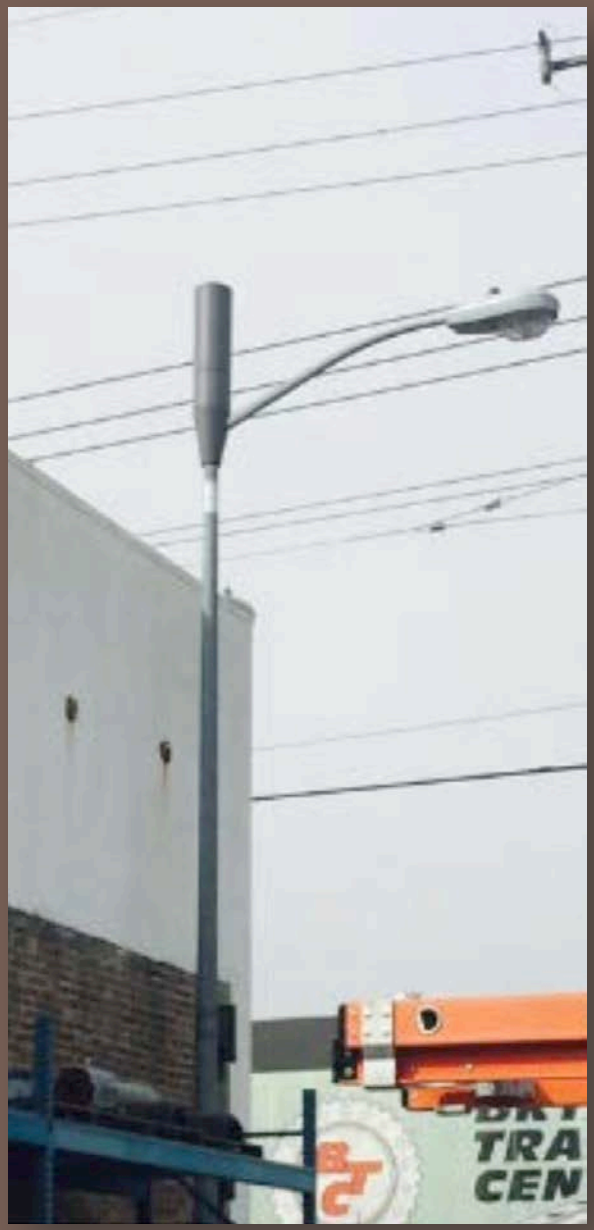
Initial mockup on standard steel tapered light pole owned by San Francisco Public Utilities Commission (SFPUC)

Initial mockup featured extra RF warning sticker (not required at this location) and cabling dropping substantially below each radio relay unit (computer)

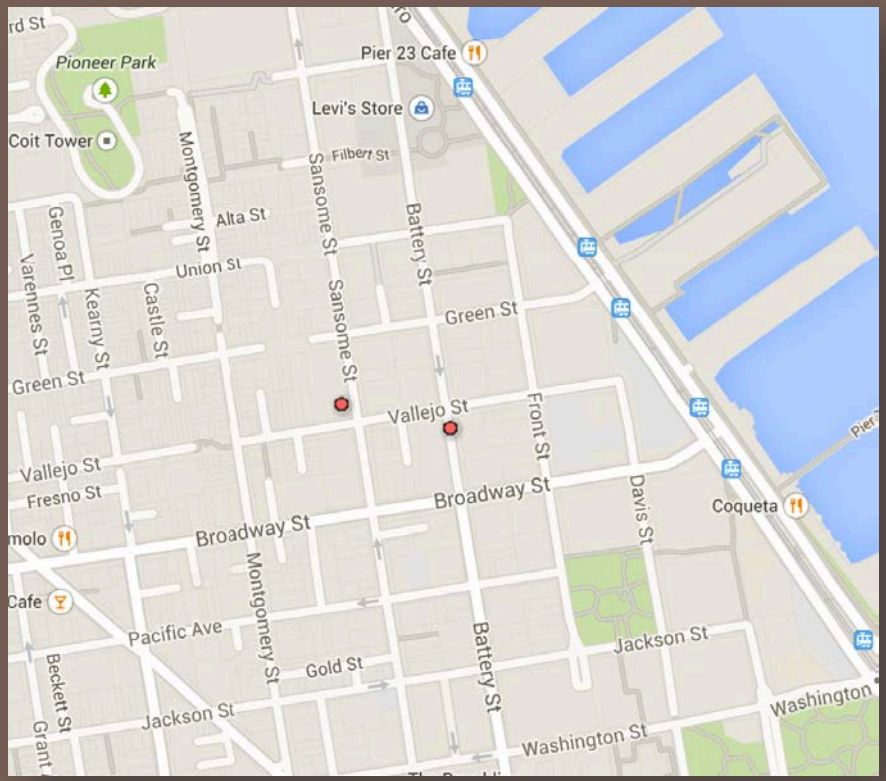
Context
Example



cabling below RRUs
(boxes midway down pole)



