



Real Estate Assets

REQUEST FOR PRELIMINARY REVIEW

for installation/modification of Wireless Communication Facility on City-owned property

11/10/2020

Date

The City of San Diego
Real Estate Assets Department
1200 Third Avenue, Suite 1700
San Diego, California 92101

RE: Site Name: VZW Aviation SD Project # _____
Site Address: 6770 Aviation Drive, San Diego (the "Property")
Agreement: Agreement dated 3/6/2018 (the "agreement") between The City of San Diego ("City") and Verizon Wireless (VAW) LLC d/b/a Verizon Wireless, ("Lessee" or "Permittee" or "Licensee").

Verizon Wireless is seeking Consent from the City to perform the following to the above referenced site:

- ☒ Modify, upgrade or changes to existing equipment or Site as describe in the attached plans / photos.
- ☐ Installation of a New Wireless Communication Facility on City owned property.
- ☐ Apply for New Permit/New Agreement on existing facility – **NO** modifications or changes to existing equipment or site.
- ☐ Apply for New Permit/New Agreement on existing facility – with modifications or changes to existing equipment or site.

Describe proposed project below:

Relocate 3 RRUs from equipment room and add 1 Raycap to the existing MonoPine.

Pursuant to Improvements and Alterations, section of the above referenced agreement, *Lessee/ Permittee/Licensee shall not construct any improvements, structures or installations of the Premises or make any alterations to the Premises (with the exception of equipment replacement or repairs) without City's prior written approval.*

In order to comply with such requirements, Verizon Wireless would like to request City's consent to submit to Development Services Department for review of the proposed items above.

Sincerely, Jill Cleveland, Plancom, agent for Verizon Wireless

Applicant Signature: Jill Cleveland 1/11/2021

☐ **A one-time, non-refundable Processing Fee (\$4,920 for long term agreements - \$980 for Short term or ROE Permits) payable to City Treasurer, MUST be paid at the time of request for applicable agreement. This fee applies even if the agreement is never executed.**

City Public Utilities Department has provided its consent and approval to allow applicant to submit application for Required Permits needed for the proposed items listed herein, **with the understanding that the Department will be allowed to review the improvement plans prior to any permits being issued** and that a pre-construction meeting will be conducted with staff before any work begins, if required.

11/3/20

Date

Keli Balo, Asst Deputy Director

Print Name & Title

Keli Balo

Signature

Digitally signed by Keli Balo
Date: 2020.11.30 16:13:47 -08'00'

City of San Diego, acknowledgment and consent for 6770 Aviation Drive

Site Location

1/25/21

Date

Mary Carlson,

Interim Assistant Director

Signature

For READ ONLY

☐
☒
☐

Approved and Stamped plans received and attached
Scan as Amendment to Agreement when executed
Processing fee received



Real Estate
Assets

Document Routing Form

Request for Preliminary Review

Carla Gresham 1-11-21

Title of document to be signed

Property Agent

[Signature]
Asset Manager approval

1/11/21
Date

Print name of City Attorney: N/A

Date City Attorney approved the draft: _____

Explanation/Notes: This is a standard request for a preliminary review for
modifications to an existing telecom site. The owning department
has approved the modifications.

☐ Controversial ☒ Not Controversial

CALIFORNIA STATE CODE COMPLIANCE:

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

- 2018 CALIFORNIA BUILDING CODE(S) AND ALL LOCAL AMENDMENTS
- 2018 NATIONAL ELECTRIC CODE(S) AND ALL LOCAL AMENDMENTS
- 2019 UNIFORM PLUMBING CODE(S) AND ALL LOCAL AMENDMENTS
- 2019 CALIFORNIA MECHANICAL CODE(S) AND ALL LOCAL AMENDMENTS
- 2019 CALIFORNIA RESIDENTIAL CODE
- 2018 GREEN BUILDING STANDARDS CODE
- 2018 EXISTING BUILDING CODE
- 2018 CALIFORNIA TITLE 24
- 2018 CALIFORNIA FIRE CODE
- 2018 CALIFORNIA ENERGY CODE
- ANSI/ISA-22.24-01 LATEST EDITION
- LOCAL CODES AND AMENDMENTS

FCC NOTE:

THIS WIRELESS COMMUNICATION FACILITY COMPLIES WITH FEDERAL STANDARDS FOR RADIO FREQUENCY IN ACCORDANCE WITH THE TELECOMMUNICATION ACT OF 1996 AND SUBSEQUENT AMENDMENTS AND ANY OTHER REQUIREMENTS IMPOSED BY STATE OR FEDERAL REGULATORY AGENCIES.

CODE COMPLIANCE

APPLICANT:

VERIZON
15505 SAND CANYON AVE.
BUILDING 'D' 1st FLOOR
IRVINE, CA 92618
PHONE: (949) 296-7000

PROPERTY OWNER:

CITY OF SAN DIEGO
1222 FIRST AVENUE
SAN DIEGO, CA 92101

SITE ADDRESS:

6770 AVIATION DRIVE
SAN DIEGO, CA 92114

SITE PARCEL NUMBER:

549-320-08

JURISDICTION:

CITY OF SAN DIEGO

ZONING:

RS-1.7

CONSTRUCTION TYPE:

V-B

LATITUDE AND LONGITUDE:

N 32° 42' 16.38" W -117° 07' 58"

LEGAL DESCRIPTION

ALL OF THE PORTION OF THE REAL PROPERTY LOCATED IN THE STATE OF CALIFORNIA, COUNTY OF SAN DIEGO, DESCRIBED AS FOLLOWS:
THAT PORTION OF LOT 163, ENCIMA DE SAN DIEGO, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF, NO. 1466, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, MARCH 18, 1913, LYING SOUTHERLY FROM A LINE DRAWN PARALLEL WITH A DISTANT 60.00 FEET SOUTHERLY FROM THE SOUTHERLY LINE OF BENDSON AVENUE, FORMERLY BOSTON AVENUE, AS SHOWN ON SAN MAP NO. 1546, AND EASTERLY FROM THE FOLLOWING DESCRIBED LINE:

COMMENCING AT THE POINT OF INTERSECTION OF THE SOUTHERLY LINE OF SAND BENDSON AVENUE WITH THE SOUTHWESTERLY LINE OF AVIATION DRIVE, FORMERLY LOT 1, AS SHOWN ON SAN MAP NO. 1546; THENCE ALONG THE SOUTHERLY LINE OF SAND BENDSON AVENUE NORTH 89° 11' WEST A DISTANCE OF 60.00 FEET TO A POINT; THENCE SOUTH 0° 49' WEST A DISTANCE OF 60.00 FEET TO THE TRUE POINT OF COMMENCEMENT; THENCE SOUTH 0° 49' WEST 181 FEET, MORE OR LESS, TO AN INTERSECTION WITH THE CENTER LINE OF SAND AVIATION DRIVE.

