



T-Mobile

SD06198A SAN DIEGO ZOO FOOD SERVICE BUILDING

2920 ZOO DRIVE, SAN DIEGO, CA 92101



No.	Revision / Issue	Date
A	90% ZD	07-18-12

LEGAL DESCRIPTION:

THE LAND REFERRED TO IN THIS REPORT IS DESCRIBED AS FOLLOWS:
THE PORTION OF PUEBLO LOT NO. 130 OF THE PUEBLO LANDS, ACCORDING TO MAP MADE BY JAMES PASCOE IN 1870, AND FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY ON NOVEMBER 14, 1921 AS MISCELLANEOUS MAP NO. 36, COMMONLY KNOWN AS THE FOOD SERVICES BUILDING AND DRAFTED, BUT NOT IDENTIFIED ON SHEET 1 OF THAT CERTAIN SAN DIEGO COUNTY ASSESSOR'S MAP BOOK 760 PAGE 212 PARCEL 45, WHICH IS MAPPED FOR ASSESSMENT PURPOSES ONLY, AND AS SUPPORTED BY THE SAN DIEGO REGIONAL URBAN INFORMATION SYSTEMS AND THE SAN DIEGO DATA PROCESSING CORPORATION, BUT WITHOUT THE ASSUMPTION OF ANY LIABILITY BY THE AGENCIES.

DIRECTIONS TO SITE

- FROM SAN DIEGO T-MOBILE OFFICE:
1. HEAD SOUTHEAST ON VISTA SORRENTO PKWY TOWARDS DIRECTOR PL
 2. TAKE THE 1ST RIGHT ONTO SORRENTO VALLEY RD
 3. TAKE THE RAMP ONTO I-805 S
 4. TAKE EXIT 20 TO MERGE ONTO CA-163 S TOWARD DOWNTOWN
 5. TAKE EXIT 2A TOWARD WASHINGTON ST E
 6. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR UNIVERSITY AVE
 7. TURN LEFT ONTO 9TH AVE
 8. TURN LEFT ONTO UNIVERSITY AVE
 9. TURN RIGHT ONTO PARK BLVD
 10. TURN RIGHT ONTO ZOO DR
- ARRIVE AT 2920 ZOO DR, SAN DIEGO, CA 92101



RF INITIALS:

DATE _____

ARCHITECT INITIALS:

DATE _____

SITE ACQUISITION INITIALS:

DATE _____

ZONING/PLANNING INITIALS:

DATE _____

CONSTRUCTION INITIALS:

DATE _____

LANDLORD INITIALS:

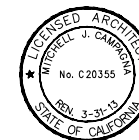
DATE _____

ACCESSIBILITY DISCLAIMER

THIS PROJECT IS AN UNOCCUPIED WIRELESS TELECOMMUNICATIONS FACILITY AND, ACCORDING TO WRITTEN INTERPRETATION FROM THE CALIFORNIA DEPARTMENT OF THE STATE ARCHITECT, IS EXEMPT FROM DISABLED ACCESS REQUIREMENTS.

PROJECT STATEMENT

I HEREBY CERTIFY THAT THIS PROJECT COMPLIES WITH TITLE 24, PART 6 OF THE CALIFORNIA STATE CODE.



SIGNED _____

LEGAL DESCRIPTION

DIRECTIONS TO SITE

VICINITY MAP

CLIENT APPROVALS

TITLE 24 COMPLIANCE

APPLICABLE CODES

- ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO:
1. 2010 CALIFORNIA BUILDING CODE (CBC) / 2009 INTERNATIONAL BUILDING CODE (IBC)
 2. 2010 CALIFORNIA RESIDENTIAL CODE (CRC) / 2009 INTERNATIONAL RESIDENTIAL CODE (IRC)
 3. 2010 CALIFORNIA ELECTRICAL CODE (CEC) / 2008 NATIONAL ELECTRICAL CODE (NEC)
 4. 2010 CALIFORNIA MECHANICAL CODE (CMC) / 2009 UNIFORM MECHANICAL CODE (UMC)
 5. 2010 CALIFORNIA PLUMBING CODE (CPC) / 2009 UNIFORM PLUMBING CODE (UPC)
 6. 2010 CALIFORNIA FIRE CODE (CFC) / 2009 (IFC)
 7. 2010 CALIFORNIA GREEN BUILDINGS STANDARDS CODE
 8. 2008 BUILDING ENERGY EFFICIENCY STANDARDS

SITE NAME
SAN DIEGO ZOO
FOOD SERVICE BUILDING
SITE NUMBER
SD06198A

SITE ADDRESS
2920 ZOO DR
SAN DIEGO, CA 92101

OWNER
ZOOLOGICAL SOCIETY OF SAN DIEGO
2920 ZOO DR
SAN DIEGO, CA 92101

TELECOMMUNICATION CARRIERS
NO OTHER CARRIERS ARE LOCATED ON SUBJECT PROPERTY.

