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DEPARTMENT OF RESOURCE MANAGEMENT



SOLANO COUNTY

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www.solanocounty.com

Planning Services Division

SOLANO COUNTY ZONING ADMINISTRATOR

**Staff Report
MU-16-03**

Application No. MU-16-03 (T-Mobile) Project Planner: Eric Wilberg, Planner Associate		Meeting of November 17, 2016 Agenda Item No. 1	
Applicant T-Mobile Richard Hofman 22431 Antonio Pkwy, Ste B160-234 Rancho Santa Margarita		Property Owner Lozano Family Trust 940 West A St Dixon, CA 95620	
Action Requested Consideration of Minor Use MS-16-03 to co-locate wireless communications equipment on an existing 101 foot high steel lattice tower located at 6021 Lewis Road, two miles east of the City of Vacaville, within the Exclusive Agriculture "A-40" Zoning District; APN 0142-110-020.			
Property Information			
Size: 98.48 acres		Location: 6021 Lewis Road	
APN: 0142-110-020 (legal with 0142-110-030 and 0142-200-040)			
Zoning: Exclusive Agriculture 'A-40'		Land Use: Wireless Facility, row crop	
General Plan: Agriculture		Ag. Contract: #794	
Utilities: n/a		Access: Lewis Road	
Adjacent General Plan Designation, Zoning District, and Existing Land Use			
	General Plan	Zoning	Land Use
North	Agriculture	Exclusive Agriculture 'A-40'	Row crop
South	Agriculture	Exclusive Agriculture 'A-40'	Alamo Creek
East	Agriculture	Exclusive Agriculture 'A-40'	Row crop
West	Traditional Community Mixed Use	Residential Traditional Community "RTC-1AC"	Residential, School
Environmental Analysis The project qualifies for a Categorical Exemption from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15303, New Construction of Small Structures.			
Motion to Approve The Zoning Administrator does hereby ADOPT the attached resolution and APPROVE Minor Use Permit No. MU-16-03 based on the enumerated findings and subject to the recommended conditions of approval.			

SETTING

The property is situated at the southwest corner of Holdener and Lewis Roads. The site is bound to the west by the town of Elmira and to the south by Alamo Creek. The parcel is relatively flat and consists of 98.48 acres. The site is predominantly used for agricultural row crop production. Residential development is located at the southeast corner of the lot near the existing wireless telecommunications facility.

Surrounding parcels to the north and east exhibit characteristics similar to that of the subject site and are utilized for row crop production. Residential development within the town of Elmira is immediately adjacent to the subject site to the west. The City of Vacaville's Easterly Wastewater Treatment facility is just south of Alamo Creek.

BACKGROUND

The wireless communication facility was initially permitted September 7, 2000 via Use Permit U-00-10 which granted approval to Nextel Communications for the construction and operation of a of a 101-foot high steel lattice tower and associated antennae, microwave dishes, and a 200 square foot equipment structure within an approximate 3,500 square foot lease area. On April 3, 2008 the Zoning Administrator granted approval to Verizon Wireless for the co-location of additional antennae at the 73 foot elevation on the tower and associated equipment structure near the base of the tower.

PROJECT DESCRIPTION

The project consists of co-locating T-Mobile's wireless communications equipment onto an existing 101-foot high steel lattice tower. The proposal includes (6) eight foot tall panel antennas mounted at the 90 foot elevation, (6) remote radio units (RRUs), and a 7' x 10' concrete pad with two equipment cabinets. Additional equipment includes framing, GPS antenna, pipe mounts, cabling, and a new 200 amp meter. The facility would be unmanned; however service technicians would perform maintenance on an as needed basis. A gravel area suitable for parking is provided on-site, adjacent to the existing towers and other equipment. The lease area is enclosed by existing chain link fencing with brown privacy slats and topped with barbed wire.

ENVIRONMENTAL ANALYSIS

The project qualifies for a Categorical Exemption from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15303, New Construction of Small Structures. Class 3 consists of construction and location of limited numbers of new, small facilities or structures. The Guidelines indicate that land uses which do not involve the use of significant amounts of hazardous substances, and do not exceed 2,500 square feet in floor area qualify for this exemption. The project meets these guidelines.

LAND USE CONSISTENCY

General Plan and Zoning

The property is designated Agriculture by the Solano County General Plan. As indicated on the General Plan land use consistency table (General Plan Table LU-7) the Exclusive Agriculture 'A-40' Zoning District is consistent with this designation. Pursuant to Section 28.81 of the County Zoning Regulations, a co-location of a Wireless Communication Facility is a conditionally permitted land use within this district.

Section 28.81(D) provides the general land use regulations for wireless facilities. The proposed co-location is allowed within this zoning district, requires issuance of a use permit, and is required to obtain a building permit for construction of the project. The project does not require a height increase to the existing tower.

All equipment would be located within the existing lease area and would be screened by six foot tall chain link fencing.

The applicant has also supplied a radio frequency (RF) emissions compliance report prepared by Sitesafe, Inc., which concludes that proposed project, together with the existing wireless antennas, is in compliance with Federal Communications Commission (FCC) Rules and Regulations for RF emissions.

RECOMMENDATION

Staff recommends that the Zoning Administrator **ADOPT** the mandatory and suggested findings, and **APPROVE** Minor Use Permit No. MU-16-03, subject to the recommended conditions of approval.

MINOR USE PERMIT MANDATORY FINDINGS

- 1. That the establishment, maintenance or operation of the use or building is in conformity to the General Plan for the County with regard to traffic circulation, population densities and distribution, and other aspects of the General Plan considered by the Zoning Administrator to be pertinent.**

The co-location of wireless communications equipment with an existing facility is consistent with the goals, objectives and policies of the Solano County Zoning Ordinance and Solano County General Plan. The project, as proposed by the applicant, along with the recommended conditions of approval are consistent with the General Plan.

- 2. Adequate utilities, access roads, drainage and other necessary facilities have been or are being provided.**

The site has existing electrical power. No domestic water and/or private septic systems are required for the unmanned facility. The site is accessed via Lewis Road.

- 3. The subject use will not, under the circumstances of this particular case, constitute a nuisance or be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in or passing through the neighborhood of such proposed use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.**

As proposed, the project qualifies for an exemption from the California Environmental Quality Act. In addition, the RF emissions report prepared for the project indicates that the facility would be compliance applicable Federal Communications Commission Rules and Regulations for RF emissions.

ADDITIONAL FINDINGS

- 4. The proposed facility complies will all applicable sub-sections of Wireless Communications Facilities, Zoning Regulations Section 28.81.**
- 5. The RF Environmental Evaluation Report for the facility shows that the cumulative Radio-frequency exposure emitted by the facility and any near-by facilities will be consistent with FCC regulations.**

This finding can be made for this project.

6. The facility blends in with its existing environment and will not have significant visual impacts.

As a co-location on an existing lattice tower, the visual impact will not be significant here. Moreover, the operator of the existing facility has already enclosed the lease area with a 6 ft. high, brown fence and has planted trees along the northern side of the fenced area to minimize the visual impact.

CONDITIONS OF APPROVAL

1. The proposed wireless communication co-location shall be established in accord with the development plans titled: T-Mobile ATC Lewis Road, Site Number BA90476A, submitted with Minor Use Permit application MU-16-03, filed September 26, 2016 and as approved by the Solano County Zoning Administrator.
2. All requirements of the Federal Communications Commission shall be met prior to the issuance of a building permit and during operation of the subject facility. Ground level radiation shall not exceed standards adopted by the Federal Communications Commission and the U.S. Environmental Protection Administration.
3. The permittee shall take such measures as may be necessary or as may be required by the County to prevent offensive noise, lighting, dust or other impacts, which constitute a hazard or nuisance to surrounding properties.
4. Upon termination or expiration of the subject use permit, the proposed wireless communication infrastructure shall be removed from the site. All obsolete or unused facilities, including concrete pads, shall be removed within 12 months of cessation of operations at the site and the area returned to natural conditions.
5. Any expansion or change in the use may require a new or modified use permit and further environmental review.
6. No additional uses (including outdoor storage), new or expanded buildings shall be established or constructed beyond those identified on the approved site plan without prior approval of a new permit or minor revision to the use permit.
7. All requirements of the Solano County Environmental Health Services Division shall be met, including:
 - a. The maximum potential volume of hazardous materials stored at the facility shall be calculated, and if required, the facility shall submit a hazardous materials business plan to Solano County Hazardous Materials Section.
 - b. A chemical toilet shall be maintained at the site for the duration of the construction period.
8. The permittee shall obtain approval from the Building and Safety Division prior to construction, erection, enlargement, altering, repairing, moving, improving, removing, converting, demolishing any building or structure, fence or retaining wall regulated by the Solano County Building laws. Submit four (4) sets of plans to the Building and Safety Division for plan review and permits prior to beginning any improvements.

9. The premises shall be maintained in a neat and orderly manner and kept free of accumulated debris and junk.
10. All onsite transmission lines leading to the wireless communication lease site shall be located underground.
11. The co-located wireless communication facility is granted for a fixed term of ten (10) years and shall expire November 17, 2026. Upon expiration, issuance of a new land use permit is required should the facility continue to operate at this location.

Attachments:

- A – Draft Resolution
- B – Assessor's Parcel Map
- C – Development Plans
- D – Photo Simulations

SOLANO COUNTY ZONING ADMINISTRATOR RESOLUTION NO. XX

WHEREAS, the Solano County Zoning Administrator has considered Minor Use Permit Application No. MU-16-03 of **T-Mobile** to co-locate wireless communications equipment on an existing 101 foot high steel lattice tower located at 6021 Lewis Road, 2 miles east of the City of Vacaville within the Exclusive Agricultural "A-40" Zoning District, APN: 0142-110-020, and;

WHEREAS, said Zoning Administrator has reviewed the report of the Department of Resource Management and heard testimony relative to the subject application at the duly noticed public hearing held on November 17, 2016, and;

WHEREAS, after due consideration, the Zoning Administrator has made the following findings in regard to said proposal:

- 1. That the establishment, maintenance or operation of the use or building is in conformity to the General Plan for the County with regard to traffic circulation, population densities and distribution, and other aspects of the General Plan considered by the Zoning Administrator to be pertinent.**

The co-location of wireless communications equipment with an existing facility is consistent with the goals, objectives and policies of the Solano County Zoning Ordinance and Solano County General Plan. The project, as proposed by the applicant, along with the recommended conditions of approval are consistent with the General Plan.

- 2. Adequate utilities, access roads, drainage and other necessary facilities have been or are being provided.**

The site has existing electrical power. No domestic water and/or private septic systems are required for the unmanned facility. The site is accessed via Lewis Road.

- 3. The subject use will not, under the circumstances of this particular case, constitute a nuisance or be detrimental to the health, safety, peace, morals, comfort or general welfare of persons residing or working in or passing through the neighborhood of such proposed use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.**

As proposed, the project qualifies for an exemption from the California Environmental Quality Act. In addition, the RF emissions report prepared for the project indicates that the facility would be compliance applicable Federal Communications Commission Rules and Regulations for RF emissions.

- 4. The proposed facility complies will all applicable sub-sections of Wireless Communications Facilities, Zoning Regulations Section 28.81.**
- 5. The RF Environmental Evaluation Report for the facility shows that the cumulative Radio-frequency exposure emitted by the facility and any near-by facilities will be consistent with FCC regulations.**

This finding can be made for this project.

6. The facility blends in with its existing environment and will not have significant visual impacts.

As a co-location on an existing lattice tower, the visual impact will not be significant here. Moreover, the operator of the existing facility has already enclosed the lease area with a 6 ft. high, brown fence and has planted trees along the northern side of the fenced area to minimize the visual impact.

BE IT THEREFORE RESOLVED, that the Zoning Administrator has approved Minor Use Permit Application No. MU-16-03 subject to the following recommended conditions of approval:

1. The proposed wireless communication co-location shall be established in accord with the development plans titled: T-Mobile ATC Lewis Road, Site Number BA90476A, submitted with Minor Use Permit application MU-16-03, filed September 26, 2016 and as approved by the Solano County Zoning Administrator.
2. All requirements of the Federal Communications Commission shall be met prior to the issuance of a building permit and during operation of the subject facility. Ground level radiation shall not exceed standards adopted by the Federal Communications Commission and the U.S. Environmental Protection Administration.
3. The permittee shall take such measures as may be necessary or as may be required by the County to prevent offensive noise, lighting, dust or other impacts, which constitute a hazard or nuisance to surrounding properties.
4. Upon termination or expiration of the subject use permit, the proposed wireless communication infrastructure shall be removed from the site. All obsolete or unused facilities, including concrete pads, shall be removed within 12 months of cessation of operations at the site and the area returned to natural conditions.
5. Any expansion or change in the use may require a new or modified use permit and further environmental review.
6. No additional uses (including outdoor storage), new or expanded buildings shall be established or constructed beyond those identified on the approved site plan without prior approval of a new permit or minor revision to the use permit.
7. All requirements of the Solano County Environmental Health Services Division shall be met, including:
 - a. The maximum potential volume of hazardous materials stored at the facility shall be calculated, and if required, the facility shall submit a hazardous materials business plan to Solano County Hazardous Materials Section.
 - b. A chemical toilet shall be maintained at the site for the duration of the construction period.

8. The permittee shall obtain approval from the Building and Safety Division prior to construction, erection, enlargement, altering, repairing, moving, improving, removing, converting, demolishing any building or structure, fence or retaining wall regulated by the Solano County Building laws. Submit four (4) sets of plans to the Building and Safety Division for plan review and permits prior to beginning any improvements.
9. The premises shall be maintained in a neat and orderly manner and kept free of accumulated debris and junk.
10. All onsite transmission lines leading to the wireless communication lease site shall be located underground.
11. The co-located wireless communication facility is granted for a fixed term of ten (10) years and shall expire November 17, 2026. Upon expiration, issuance of a new land use permit is required should the facility continue to operate at this location.

I hereby certify that the foregoing resolution was adopted at the regular meeting of the Solano County Zoning Administrator on November 17, 2016.