VALUATION:

\$10,000

VERIZON RFDS TAB: 05/28/2020

PROJECT DESCRIPTION:

- REMOVE (E) (S) RUS FROM (E) EQUIPMENT ROOM
- RELOCATE (E) (S) RUS TO ANTENNA AREA
- INSTALL (1) NEW RAYCAP AT ANTENNA AREA
- INSTALL (1) NEW HYBRID CABLES, (1) (E) TOTAL OF 2)
- NO NEW BATTERIES ARE TO BE ADDED AS PART OF THIS PROJECT

TOTAL ANTENNAS: 12

TOTAL RUS: 8

TOTAL RAYCAPS: 2

HANDICAP REQUIREMENTS:

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS REQUIREMENTS DO NOT APPLY

SITE INFORMATION

SITE ACQUISITION:

PLANCON INC.
302 STATE PLACE, 2ND FLOOR
ESCONDIDO, CA 92029
CONTACT: JILL CLEVELAND
OFFICE: (760) 435-4833
EMAIL: j.cleveland@planconinc.com

ARCHITECTURE:

TECHNOLOGY ASSOCIATES SC, INC.
7887 CAMINO DEL RIO SOUTH, STE 305
SAN DIEGO, CA 92108
CONTACT: STEVEN VAUGHENBERG
OFFICE: (619) 300-2346 ext.1542
EMAIL: steven.vaugenberg@tsac.net

CONTACT INFORMATION

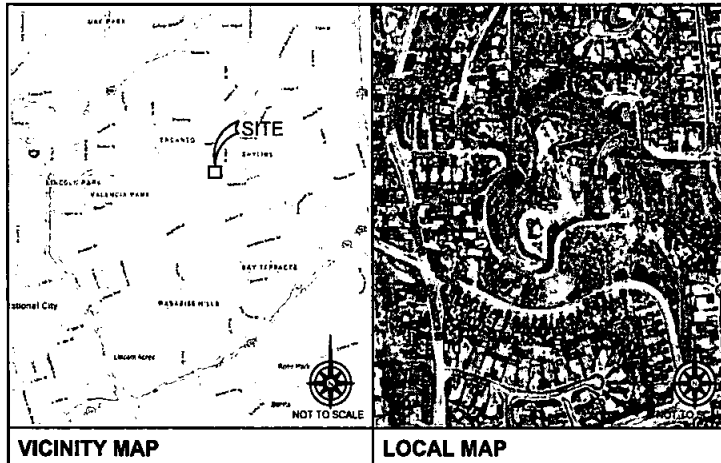
verizon✓

AVIATION SD

6770 AVIATION DRIVE

SAN DIEGO, CA 92114

AWS-3



STARTING FROM 15505 SAND CANYON AVENUE, BUILDING 'D' IRVINE, CA 92618:

1. TURN RIGHT ONTO SAND CANYON AVE
2. USE THE RIGHT LANE TO MERGE ONTO I-405 E VIA THE RAMP TO SAN DIEGO
3. MERGE ONTO I-405 E
4. MERGE ONTO I-805 S
5. KEEP LEFT AT THE FORTH TO CONTINUE ON I-805 S, FOLLOW BEAMS FOR INTERSTATE 565 BOKLA VISTA
6. TAKE LEFT ON FOR CAMINO DEL RIO SOUTH, 1000 JR. PUPP
7. MERGE ONTO CAMINO DEL RIO SOUTH
8. TAKE EXIT 6 FOR FEDERAL BLVD
9. CONTINUE ONTO FEDERAL BLVD
10. TURN RIGHT ONTO 80TH ST
11. TURN LEFT TO STAY ON 80TH ST
12. TURN LEFT ONTO BROADWAY
13. TURN RIGHT ONTO 80TH ST
14. TURN LEFT ONTO IMPERIAL AVE
15. TURN RIGHT ONTO WOODMAN ST
16. TURN LEFT ONTO BENDSON AVE
17. BENDSON AVE TURNING RIGHT AND BECOMES AVIATION DR
18. PARTIAL RESTRICTED USAGE ROAD
19. DESTINATION WILL BE ON THE LEFT

DRIVING DIRECTIONS

APPROVAL	SIGNATURE	DATE
VERIZON REPRESENTATIVE		
VERIZON RF ENGINEER		
SITE ACQUISITION		
VERIZON CONSTRUCTION MANAGER		
SITE OWNER		

APPROVALS

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE, NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEW.

GENERAL NOTES

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING LOCATIONS, CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DO NOT SCALE DRAWINGS

SHEET	DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN
A-3	ANTENNA PLANS
A-3.1	EQUIPMENT PLANS
A-4	ELEVATIONS
A-5	ELEVATIONS
A-6	DETAILS
G-1	GROUNDING PLANS
G-2	GROUNDING DETAILS

SHEET INDEX



Know what's below.
CALL before you dig.

