County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

Planning Commission Staff Report
Agenda Item No. 2
November 9, 2017

SUBJECT: **Unclassified Conditional Use Permit Application No. 3594**

Allow co-location of wireless communication equipment on an existing 134-foot-tall PG&E electrical transmission tower (proposed 143-foot overall height) and installation of related equipment on a 150 square-foot portion of a 289.91-acre parcel in the AE-40 (Exclusive Agricultural, 40-acre minimum parcel size) Zone District.

LOCATION: **The project site is located on the east side of Interstate Highway 5 (I-5), between the Jeffrey Avenue alignment and the Cadillac Avenue alignment, approximately 12 miles northeast of the nearest city limits of the City of Coalinga (SUP. DIST. 4) (APN 058-090-19s).**

OWNER: **JP Farms**
APPLICANT: **T-Mobile West, LLC**

STAFF CONTACT: **Derek Chambers, Planner**
(559) 600-4205

Marianne Mollring, Senior Planner
(559) 600-4569

RECOMMENDATION:

- Approve Unclassified Conditional Use Permit (CUP) No. 3594 with recommended Findings, subject to the Conditions of Approval and Project Notes listed in Exhibit 1; and

- Direct the Secretary to prepare a Resolution documenting the Commission's action.

EXHIBITS:

1. Conditions of Approval and Project Notes
2. Location Map
3. Existing Zoning Map
4. Existing Land Use Map
5. Site Plans and Detail Drawings
6. Elevation Drawings
7. Applicant's Operational Statement
8. Service Coverage Maps (with and without project)
9. Photographic Simulations

SITE DEVELOPMENT AND OPERATIONAL INFORMATION:

Criteria	**Existing**	**Proposed**
General Plan Designation	Agriculture	No change
Zoning	AE-40 (Exclusive Agricultural, 40-acre minimum parcel size)	No change
Parcel Size	289.91 acres	No change
Project Site	Three 134-foot-tall PG&E electrical transmission towers; 3,750 square-foot agricultural shop building with septic system; 3,500 square-foot pole barn; two water wells; two water storage tanks; orchard	150 square-foot lease area within footprint of one PG&E electrical transmission tower; six-foot-tall wood fence around perimeter of 150 square-foot lease area; outdoor equipment cabinets installed within 150 square-foot lease area; 12-foot-tall tower extension mounted on subject PG&E electrical transmission tower at 131 feet elevation (143-foot resulting tower height); six panel antennas and related equipment mounted on 12-foot-tall tower extension; one two-foot diameter microwave dish mounted on subject PG&E electrical transmission tower at 50 feet elevation; six-foot-wide utility easement; 15-foot-wide access and utility easement

Criteria	Existing	Proposed
Structural Improvements	Three 134-foot-tall PG&E electrical transmission towers; 3,750 square-foot agricultural shop building with septic system; 3,500 square-foot pole barn	12-foot-tall tower extension mounted on subject PG&E electrical transmission tower at 131 feet elevation (143-foot resulting tower height);
Nearest Residence	Approximately one and three quarter-miles southeast of the subject PG&E electrical transmission tower	No change
Surrounding Development	Interstate Highway 5 (I-5) westerly adjacent to the subject parcel; San Luis Canal approximately three and a quarter-mile west of the subject parcel; agricultural land uses dispersed throughout area	No change
Operational Features	N/A	Unmanned wireless communication facility
Employees	N/A	N/A
Customers	N/A	N/A
Traffic Trips	N/A	One monthly maintenance visit
Lighting	N/A	None
Hours of Operation	N/A	24 hours per day, year-round

EXISTING VIOLATION (Y/N) AND NATURE OF VIOLATION: N

ENVIRONMENTAL ANALYSIS:

It has been determined pursuant to Section 15303(d) of the California Environmental Quality Act (CEQA) guidelines that the proposed project will not have a significant effect on the environment and is not subject to CEQA.

PUBLIC NOTICE:

Notices were sent to 12 property owners within 1,320 feet of the subject parcel, exceeding the minimum notification requirements prescribed by the California Government Code and County Zoning Ordinance.

PROCEDURAL CONSIDERATIONS:

An Unclassified Conditional Use Permit (CUP) may be approved only if four Findings specified in the Fresno County Zoning Ordinance, Section 873-F are made by the Planning Commission.

The decision of the Planning Commission regarding an Unclassified CUP Application is final, unless appealed to the Board of Supervisors within 15 days of the Commission's action.

BACKGROUND INFORMATION:

This proposal entails the establishment of a new wireless communication facility at the location of an existing 134-foot-tall PG&E electrical transmission tower. The proposed 150 square-foot lease area will have a six-foot-tall wood perimeter fence, and will be located within the footprint of the existing tower. Additionally, six panel antennas with related equipment will be mounted on a 12-foot-tall tower extension, which will be installed on the existing tower at 131 feet elevation (143-foot resultant tower height). Further, a two-foot diameter microwave dish will be mounted on the subject PG&E electrical transmission tower at 50 feet elevation, and outdoor equipment cabinets will be installed within the 150 square-foot lease area.