Mockup of Small Cell on Standard Light Poles, by Extenet, for Verizon Wireless

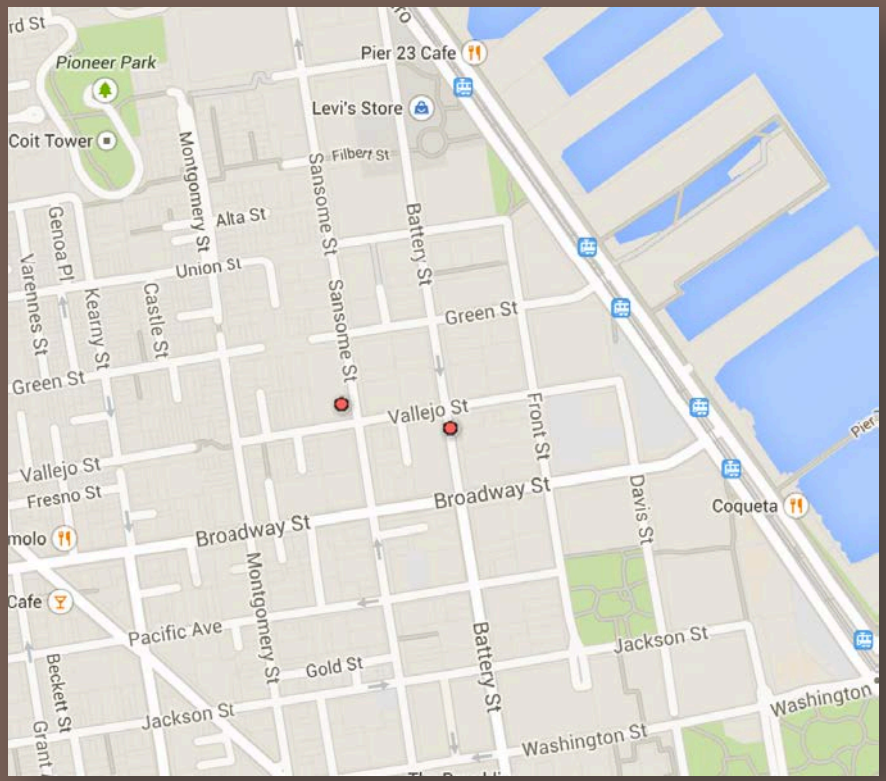


67 facilities proposed in SOMA (24) and NE (43) on wooden utility poles, not owned by the City

2 of the 67 sites proposed on wooden utility poles within Northeast Waterfront Landmark District (Article 10)

Location 1 of 2
(Sansome Street)

1 pole each, adjacent to 1025 Sansome Street and 848 Battery Street



Planning continuing to work on reducing overall pole height increase and width of electric meter

Location 1 of 2 (Sansome Street)

at 1025 Sansome Street and 848 Battery Street

ARC Attachment | Joint Pole Association
Pole at 848 Battery Street

COA includes 2 sites on wooden utility poles in Northeast Waterfront Landmark District (Article 10) at 1025 Sansome Street and 848 Battery Street

CROWN CASTLE

Node SF SS05M

1531 40th Avenue
San Francisco, CA 94121

6/10/14

Looking South from 40th Avenue

View #2

Applied Imagination 510 914-0500

12 new DAS sites proposed in Richmond/Sunset

- Crown Castle for Verizon Wireless
- Does not include large/bulky battery cabinet & power meter on pole across street
- Design not supported by Planning. Re-design under way