CALL AT LEAST TWO WORKING
DAYS BEFORE YOU DIG



15505 SAND CANYON AVE.
BUILDING 'D' 1st FLOOR
IRVINE, CA 92618



302 STATE PLACE, 2ND FLOOR
ESCONDIDO, CA 92029



SAN DIEGO MARKET OFFICE
2657 CAMINO DEL RIO SOUTH, STE 205
SAN DIEGO, CA 92108
(619) 300-2346

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

AVIATION SD

6770 AVIATION DRIVE
SAN DIEGO, CA 92114
MONOPINE

SHEET TITLE

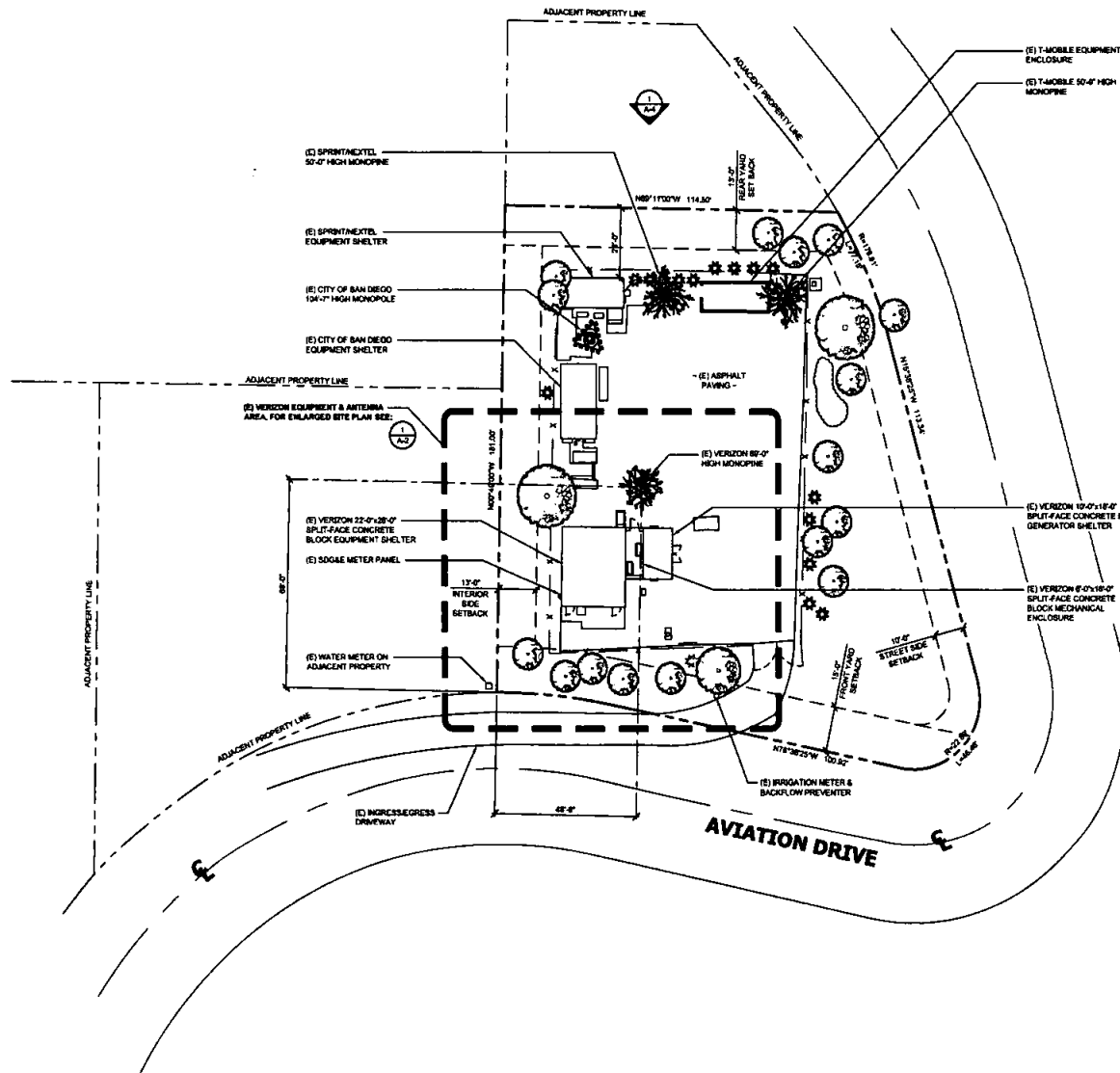
TITLE SHEET

SHEET NUMBER

T-1

NOTE: THE ORIGINAL SET OF THIS PLAN IS 24" X 36". SCALE SHOWN IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES.

SITE PLAN



DISCLAIMER
 THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. TAEC DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS, ROADS AND SETBACKS.

verizon
 15505 SAND CANYON AVE.
 BUILDING 'D' 1st FLOOR
 IRVINE, CA 92618

PLANCON
 302 STATE PLACE, 2ND FLOOR
 ESCONDIDO, CA 92029

Technology Associates
 SAN DIEGO MARKET OFFICE
 2667 CAMINO DEL RIO SOUTH, STE 205
 SAN DIEGO, CA 92106
 (658) 300-2346

REV	DATE	DESCRIPTION	BY
B	10/23/2009	90% CD (FORM COMMENTS)	SV
A	09/15/2009	90% CONSTRUCTION	HC

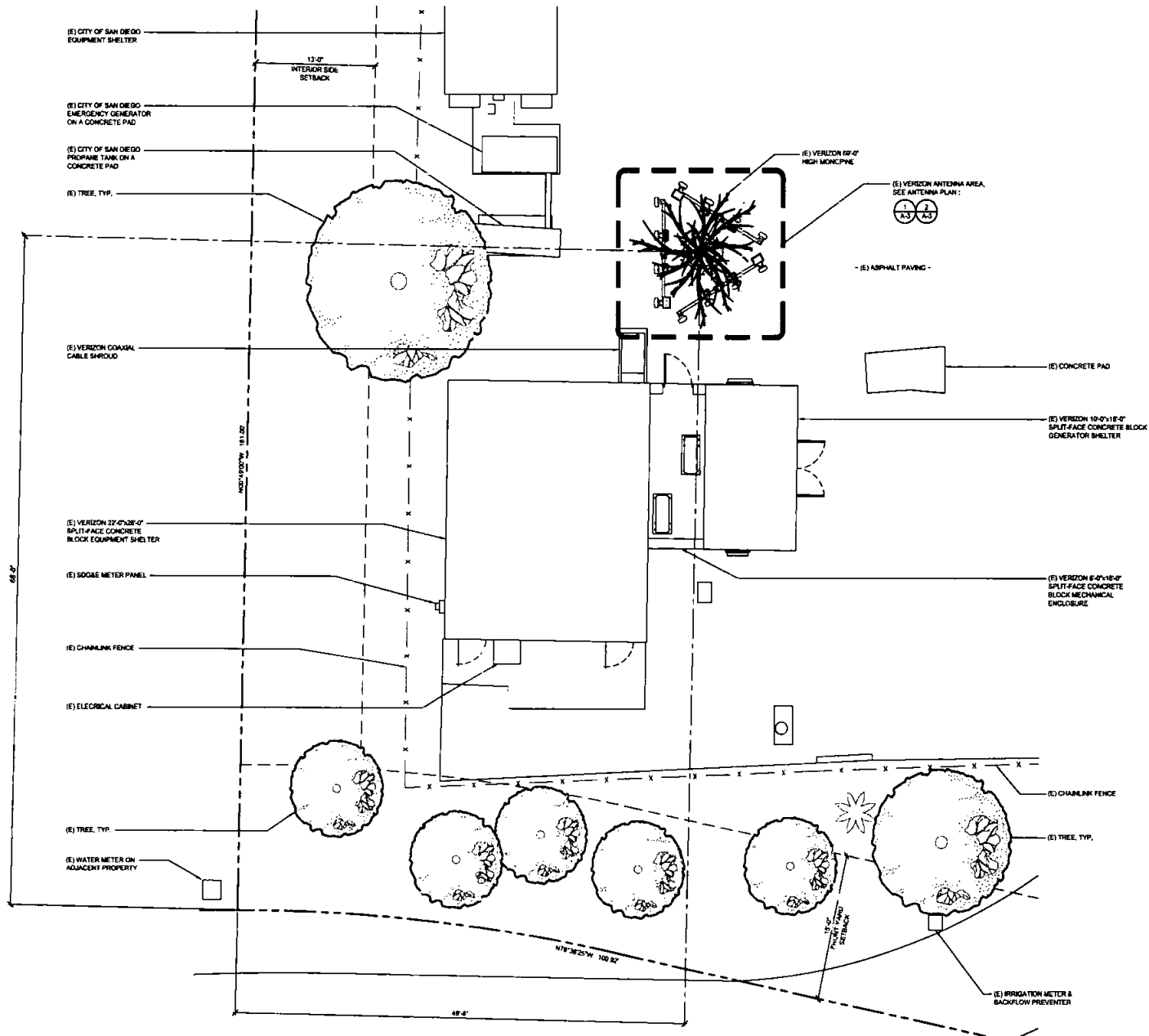
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AVIATION SD
 6770 AVIATION DRIVE
 SAN DIEGO, CA 92114
 MONOPINE

SHEET TITLE
SITE PLAN

SHEET NUMBER
A-1

SCALE: 1" = 30'-0" (24x36)
 (OR) 1/2" = 30'-0" (11x17)
 1



NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SIZES.