The proposed facility will be accessed from Derrick Avenue via a proposed 15-foot-wide unpaved access and utility easement, which will be established on the subject parcel parallel to the Jeffrey Avenue alignment.

Service Coverage Maps have been provided for this project in accordance with the Fresno County Wireless Communication Guidelines. The Service Coverage Maps illustrate signal strength in the area of the project under existing conditions, and also illustrate signal strength in the area of the project with the proposed facility operational. According to these Service Coverage Maps, the proposed wireless communication facility will improve signal strength along Interstate Highway 5 (I-5) in the area of the project, particularly the east side of I-5 in the area of the project.

Finding 1: *That the site of the proposed use is adequate in size and shape to accommodate said use and all yards, spaces, walls and fences, parking, loading, landscaping, and other features required by this Division, to adjust said use with land and uses in the neighborhood.*

	Current Standard:	**Proposed Operation:**	**Is Standard Met (y/n)**
Setbacks	Front: 35 feet Side: 20 feet Street Side: 35 feet Rear: 20 feet	Front (north property line): 183 feet Side (east property line): 1,630 feet Street Side (west property line): 2,089 feet Rear: N/A (no rear property line)	Yes
Parking	N/A	N/A (unmanned facility)	N/A
Lot Coverage	No requirement	No requirement	N/A

	Current Standard:	Proposed Operation:	Is Standard Met (y/n)
Space Between Buildings	Six feet minimum (75 feet minimum between human habitations and structures utilized to house animals)	N/A (proposed development limited to existing PG&E electrical transmission tower)	N/A
Wall Requirements	No requirement	No requirement	N/A
Septic Replacement Area	100 percent	N/A (unmanned facility)	N/A
Water Well Separation	Septic tank: 50 feet; Disposal field: 100 feet; Seepage pit: 150 feet	N/A (unmanned facility)	N/A

Reviewing Agency/Department Comments:

Zoning Section of the Fresno County Department of Public Works and Planning: Proposed improvements satisfy the setback requirements of the AE-40 (Exclusive Agricultural, 40-acre minimum parcel size) Zone District.

No other comments specific to the adequacy of the site were expressed by reviewing Agencies or Departments.

Analysis:

Staff review of the Site Plans provided for this project has confirmed that the proposed improvements satisfy the setback requirements of the AE-40 (Exclusive Agricultural, 40-acre minimum parcel size) Zone District. The proposed 150 square-foot lease area to be located within the footprint of the existing PG&E electrical transmission tower will be set back 183 feet from the northern property line of the subject parcel (35-foot minimum front-yard setback required); 1,630 feet from the eastern property line of said parcel (20-foot minimum side-yard setback required); and 2,089 feet from the western property line of said parcel (35-foot minimum street side-yard setback required). Regarding rear-yard setback, due to the triangular shape of the subject parcel, said property does not have a rear property line.

The proposed facility will be accessed from Derrick Avenue via a proposed 15-foot-wide unpaved access and utility easement, which will be established on the subject parcel parallel to the Jeffrey Avenue alignment.

Based on the above information, staff believes that the subject parcel is adequate in size and shape to accommodate the proposed use.

Recommended Conditions of Approval:

None.

Conclusion:

Finding 1 can be made.

<u>Finding 2</u>: *That the site for the proposed use relates to streets and highways adequate in width and pavement type to carry the quantity and kind of traffic generated by the proposed use.*

		Existing Conditions	Proposed Operation
Private Road	Yes	Coalinga-Mendota Road alignment Jeffrey Avenue alignment San Mateo Avenue alignment	No change
Public Road Frontage	Yes	Derrick Avenue	No change
Direct Access to Public Road	No	N/A	15-foot-wide unpaved access and utility easement proposed from Derrick Avenue to proposed facility
Road ADT		Derrick Avenue: 300 Coalinga-Mendota Road alignment: Unknown (private road) Jeffrey Avenue alignment: Unknown (private road) San Mateo Avenue alignment: Unknown (private road)	Less than significant increase
Road Classification		Derrick Avenue: Local Coalinga-Mendota Road alignment: N/A (private road) Jeffrey Avenue alignment: N/A (private road) San Mateo Avenue alignment: N/A (private road)	No change
Road Width		Derrick Avenue: 100-foot total existing right-of-way Coalinga-Mendota Road alignment: Unknown (private road)	No change

		Existing Conditions	Proposed Operation
		Jeffrey Avenue alignment: Unknown (private road) San Mateo Avenue alignment: Unknown (private road)	
Road Surface		Derrick Avenue: Paved (pavement width: 40.3 feet) Coalinga-Mendota Road alignment: Paved (pavement width: 22 feet) Jeffrey Avenue alignment: Unpaved San Mateo Avenue alignment: Unpaved	No change
Traffic Trips		N/A	One monthly maintenance visit
Traffic Impact Study (TIS) Prepared	No	N/A	None required, as regular operations will not generate more than 100 daily trips or ten peak-hour trips (peak-hour trips defined as 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.)
Road Improvements Required		N/A	None required

Reviewing Agency/Department Comments:

Design Division of the Fresno County Department of Public Works and Planning: No concerns with the proposal.