BILL EMLLEN, DIRECTOR
RESOURCE MANAGEMENT

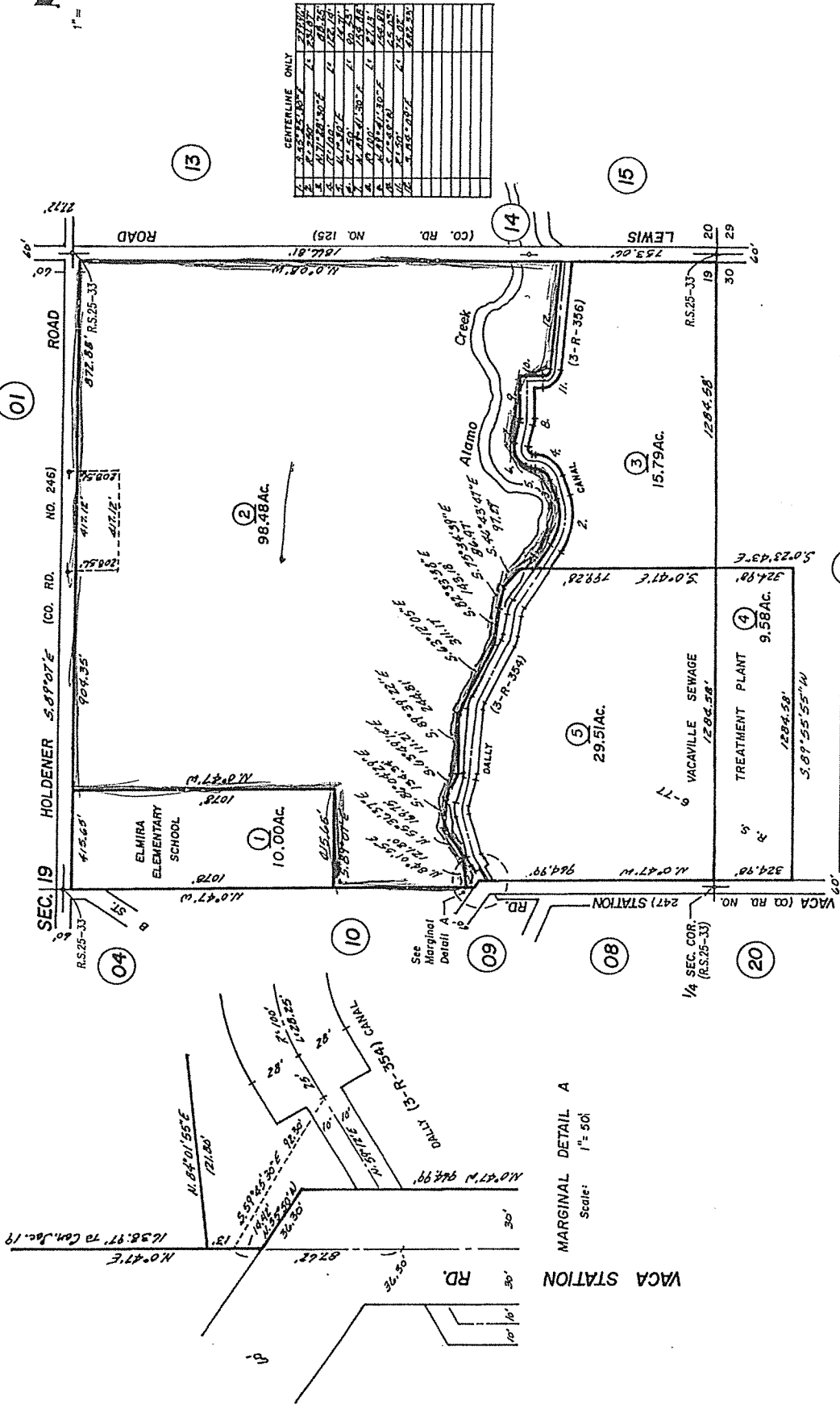
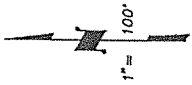
Michael Yankovich
Planning Program Manager

FILE COPY

MD-16-03

S.E. 1/4 SEC. 19, T.6 N., R.1 E., M.D.B. & M.
 POR. NE. 1/4 SEC. 30, T.6 N., R.1 E., M.D.B. & M.

Tax Area Code 142-11
 6019
 91021



CENTRALLINE ONLY

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99	444.500000000	1	150.000
100	449.000000000	1	150.000

REVISION	DATE	BY

NOTE: Assessor's Block Numbers Shown in Ellipses
 Assessor's Parcel Numbers Shown in Circles

Assessor's Map Bk. 142 Pg. 11
 County of Solano, Calif.

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SITE NAME:
ATC LEWIS ROAD

SITE NUMBER:
BA90476A

STREET ADDRESS:
6021 LEWIS ROAD
VACAVILLE, CA 95687

FILE COPY
mm-16-03

PROJECT DIRECTORY

APPLICANT:
T-Mobile
1855 GATEWAY BLVD.
SUITE 900
CONCORD, CA 94520

AGENT:
FULLERTON ENGINEERING
1100 E. WOODFIELD ROAD, SUITE 500
SCHLAUBURG, ILLINOIS 60173
TEL: (647) 908-8400

PROPERTY SPECIALISTS:
THE DERMA GROUP
22431 ANTONIO PKWY, SUITE B160-234
RANCHO SANTA MARGARITA, CA 92688
PHONE: (949) 355-2930
CONTACT: RICHARD FORMAN

SCOPE OF WORK

- NEW 7'x10' EQUIPMENT CONCRETE PAD WITHIN 8'x10' LEASE AREA
- (1) NEW RBS6131 CABINET
- (1) NEW UTILITY H-FRAME WITH NEW TELCO AND PPC CABINET
- (1) GPS ANTENNA
- (6) NEW ANTENNAS, (3) NEW RRUS11 B12 & (3) NEW RRUS11 B2
- (1) NEW 16'x10' RIGID CABLE
- (1) NEW 200 AMP RPE MOUNT
- (1) NEW 200 AMP METER

DRAWING SCALE NOTE: THE DRAWING ARE DESIGNED FOR 11"x17" FORMAT

PROJECT SUMMARY

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS AT THE PROJECT SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

THE SEAL CERTIFIES ONLY THE CIVIL ENGINEERING DESIGN AND RELATED DETAILS SHOWN ON THESE PLANS. THIS SEAL DOES NOT CERTIFY ANY MECHANICAL, ELECTRICAL, MECHANICAL, STRUCTURAL DESIGN, AND RELATED DETAILS INCLUDED IN THESE PLANS.

FOR SITES WHERE A CRANE IS NECESSARY, THE CONTRACTOR SHALL CONFIRM AN UNOBSTRUCTED ROUTE FOR THE CRANE FROM PUBLIC HIGHWAY TO THE PROJECT SITE. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND INSURANCE COVERAGE INCLUDING AERIAL UTILITY LINES ARE ALLOWED ALONG SIDE OF SAID CRANE ROUTE.

THIS DRAWING IS THE PROPERTY OF FULLERTON ENGINEERING CONSULTANTS, INC. IF IS FOR THE EXCLUSIVE USE OF THE CLIENT. ANY REUSE OR REPRODUCTION WITHOUT THE EXPRESSED WRITTEN CONSENT OF FULLERTON ENGINEERING CONSULTANTS, INC. IS PROHIBITED.



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PROJECT INFORMATION

TYPE OF CONSTRUCTION:
PROJECT TYPE: SELF SUPPORT TOWER

TOWER INFORMATION:
(LATITUDE & LONGITUDE BASED ON NAD1983)
LONGITUDE: 38.34705556°
LATITUDE: -121.89740000°
CUMBER HEIGHT: 90' AGL
SQUARE FOOTAGE:
80 SQ FT

LANDOWNER:
AMERICAN TOWER CORPORATION
19100 VON KARMAN SUITE 200
IRVINE, CA 92612
TEL: (619) 384-2109
FASCEN NUMBER (TAX I.D.): 0142-110-20

OCCUPANT LOAD:
UNOCCUPIED

SUBJECT SITE ZONING:
AE

TOWER SETBACKS:
FRONT: N/A--EXISTING TOWER
SIDE: N/A--EXISTING TOWER
REAR: N/A--EXISTING TOWER

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 AGENCIES AND TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES:

- 2013 CBC
- 2013 CEC VOLUME 1 & 2 (2012 EDITION INTERNATIONAL BUILDING CODE WITH 2013 CALIFORNIA AMENDMENTS)
- 2013 CMC (WITH 2015 CALIFORNIA AMENDMENTS)
- 2013 CALIFORNIA MECHANICAL CODE WITH 2013 CALIFORNIA AMENDMENTS
- 2013 CALIFORNIA ELECTRICAL CODE WITH 2013 CALIFORNIA AMENDMENTS
- 2013 CALIFORNIA GREEN CODE WITH 2013 CALIFORNIA AMENDMENTS
- 2013 CALIFORNIA FIRE CODE WITH 2013 CALIFORNIA AMENDMENTS
- 2013 CALIFORNIA REFERENCED STANDARDS CODE
- CITY/COUNTY ZONING ORDINANCES

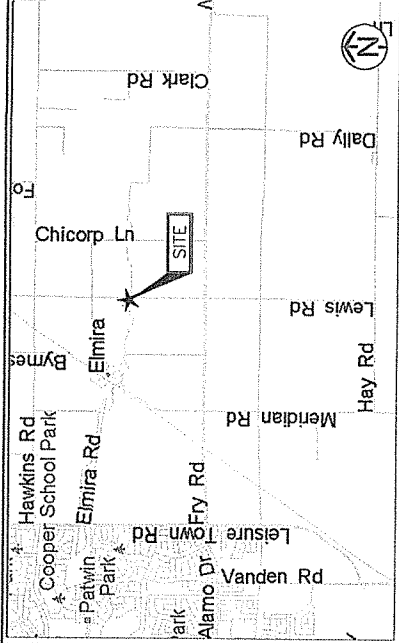
DRAWING INDEX

- T-1 TITLE SHEET
- N-1 GENERAL NOTES
- N-2 OVERALL SITE PLAN
- C-1 OVERLARGED SITE PLAN
- C-2 EQUIPMENT PLAN
- C-3 PLATFORM DETAILS
- C-4 TOWER ELEVATION AND ANTENNA DETAILS
- C-5 CABINET DETAILS
- C-5.1 CABLE DETAILS
- C-5.2 ANTENNA DETAILS & SPEC
- C-9 OVERLARGED DETAILS
- C-8 REFS SHEET
- E-1 ELECTRICAL PLAN AND NOTES
- E-2 ELECTRICAL DETAILS
- E-3 GROUNDING PLAN AND NOTES
- E-4 GROUNDING PLAN AND NOTES

APPROVALS

OPERATIONS	DATE
RF ENGINEER	
ZONING ADMINISTRATOR	
SITE ACQUISITION	
T-MOBILE CONSTRUCTION MANAGER	
PROPERTY OWNER	
POWER APPROVAL	
TELCO APPROVAL	

VICINITY MAP



DIRECTIONS TO SITE:
DEPART I-805 SOUTH ON RAMP, TURN RIGHT (WEST) ONTO LOCAL ROAD(S). APPROX AT SITE.
DEPART I-805 SOUTH ON RAMP, TURN RIGHT (WEST) ONTO LEWIS RD, TURN RIGHT (WEST) ONTO LEWIS RD, TURN RIGHT (WEST) ONTO LOCAL ROAD(S). APPROX AT SITE.
DEPART I-805 SOUTH ON RAMP, TURN RIGHT (WEST) ONTO LEWIS RD, TURN RIGHT (WEST) ONTO LEWIS RD, TURN RIGHT (WEST) ONTO LOCAL ROAD(S). APPROX AT SITE.

T-Mobile
1855 GATEWAY BLVD.
SUITE 900
CONCORD, CA 94520

L700
CONSTRUCTION

CHECKED BY:	DATE	DESCRIPTION
MB	01/25/18	90% REVIEW
AA	01/24/18	95% REVIEW
AA	01/17/18	100% REVIEW
AA	11/11/17	FINAL



AMERICAN TOWER
AMERICAN TOWER CORPORATION
19100 VON KARMAN SUITE 200
IRVINE, CA 92612

FULLERTON
ENGINEERING DESIGN
1100 E. WOODFIELD ROAD, SUITE 500
SCHLAUBURG, ILLINOIS 60173
TEL: 815.988.4600
www.fullertonengineering.com

SITE #:
BA90476A

SITE NAME:
ATC LEWIS ROAD

SITE ADDRESS:
6021 LEWIS ROAD
VACAVILLE, CA 95687

SHEET NAME:
TITLE SHEET

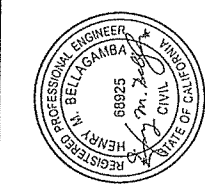
SHEET NUMBER:
T-1

2016.0249.0003

Mobile
1855 GATEWAY BLVD.
SUITE 900
CONCORD, CA 94520

L700
CONSTRUCTION

Table with columns: CHECKED BY, APPROVED BY, DATE, DESCRIPTION, REV. NO., REV. DATE, REV. DESCRIPTION.



AMERICAN TOWER CORPORATION
19100 KORN HARBOR SUITE 200
IRVINE, CA 92612

FULLERTON
ENGINEERING DESIGN

1100 E WOODFIELD ROAD, SUITE 500
SCHUMBERG, ILLINOIS 60173
www.fullertonengineering.com

SITE #:
BA90476A

SITE NAME:
ATC LEWIS ROAD

SITE ADDRESS:
6021 LEWIS ROAD
VACAVILLE, CA 95687

SHEET NUMBER:
N-2

GENERAL NOTES

SHEET NUMBER:
N-2

NOTE: THESE NOTES ARE OF A GENERAL NATURE AND ARE NOT SITE-SPECIFIC. SOME NOTES MAY NOT APPLY TO THIS SITE. CROSS-REFER TO VERIFY WORK TO BE COMPLETED.

2016.02.49.0003

PART 1 - GENERAL ELECTRICAL PROVISIONS

- 1. SUBMITTAL OF PERMITS AND INSURANCE COVERAGE IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 2 - PRODUCTS

- 1. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED.

PART 3 - UNDERGROUND ELECTRICAL RESTRICTIONS

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 4 - GROUNDING CONNECTIONS

- 1. ALL GROUNDING CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. ALL GROUNDING CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

PART 5 - EXECUTION

- 1. WORKMANSHIP: ALL WORK SHALL BE PERFORMED BY MEN SKILLED IN THE INSTALLATION OF THE WORK HEREIN SPECIFIED. ALL WORK SHALL BE PERFORMED BY MEN SKILLED IN THE INSTALLATION OF THE WORK HEREIN SPECIFIED.