ENLARGED SITE PLAN

0 1' 2' 3' 4' SCALE: 3/16" = 1'-0" (24x36)
(OR) 3/32" = 1'-0" (11x17)

1

verizon

15505 SAND CANYON AVE.
BUILDING D' 1st FLOOR
IRVINE, CA 92618

PLANCON

302 STATE PLACE, 2ND FLOOR
ESCONDIDO, CA 92029

Technology Associates

SAN DIEGO MARKET OFFICE
2667 CAMINO DEL RIO SOUTH, STE 205
SAN DIEGO, CA 92108
(651) 500-2348

REV	DATE	DESCRIPTION	BY
B	10/23/2018	REV. CA. (FORM COMMENTS)	BY
A	08/13/2018	REV. CONSTRUCTION	HC

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AVIATION SD

6770 AVIATION DRIVE
SAN DIEGO, CA 92114
MONOPINE

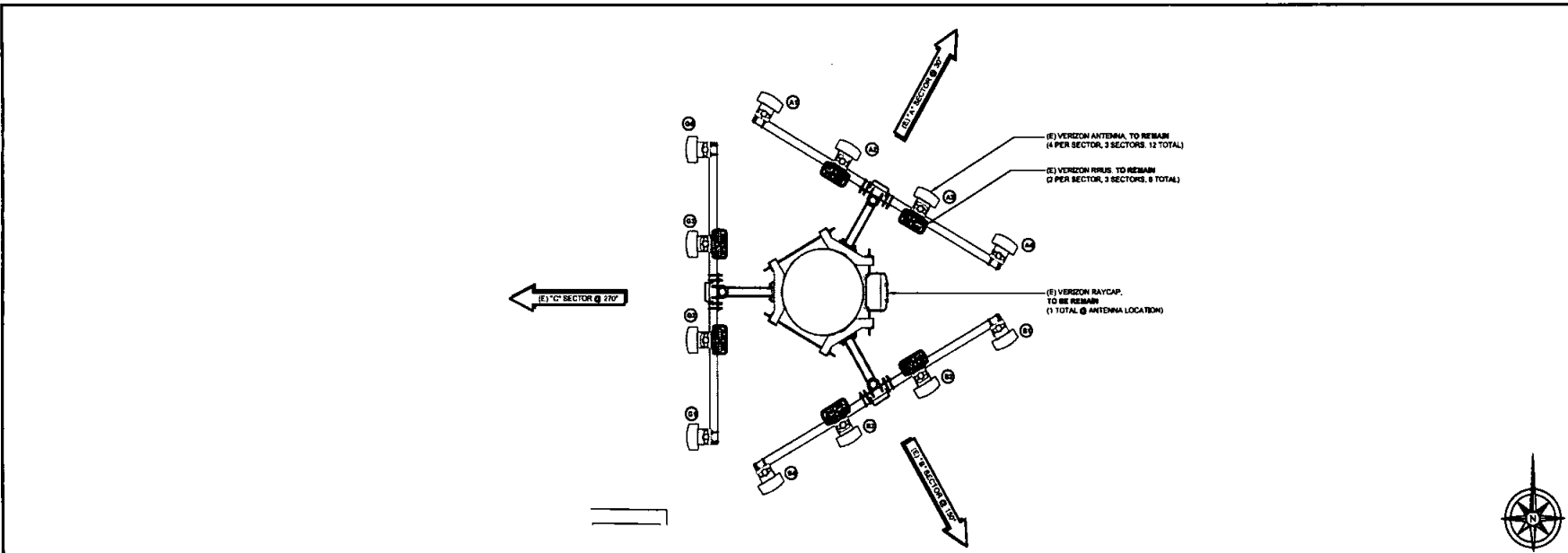
SHEET TITLE

**ENLARGED
SITE PLAN**

SHEET NUMBER

A-2

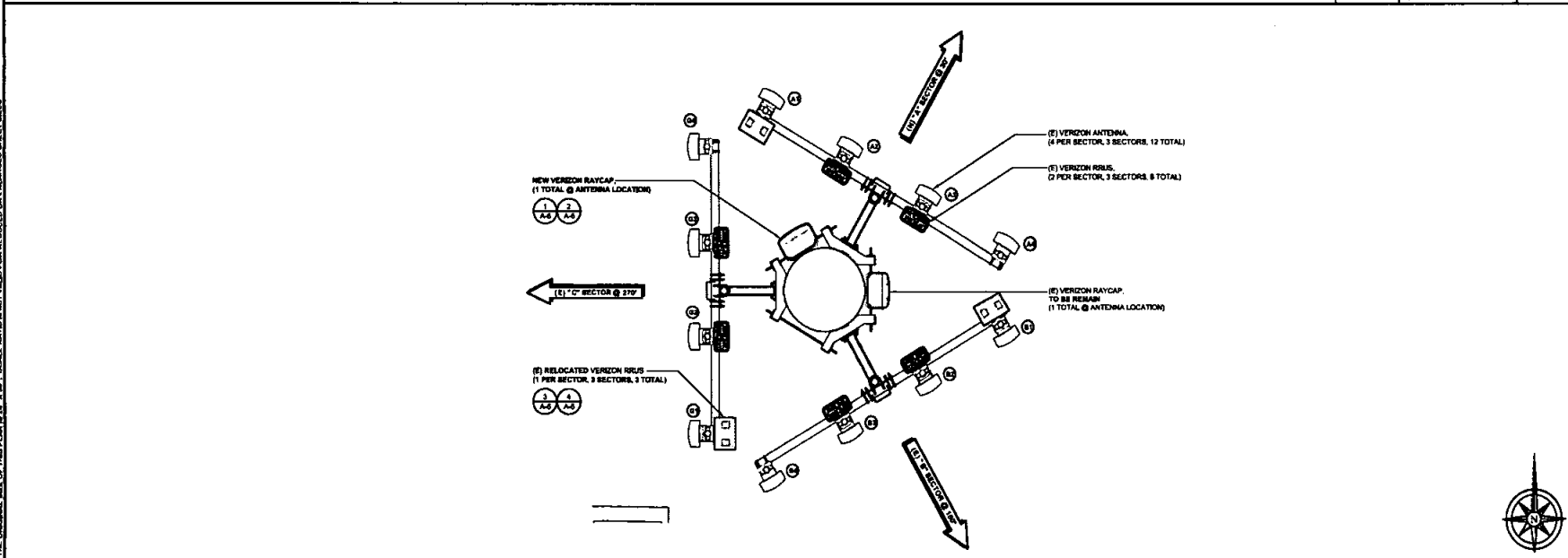
NOTES: THE ORIGINAL COPY OF THIS PLAN IS IN SET 1. SCALE: IF BAYTED IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES.