Development Engineering Section of the Fresno County Department of Public Works and Planning: Coalinga-Mendota Road, Jeffrey Avenue and San Mateo Avenue are private road alignments not maintained by the County. Derrick Avenue is a County-maintained road classified as a Local road. The minimum total width for a Local road right-of-way is 60 feet. Derrick Avenue has a total existing right-of-way of 100 feet at the subject parcel. Any work performed within the County right-of-way shall require an Encroachment Permit from the Road Maintenance and Operations Division of the Fresno County Department of Public Works and Planning. This mandatory requirement has been included as a Project Note.

Road Maintenance and Operations Division of the Fresno County Department of Public Works and Planning: No concerns with the proposal.

No other comments specific to the adequacy of streets and highways were expressed by reviewing Agencies or Departments.

Analysis:

The proposed wireless communication facility will be accessed from Derrick Avenue via a proposed 15-foot-wide unpaved access and utility easement, which will be established on the subject parcel parallel to the Jeffrey Avenue alignment.

Based on the above information, and with adherence to the mandatory Project Notes discussed in this Staff Report, staff believes that the streets in proximity to the subject parcel will be adequate to accommodate the proposed use.

Recommended Conditions of Approval:

None.

Conclusion:

Finding 2 can be made.

Finding 3: *That the proposed use will have no adverse effect on abutting property and surrounding neighborhood or the permitted use thereof.*

Surrounding Parcels				
	Size:	Use:	Zoning:	Nearest Residence:
North	320.00 acres	Orchard	AE-40	None
	268.90 acres	Orchard	AE-40	None
Southwest	8.73 acres	Vacant	AE-40	None
	277.14 acres	Orchard	AE-40	None
East	159.52 acres	Field crops	AE-40	None
	157.62 acres	Field crops	AE-40	None

Reviewing Agency/Department Comments:

Building and Safety Section of the Fresno County Department of Public Works and Planning: If approved, plans related to construction and development of the project prepared by a licensed design professional shall be submitted to the Development Services Division of the Fresno County Department of Public Works and Planning for review and approval in order to acquire building and installation permits, and necessary inspections. This mandatory requirement has been included as a Project Note.

Development Engineering Section of the Fresno County Department of Public Works and Planning: According to FEMA FIRM Panel 3050H, the project site is not subject to flooding from the 1%-chance storm (100-year storm). Any additional run-off generated by development cannot be drained across property lines, and must be retained on site per County Standards. A Grading Permit or Grading Voucher shall be required for any grading activity associated with this proposal. These mandatory requirements have been included as Project Notes.

Fresno County Department of Agriculture (Agricultural Commissioner's Office): No concerns with the proposal.

Fresno County Department of Public Health, Environmental Health Division: Facilities proposing to use and/or store hazardous materials and/or hazardous wastes shall satisfy requirements set forth in California Health and Safety Code (HSC), Division 20, Chapter 6.95, and California Code of Regulations (CCR), Title 22, Division 4.5. The Applicant shall submit a Hazardous Materials Business Plan to the Fresno County Department of Public Health for review and approval pursuant to HSC, Division 20, Chapter 6.95 when handing hazardous materials and/or hazardous wastes above the following reportable thresholds: 1) 55 gallons of liquid material; 2) 500 pounds of solid material; 3) 200 cubic feet of compressed gas; or 4) the threshold planning quantity for extremely hazardous substances. All hazardous waste shall be handled in accordance with requirements set forth in CCR, Title 22, Division 4.5, which discusses proper labeling, storage and handling of hazardous wastes. These mandatory requirements have been included as Project Notes.

Fresno County Fire Protection District (Fire District): The proposal shall comply with the California Code of Regulations Title 24 – Fire Code, and three sets of County-approved construction plans for the project shall be approved by the Fire District prior to issuance of Building Permits by the County. The subject parcel shall annex into Community Facilities District (CFD) No. 2010-01 of the Fresno County Fire Protection District. These mandatory requirements have been included as Project Notes.

Water and Natural Resources Division of the Fresno County Department of Public Works and Planning: No concerns with the proposal as the subject parcel is not located in a designated Water-Short area.

No other comments specific to land use compatibility were expressed by reviewing Agencies or Departments.

Analysis:

The subject parcel is located on the east side of Interstate Highway 5 (I-5) in an agricultural area with few residential land uses, the closest dwelling being located approximately one and three quarter-miles southeast of the subject PG&E electrical transmission tower.