OWNER CONTACT

APPLICANT
T-MOBILE
10509 VISTA SORRENTO PARKWAY
SUITE 206
SAN DIEGO, CA 92121
ASSESSOR'S PARCEL NUMBER:
760-212-45-00

CURRENT ZONING:
UNZONDED - BALBOA PARK
(E) OCCUPANCY:
-

(E) TYPE OF CONSTRUCTION:
V(N)

PROJECT DESCRIPTION:
T-MOBILE WIRELESS PROPOSES TO CONTINUE OPERATING AND MAINTAIN AN UNMANNED, DIGITAL MOBILE RADIO COMMUNICATIONS FACILITY AT THIS SITE.

- ENTITLEMENTS: (6) ANTENNAS, (1) CABINETS
- EXISTING T-MOBILE EQUIPMENT CABINETS MOUNTED IN SHELTER (TOTAL 2) NO PROPOSED CHANGES TO (E) CABINETS
- EXISTING ANTENNAS (TOTAL 6)
- PROPOSED REPLACEMENT ANTENNAS (TOTAL 6)

OPERATING FREQUENCIES:
TX (GSM) - 1950 TO 1965 MHZ
RX (GSM) - 1870 TO 1885 MHZ
TX (WCDMA) - 2150 TO 2155 MHZ
RX (WCDMA) - 1750 TO 1755 MHZ

ARCHITECTS & ENGINEERS

MITCHELL J. ARCHITECTURE
4883 RONSON COURT, SUITE N
SAN DIEGO, CA 92111
TEL: (858) 650-3130
FAX: (858) 650-3140

CONTACT: ART BROWN (PROJECT MANAGER)

APPLICANT REPRESENTATIVE

MITCHELL J. ARCHITECTURE
4883 RONSON COURT, SUITE N
SAN DIEGO, CA 92111
TEL: (858) 650-3130
FAX: (858) 650-3140

CONTACT: ROCKI LAM (SITE ACQUISITION MANAGER)

APPLICANT CONTACT

T-MOBILE WEST CORP.
10509 VISTA SORRENTO PARKWAY STE 206
SAN DIEGO, CA 92121
TEL: (858) 334-6158

Sheet List Table	
Sheet Number	Sheet Title
G-001	TITLE SHEET - PROJECT INFORMATION & VICINITY MAP
A-101	SITE PLAN & NOTES
A-201	EXTERIOR ELEVATIONS
A-401	EQUIPMENT & ANTENNA LAYOUT PLAN
D-501	ANTENNA DETAILS

Title Sheet, Project Information & Vicinity Map
 SAN DIEGO ZOO - FOOD SERVICE BUILDING
 SD06198A
 2920 ZOO DRIVE
 SAN DIEGO, CA. 92101
 Mitchell J architecture