ANTENNA PLAN (EXISTING)

0 4' 8' 16' SCALE: 1/16" = 1'-0" (24x36)
(OR) 1/32" = 1'-0" (11x17)

1



ANTENNA PLAN (FINAL)

0 4' 8' 16' SCALE: 1/16" = 1'-0" (24x36)
(OR) 1/32" = 1'-0" (11x17)

2

verizon

15505 SAND CANYON AVE.
BUILDING 'D' 1st FLOOR
IRVINE, CA 92618

PLAN COME

302 STATE PLACE, 2ND FLOOR
ESCONDIDO, CA 92029

Technology Associates

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2667 CAMINO DEL RIO SOUTH, STE 205
SAN DIEGO, CA 92108
(619) 300-2346

REV	DATE	DESCRIPTION	BY
B	10/23/2009	REV. CA. EIRMA COMMENTARY	BY
A	09/13/2009	RIN CONSTRUCTION	YC

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AVIATION SD

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SAN DIEGO, CA 92114
MONOPINE

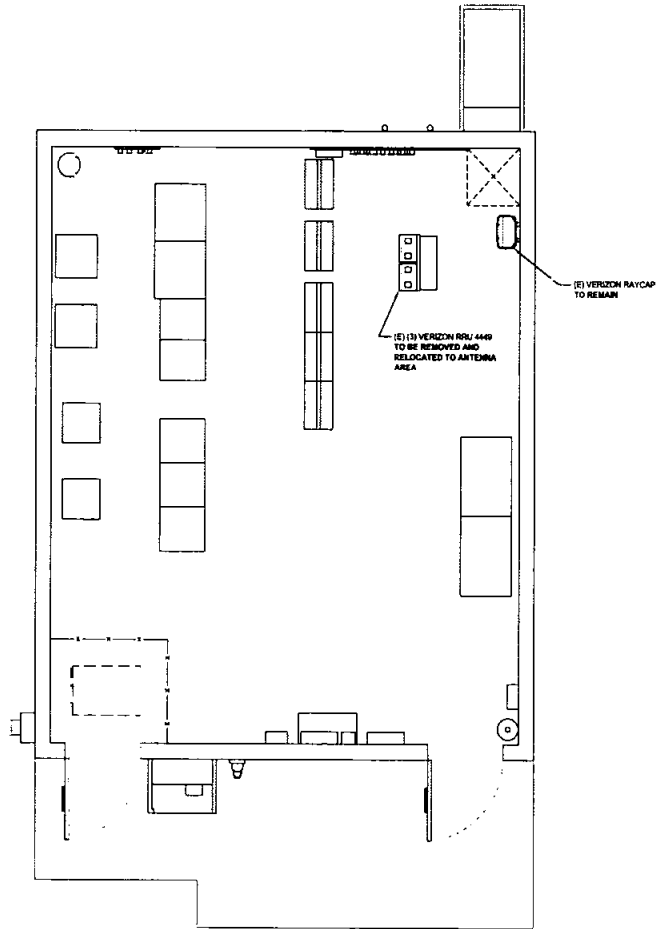
SHEET TITLE

ANTENNA
PLANS

SHEET NUMBER

A-3

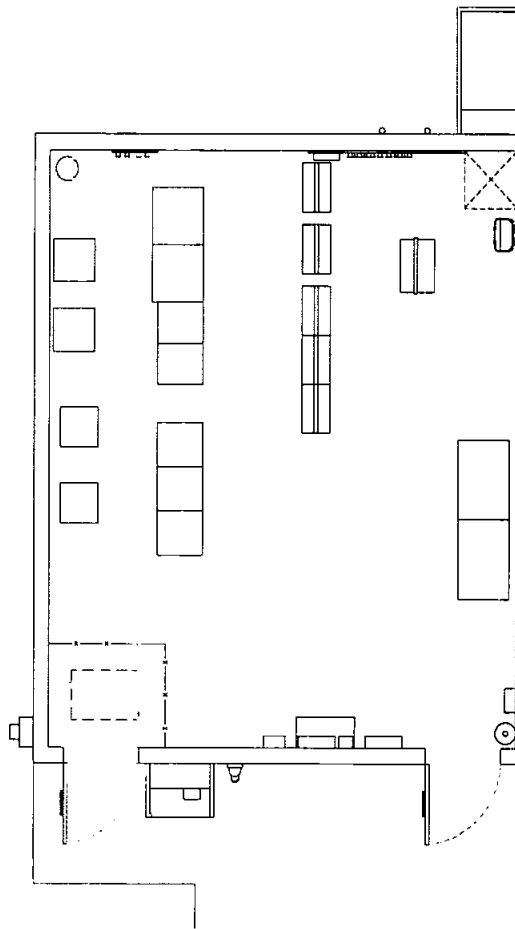
NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" X 36". SCALE: 3/8" = 1'-0" (24x36). SCALE: 3/16" = 1'-0" (11x17). SCALE: 3/8" = 1'-0" (24x36). SCALE: 3/16" = 1'-0" (11x17).



EQUIPMENT PLAN (EXISTING)

0 1' 2' 3' SCALE: 3/8" = 1'-0" (24x36)
(OR: 3/16" = 1'-0" (11x17))

1



EQUIPMENT PLAN (FINAL)

0 1' 2' 3' SCALE: 3/8" = 1'-0" (24x36)
(OR: 3/16" = 1'-0" (11x17))

2

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BUILDING 'D' 1st FLOOR
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PLANCON

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Technology Associates

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SAN DIEGO, CA 92108
(654) 500-2346

REV	DATE	DESCRIPTION	BY
1	10/22/2009	RPN CA ERM COMMENTS	BY
2	06/13/2018	RPN CONSTRUCTION	HC

IT IS A VIOLATION OF LAW FOR ANY PERSON,
OTHER THAN THE DESIGNER, TO REPRODUCE OR
TO ALTER THIS DOCUMENT.

AVIATION SD

6770 AVIATION DRIVE
SAN DIEGO, CA 92114
MONOPINE

SHEET TITLE
EQUIPMENT
PLANS

SHEET NUMBER
A-3.1

- TOP OF (E) VZ MONOPINE
ELEV. 84'-0" AGL
- TOP OF (E) VZ ANTENNAS
ELEV. 84'-0" AGL
- CENTERLINE OF (E) VZ ANTENNAS
ELEV. 84'-0" AGL

(E) VERIZON ANTENNA, TO REMAIN
(4 PER SECTOR, 3 SECTORS, 12 TOTAL)

(E) VERIZON RAYCAP,
TO BE REMAIN
(1 TOTAL @ ANTENNA LOCATION)

(E) VERIZON 88'-0"
HIGH MONOPINE

(E) MICROWAVE SCREENING

(E) VERIZON 10'-0"x18'-0"
SPLIT-FACE CONCRETE BLOCK
GENERATOR SHELTER

(E) CHAINLINK FENCE

(E) VERIZON 22'-0"x28'-0"
SPLIT-FACE CONCRETE
BLOCK EQUIPMENT SHELTER

(E) SODAS METER PANEL

FINISH GRADE
ELEV. 0'-0" REL

NORTH ELEVATION (EXISTING)

0 2' 4'

SCALE: 1/8" = 1'-0" (24x36)
(OR) 1/16" = 1'-0" (11x17)

1

- TOP OF (E) VZ MONOPINE
ELEV. 84'-0" AGL
- TOP OF (E) VZ ANTENNAS
ELEV. 84'-0" AGL
- CENTERLINE OF (E) VZ ANTENNAS
ELEV. 84'-0" AGL

(E) VERIZON ANTENNA,
(4 PER SECTOR, 3 SECTORS, 12 TOTAL)

NEW (E) VERIZON RAYCAP,
(2 TOTAL @ ANTENNA LOCATION)

(E) VZ RAYCAP

NOTE:

RRUS AND DIPLEXERS NOT SHOWN FOR CLARITY.
FOR INSTALLATION LOCATION SEE THE ANTENNA PLANS.