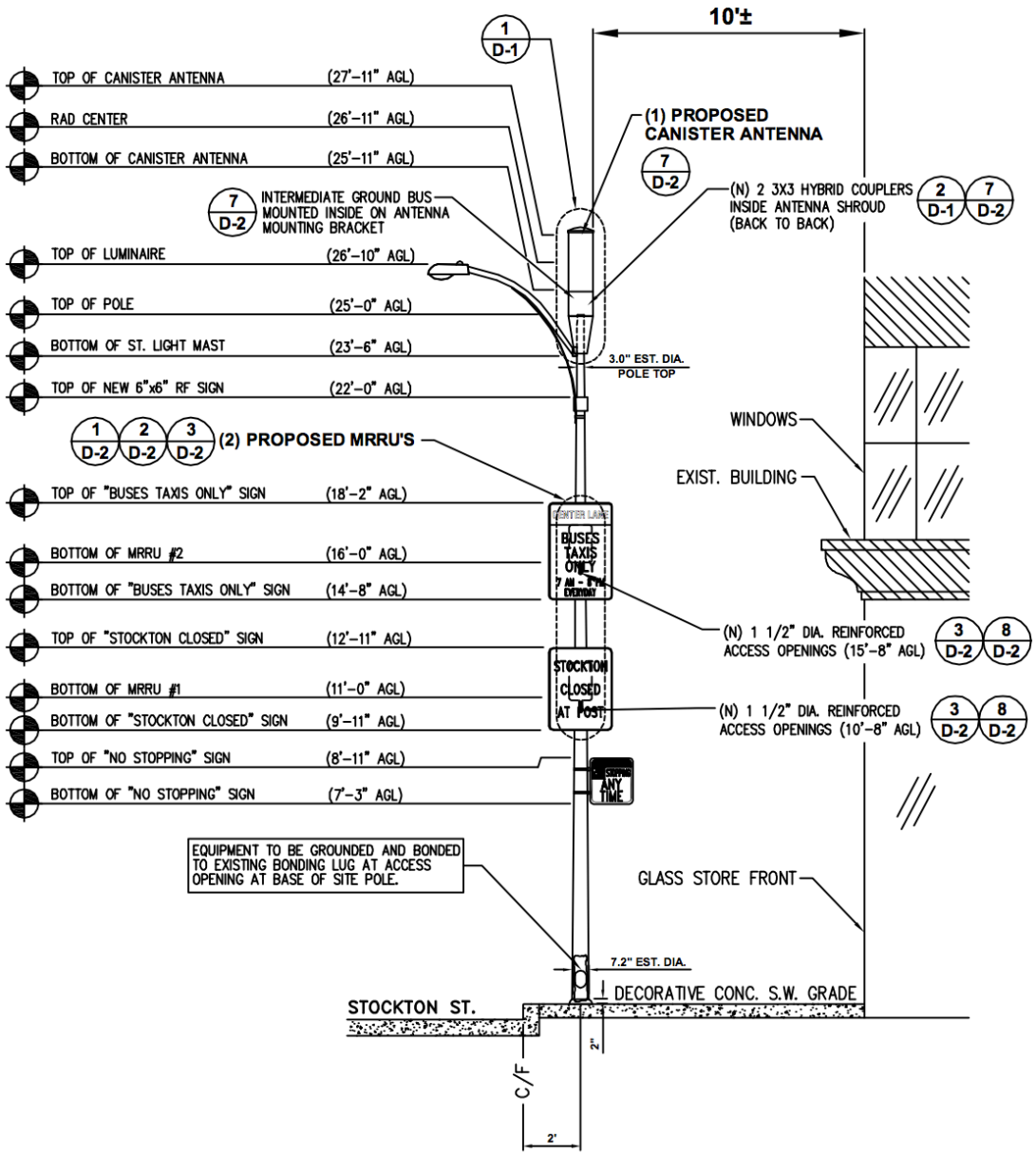
"DAS XL"

Prior Planning Department Recommendations | Steel Poles

- Citywide approval, awaiting ARC/HPC review for locations in Article 10 and 11 Districts; and Market Street (between Castro Street and Embarcadero)
- Require street tree to be provided (where appropriate) by wireless carrier to reduce visibility of equipment boxes (RRUs)
- Utilize signage (e.g. road, guide, informational signage), or other appropriate elements, in front of RRUs to reduce visibility for pole locations in areas which define City (e.g. historic districts)
- Remove all manufacturer decals & logos. Retain one Radio-Frequency (RF) warning sticker near antenna with smallest size and lowest visibility color allowed
- No attachments to historic or decorative light poles (e.g. Market Street Path of Gold, Golden Triangle, or fluted poles in Jackson Square)