Project	
Date	07-17-12
Drawn By	LS
Checked By	MJ
Scale	NO SCALE

Mitchell J. Architecture

G-001

MCMXCVII

APPLICABLE CODES

MCMXCVII

PROJECT SUMMARY

MCMXCVII

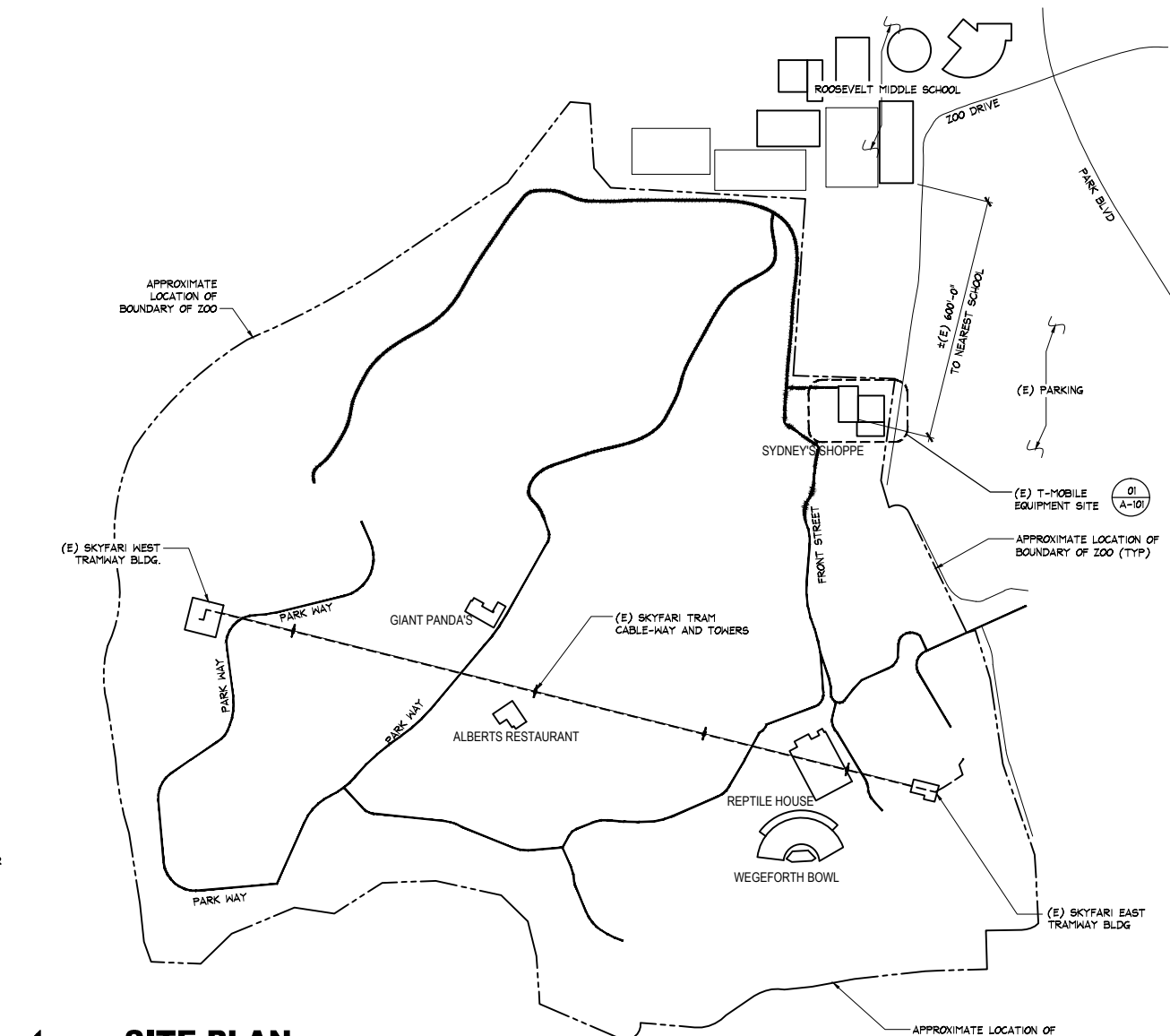
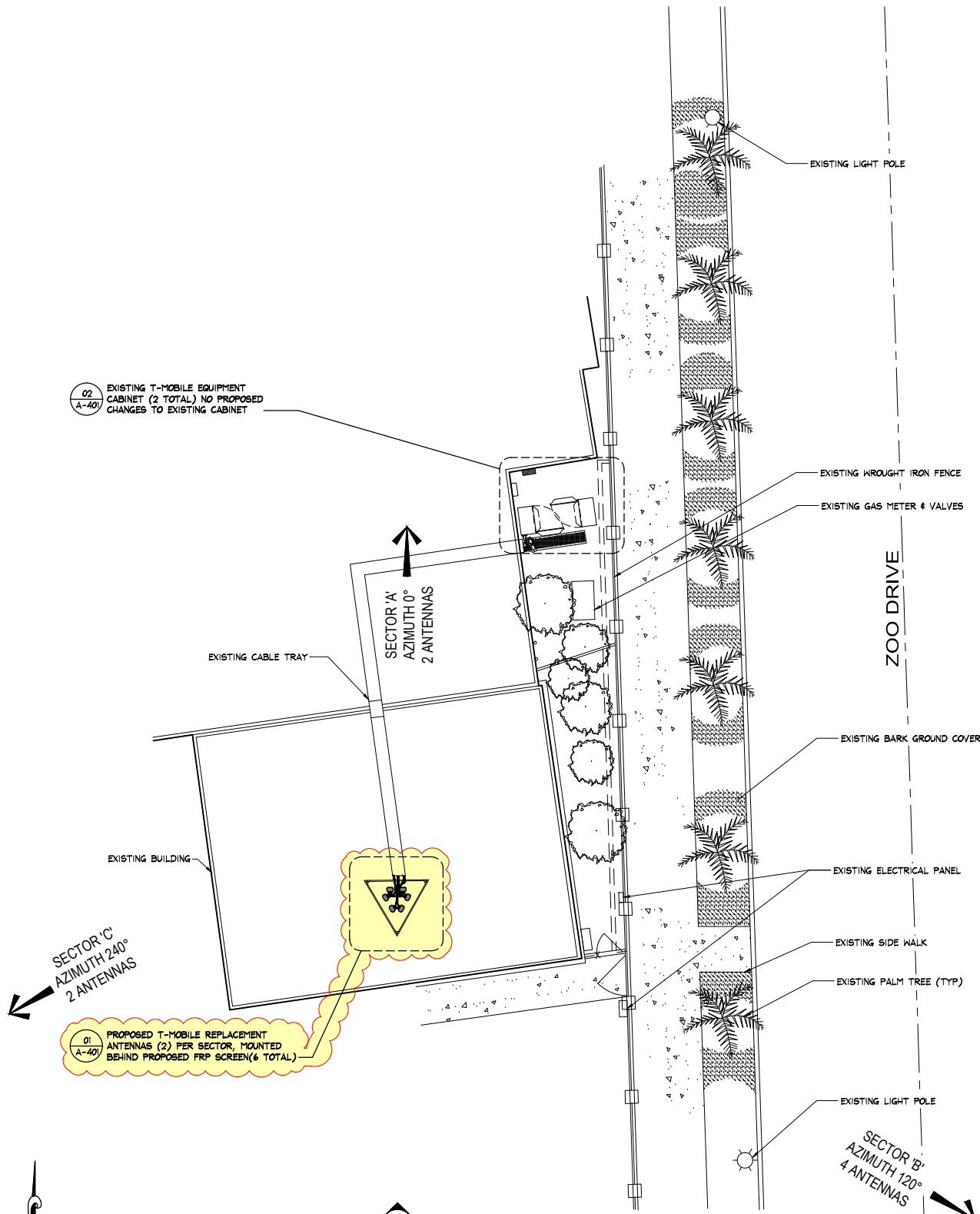
CONSULTANT TEAM