PART 6 - MECHANICAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 7 - ANTENNA SYSTEM

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 8 - GENERAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 9 - MECHANICAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 10 - GENERAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 11 - GENERAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 12 - PRODUCTS

- 1. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED.

PART 13 - MECHANICAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 14 - GENERAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 15 - GENERAL

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE.

PART 16 - GENERAL

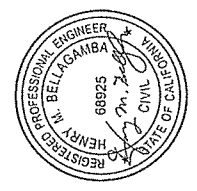
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L700

CONSTRUCTION

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MB	08/17/18	FINAL	AA



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SITE ADDRESS:
 6021 LEWIS ROAD
 VACAVILLE, CA 95667

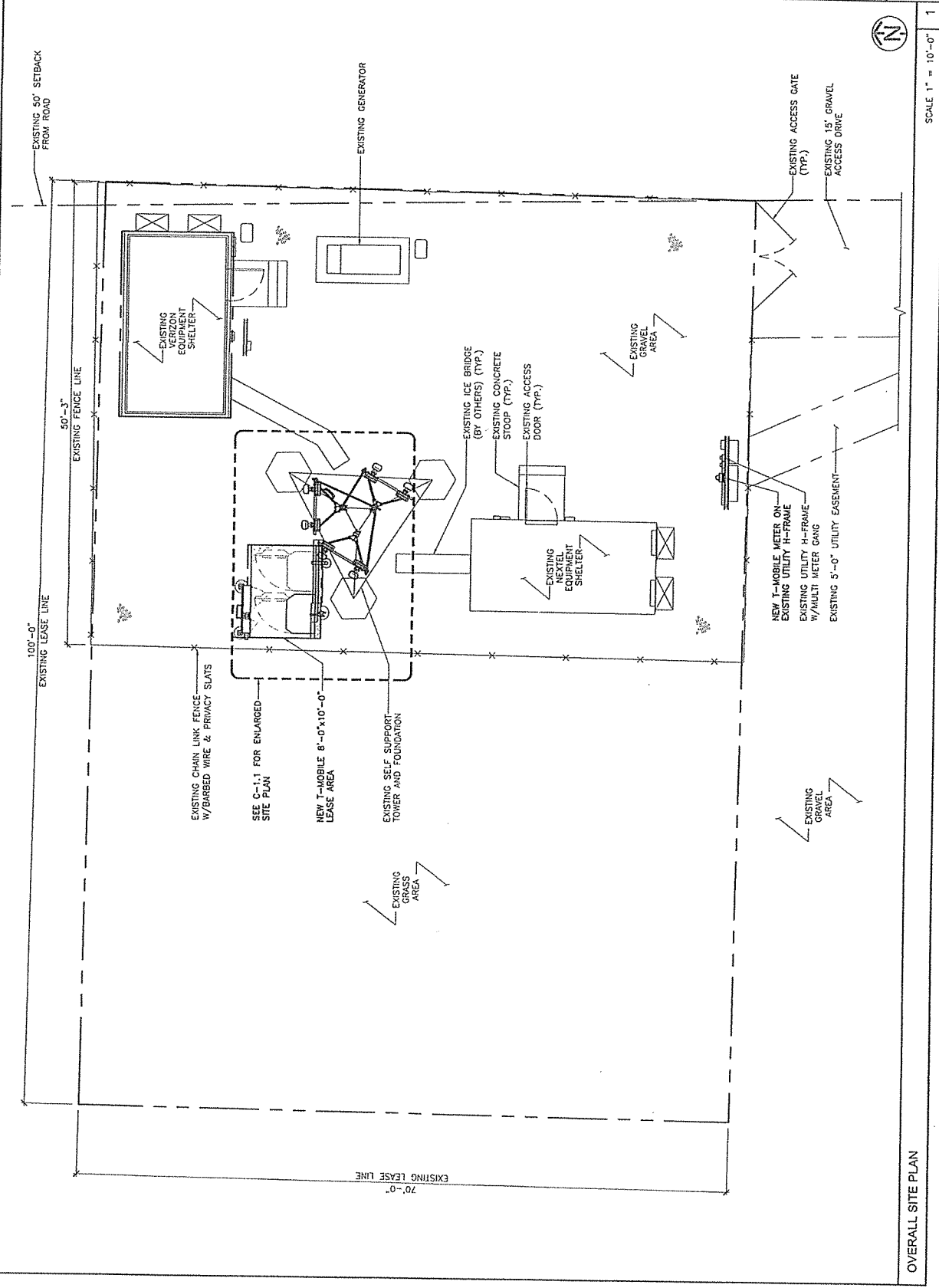
SHEET NAME:
OVERALL SITE PLAN

SHEET NUMBER:
C-1

SCALE 1" = 10'-0"

1

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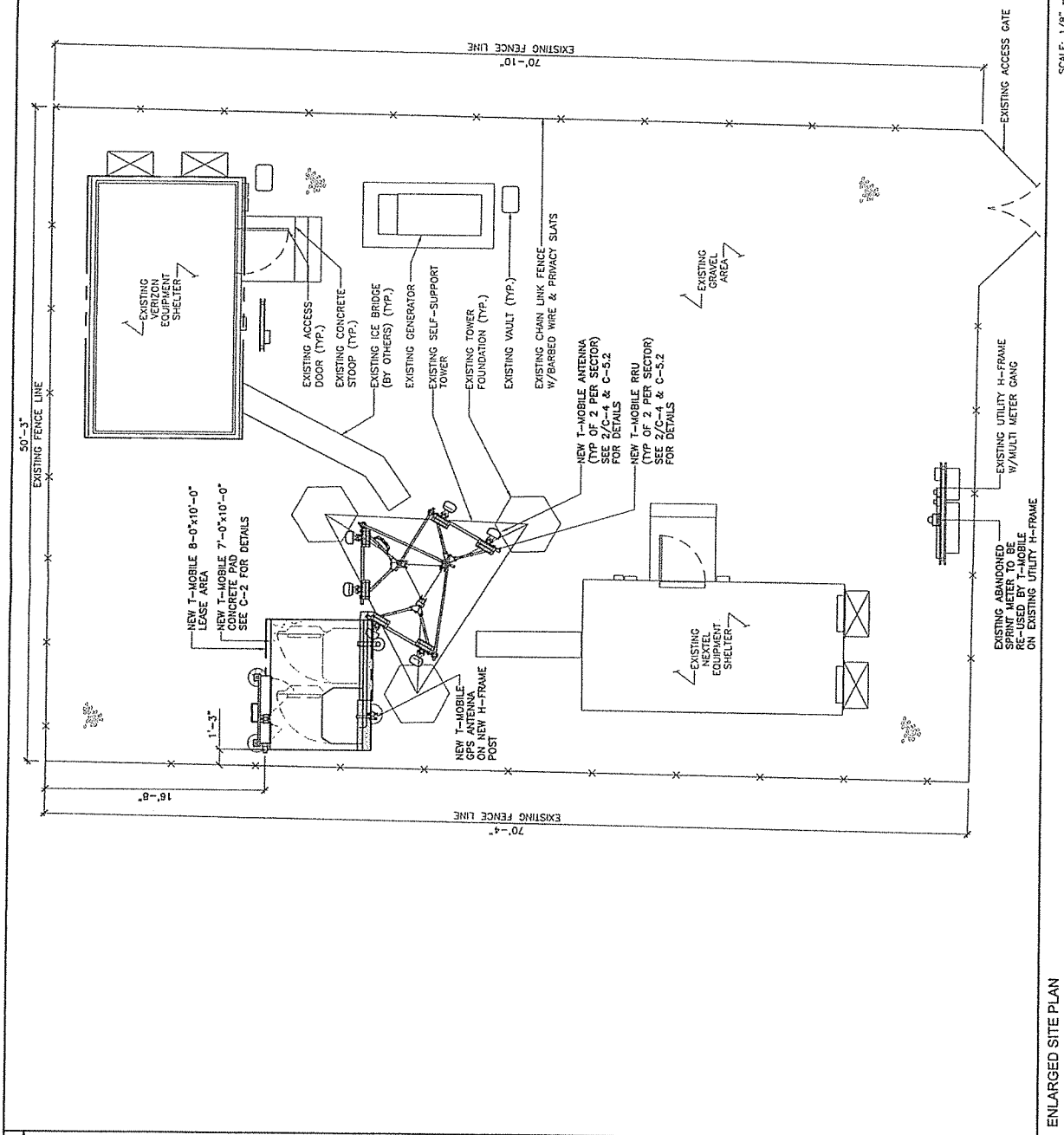


OVERALL SITE PLAN

GENERAL ABBREVIATIONS	
AEF	ABOVE FINISHED FLOOR
AGL	ABOVE GRADE LEVEL
APR	APPROXIMATE
ATS	AUTOMATIC TRANSFER SWITCH
BLDG	BUILDING
C	CENTERLINE
CLR	CLEAR
CONC	CONCRETE
CND	CONDUIT
FTG	FOOTING
FT	FOOT
EGB	ELECTRICAL EQUIPMENT
ELEC	ELECTRICAL
ELEV	ELEVATION
EQUIP	EQUIPMENT
EXT	EXTERIOR
FND	FOUNDATION
FIBER	FIBER
GA	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GRD	GROUND
UP	UP
LD	LIQUID
PROP	PROPANE
MAX	MAXIMUM
MFR	MANUFACTURER
MIN	MINIMUM
MAN	MANUAL
MTS	MANUAL TRANSFER SWITCH
OT	OVERHEAD
DE/OT	OVERHEAD ELECTRIC/TELCO
PFC	POWER PROTECTION CABINET
RCS	RIGID GALVANIZED STEEL
IN	INTERIOR
INT(S)	INTERIOR SQUARE FOOT
STL	STEEL
UN	UNDERGROUND
ELC/T	ELECTRIC/TELCO
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
YR	YEAR
TRNS	TRANSFORMER

TELECOM ABBREVIATIONS	
CDMA	CODE DIVISION MULTIPLE ACCESS
GSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATION
LTE	LONG TERM EVOLUTION
RRU	REMOTE RADIO UNIT
SSS	SITE SURVEIL CABINET
UMTS	UNIVERSAL TELECOMMUNICATION SYSTEM

SYMBOLS	
▲	REVISION
○	WORK POINT
⊕	UTILITY POLE
▤	BRICK
▥	COMPRESSED STONE
▧	CONCRETE
▨	EARTH
▩	GRAVEL
---	CENTERLINE
- - -	PROPERTY LINE
- · - · -	LEASE LINE
- · - · - · - · -	EASEMENT LINE
⊗	FENCE
⊗	CHAINLINK
⊗	WOOD
⊗	ELECTRIC OVERHEAD
⊗	WOOD OVERHEAD
⊗	UNDERGROUND
⊗	FIBER OVERHEAD
⊗	UNDERGROUND
⊗	TELEPHONE OVERHEAD
⊗	UNDERGROUND
⊗	DCPOWER



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DATE	01/17/18
DESCRIPTION	100% REVIEW
DATE	01/11/18
DESCRIPTION	FINAL

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BA90476A

SITE NAME:
ATC LEWIS ROAD

SITE ADDRESS:
6021 LEWIS ROAD
VACAVILLE, CA 95687

ENLARGED SITE PLAN

SHEET NUMBER:
C-1.1

SCALE: 1/8" = 1'-0" 1

ENLARGED SITE PLAN

2016.0249.0003

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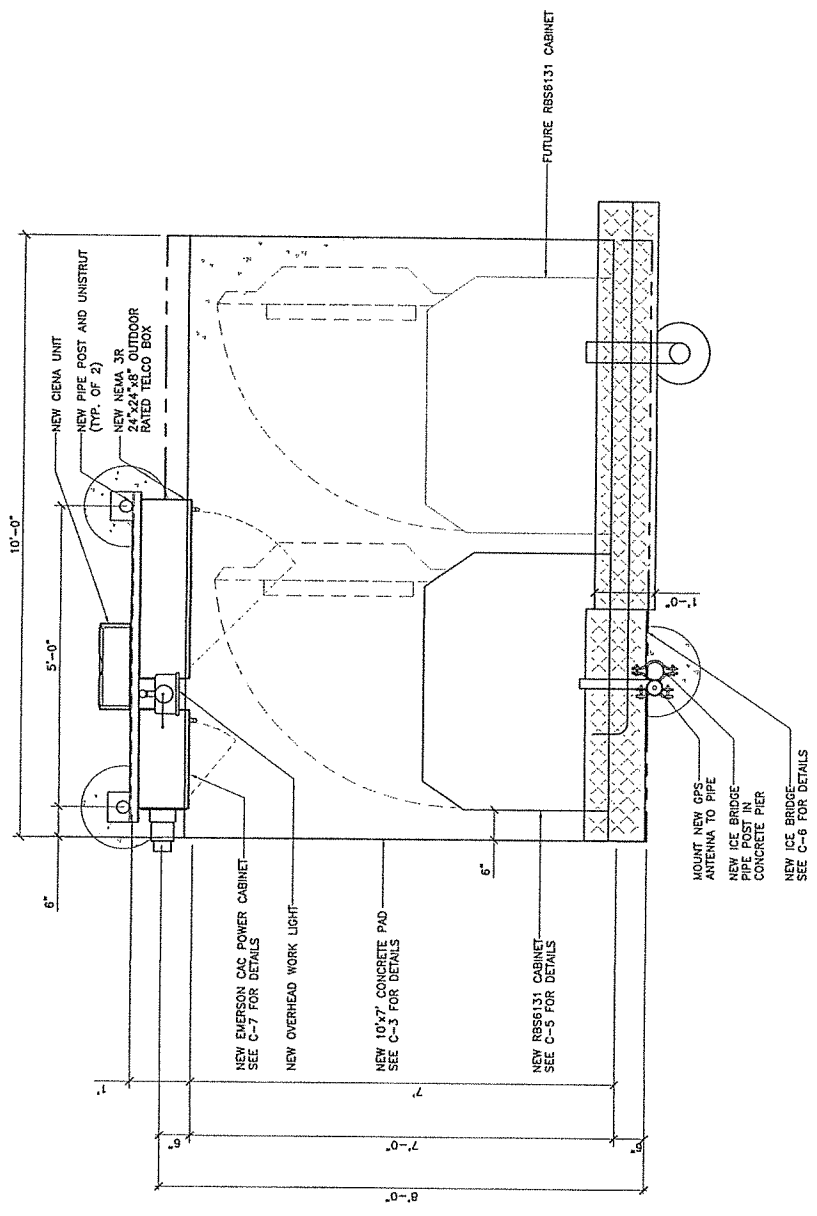
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 SITE NAME:
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 SITE ADDRESS:
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 VACAVILLE, CA 95607