(E) MICROWAVE SCREENING

(E) VERIZON 10'-0"x18'-0"
SPLIT-FACE CONCRETE BLOCK
GENERATOR SHELTER

(E) CHAINLINK FENCE

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ELEV. 0'-0" REL

NORTH ELEVATION (FINAL)

0 2' 4'

SCALE: 1/8" = 1'-0" (24x36)
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2

verizon

15505 SAND CANYON AVE.
BUILDING 10 1st FLOOR
IRVINE, CA 92618

PLANCOM

302 STATE PLACE, 2ND FLOOR
ESCONDIDO, CA 92029

Technology Associates

SAN DIEGO MARKET OFFICE
2687 CAMINO DEL RIO SOUTH, STE 205
SAN DIEGO, CA 92108
(858) 300-2348

REV	DATE	DESCRIPTION	BY
B	10/22/20	90% CA (DRA COMMENTS)	BY
A	06/13/21	80% CONSTRUCTION	HC

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AVIATION SD

6770 AVIATION DRIVE
SAN DIEGO, CA 92114
MONOPINE

SHEET TITLE

ELEVATIONS

SHEET NUMBER

A-4

NOTES: THE ORIGINAL SIZE OF THIS PLAN IS 24" x 36". SCALE: 1/8" = 1'-0" (24x36). SCALE: 1/16" = 1'-0" (11x17). SCALE: 1/8" = 1'-0" (24x36). SCALE: 1/16" = 1'-0" (11x17).

- TOP OF (E) MONOPOLE
ELEV. 86'-2" AGL
- TOP OF (E) VZ ANTENNAS
ELEV. 84'-2" AGL
- CENTERLINE OF (E) VZ ANTENNAS
ELEV. 80'-2" AGL

(E) VERIZON ANTENNA, T-3 REMAIN
(4 PER SECTOR, 3 SECTORS, 12 T-3'S)

(E) VERIZON RAYCAP,
TO BE REMAIN
(1 TOTAL @ ANTENNA LOCATION)

(E) VERIZON 86'-2"
HIGH MONOPOLE

(E) MICROWAVE SCREENING

(E) VERIZON 10'-0"x8'-0"
SPILT-FACE CONCRETE BLOCK
GENERATOR SHELTER

(E) VERIZON 22'-0"x18'-0"
SPILT-FACE CONCRETE
BLOCK EQUIPMENT SHELTER

(E) CHAINLINK FENCE

(E) CITY OF SAN DIEGO EMERGENCY
GENERATOR ON CONCRETE PAD

(E) CITY OF SAN DIEGO
EQUIPMENT SHELTER

FINISH GRADE
ELEV. 0'-0" REF

EAST ELEVATION (EXISTING)

SCALE: 1/8" = 1'-0" (24x36)
(OR) 1/16" = 1'-0" (11x17)

1

- TOP OF (E) MONOPOLE
ELEV. 86'-2" AGL
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ELEV. 84'-2" AGL
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ELEV. 80'-2" AGL

(E) VERIZON ANTENNA
(4 PER SECTOR, 3 SECTORS, 12 T-3'S)

(E) VERIZON RAYCAP

NOTE:
RRUS AND DUPLEXERS NOT SHOWN FOR CLARITY.
FOR INSTALLATION LOCATION SEE THE ANTENNA PLANS.

NEW (H) VERIZON RAYCAP,
(2 TOTAL @ ANTENNA LOCATION)

(E) VERIZON 86'-2"
HIGH MONOPOLE

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SPILT-FACE CONCRETE BLOCK
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GENERATOR ON CONCRETE PAD

(E) CITY OF SAN DIEGO
EQUIPMENT SHELTER

FINISH GRADE
ELEV. 0'-0" REF

EAST ELEVATION (FINAL)

SCALE: 1/8" = 1'-0" (24x36)
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2

verizon

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BUILDING 'D' 1st FLOOR
IRVINE, CA 92618

PLANCON

302 STATE PLACE, 2ND FLOOR
ESCONDIDO, CA 92029

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REV	DATE	DESCRIPTION	BY
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AVIATION SD

6770 AVIATION DRIVE
SAN DIEGO, CA 92114
MONOPINE

SHEET TITLE

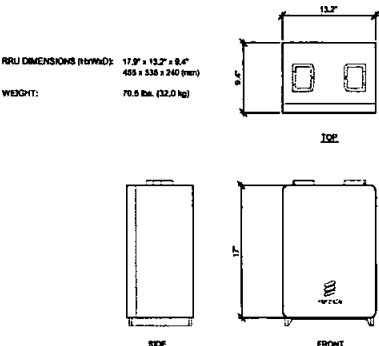
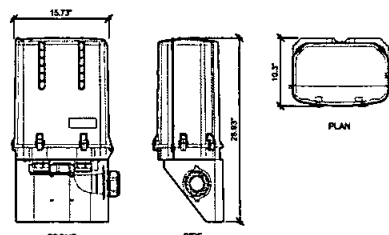
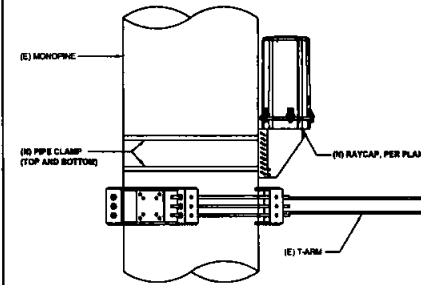
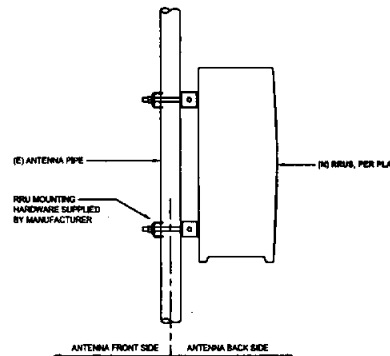
ELEVATIONS

SHEET NUMBER

A-5

NOTE: THE ORIGINAL SIZE OF THIS PLAN IS 24" x 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES.