MCMXCVII

SHEET INDEX

THIS IS NOT A SITE SURVEY.
 ALL PROPERTY BOUNDARIES, ORIENTATION OF TRUE NORTH AND STREET HALF-WIDTHS HAVE BEEN OBTAINED FROM AN EXISTING PLAN DATED 06-21-01 AND ARE APPROXIMATE.

ANTENNA SCHEDULE		
AZIMUTH	2G	3G
A	0°	0°
B	120°	120°
C	240°	240°



02 SITE PLAN
 SCALE: N.T.S.

No.	Revision / Issue	Date
A	90% ZD	07-18-12

SITE PLAN & NOTES

Mobile
 LOSOS VISTA SORRENTO
 PARKWAY SUITE 206
 SAN DIEGO, CA 92121

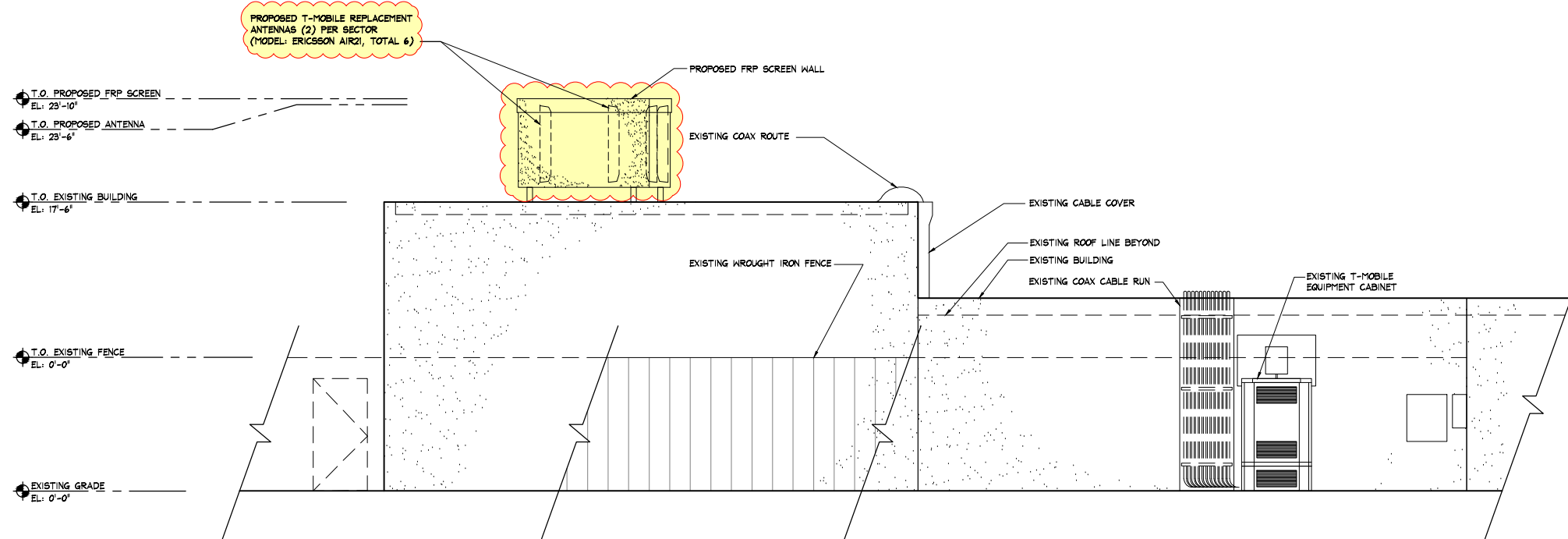
MITCHELL J ARCHITECTURE, INC.
 8880 JONES BLVD, SUITE N
 SAN DIEGO, CA 92121
 858.650.3130 (PH) / 858.650.3140 (FAX)