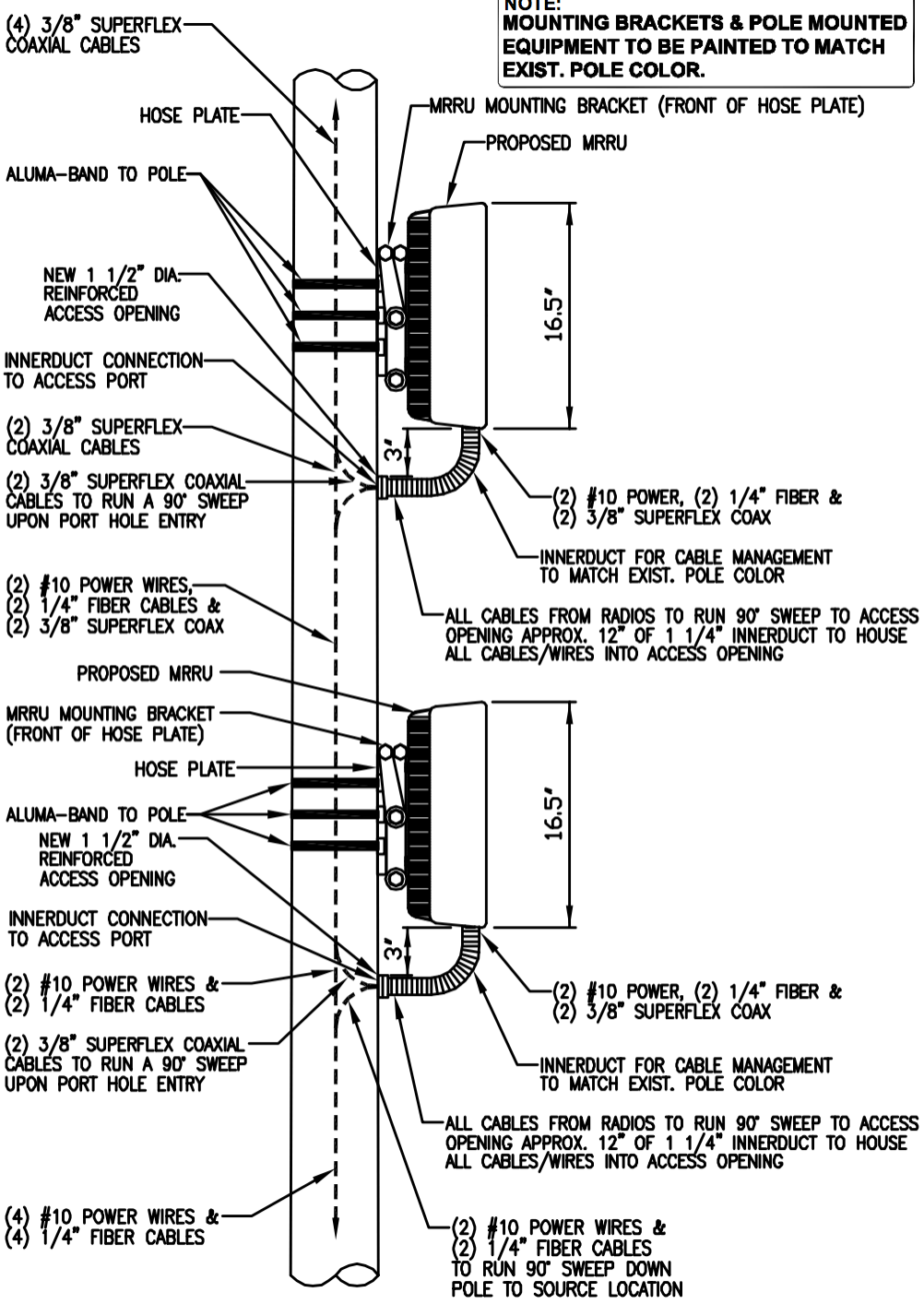
Primary ARC/HPC Inquiries | Steel & Wood Poles

- Compatibility of Project with respect to Secretary of Interior Standards and effects it may have on corresponding Landmark or Conservation Districts
- Clarify Project falls within prior delegation for wireless facilities to be reviewed administratively, by HPC Motion No. 0241 (originally focused on rooftop-mounted wireless facilities)
- Project Sponsor continues to work with ARC and Staff to better integrate design within historically sensitive areas
- Delegate review to staff for future projects by other wireless carriers if they demonstrate similar design intent (e.g. visibility and massing)