Interstate Highway 5 (I-5) is designated as a Scenic Highway in the Fresno County General Plan. Although General Plan Policy OS-L.3 typically requires intensive land use proposals to be developed with a 200-foot natural open space area adjacent to the Scenic Highway, Policy OS-L.3 also allows this 200-foot natural open space setback requirement to be modified in instances where any one of the following conditions exist: 1) topographic or vegetative characteristics preclude the 200-foot setback; 2) topographic or vegetative characteristics provide visual screening of buildings and parking areas from the Scenic Highway; 3) property dimensions preclude the 200-foot setback; or 4) the proposed development involves expansion of an existing facility or expansion of an existing concentration of uses. In this instance, the

proposed wireless communication facility will be co-located at an existing PG&E electrical transmission tower located approximately 2,675 feet east of I-5.

Aesthetics are a typical concern associated with this type of use due to the heights of towers on which wireless communication antennas are mounted. Further, the height of a wireless communication tower is a function of its use because effective operation of wireless communication antennas require such improvements to be installed at relatively high elevations. In this instance, six panel antennas with related equipment will be mounted on a 12-foot-tall tower extension, which will be installed on an existing 134-foot-tall PG&E electrical transmission tower at 131 feet elevation, resulting in a 143-foot overall tower height. Additionally, a two-foot diameter microwave dish will be mounted on the subject PG&E electrical transmission tower at 50 feet elevation.

Regarding the aesthetics of the related facilities (*i.e.*, equipment cabinets), the proposed 150 square-foot lease area will contain said improvements within a six-foot-tall wood perimeter fence. Further, the proposed 150 square-foot lease area will be located within the footprint of the subject PG&E electrical transmission tower.

Based on the above information, and with adherence to the mandatory Project Notes discussed in this Staff Report, staff believes that the proposal will not have an adverse effect upon surrounding properties.

Recommended Conditions of Approval:

None.

Conclusion:

Finding 3 can be made.

Finding 4: That the proposed development is consistent with the General Plan.

Relevant Policies:	**Consistency/Considerations:**
General Plan Policy PF-J.4: County shall require compliance with the Wireless Communication Guidelines for siting of communication towers in unincorporated areas of the County.	See discussion below under the **Analysis** section.
General Plan Policy PF-C.17: County shall, prior to consideration of any discretionary project related to land use, undertake a water supply evaluation. The evaluation shall include the following: A) determination that the water supply is adequate to meet the highest demand that could be permitted on the lands in question; B) determination of the impact that use of the proposed water supply will have on other water users in Fresno County; and C) determination that the proposed water supply is sustainable or that there is an acceptable plan to achieve sustainability.	This proposal was reviewed by the Water and Natural Resources Division of the Fresno County Department of Public Works and Planning, which did not identify any concerns with the proposed use, as the subject parcel is not located in a designated Water-Short area. Further, the proposed use is an unmanned wireless communication facility that does not require water for operation. Staff believes the proposal is consistent with this Policy.

Reviewing Agency/Department Comments:

Policy Planning Section of the Fresno County Department of Public Works and Planning: The subject parcel is designated Agriculture in the Fresno County General Plan. According to General Plan Policy PF-J.4, the County shall require compliance with the Fresno County Wireless Communication Guidelines for siting of communication towers in unincorporated areas of the County. The subject parcel is enrolled under Williamson Act Contract No. 7257A; however, wireless communication facilities are a compatible use on property subject to Williamson Act Contracts.

No other comments specific to General Plan Policy were expressed by reviewing Agencies or Departments.

Analysis:

General Plan Policy PF-J.4 requires compliance with the Fresno County Wireless Communication Guidelines which encourage the utilization of Fresno City-adopted development standards for new tower facilities if such proposals are located within one half-mile of the City of Fresno. In this instance, the subject parcel is located approximately 12 miles northeast of the City of Coalinga, which is not within one half-mile of the City of Fresno.

The Fresno County Wireless Communication Guidelines also state that the need to accommodate new communication technology must be balanced with the need to minimize the number of new tower structures, thus reducing the impacts towers can have on the surrounding community. In this instance, there have been four other towers erected within five miles of the subject parcel; however, this proposal entails co-location of wireless communication equipment on an existing PG&E electrical transmission tower. As such, staff believes that the proposed wireless communication facility is in conformance with the Fresno County Wireless Communication Guidelines.

The Fresno County Wireless Communication Guidelines also state that developers of new tower sites should include provisions in their land lease agreements that reserve co-location opportunities. As such, prior to issuance of building permits for this proposal, the Applicant shall provide Staff with a copy of the project site land lease agreement in order to verify that the co-location requirement can be satisfied. This requirement has been included as a Condition of Approval.