San Diego Zoo - Food Service Building
 2920 ZOO DRIVE
 SAN DIEGO, CA. 92101

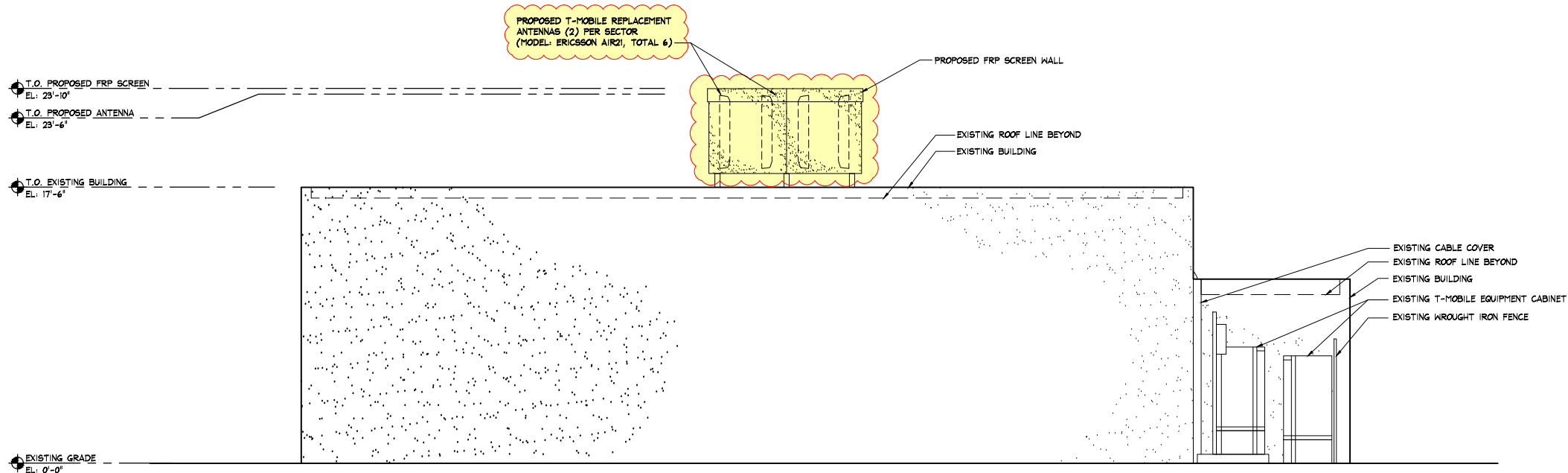
architecture **Mitchell J** architecture



Project	
Date	07-17-12
Drawn By	LS
Checked By	MJ
Scale	AS SHOWN



01 EAST ELEVATION
SCALE: 1/4" = 1'-0"



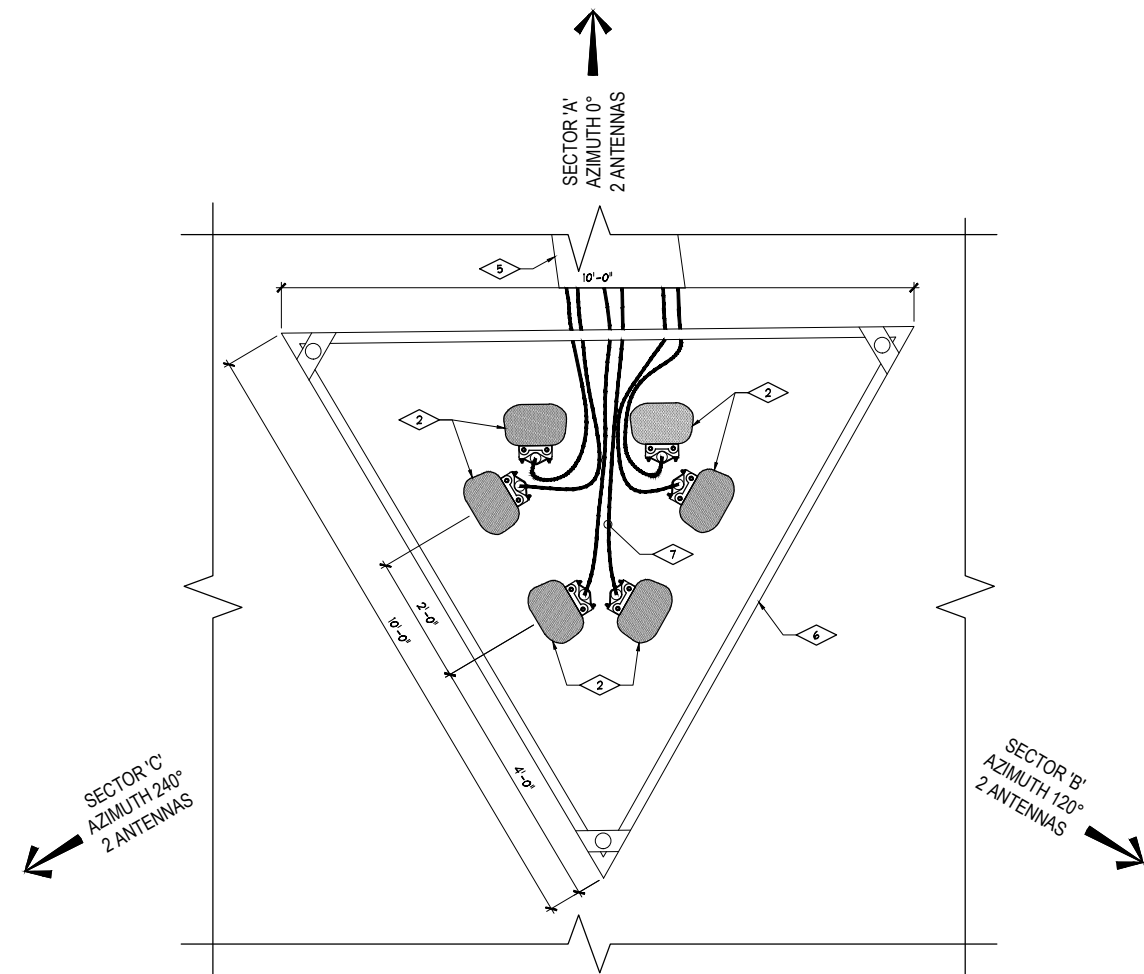
02 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