SHEET NAME:
 EQUIPMENT PLAN

SHEET NUMBER:
 C-2

2016.0249.0003



SCALE: 1/2" = 1'-0" 1

EQUIPMENT PLAN

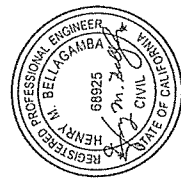
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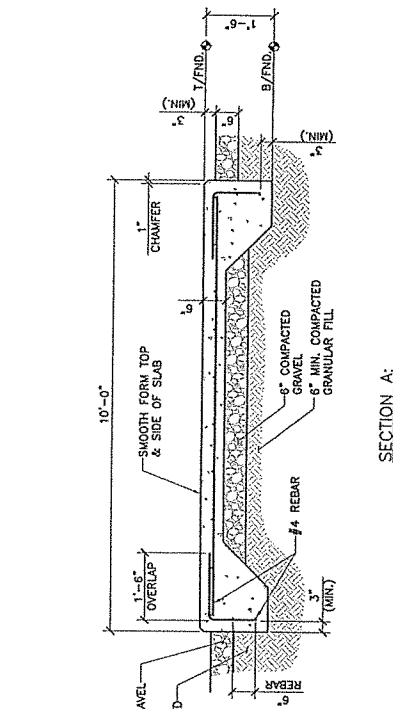
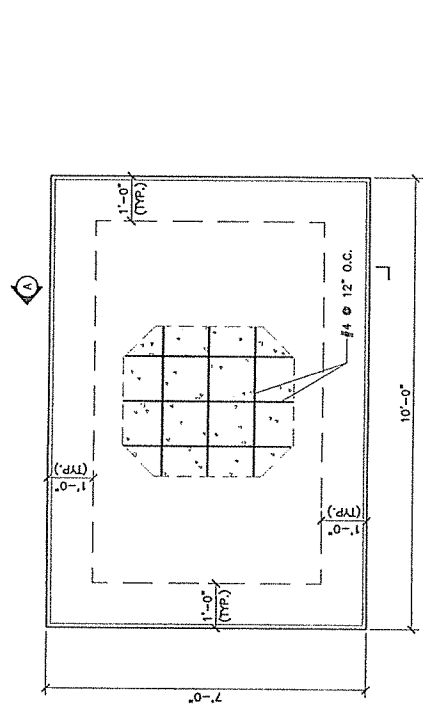
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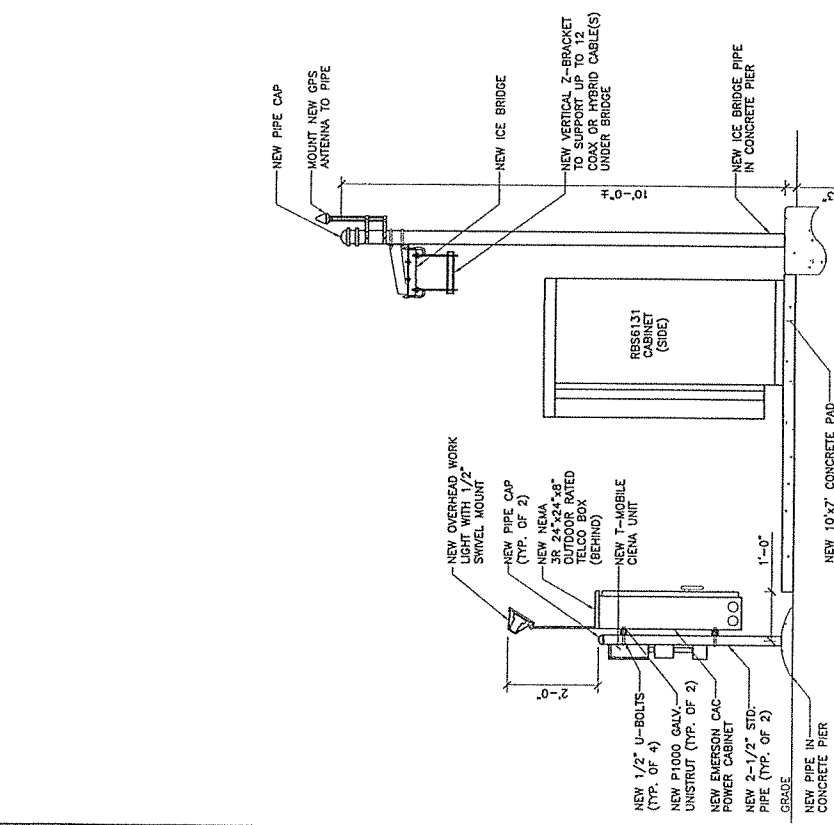
SHEET NAME:
 EQUIPMENT AND
 CONCRETE PAD
 DETAILS

SHEET NUMBER:
 C-3

2016.0249.0003



- CONCRETE NOTES:**
1. MEET OR EXCEED THE FOLLOWING CODES AND STANDARDS
 DESIGN.....ASTM C 150 (TYPE I)
 CONSTRUCTION.....ACI 318-11
 DETAILING.....ACI 301-10
 MIXING PRACTICE.....CRSI MANUAL OF STANDARD PRACTICE
 AIR ENTRAINMENT.....ASTM C94
 REINF. STEEL.....ASTM C233
 CONCRETE SHALL BE NORMAL WEIGHT (145 P.C.F.), F'c = 4000 PSI @ 28 DAYS (5 1/2 BAG MIN. CEMENT CONTENT).
 ALL BACKFILL MATERIALS UNDER SLABS SHALL BE FREE DRAINING.
 2. FILL MATERIALS FOR SLAB AREAS SHALL BE PLACED IN LAYERS NOT EXCEEDING 4 INCHES TO A MAXIMUM OF 18 INCHES IN ACCORDANCE WITH ASTM D1557. FINISH SURFACE OF ATTAINED SLAB AREAS SHALL BE PROOF ROLLED WITH THE HEAVIEST EQUIPMENT AVAILABLE. ALL SOFT SPOTS SHALL BE REPAIRED AND REPLACED WITH APPROVED FILL MATERIALS. ALL SOFT SPOTS SHALL BE REPLACED WITH APPROVED FILL MATERIALS. ALL SOFT SPOTS SHALL NOT BE PERMITTED IN ANY CONCRETE.
 3. FLY ASH, IF UTILIZED AND APPROVED (TYPE C OR F), SHALL BE LIMITED TO 15% OF THE TOTAL CEMENT CONTENT.
 4. WIND WEATHER CONCRETING SHALL BE DONE IN ACCORDANCE WITH ACI-305.
 5. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT WELDED WIRE FABRIC AT POSITION SHOWN ON THE PLANS AND DETAILS.
 6. THE MAXIMUM AGGREGATE SIZE THAT SHALL BE USED IS 3/4".



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5. THE MAXIMUM AGGREGATE SIZE THAT SHALL BE USED IS 3/4".

NEW OVERHEAD WORK LIGHT WITH 1/2" SWIVEL MOUNT

NEW PIPE CAP (TYP. OF 2)

NEW NEMA 3R 24"x24"x8" TYP. OF 2 MOUNTED TELCO BOX (BEHIND)

NEW T-MOBILE CENA UNIT

NEW 1/2" U-BOLTS (TYP. OF 4)

NEW P1000 GALV. UNISTRUT (TYP. OF 2)

NEW EMERSON POWER CABINET

NEW 2-1/2" STD PIPE (TYP. OF 2)

NEW PIPE IN GRADE CONCRETE PIER

NEW 10'x7' CONCRETE PAD

R656131 CLOSET (SIDE)

NEW ICE BRIDGE PIPE IN CONCRETE PIER

NEW VERTICAL Z-BRACKET TO SUPPORT UP TO 12 COAX OR HYBRID CABLE(S) UNDER BRIDGE

NEW ICE BRIDGE

NEW PIPE CAP MOUNT NEW GPS ANTENNA TO PIPE

NEW PIPE CAP

EQUIPMENT ELEVATION

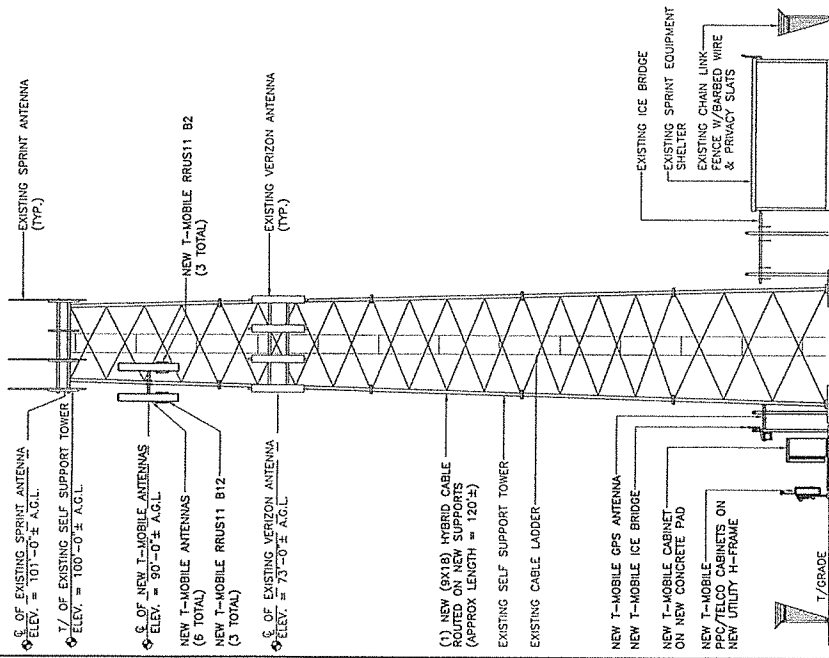
SCALE: N.T.S.

CONCRETE PAD DETAIL

SCALE: N.T.S.

2

STRUCTURAL NOTE:
 STRUCTURAL EVALUATION OF THE STRUCTURE AND ANTENNA MOUNTS WERE PREPARED BY OTHERS.



TOWER ELEVATION VIEW

SCALE: 1/16" = 1'-0"

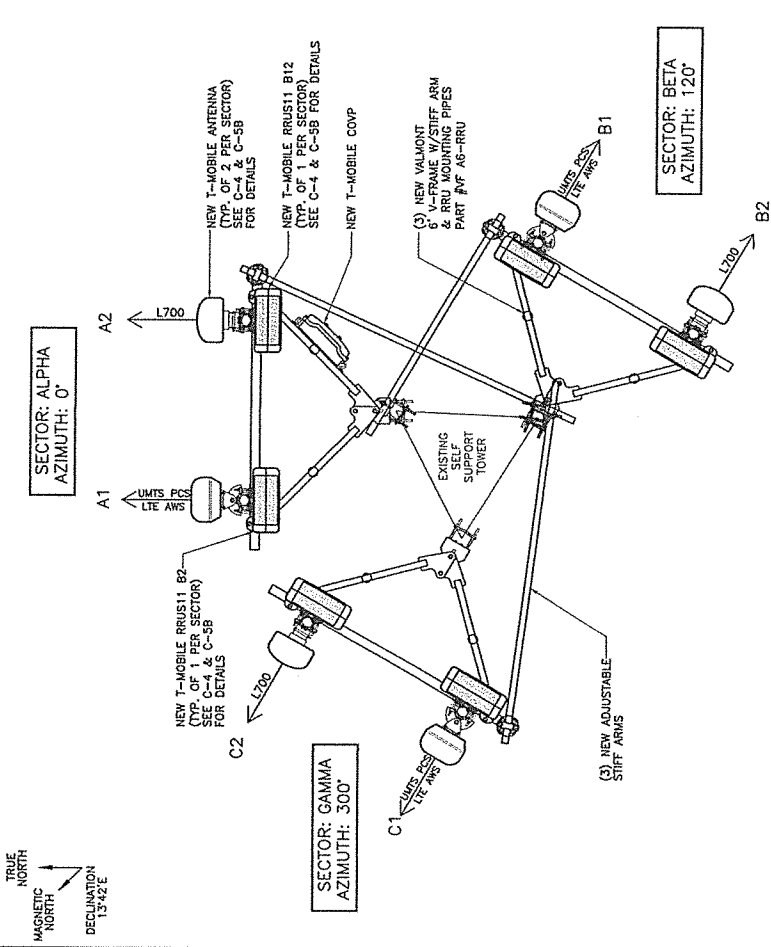
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ANTENNA LAYOUT

SCALE: 3/8" = 1'-0"

2

ANTENNA SCHEDULE			
SECTOR	ALPHA	BETA	GAMMA
A-1	B-1	C-1	C-2
LTE AWS/UMTS PCS	LTE AWS/UMTS PCS	LTE AWS/UMTS PCS	LTE
0°	120°	300°	300°
90'	90'	90'	90'
ERICSSON	ERICSSON	ANDREW	ANDREW
AIR 21 B4A B2P	AIR 21 B4A B2P	AIR 21 B4A B2P	LUX-6515DS-A1M
±15'-0"	±15'-0"	±15'-0"	±15'-0"
FEEDER LENGTH			

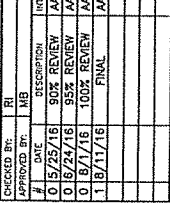


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CONSTRUCTION

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6/7/16	100% REVIEW
8/7/16	FINAL



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 VACAVILLE, CA 95687

SHEET NAME:
TOWER ELEVATION AND ANTENNA DETAILS

SHEET NUMBER:
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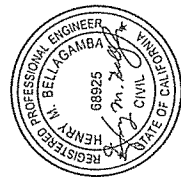
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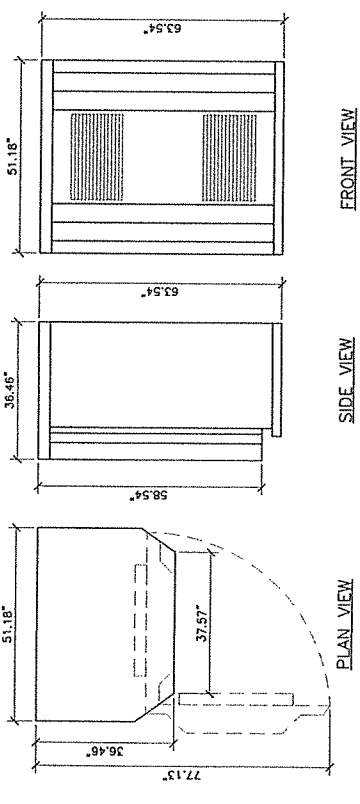
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SHEET NAME:
CABINET DETAILS

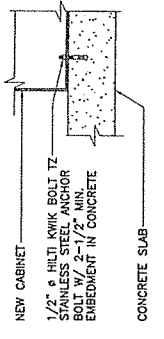
SHEET NUMBER:
C-5

2016.0249.0003



ERICSSON -- RBS 6131
 WCDMA MACRO OUTDOOR BASE STATION
 FULLY EQUIPPED CABINET
 1875 LBS

RBS6131 CABINET SPECIFICATIONS
 SCALE: N.T.S. 1



CABINET CONNECTION TO CONCRETE
 SCALE: N.T.S.