Based on the above information, and with adherence to the recommended Condition of Approval and mandatory Project Notes discussed in this Staff Report, staff believes that the proposal is consistent with the Fresno County General Plan.

Recommended Conditions of Approval:

See recommended Conditions of Approval attached as Exhibit 1.

Conclusion:

Finding 4 can be made.

PUBLIC COMMENT:

None.

CONCLUSION:

Based on the factors cited in the analysis, staff believes the required Findings for granting the Unclassified Conditional Use Permit can be made. Staff therefore recommends approval of Unclassified Conditional Use Permit No. 3594, subject to the recommended Conditions.

PLANNING COMMISSION MOTIONS:

Recommended Motion (Approval Action)

- Move to determine the required Findings can be made and move to approve Unclassified Conditional Use Permit (CUP) No. 3594, subject to the Conditions of Approval and Project Notes listed in Exhibit 1; and

- Direct the Secretary to prepare a Resolution documenting the Commission's action.

Alternative Motion (Denial Action)

- Move to determine that the required Findings cannot be made (state basis for not making the Findings) and move to deny Unclassified Conditional Use Permit No. 3594; and

- Direct the Secretary to prepare a Resolution documenting the Commission's action.

Recommended Conditions of Approval and Project Notes:

See attached Exhibit 1.

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Unclassified Conditional Use Permit Application No. 3594
Conditions of Approval and Project Notes

Conditions of Approval	
1.	Development and operation shall be in substantial conformance with the approved Site Plans, Floor Plans, Elevation Drawings and Operational Statement, except as modified by the Conditions of Approval.
2.	Approval of Unclassified Conditional Use Permit No. 3594 shall expire in the event the use of the antennas/microwave dish ceases for a period in excess of two years. At such time, the antennas/microwave dish and related facilities shall be removed and the lease area shall be restored as nearly as practical to its original condition. This stipulation shall be recorded as a Covenant running with the land. Note: The Department of Public Works and Planning will prepare the Covenant upon receipt of the standard processing fee, which is currently $243.50.

Conditions of Approval reference recommended Conditions for the project.

Notes	
The following Notes reference mandatory requirements of Fresno County or other Agencies and are provided as information to the project Applicant.	
1.	Plans related to construction and development of the project prepared by a licensed design professional shall be submitted to the Development Services Division of the Fresno County Department of Public Works and Planning for review and approval in order to acquire building and installation permits, and necessary inspections.
2.	Any work performed within the County right-of-way shall require an Encroachment Permit from the Road Maintenance and Operations Division of the Fresno County Department of Public Works and Planning.
3.	Any additional run-off generated by development cannot be drained across property lines, and must be retained on site per County Standards.
4.	A Grading Permit or Grading Voucher shall be required for any grading activity associated with this proposal.
5.	Facilities proposing to use and/or store hazardous materials and/or hazardous wastes shall satisfy requirements set forth in California Health and Safety Code (HSC), Division 20, Chapter 6.95, and California Code of Regulations (CCR), Title 22, Division 4.5.
6.	The Applicant shall submit a Hazardous Materials Business Plan to the Fresno County Department of Public Health for review and approval pursuant to California Health and Safety Code (HSC), Division 20, Chapter 6.95 when handing hazardous materials and/or hazardous wastes above the following reportable thresholds: 1) 55 gallons of liquid material; 2) 500 pounds of solid material; 3) 200 cubic feet of compressed gas; or 4) the threshold planning quantity for extremely hazardous substances.
7.	All hazardous waste shall be handled in accordance with requirements set forth in California Code of Regulations (CCR), Title 22, Division 4.5, which discusses proper labeling, storage and handling of hazardous wastes.

EXHIBIT 1

Notes	
8.	The project shall comply with the California Code of Regulations Title 24 – Fire Code, and three sets of County-approved construction plans for the project shall be approved by the Fire District prior to issuance of Building Permits by the County.
9.	Prior to Occupancy, the subject parcel shall annex into Community Facilities District (CFD) No. 2010-01 of the Fresno County Fire Protection District.