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						RRU DIMENSIONS (HxWxD): 17.9" x 13.2" x 8.4" 455 x 335 x 215 (mm) WEIGHT: 70.5 lbs. (32.0 kg) 			COMMSCOPE RAYCAP RCMDR 6627-PF-48 DIMENSIONS: 10.3" X 28.83" X 13.37" WEIGHT: 14.5 kg (32.0 lbs) COLOR: GRAY MOUNT TYPE: PIPE, 1.75" - 4.5" O.D. / WALL (MOUNTING KITS SUPPLIED BY RAYCAP) 		
NOT USED	SCALE N.T.S.	10	NOT USED	SCALE N.T.S.	7	RRUS SPECIFICATIONS	SCALE N.T.S.	4	RAYCAP SPECIFICATIONS	SCALE N.T.S.	1
									 NOTES: 1. V2 TO SUPPLY POWERFIBER JUNCTION BOX. V2 O.C. SHALL SUPPLY ALL OTHER MATERIALS AND INSTALL ALL MOUNTING HARDWARE. 2. A SUPPORT FOR A SINGLE POWERFIBER JUNCTION BOX SHALL HAVE A MINIMUM OF TWO PIPE CLAMP FASTENERS. 3. PIPE CLAMP(S) SHALL HAVE HOT-DIPPED GALVANIZED FINISH. 4. RAYCAP TO PAINTED TO MATCH (E) MONOPINE AND FAUX FOLIAGE.		
NOT USED	SCALE N.T.S.	11	NOT USED	SCALE N.T.S.	8	NOT USED	SCALE N.T.S.	5	RAYCAP MOUNTING	SCALE N.T.S.	2
									 ANTENNA FRONT SIDE ANTENNA BACK SIDE		
NOT USED	SCALE N.T.S.	12	NOT USED	SCALE N.T.S.	9	NOT USED	SCALE N.T.S.	6	RRUS MOUNTING	SCALE N.T.S.	3



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302 STATE PLACE, 2ND FLOOR
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SAN DIEGO MARKET OFFICE
2667 CAMINO DEL RIO SOUTH, STE 205
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(619) 300-2348

REV	DATE	DESCRIPTION	BY
1	10/22/2020	REV CA JPM COMMENTS	BY
2	06/15/2019	REV CONSTRUCTION	HC

IT IS A VIOLATION OF LAW FOR ANY PERSON
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER
TO ALTER THIS DOCUMENT.

AVIATION SD

6770 AVIATION DRIVE
SAN DIEGO, CA 92114
MONOPINE

SHEET TITLE

DETAILS

SHEET NUMBER

A-6

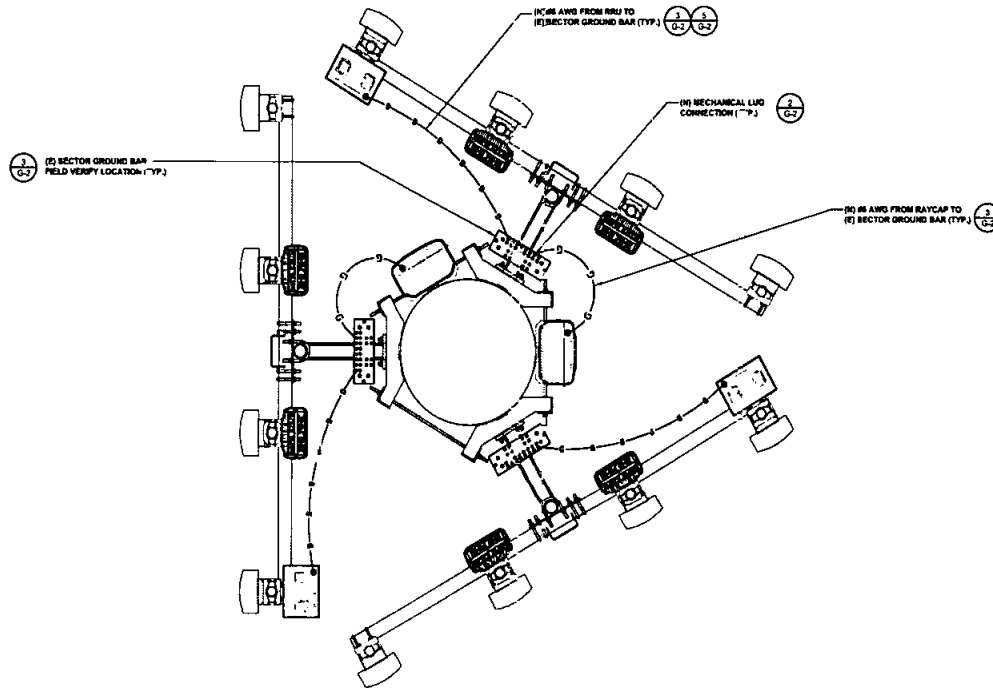
ELECTRICAL GROUNDING SPECIFICATIONS

- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE CURRENTLY IN EFFECT FOR THE AUTHORITY HAVING JURISDICTION.
- ALL GROUNDING DEVICES SHALL BE UL LISTED FOR THEIR INTENDED USE.
- GROUND WIRES SHALL BE TINNED #2 AWG BARE SOLID COPPER UNLESS OTHERWISE NOTED.
- CONNECTIONS OF ALL GROUND WIRES TO THE GROUND RING SHALL BE EXOTHERMIC (CAD WELDED) UNLESS OTHERWISE NOTED, AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND VZW WIRELESS BROADBAND STANDARDS.
- GROUNDING CONDUCTORS SHALL BE ROUTED ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. WHEN REQUIRED, GROUND LEADS SHALL BE BENT TO A MINIMUM OF 8" RADIUS.
- WHERE GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO THE GROUND RING, INSTALL WIRE IN 3/4" HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM CONNECTION POINT TO 8" BELOW GRADE AND SEAL THE TOP WITH SILICONE SEALANT.
- ALL GROUND BARS SHALL BE TINNED, 1/4" COPPER SECTION BARS 2" COLLECTOR AND MOB BARS 4", OF SUFFICIENT LENGTH TO ACCOMMODATE ALL REQUIRED CONNECTIONS WITHOUT DOUBLING LUGS, AND EACH INSTALLED WITH ISOLATORS, WHEN CONNECTING GROUND BARS (WITHIN 10 FEET OF GRADE) DIRECTLY TO THE GROUND RING. 2 EA #2 SOLID DOWNLEADS SHALL BE CAD-WELDED TO THE GROUND BAR, 1 AT EACH OPPOSITE BOTTOM CORNER, AND EACH SHALL RUN IN 3/4" HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM GROUND BAR DOWN TO THE GROUND RING. WHEN CONNECTING SECTION GROUND BARS, DASH-CHAIN THE GROUND BARS AND RUN 1 EA #2 AWG STRANDED COPPER WIRE WITH THIN INSULATION FROM THE MIDDLE GROUND BAR TO THE GROUND RING AND CAD-WELD TO THE RING.
- WHEN ATTACHING STRANDED GROUND LEADS TO THE GROUND BARS, 2 HOLE COMPRESSION LUGS SHALL BE USED, PROTECT WITH WEATHERPROOF HEAT SHRINK, AND WITH A THIN COAT OF "NORDI-SHIELD" OR EQUIVALENT PROPERLY APPLIED AND ATTACHED ONLY WITH STAINLESS STEEL HARDWARE.
- WHEN GROUNDING EQUIPMENT ENCLOSURES, PANELS, FRAMES, AND OTHER METAL APPARATUS, A #6 AWG STRANDED COPPER WIRE WITH THIN INSULATION SHALL BE ATTACHED UTILIZING A 2 HOLE COMPRESSION TYPE LUG, PROTECTED WITH WEATHERPROOF HEAT A CLEAN AND CORROSION FREE METALLIC SURFACE UTILIZING STAINLESS STEEL SELF-TAPPING SCREWS AS NOTED IN NOTE 10 BELOW.
- PREPARE ALL BONDING SURFACES FOR GROUND CONNECTIONS BY REMOVING ANY AND ALL PAINT AND CORROSION TO SHINY METAL. FOLLOWING CAD-WELDED CONNECTIONS TO NON-COPPER SURFACES, APPLY ONE COAT OF ANY ANTI-OXIDIZING PAINT, "COLD GALV" OR EQUIVALENT.
- GROUND RODS SHALL BE COPPER-CLAD STEEL, #4X10', SPACED NO LESS THAN 10' ON CENTER.
- ALL GROUND SYSTEM CONDUCTORS AND CONDUITS SHALL BE SECURED UTILIZING ONLY NONMETALLIC, NONCONDUCTIVE, UV RATED CLAMPS, BRACKET, AND OR SUPPORTS.
- WHEN REQUIRED, THE CONTRACTOR SHALL ENGAGE THE SERVICES OF AN INDEPENDENT TESTING FIRM TO VERIFY, UTILIZING A MEGGER TEST, THAT THE RESISTANCE TO EARTH OF THE NEW GROUND SYSTEM IS EQUAL TO OR LESS THAN 5 (OHMS). A COPY OF THE COMPLETE TESTING REPORT SHALL BE PROVIDED TO THE VZW REPRESENTATIVE.
- ALL MATERIALS AND HARDWARE SHALL BE INSTALLED IN A WORKMAN-LIKE MANNER IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, AND DEFINED IN NFPA-70 AND APPROVED BY A P.E.