CABINET CONNECTION DETAIL
 SCALE: N.T.S. 2 NOT USED
 SCALE: N.T.S. 3

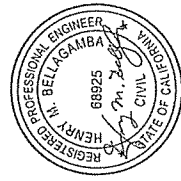
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0	01/17/19	100% REVIEW	FAA
1	01/17/19	FINAL	FAA



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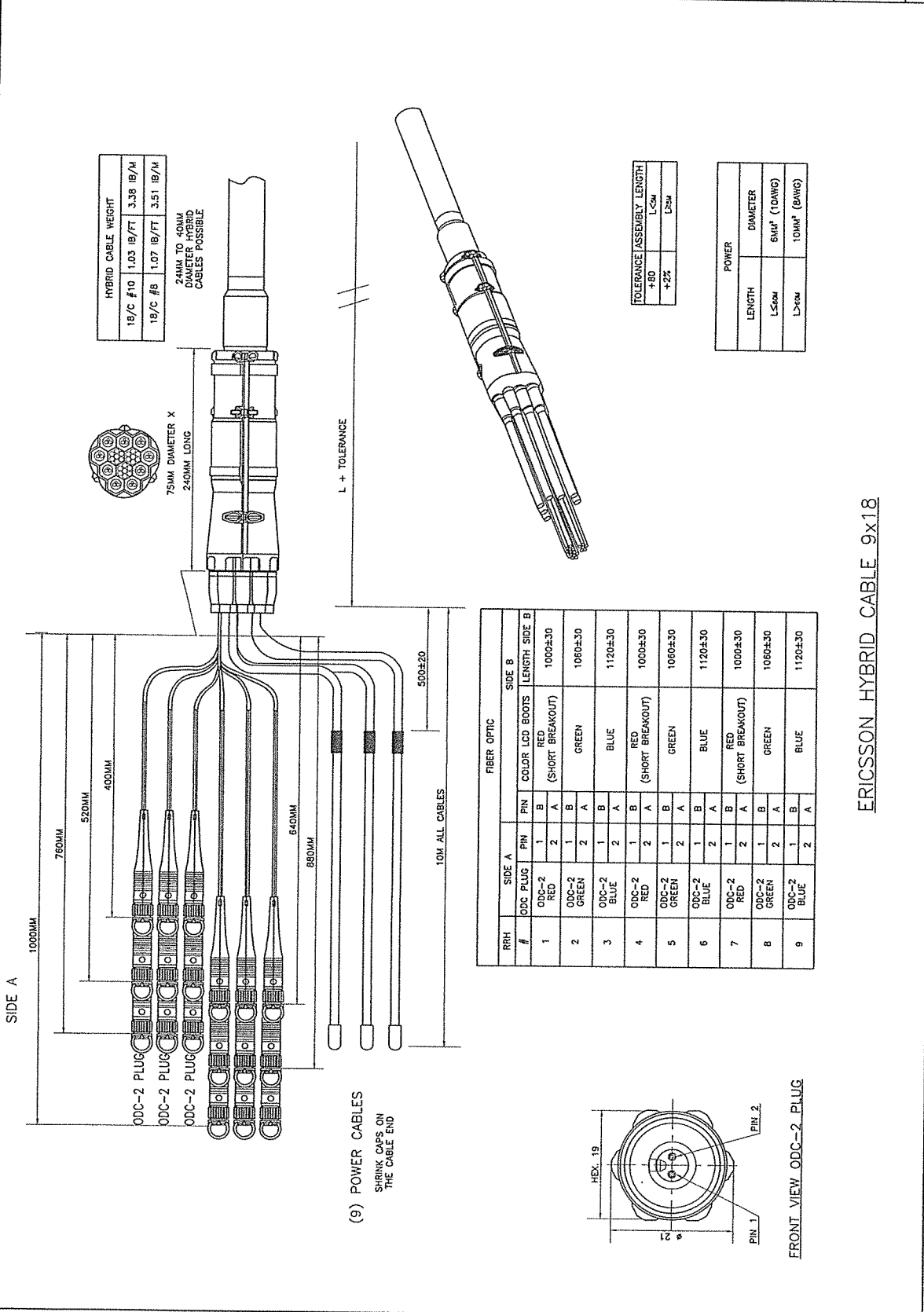
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SHEET NAME:
CABLE DETAILS

SHEET NUMBER:
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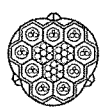
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HYBRID CABLE WEIGHT

19/C #10	1.03 LB/FT	3.38 LB/M
19/C #8	1.07 LB/FT	3.51 LB/M

24MM TO 40MM
 DIAMETER HYBRID
 CABLES POSSIBLE



75MM DIAMETER X
 240MM LONG

TOLERANCE ASSEMBLY LENGTH

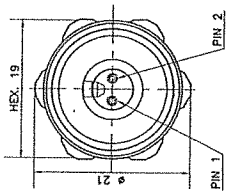
	L<5m	L>5m
+BD		
+2%		

POWER

LENGTH	DIAMETER
L<50m	6MM ² (10AWG)
L>50m	10MM ² (6AWG)

FIBER OPTIC

#	SIDE A		SIDE B	
	ODC PLUG	PIN	COLOR LCD BOOTS	LENGTH SIDE B
1	ODC-2 RED	1 B	RED (SHORT BREAKOUT)	1000±30
		2 A		
2	ODC-2 GREEN	1 B	GREEN	1060±30
		2 A		
3	ODC-2 BLUE	1 B	BLUE	1120±30
		2 A		
4	ODC-2 RED	1 B	RED (SHORT BREAKOUT)	1000±30
		2 A		
5	ODC-2 GREEN	1 B	GREEN	1060±30
		2 A		
6	ODC-2 BLUE	1 B	BLUE	1120±30
		2 A		
7	ODC-2 RED	1 B	RED (SHORT BREAKOUT)	1000±30
		2 A		
8	ODC-2 GREEN	1 B	GREEN	1060±30
		2 A		
9	ODC-2 BLUE	1 B	BLUE	1120±30
		2 A		



FRONT VIEW ODC-2 PLUG

ERICSSON HYBRID CABLE 9x18

SCALE: N.T.S. 1

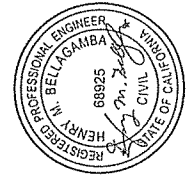
CABLE DETAILS

Mobile
 1855 GATEWAY BLVD.
 SUITE 900
 CONCORD, CA 94520

L700

CHECKED BY: RI
 APPROVED BY: MB

#	DATE	DESCRIPTION	INT.
0	5/25/16	90% REVIEW	AA
0	6/24/16	95% REVIEW	AA
0	9/1/16	100% REVIEW	AA
1	9/17/16	FINAL	AA



AMERICAN TOWER
 AMERICAN TOWER CORPORATION
 19100 VON KARMAN SUITE 200
 IRVINE, CA 92612

FULLERTON
 1100 E. WOODFIELD ROAD, SUITE 500
 SCHMIDTBERG, ILLINOIS 60173
 TEL: 847-988-8400
 www.fullertonengineering.com

SITE #:
 BA90476A

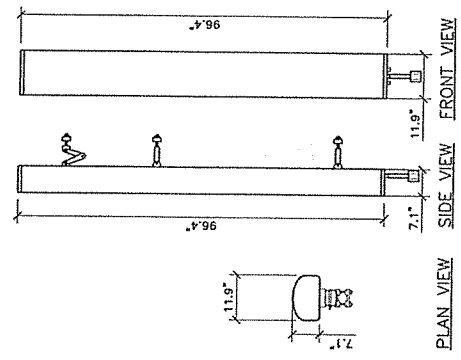
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 ATC LEWIS ROAD

SITE ADDRESS:
 8021 LEWIS ROAD
 VACAVILLE, CA 95687

SHEET NAME:
 ANTENNA
 DETAILS & SPECS

SHEET NUMBER:
 C-5.2

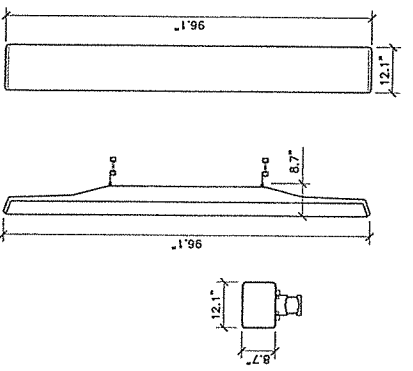
2016.0249.0003



COMMSCOPE -- LNX-6515DS-A1M
 FREQUENCY RANGE
 768-784 MHz
 388-704 MHz
 ANTENNA
 WITH BRACKET
 42.07 LBS
 49.8 LBS

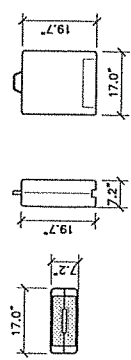
SCALE: 3/8" = 1'-0"

SCALE: 3/8" = 1'-0"



ERICSSON -- AIR 21 B4A/B2
 FREQUENCY RANGE
 2135-2155 MHz
 1965-1980 MHz
 1735-1755 MHz
 1855-1900 MHz
 90 LBS

ANTENNA DETAIL



ERICSSON -- RRUS11 B2
 FREQUENCY
 1850 TO 1910 MHz UPLINK
 1930 TO 1990 MHz DOWNLINK
 UNIT WEIGHT
 50.6 Lbs

SCALE: 3/8" = 1'-0"

SCALE: 3/8" = 1'-0"

RRUS SPECS

RRUS SPECS

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1855 GATEWAY BLVD.
SUITE 900
CONCORD, CA 94520

L700 CONSTRUCTION

DATE	DESCRIPTION	BY	CHK
01/05/18	ISSUE FOR PERMIT	MB	
01/24/18	REVISED	MB	
01/24/18	REVISED	MB	
01/24/18	REVISED	MB	
01/24/18	REVISED	MB	
01/24/18	REVISED	MB	

AMERICAN TOWER
AMERICAN TOWER CORPORATION
19100 WOODFIELD ROAD, SUITE 200
IRVINE, CA 92612

FULLERTON
ENGINEERING DESIGN
1100 E WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
www.FullertonEngineering.com