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CUP 3594

LOCATION MAP

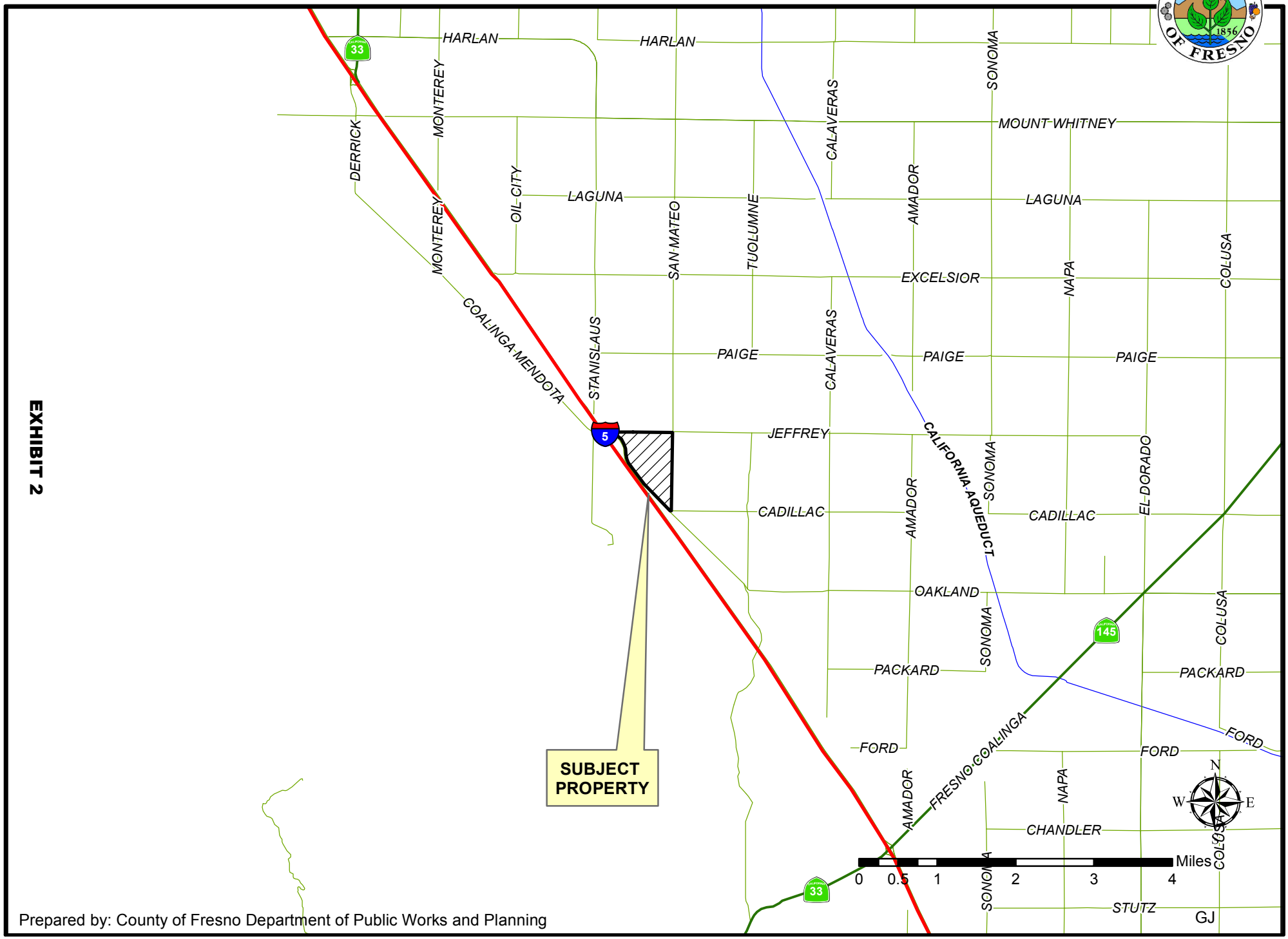