LEGEND	
	EXOTHERMIC CONNECTION
	MECHANICAL CONNECTION
	EQUIPMENT GROUND BAR
	ANTENNA GROUND BAR (AS REQUIRED)
	#2 AWG GROUND LEAD (AS REQUIRED)

NOTE:

- CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED.
- NEW MOUNTING PIPES(S) INSTALLED FOR MODIFICATION SHALL HAVE AN EXOTHERMIC WELD THAT LEADS TO THE (E) SECTOR GROUND BAR, A MECHANICAL LUG CONNECTION SHALL OCCUR AT (E) SECTOR GROUND BAR.



verizon

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PLANCON

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Technology Associates

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REV	DATE	DESCRIPTION	BY
B	10/23/2008	REV. C3 (FORM COMMENTS)	EV
A	06/13/2018	REV. CONSTRUCTION	HC

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AVIATION SD

6770 AVIATION DRIVE
SAN DIEGO, CA 92114
MONOPINE

SHEET TITLE

GROUNDING PLAN

SHEET NUMBER

G-1



SCALE
N.T.S. 2

NOTES & LEGEND

1

ANTENNA GROUNDING PLAN

NOTE: THE ORIGINAL SET OF THIS PLAN IS 24" X 36". SCALE RATIO IS NOT VALID FOR REDUCED OR ENLARGED SHEET SIZES.

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		ANTENNA AND/OR GPS CABLE CONNECTION NOTES: - DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR. - GROUNDING KIT TYPE SHALL BE APPROVED BY VZW PRIOR TO INSTALLATION. - WEATHERPROOFING SHALL INCORPORATE PPC WEATHERPROOFING TAPE KIT. COLD SHRINK SHALL NOT BE USED.	NOTE: ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.	15505 SAND CANYON AVE. BUILDING 'D' 1st FLOOR IRVINE, CA 92618																					
NOT USED SCALE: N.T.S. 9	NOT USED SCALE: N.T.S. 7	CABLE GROUNDING SCALE: N.T.S. 4	EXOTHERMIC WELDING SCALE: N.T.S. 1 <table border="1"><thead><tr><th>WIRE SIZE</th><th>BURNEDY LUG</th><th>BOLT SIZE</th></tr></thead><tbody><tr><td>#6 AWG GREEN INSULATED</td><td>YAB2-2TC38</td><td>3/8" - 16 NC S 2 BOLT</td></tr><tr><td>#6 AWG SOLID TINNED</td><td>YAC2-2TC38</td><td>3/8" - 16 NC S 2 BOLT</td></tr><tr><td>#2 AWG STRANDED</td><td>YAB2-2TC38</td><td>3/8" - 16 NC S 2 BOLT</td></tr><tr><td>#2 AWG STRANDED</td><td>YAB2-2TC38</td><td>3/8" - 16 NC S 2 BOLT</td></tr><tr><td>#4 AWG STRANDED</td><td>YAB2-2TC38</td><td>3/8" - 16 NC S 2 BOLT</td></tr><tr><td>#4 AWG STRANDED</td><td>YAB2-2TC38</td><td>3/8" - 16 NC S 2 BOLT</td></tr></tbody></table> NOTES: - ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER, LOCK WASHER, AND NUT. - COPPER SHIELD, ANTI-CLIP, OR NO-OX OR EQUIVALENT SHALL BE PLACED WHERE ALL DISSIMILAR METALS CONNECT. - ALL LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. - ALL LUGS MUST HAVE INSPECTION WINDOWS.	WIRE SIZE	BURNEDY LUG	BOLT SIZE	#6 AWG GREEN INSULATED	YAB2-2TC38	3/8" - 16 NC S 2 BOLT	#6 AWG SOLID TINNED	YAC2-2TC38	3/8" - 16 NC S 2 BOLT	#2 AWG STRANDED	YAB2-2TC38	3/8" - 16 NC S 2 BOLT	#2 AWG STRANDED	YAB2-2TC38	3/8" - 16 NC S 2 BOLT	#4 AWG STRANDED	YAB2-2TC38	3/8" - 16 NC S 2 BOLT	#4 AWG STRANDED	YAB2-2TC38	3/8" - 16 NC S 2 BOLT	SAN DIEGO MARKET OFFICE 2567 CAMINO DEL RIO SOUTH, STE 205 SAN DIEGO, CA 92108 (858) 300-2346
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NOT USED SCALE: N.T.S. 10	NOT USED SCALE: N.T.S. 8	RRU GROUNDING SCALE: N.T.S. 5 NOTES: - PROVIDE NO-OX GREASE AT CONTACT SURFACE BETWEEN LUG AND GROUND BAR. - CONTRACTOR WILL VERIFY BUSS BAR GROUNDING TO THE TOWER OR RING. - GROUND BARS AT BOTTOM OF TOWERS OR MONOPOLES SHALL USE EXOTHERMIC CONNECTION.	MECHANICAL LUG SCALE: N.T.S. 2 NOTES: - PROVIDE NO-OX GREASE AT CONTACT SURFACE BETWEEN LUG AND GROUND BAR. - CONTRACTOR WILL VERIFY BUSS BAR GROUNDING TO THE TOWER OR RING. - GROUND BARS AT BOTTOM OF TOWERS OR MONOPOLES SHALL USE EXOTHERMIC CONNECTION.	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.																					
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