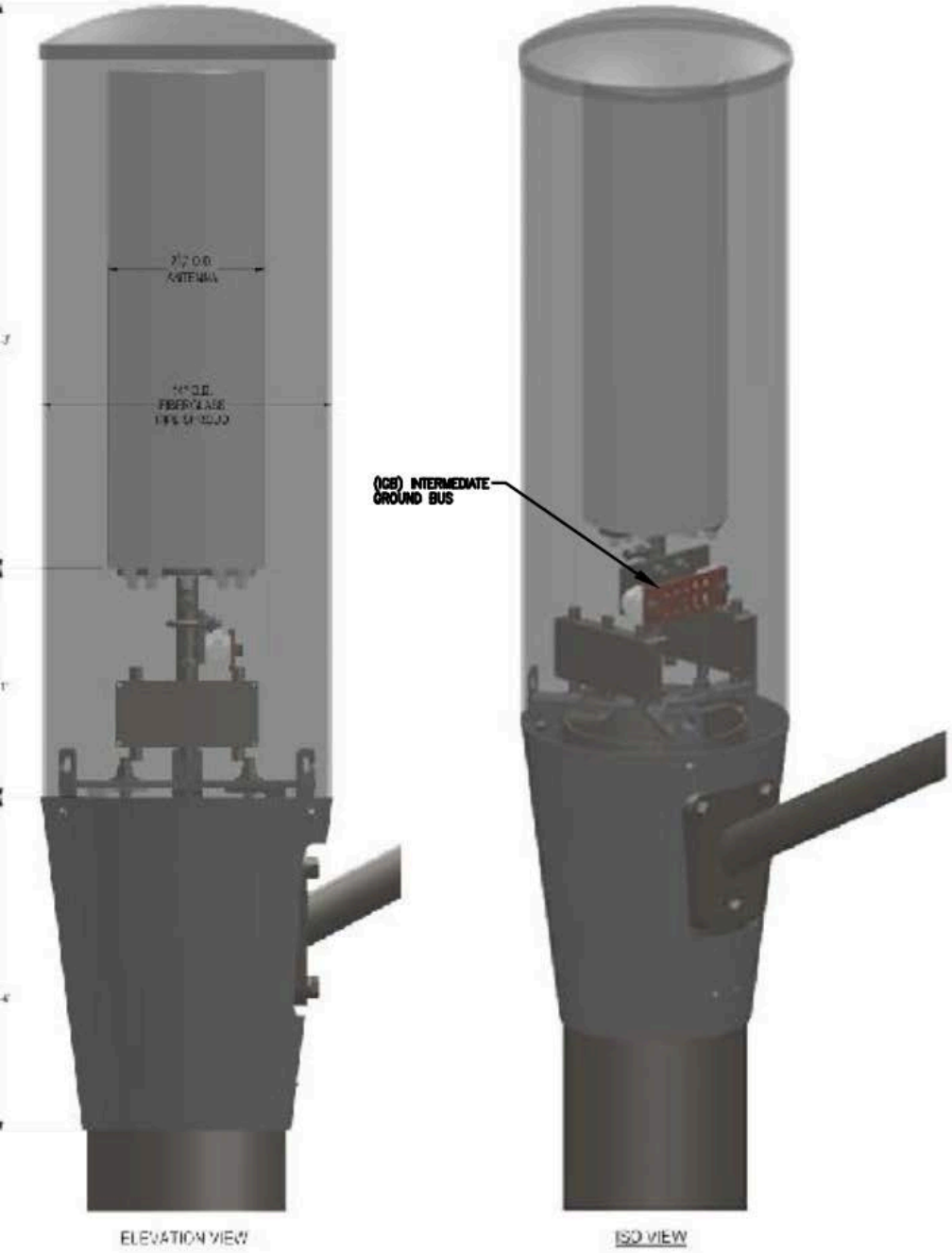


SIDE VIEW
LOOKING SOUTH

Standard Light Pole Design
(with signage in front of RRUs)



Standard Light Pole Design
at RRU level



Standard MUNI Light Pole
Design at antenna level

Extenet for Verizon Wireless (proposed) | 1 of 43 in Russian/Nob/Telegraph Hills

+ Slim equipment cabinets and (cleaner) antenna type

- Substantial pole height increase on a signature street (Lombard at Columbus)
- Wide electric meter