SITE #:
BA90476A

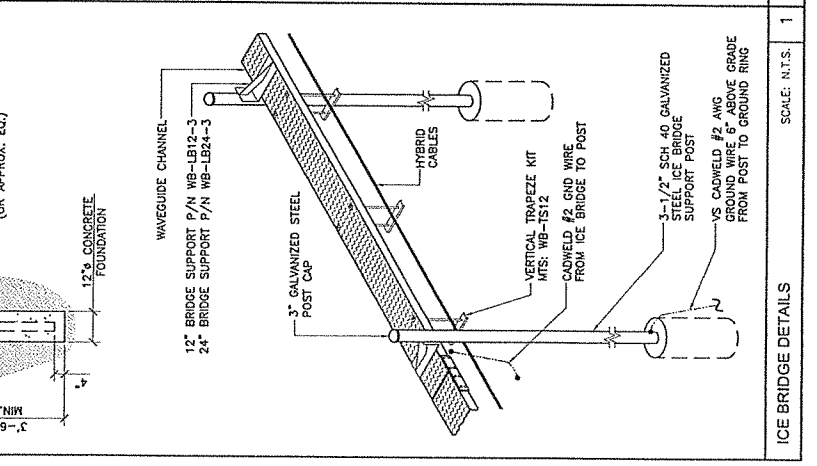
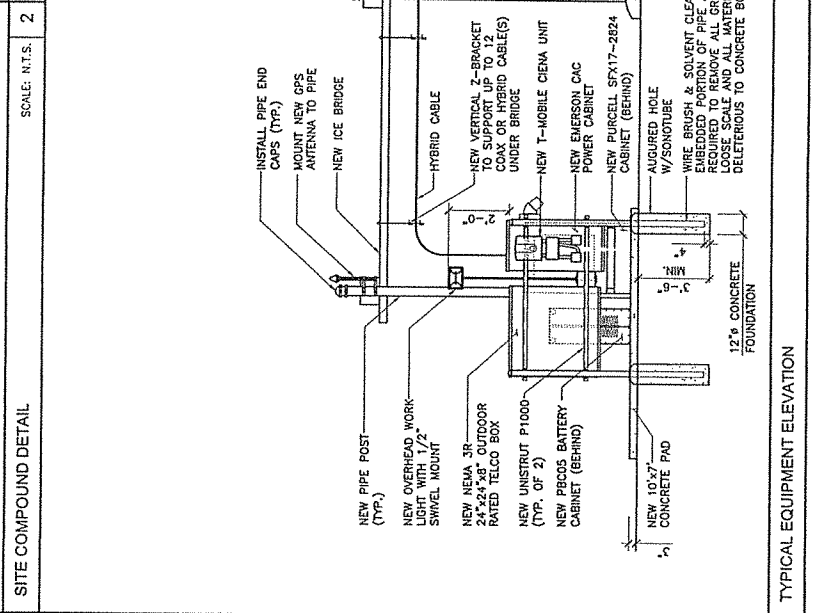
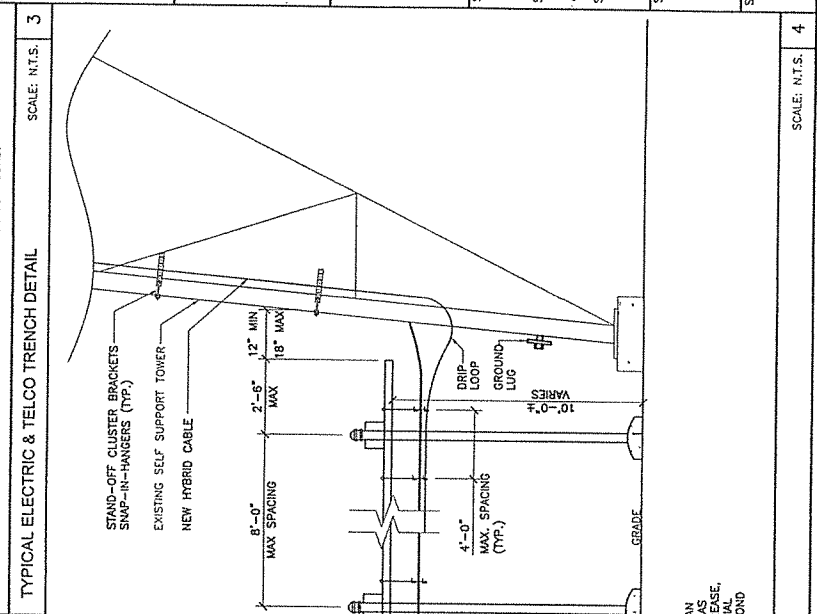
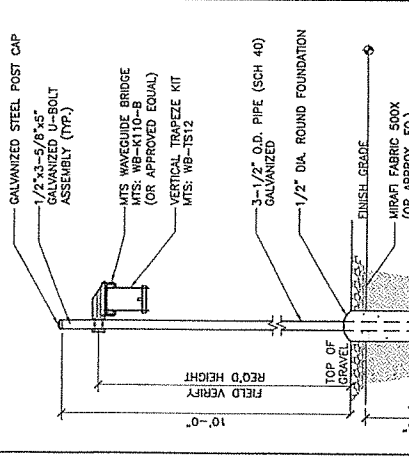
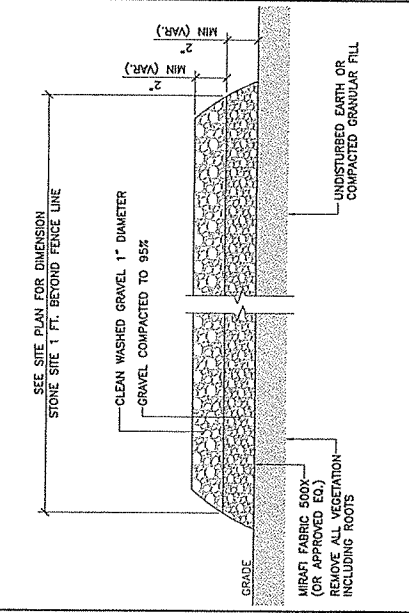
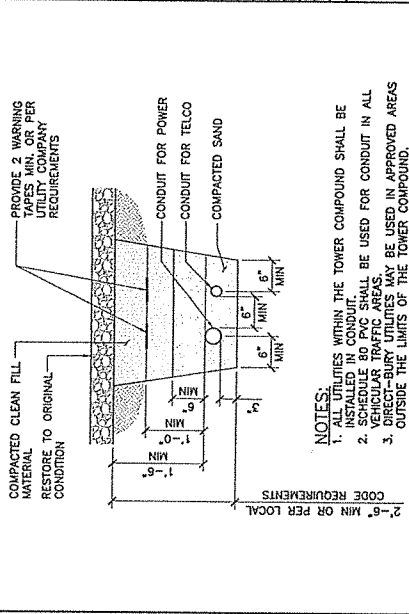
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ATC LEWIS ROAD

SITE ADDRESS:
8021 LEWIS ROAD
VACAVILLE, CA 95687

SHEET NAME:
TOWER ELEVATION AND DETAILS

SHEET NUMBER:
C-6

2016.0249.0003



EMERSON CAC POWER CABINET

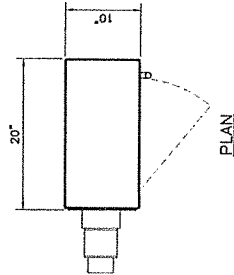
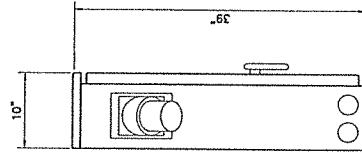
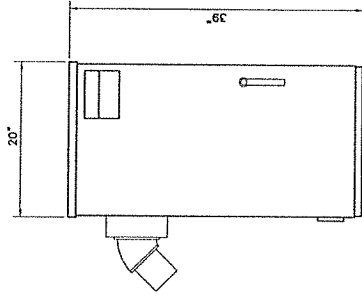
STANDARD FEATURES:

- NEMA 3R RAINPROOF ENCLOSURE
- 3-POINT DOOR CLOSURE WITH CONTINUOUS HINGE AND HEAVY DUTY ULS91 LISTED RAIN/DRIP HOOD PROVIDES PROTECTION AGAINST THE ELEMENTS
- 0.1" THICK ALUMINUM CORROSION RESISTANT POWER COAT PAINT
- WALL BRACKET OR PAD-MOUNTABLE
- EASY TO READ LED AND REMOTE STATUS INDICATION
- MECHANICAL INTERLOCK PREVENTS SIMULTANEOUS USE OF UTILITY AND GENERATOR POWER
- BRUTE FORCE METAL OXIDE VARISTOR SURGE SUPPRESSION WITH EASY TO READ LED AND REMOTE STATUS INDICATION
- CUSTOMIZABLE OPTIONS INCLUDE: 100A OR 200A, 10MIC OR 22MIC, 65KVAIC

ENCLOSURE	120/240 VAC, SINGLE PHASE, 3 WIRE/GROUND
EXTERNAL MATERIAL	0.1" THICK ALUMINUM
DIMENSIONS (WxHxD)	20"x39"x10"
WEIGHT	75 LBS
PROTECTION	RAIN/DRIP HOOD, RAIN TESTED PER ULS91
CABINET TYPE	ONE AC POWER TVSS CABINET (NEMA 3R TYPE ENCLOSURE)
VOLTAGE SERVICE	100 AMP OR 200 AMP, UTILITY/STANDBY DISCONNECT
LOAD CENTER	200 AMP, 24 POSITION, 1-30 AMP DOUBLE POLE, 1-15 AMP SINGLE POLE
BONDING JUMPER	OPTIONAL N-G BONDING JUMPER
POWER RECEPT.	APPLINGTON AR2004RS STANDARD
TVSS	METAL OXIDE VARISTOR/REMOTE ALARM CONTACT

OTHER OPTIONS

- 3-POINT DOOR CLOSURE WITH 1/4 TURN HANDLE, SS HINGE
- ULS91, DEAD FRONT SWITCHBOARDS
- 10,000 OR 22,000, 65,000 SERIES RATED, PAD-MOUNTING BASE (8" THICK), VARIOUS GENERATOR RECEPTACLES OFFERED



CAC POWER CABINET SPECIFICATIONS

SCALE: N.T.S. 1

CAC POWER CABINET CONFIGURATION

SCALE: N.T.S. 2

Ordering Information - CAC Model

A small selection of products is listed below.

Please refer to the CAC Model Ordering Matrix for additional configurations.

Emerson Catalog Number	Emerson Part Number	Description
CACA2204090		100A slide bar transfer device, 24-position load center, ADR1044RS, MOV
CACA5201090		200A slide bar transfer device, 24-position load center, AR20044RS, MOV
CACA5201190		200A slide bar transfer device, 24-position load center, AR20044RS with 45 degree angle adapter, MOV
CACA7201090		200A slide bar transfer device, 30-position load center, AR20044RS, MOV

Ordering Matrix - CAC Model

AC Power Configuration

- 2 = 100A main, 24 pos. 1C
- 4 = 200A main, 24 pos. 1C

AIC Rating

- 2 = 10K AIC
- 5 = 65K AIC Series Rated

Main Breakers (Transfer Device)

- 1 = Single disconnect
- 2 = Slide bar mechanical interlock

Generator Inlet

- 0 = None
- 01 = AR20044RS (Appleton 200A)
- 02 = AR20033RS (Appleton 200A)
- 03 = AR20033RS (Appleton 200A)
- 04 = AR1044RS (Appleton 100A)
- 05 = HBL27153V (Hubbell 30A)
- 08 = M4100812V (MCCIII 100A)
- 09 = HBL4100852V (Hubbell 100A)
- 10 = HBL4100851V (Hubbell 100A)
- 11 = HBL4200851V (Hubbell 200A)
- 12 = 4100812V (Hubbell 100A)
- 13 = ADR1033RS (Appleton 100A)
- 14 = Custom Option

Generator Inlet Accessories

- 0 = No angle adapter
- 1 = 45 degree angle adapter

TVSS Options

- 0 = None
- 9 = IGI205200RIS1WV

Cabinet Mounting

- 0 = None



1855 GATEWAY BLVD.
SUITE 900
CONCORD, CA 94520

L700
CONSTRUCTION

CHECKED BY:	DATE	DESCRIPTION
MB	01/25/18	90% REVIEW
AA	01/24/18	95% REVIEW
AA	01/17/18	100% REVIEW
AA	11/11/18	FINAL



FULLERTON
ENGINEERING DESIGN
1100 E. WOODFIELD ROAD, SUITE 500
SCHLAUBURG, ILLINOIS 60173
TEL: 815-998-9400
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SITE #:
BA90476A
SITE NAME:
ATC LEWIS ROAD
SITE ADDRESS:
6021 LEWIS ROAD
VACAVILLE, CA 95687

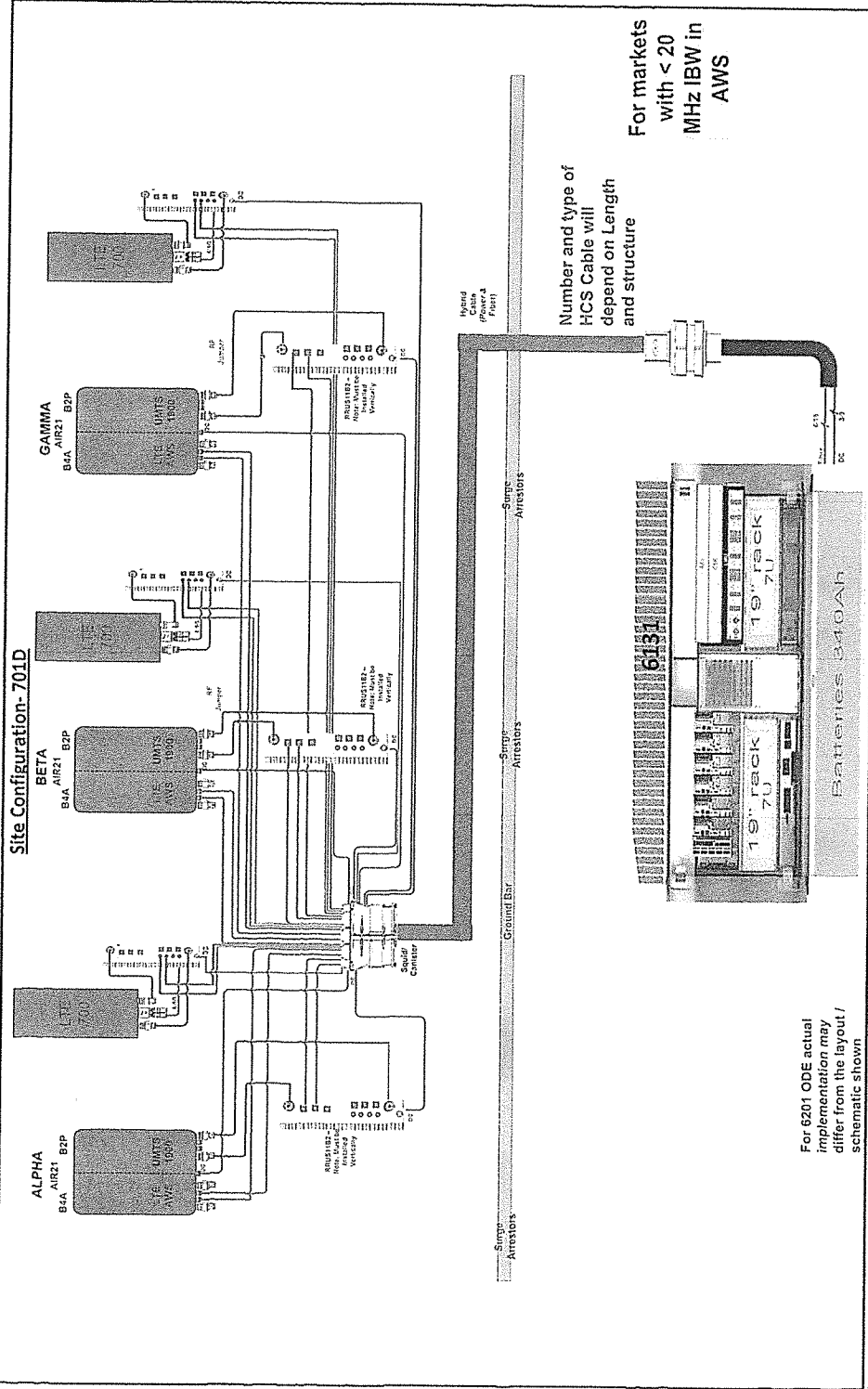
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EQUIPMENT
DETAILS

SHEET NUMBER:
C-7

2016.0249.0003

Section 3 - Proposed Template Images

E_701D_000.jpg



Notes:

For 6201 ODE actual implementation may differ from the layout / schematic shown



1855 GATEWAY BLVD.
SUITE 900
CONCORD, CA 94520

L700
CONSTRUCTION

DATE	DESCRIPTION	INT.
05/05/18	REV	AA
08/24/18	REV	AA
08/17/18	100% REVIEW	AA
08/11/18	FINAL	AA



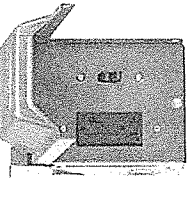
SITE #:
BA90476A

SITE NAME:
ATC LEWIS ROAD

SITE ADDRESS:
8021 LEWIS ROAD
VACAVILLE, CA 95687

SHEET NAME:
RFDS SHEET

SHEET NUMBER:
C-8



20 AMP OUTDOOR GFCI & SWITCH COMBO NOT TO SCALE

MANUFACTURER: GENERAL ELECTRIC (OR EQUIVALENT)
MODEL: Q50T009P
DEPTH: 5.2"
HEIGHT: 7.1"
WIDTH: 5.8"
WEIGHT: 3.92 LBS
UL LISTING: 1-UL LISTED
MAX. AMPERAGE: 20 A
VOLTAGE: 120V