EXHIBIT 2

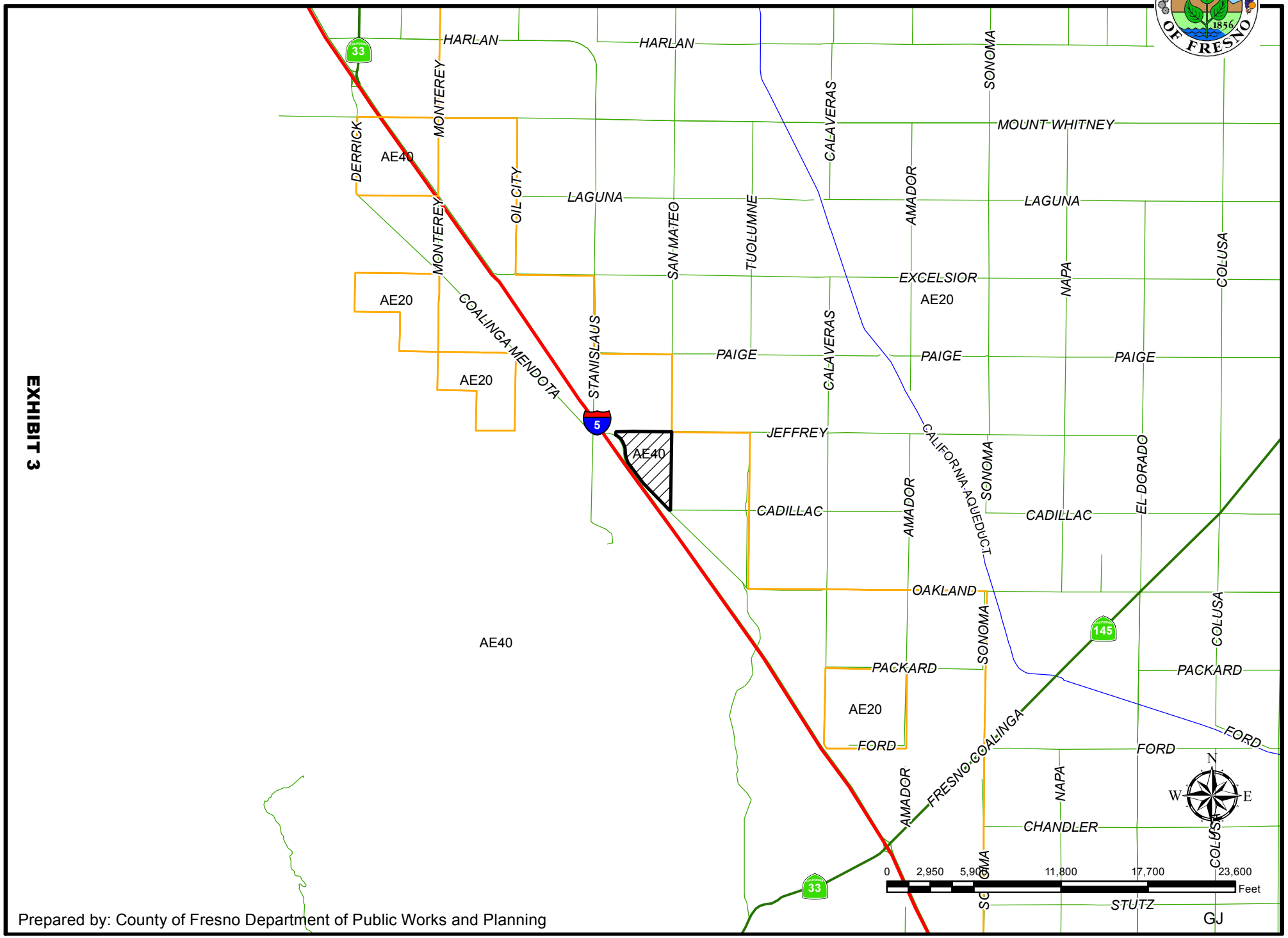
Prepared by: County of Fresno Department of Public Works and Planning