No.	Revision / Issue	Date
A	90% ZD	07-18-12

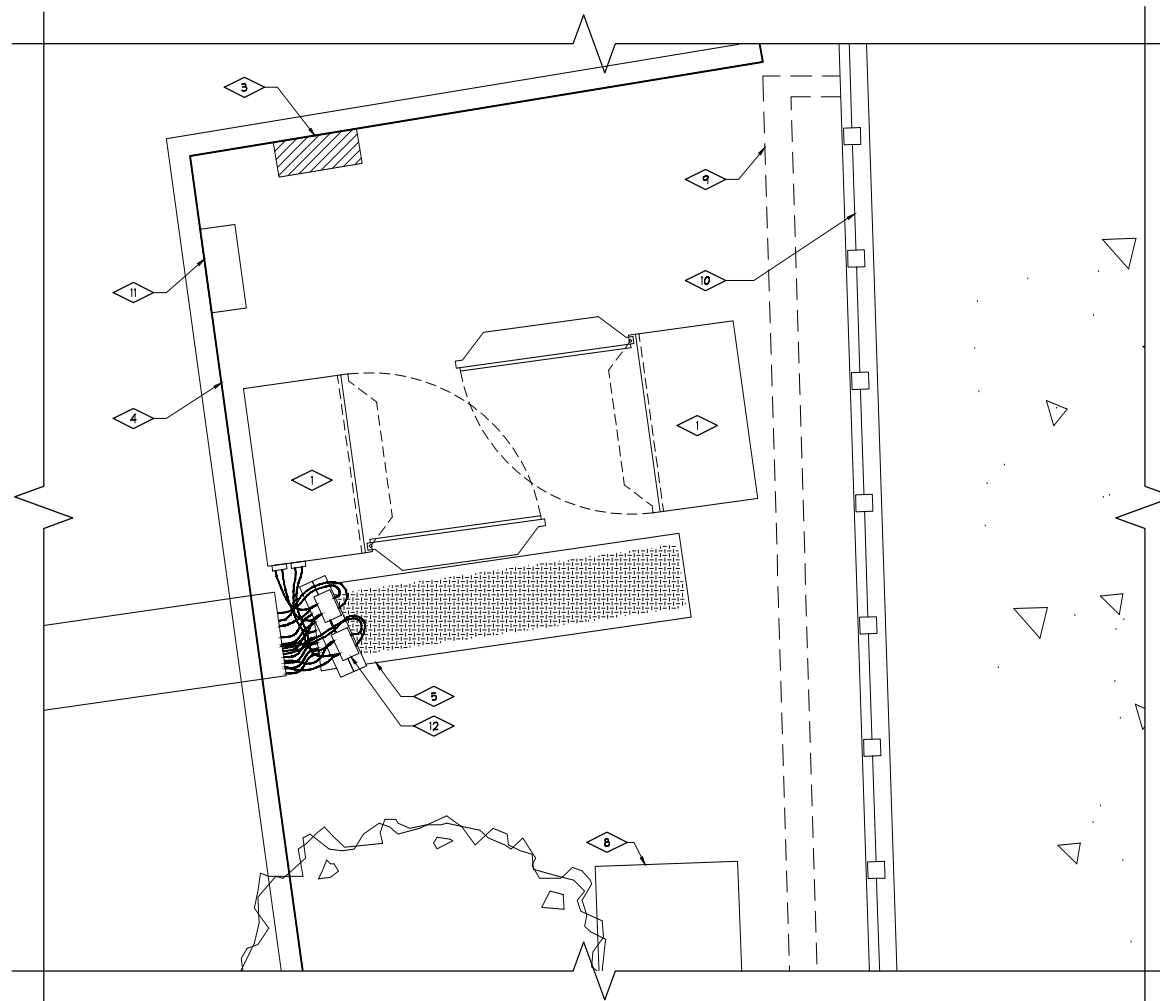
EXTERIOR ELEVATIONS
T-Mobile
 LOS ANGELES
 LOS ANGELES, CA 90001
 888.650.3130 (pt) / 888.650.3140 (ca)
Mitchell J Architecture, Inc.
 10505 VISTA SORRENTO
 PARKWAY SUITE 206
 SAN DIEGO, CA 92121
Mitchell J architecture