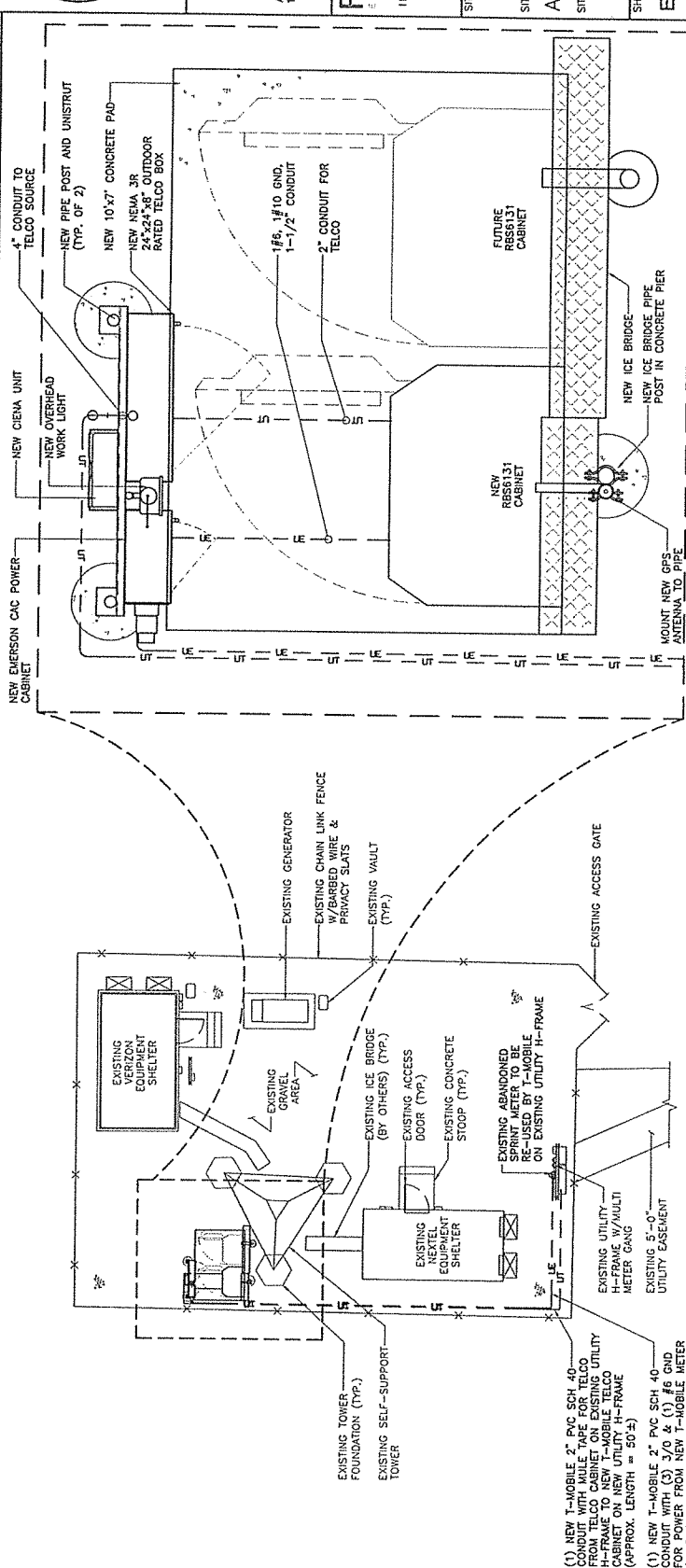
CONTRACTOR IS RESPONSIBLE TO COORDINATE AND VERIFY INSTALLATION WITH UTILITY COMPANY AND VERIFY ELECTRICAL METER WITH UTILITY COMPANY
THESE ELECTRICAL DRAWINGS ARE DIAGNOSTIC ONLY AND SHOW THE GENERAL INTENT OF THE FINAL ELECTRICAL CONTRACTOR'S WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
GENERAL NOTES
1. ALL WORK IS TO COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC) AND ALL APPLICABLE LOCAL CODES. THE CONTRACTOR SHALL FURNISH AND PAY FOR ALL PERMITS AND RELATED FEES.
2. PRIOR TO INSTALLING ANY ELECTRICAL WORK, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES AND CONDUITS.
3. ALL ELECTRICAL WORK SHALL INCLUDE, BUT NOT BE LIMITED TO:
- INSTALLATION OF ALL NECESSARY CONDUITS AND PIPING TO MATCH CONDITIONS.
- WIRING AND ADD NEW WORK AS REQUIRED TO COMPLETE THE SYSTEM.
- TESTING AND TIGHTENING OF ALL ELECTRICAL CONNECTIONS.
- PROVIDING PROPER GROUNDING AND BONDING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES.
- INSTALLATION OF ALL NECESSARY CONDUITS AND PIPING TO MATCH CONDITIONS.
- WIRING AND ADD NEW WORK AS REQUIRED TO COMPLETE THE SYSTEM.
- TESTING AND TIGHTENING OF ALL ELECTRICAL CONNECTIONS.
- PROVIDING PROPER GROUNDING AND BONDING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES.
ELECTRICAL NOTES
1. ALL WIRING SHALL BE STRANDED COPPER WITH GROUNDING AND BONDING TO BE PROPERLY SIZED PER NEC REQUIREMENTS.
2. ALL CONDUITS AND PIPING SHALL BE INSTALLED TO PROTECT FROM PHYSICAL DAMAGE AND SHALL BE EASILY ACCESSIBLE FOR MAINTENANCE AND REPAIR.
3. ALL WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL BE SUBJECT TO INSPECTION BY THE UTILITY COMPANY AND ALL APPLICABLE AGENCIES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
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SCALE: 1/16" = 1'-0" 2



(1) NEW T-MOBILE 2" PVC SCH 40 CONDUIT WITH WEALE TAPE FOR TELCO FROM TELCO CABINET ON EXISTING UTILITY H-FRAME TO NEW T-MOBILE 2" PVC SCH 40 CONDUIT ON NEW UTILITY H-FRAME (APPROX. LENGTH = 50 ±)
(2) NEW T-MOBILE 2" PVC SCH 40 CONDUIT WITH WEALE TAPE FOR TELCO FROM TELCO CABINET ON EXISTING UTILITY H-FRAME TO NEW T-MOBILE 2" PVC SCH 40 CONDUIT ON NEW UTILITY H-FRAME (APPROX. LENGTH = 50 ±)

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T-Mobile
1855 GATEWAY BLVD.
SUITE 900
CONCORD, CA 94520

L700
CONSTRUCTION

CREATED BY:	REVISION	DATE
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MM	39	10/18/18
MM	40	10/18/18

RESIDENTIAL PROFESSIONAL ENGINEER
ELECTRICAL
E-00363
STATE OF CALIFORNIA

AMERICAN TOWER
AMERICAN TOWER CORPORATION
19100 ROCKWOOD DRIVE
IRVINE, CA 92612

FULLERTON
ENGINEERING DESIGN
1100 E WOODFIELD ROAD, SUITE 500
SCHALBURG, ILLINOIS 60173
www.fullertonengineering.com


SITE #1
SITE NAME:
BA90476A
ATC LEWIS ROAD
SITE ADDRESS:
6021 LEWIS ROAD
VACAVILLE, CA 95687

SHEET NAME:
ELECTRICAL PLAN AND NOTES

SHEET NUMBER:
E-1

2016.02149.0003

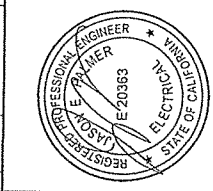
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1855 GATEWAY BLVD.
SUITE 900
CONCORD, CA 94520

L700 CONSTRUCTION

APPROVED BY:	DATE:	REVISION:
MB	05/25/18	90% REVIEW
MB	08/24/18	95% REVIEW
MB	08/17/18	100% REVIEW
MB	11/10/18	FINAL



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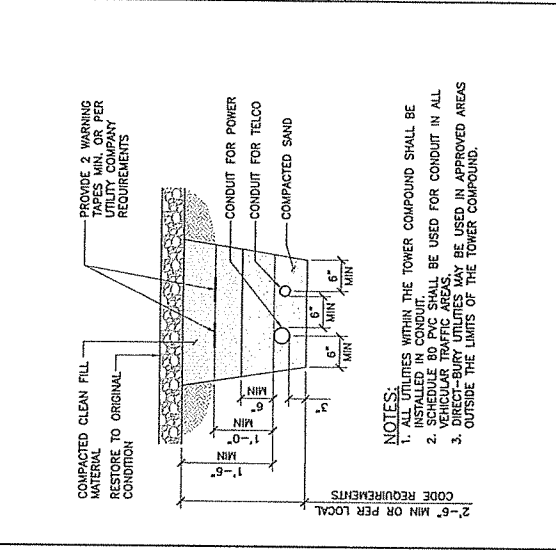
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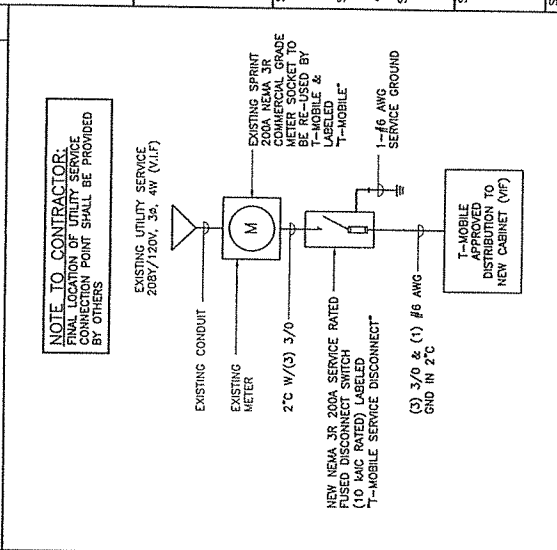
SHEET NAME:
ELECTRICAL DETAILS

SHEET NUMBER:
E-2

2016.0249.0003



TYPICAL ELECTRIC AND TELCO TRENCH DETAIL SCALE: N.T.S. 2



ELECTRICAL SINGLE LINE SCALE: N.T.S. 4

PANEL SCHEDULE SCALE: N.T.S. 1

CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	BREAKER STATUS	SERVICE LOAD	Phase A		Phase B		USAGE FACTOR	SERVICE LOAD	LOAD DESCRIPTION	CKT
						USAGE FACTOR	(VA)	USAGE FACTOR	(VA)				
1	FR6131	80	2	ON	5000	1	5000	1	100	1	100	LIGHT	2
3					5000	1	0	1	0	1	5000		4
5					5000	1	0	1	0	1	5000		6
7					5000	1	0	1	0	1	5000		8
9					5000	1	0	1	0	1	5000		10
11					5000	1	0	1	0	1	5000		12

PANEL SCHEDULE SCALE: N.T.S. 3

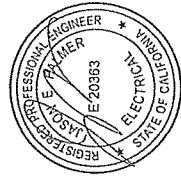
NOT USED SCALE: N.T.S. 3

ELECTRICAL SINGLE LINE SCALE: N.T.S. 4

T-Mobile
 1855 GATEWAY BLVD.
 SUITE 900
 CONCORD, CA 94520

L700
 CONSTRUCTION

APPROVED BY:	DATE	DESCRIPTION
MB	01/25/18	90% REVIEW
RI	01/24/18	95% REVIEW
	01/17/18	100% REVIEW
	01/19/18	FINAL



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 AMERICAN TOWER CORPORATION
 19100 VON KARMAN SUITE 200
 IRVINE, CA 92612

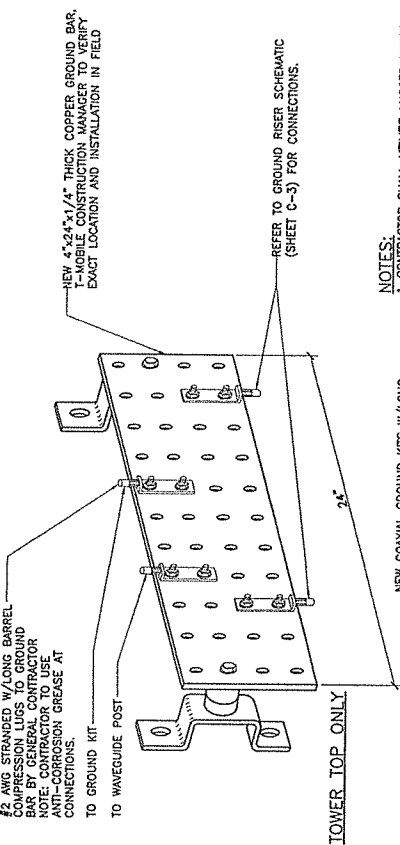
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SHEET NAME:
GROUNDING DETAILS

SHEET NUMBER:
E-3

2016.0249.0003

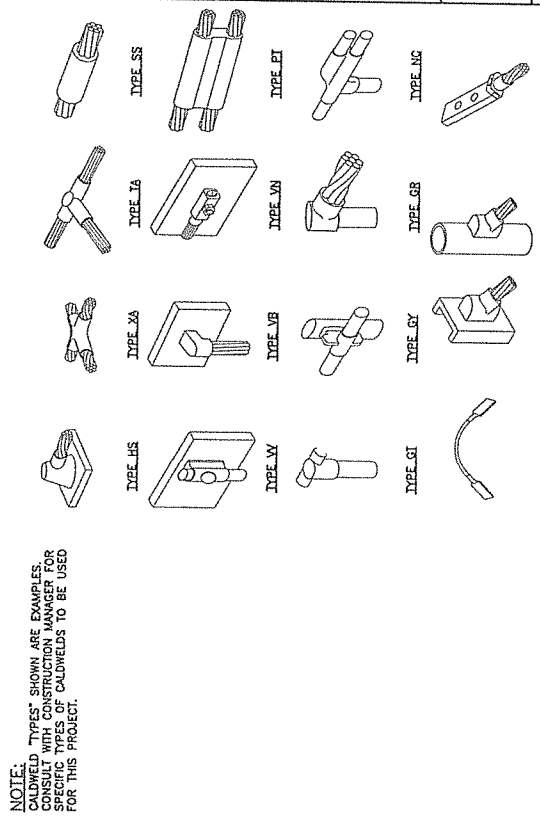


- NOTES:**
- CONTRACTOR SHALL UTILIZE LUGGED HOLES PROVIDED. NO DRILLING OF THE BAR WILL BE PERMITTED.
 - ALL HARDWARE SHALL BE 18-8 STAINLESS STEEL INCLUDING BELLEVILLE. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
 - FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.