San Diego Zoo - Food Service Building
 2920 ZOO DRIVE
 SAN DIEGO, CA 92101
Mitchell J Architecture
 LICENSED ARCHITECT
 MITCHELL J. CAMPBELL
 No. C20355
 State of California
 Project: _____
 Date: 07-17-12
 Drawn By: LS
 Checked By: MJ
 Scale: AS SHOWN
A-201

No.	Revision / Issue	Date
A	90% ZD	07-18-12



01 **ANTENNA LAYOUT**
SCALE: 3/4" = 1'-0"



- KEYED NOTES**
- 1 EXISTING T-MOBILE EQUIPMENT CABINETS (TOTAL 2), NO PROPOSED CHANGES.
 - 2 PROPOSED T-MOBILE REPLACEMENT ANTENNAS (2) PER SECTOR (MODEL: ERICSSON AIR2), TOTAL 6
 - 3 PROPOSED CIENA AND UAM
 - 4 EXISTING BUILDING
 - 5 EXISTING CABLE TRAY
 - 6 PROPOSED FRP SCREEN
 - 7 EXISTING COAX CABLE RUN
 - 8 EXISTING GAS METER & VALVES
 - 9 EXISTING BURIED CURB
 - 10 EXISTING WROUGHT IRON FENCE
 - 11 EXISTING TELCO PANEL
 - 12 EXISTING THA'S MOUNTED ON COAX COVER

02 **EQUIPMENT LAYOUT**
SCALE: 1/2" = 1'-0"

EQUIPMENT & ANTENNA LAYOUT PLAN
San Diego Zoo - Food Service Building
San Diego Zoo
2920 ZOO DRIVE
SAN DIEGO, CA. 92101
T-Mobile
LOSOS VISTA SORRENTO
PARKWAY SUITE 206
SAN DIEGO, CA. 92121
architecture Mitchell J architecture



Project	
Date	07-17-12
Drawn By	LS
Checked By	MJ
Scale	NO SCALE

Mitchell J. Architecture

A-401

ANDREW A CommScope Company	TMBX-6516-R2M DualPol® Panel Antenna	DualPol® Teletilt®
<ul style="list-style-type: none"> Patented cross dipole and feed system Rugged, reliable design with excellent PIM suppression Includes factory installed AISG 2.0 RET actuator 		
<ul style="list-style-type: none"> Fully compatible with Andrew Teletilt® remote control antenna system 		
ELECTRICAL		
Frequency Range (MHz):	1710-2155	
Characteristic Impedance (Ohms):	50	
Azimuth BW (Deg):	65 ± 6	
Elevation BW (Deg):	7.2 ± 1.1	
Gain (dBi):	17.5 ± 0.7	
Polarization:	445°	
Front-to-Back Ratio (dB)	0° 2° 4° 6° 8° 10°	
Cop1, 180° ± 30°:	>25 >25 >25 >24 >24 >24	
Total Power, 180° ± 30°:	>24 >24 >24 >24 >24 >22	
Upper Sidelobe (dB)	0° 2° 4° 6° 8° 10°	
Main Beam to 120°:	>18 >18 >17 >17 >15 >12	
VSWR / Return Loss (dB):	1.35:1 / 18.5	
Port-to-Port Isolation (dB):	>30	
Electrical Tilt Range (Deg):	0-10	
Electrical Downtilt Accuracy (Deg):	± 0.6	
Cross-pol (dB)	0° 2° 4° 6° 8° 10°	
3 dB Beamwidth:	>15 >15 >15 >15 >15 >14	
Intermodulation Products (dBc)		
3rd Order, 2 x 20 Watts:	165	
Max. Input Power (Watts):	250	
Lightning Protection:	DC Ground	
PERFORMANCE TRACKING		
Gain Variation (dB) (between UL and DL frequency pair):	1.3	
Electrical Tilt Accuracy (Deg) (between UL and DL frequency pair within 0.5°):	<0.5	
Azimuth HPBW (Deg) (between UL and DL frequency pair):	6	
MECHANICAL		
Net Weight (kg / lbs):	5.1 / 11.2	
Dimensions-LxWxD:	1528 x 168 x 64 mm	
(with actuator)	65.1 x 6.6 x 3.3 inch	
Length without actuator:	1306 mm / 51.4 inch	
Max. Wind Area (m² / ft²):	0.11 / 1.2	
Max. Wind Load (N / lbf):	268.0 / 67.0	
Max. Wind Speed (km/h / mph):	241 / 150	
Hardware Material:	Hot Dip Galvanized	
Connector Type:	7-15 DIN, Female (2)	
Color:	Off White	
Standard Mounting Hardware:	TMB20203A	



*Specifications may vary when using 0° or 1° electrical tilt.