NEW COAXIAL GROUND KITS W/LONG BARREL COMPRESSION LUGS (DOUBLE LUGS) TO BE INSTALLED BY ANTENNA CONTRACTOR.

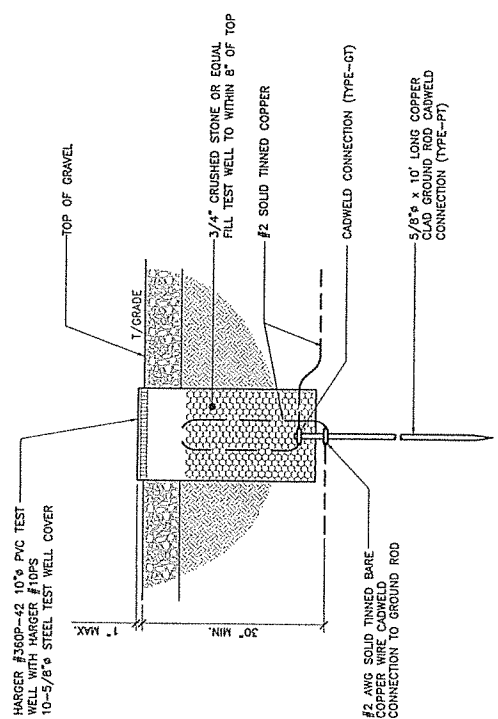
LOWER TOP ONLY

SCALE: N.T.S. 1



SCALE: N.T.S. 3

TYPICAL GROUNDING BAR DETAIL



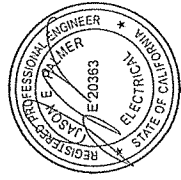
SCALE: N.T.S. 2

TEST WELL DETAIL

CADWELL CONNECTION TYPES

Mobile
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 CONCORD, CA 94520

APPROVED BY:	DATE	DESCRIPTION	INT.
MB	01/25/18	90% REVIEW	AA
	01/25/18	95% REVIEW	AA
	01/25/18	100% REVIEW	AA
	01/25/18	FINAL	AA



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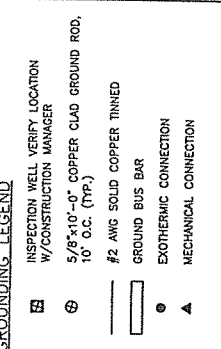
SHEET NUMBER:
E-4

2016.0249.0003

GROUNDING / CABLE NOTES:

- INSTALL 2 GROUND BARS AT THE BOTTOM OF THE TOWER (EVEN WITH SHORT ICE BRIDGE RUNS). ONE BAR TO BE LOCATED ON EACH SIDE OF THE EQUIPMENT PLATFORM. IF SITE IS A ROOFTOP AND THE EQUIPMENT IS IN THE PENHOUSE, T-MOBILE REQUIRES ONE GROUND BAR ON THE OUTSIDE OF THE PORT ENTRY MONITOR ON THE INSIDE NEAR THE CABINET. GROUNDING, WHICH WILL REQUIRE 3 TOP BUSS BARS.
- T-MOBILE IS ELIMINATING THE HOVE RUN GROUND BARS ON TOWER SITES. ROOFTOPS ARE STILL REQUIRED TO HAVE SECTORIZED GROUND AND #2 INSULATED GROUND WIRE FROM SECTOR GROUNDS TO MAIN BUSS BARS AND BUILDING STEEL.
- REMOVE INSULATORS (CHERRIES) FROM THE BUSS BAR ON TOWER SITES. ROOFTOPS ARE STILL REQUIRED TO HAVE SECTORIZED GROUND AND #2 INSULATED GROUND WIRE FROM SECTOR GROUNDS TO MAIN BUSS BARS AND BUILDING STEEL.
- ALL EXPOSED GROUNDS TO BE DRESSED WITH SEAL TIGHT.
- ALL ICE BRIDGE POST ARE TO BE GROUNDED WITH #2 SOLID AND DRESSED IN SEAL TIGHT.
- (2) OF THE (4) PLATFORM POST NEED TO BE GROUNDED DIAGONALLY.
- BOTTOM BUSS BAR TO HAVE TWO #2 GROUND LEADS DRESSED IN WITH SEAL TIGHT.
- THE DISTANCE BETWEEN TRAPEZE HANGERS ON ICE BRIDGE IS 4'-0".
- THE DISTANCE BETWEEN BUTTERFLIES AND CABLE STAND OFFS IS 4'-0".
- THE DISTANCE BETWEEN CONVENTIONAL AND/OR SWAP TRAPEZE HANGERS SHALL BE NO MORE THAN 3 FEET AT THE TOP AND 5 FEET ON THE BOTTOM JUMPERS PER MANUFACTURER'S RECOMMENDATIONS.
- NO HYBRID CABLES SHALL TOUCH METAL OR STEEL. THE USE OF STANDOFF BRACKETS ARE REQUIRED.
- T-MOBILE WOULD LIKE TO SHORTEN THE TOP JUMPER TO 4'-0" SUREFLIZ, INSTEAD OF 6'-0" JUMPERS SHOULD NOT BE CURLED UP OR COILED TO ELIMINATE SLACK.
- GRAVEL UNDER ALL PLATFORMS IS REQUIRED.
- HYBRIDS AND JUMPER LINES SHOULD BE DRESSED IN ON THE SIDE OR BOTTOM OF T-BOOMS. NEVER ON TOP WHERE SOMEONE WOULD WALK.

- GROUNDING LEGEND**
- ⊠ INSPECTION WELL VERIFY LOCATION W/CONSTRUCTION MANAGER
 - ⊙ 5/8"x10'-0" COPPER CLAD GROUND ROD, 10' O.C. (TYP.)
 - #2 AWG SOLID COPPER TINNED GROUND BUS BAR
 - EXOTHERMIC CONNECTION
 - ▲ MECHANICAL CONNECTION

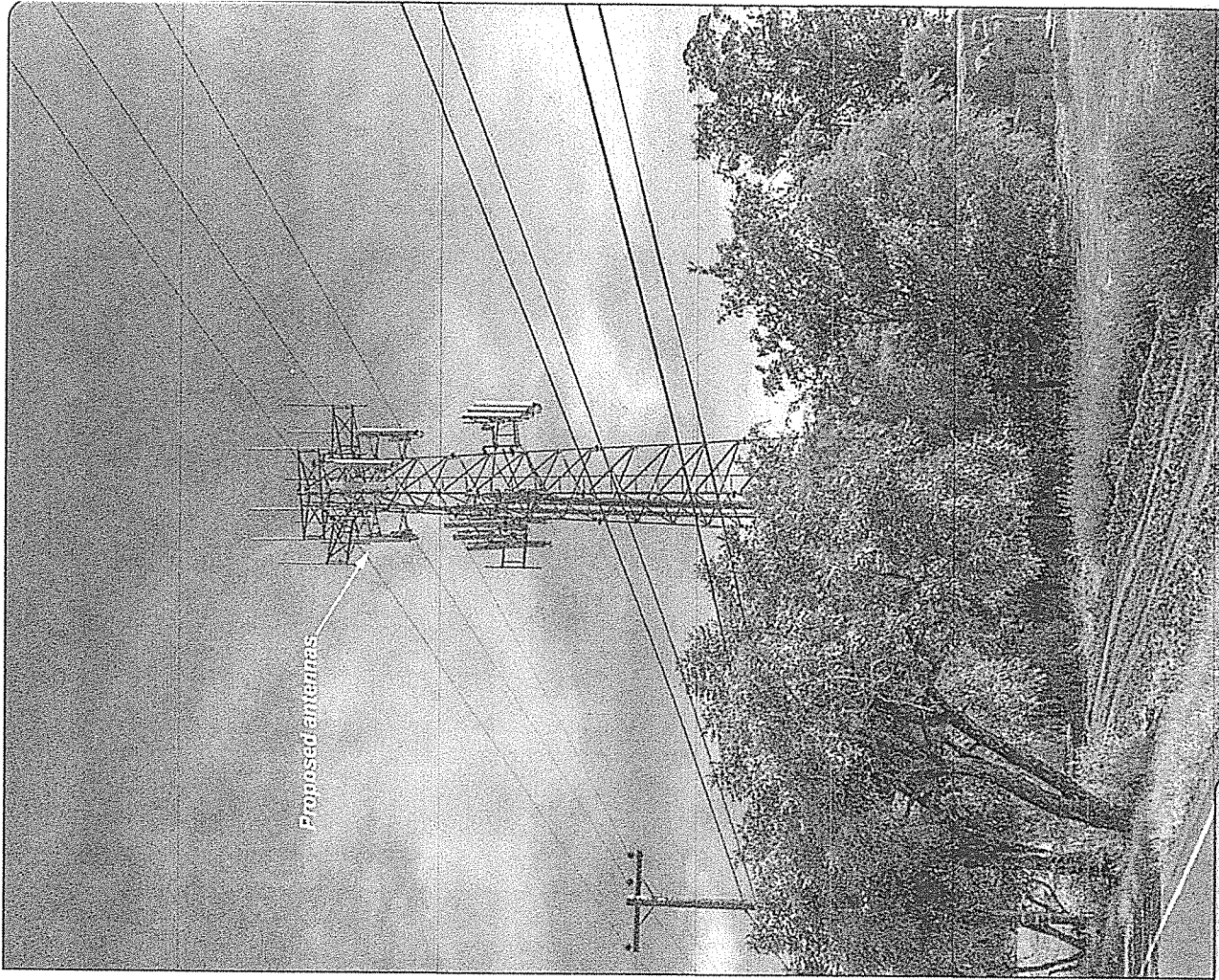
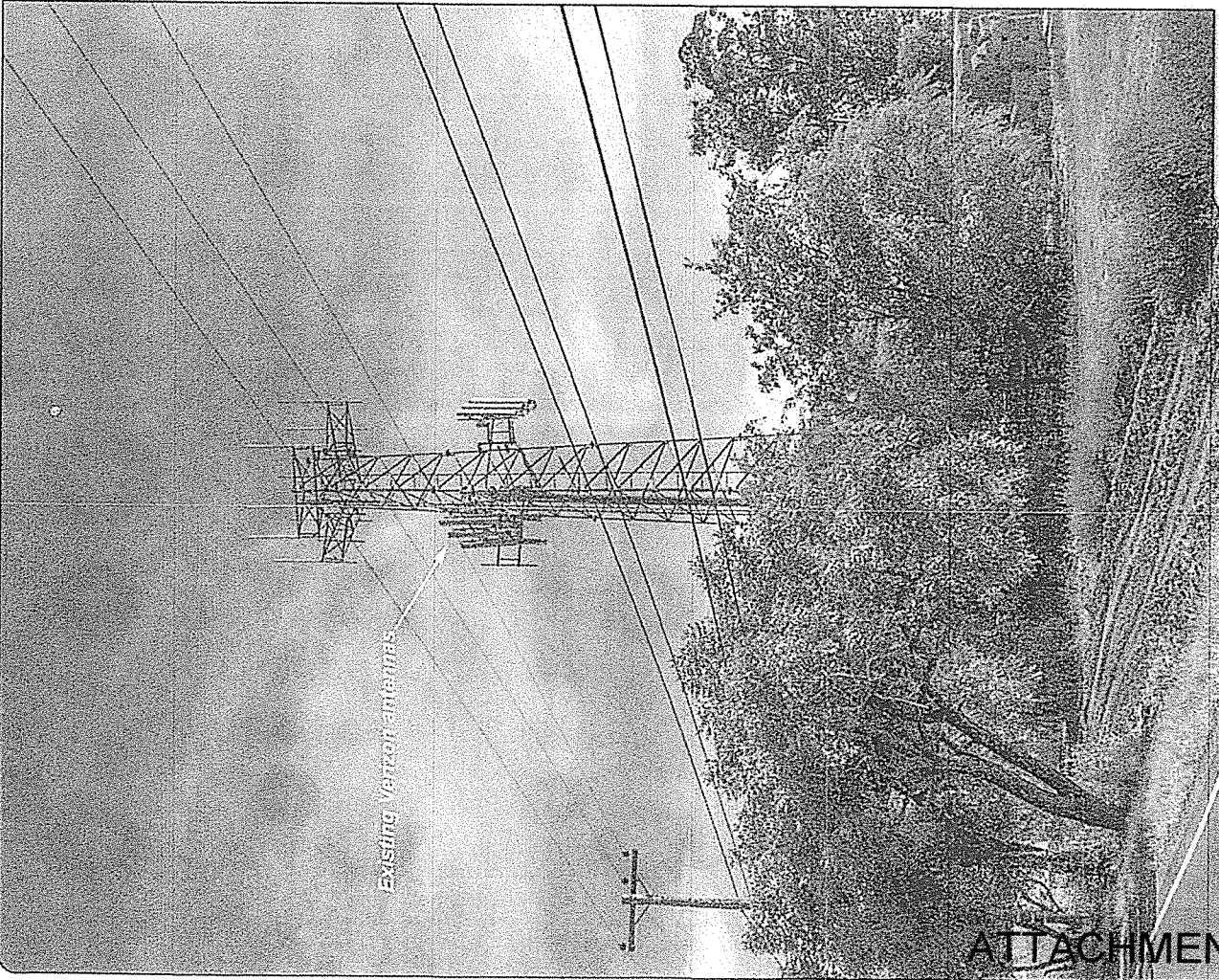


SCALE: 3/8" = 1'-0"

1

GROUNDING PLAN

Photosimulation of the view looking southwest from the nearest point along Lewis Road.



BA90476A
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 Vacaville, CA 95687



Existing

Proposed

ATTACHMENT D