Andrew Wireless Solutions www.commscope.com
 Customer Service 24 Hours: 1-800-355-1479
 U.S.A., Canada, Mexico: 1-800-355-1479
 U.K.: +44 (0)20305
 Other Europe: +44 (0)1783 612
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 Information correct at date of issue but may be subject to change without notice.

AIR 21 - Key Data

- Radio:**
 - Frequency bands: 1900 MHz (B2) and 1700/2100 MHz (B4)
 - One active antenna/radio, supporting e.g. 2x2 MIMO, 2 Tx + 4 Rx
 - 8 Carriers (4 carriers per radio)
 - IBW = 20 MHz per radio
- Antenna:**
 - One best in class 65° passive antenna : 17.2 to 17.8 dBi gain
 - Two integrated RETs, one per frequency band, -2° - 12° tilt
 - Vertical beam width : 6.5° - 7.1°
 - Dual column for UL beam-forming / 4-way RX Diversity
- Interfaces:**
 - Two optical fiber ports (CPR) for active antenna/radio
 - One power connector, -48 V DC
 - Two 7/16 female connectors for passive antenna, with RET support
 - Two N female connectors for LMU (RX sharing ports) on 1900 MHz variant
- Physical Characteristics and Environment:**
 - H x W x D = 1422 x 307 x 200 mm (56" x 12" x 7.9")
 - 41.5 kg (91 lbs). Two mounting brackets - add 1.2 kg (2.6 lbs).
 - <750 N Wind load (worst direction, static @ 150 km/h)
 - Operating temperature range: -40°C to +55°C (-40°F to +131°F)
 - Heat dissipation 300 W

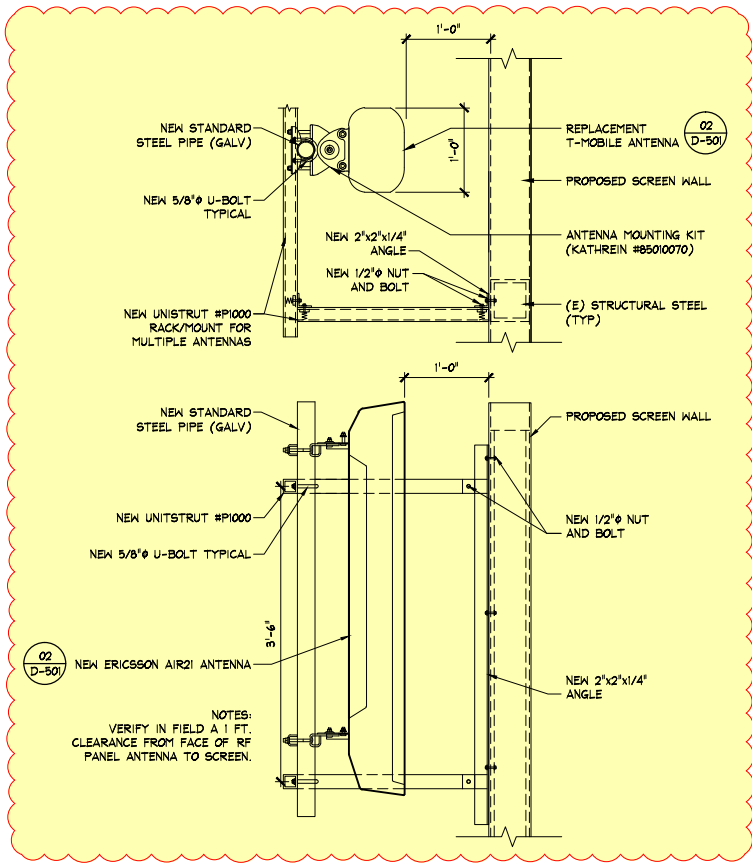


01 EXISTING ANTENNA DETAIL

SCALE: N.T.S.

02 REPLACEMENT ANTENNA DETAIL

SCALE: N.T.S.



03 NOT USED

SCALE: N.T.S.

04 ANTENNA MOUNT

SCALE: N.T.S.

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ANTENNA DETAILS
 SAN DIEGO ZOO - FOOD SERVICE BUILDING
 2920 ZOO DRIVE
 SAN DIEGO, CA. 92101
Mobile-
 LOSOS VISTA SORRENTO
 PARKWAY SUITE 206
 SAN DIEGO, CA. 92121
architecture Mitchell J architecture

MITCHELL J. ARCHITECTURE, INC.
 8880 Camino del Rio North, Suite N
 San Diego, CA 92108
 858.650.3130 (ph) / 858.650.3140 (fax)

LICENSED ARCHITECT
 MITCHELL J. CAMPBELL
 No. C20355
 3-31-15
 STATE OF CALIFORNIA

Project	
Date	07-17-12
Drawn By	LS
Checked By	MJ
Scale	NO SCALE

Mitchell J. Architecture

D-501