GJ

CUP 3594
STR 15 - 18/15

EXISTING ZONING MAP

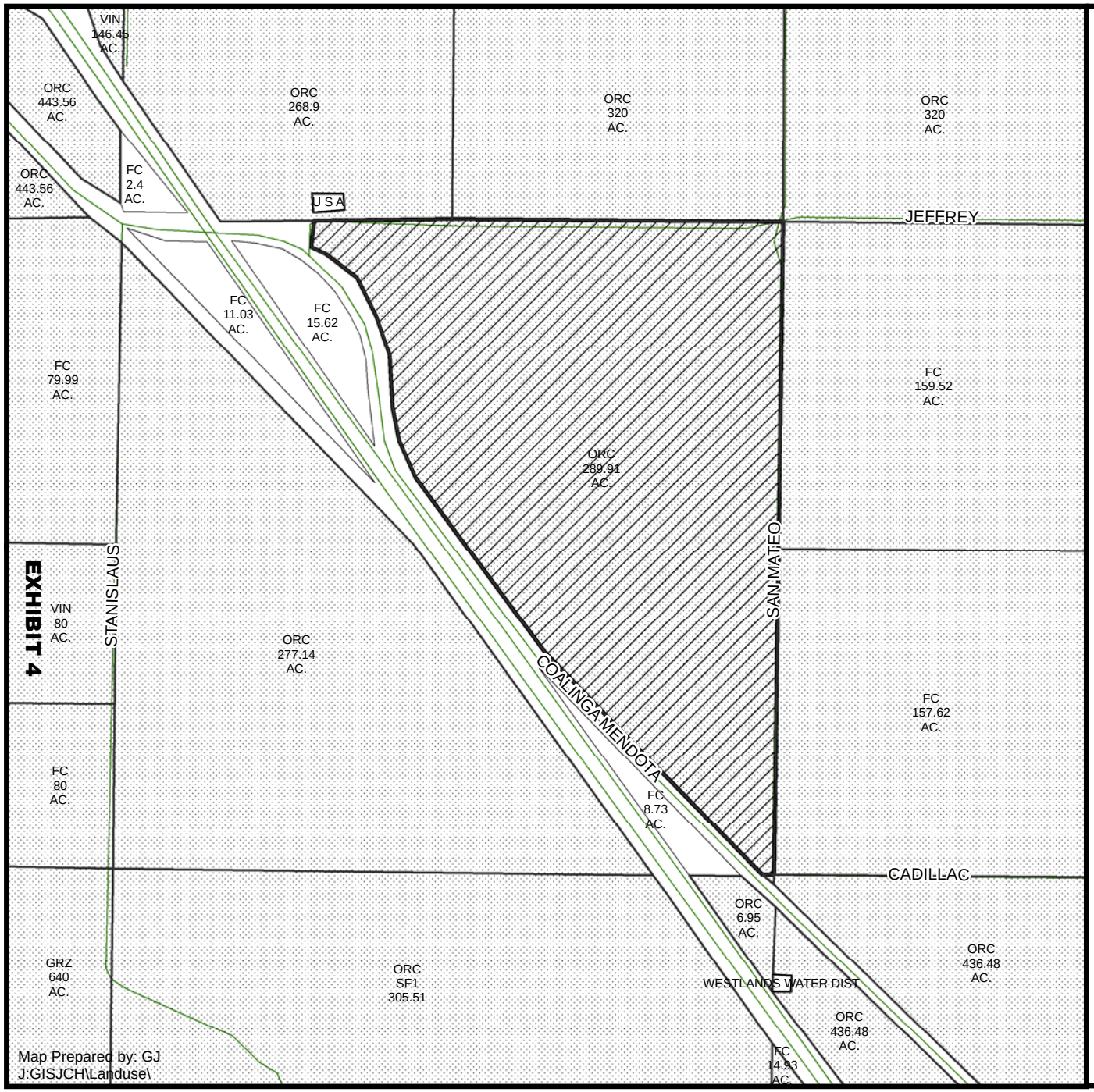
EXHIBIT 3



Prepared by: County of Fresno Department of Public Works and Planning

CUP 3594

EXISTING LAND USE MAP



LEGEND
FC - FIELD CROP
GRZ - GRAZING
ORC - ORCHARD
VIN - VINEYARD
V - VACANT
SF#- SINGLE FAMILY RESIDENCE

LEGEND:

Subject Property

Ag Contract Land

N
W E
S

0 310 620 1,240 1,860 2,480 Feet

Department of Public Works and Planning
Development Sevices Division

GENERAL NOTES

1. DRAWINGS ARE NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE, AND THIS SET OF PLANS IS INTENDED TO BE USED FOR DIAGRAMMATIC PURPOSES ONLY, UNLESS NOTED OTHERWISE. THE GENERAL CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ANYTHING ELSE DEEMED NECESSARY TO COMPLETE INSTALLATIONS AS DESCRIBED HEREIN.

2. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS INVOLVED SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT, WITH THE CONSTRUCTION AND CONTRACT DOCUMENTS, FIELD CONDITIONS AND CONFIRM THAT THE PROJECT MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY ERRORS, OMISSIONS, OR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ ENGINEER.

3. THE GENERAL CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.

4. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

5. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

6. ALL WORK PERFORMED ON PROJECT AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK.

7. GENERAL CONTRACTOR SHALL PROVIDE AT THE PROJECT SITE A FULL SET OF CONSTRUCTION DOCUMENTS UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.

8. THE STRUCTURAL COMPONENTS OF THIS PROJECT SITE/FACILITY ARE NOT TO BE ALTERED BY THIS CONSTRUCTION PROJECT UNLESS NOTED OTHERWISE.

9. DETAILS HEREIN ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS OR SITUATIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE SCOPE OF WORK.

10. SEAL PENETRATIONS THROUGH FIRE-RATED AREAS WITH U.L. LISTED OR FIRE MARSHALL APPROVED MATERIALS IF APPLICABLE TO THIS FACILITY AND OR PROJECT SITE.

11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO THE CONSTRUCTION ON OR ABOUT THE PROPERTY.

12. CONTRACTOR SHALL SEE TO IT THAT GENERAL WORK AREA IS KEPT CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.

13. THE ARCHITECTS/ENGINEERS HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. CONTRACTORS BIDDING THE JOB ARE NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS. THE BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE ARCHITECT/ENGINEER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL. IN THE EVENT OF DISCREPENCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED OTHERWISE.

T··Mobile·

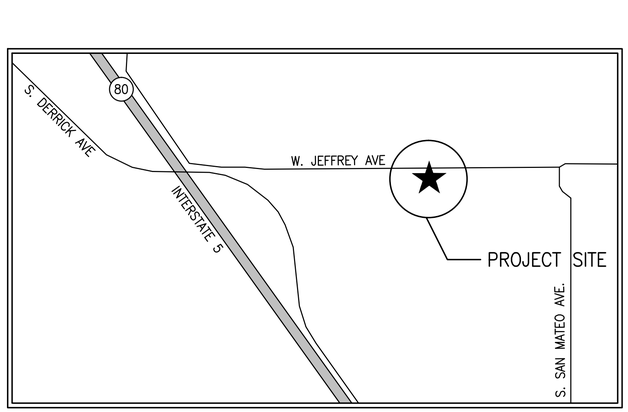
WEST LLC.

1755 CREEKSIDE OAKS DRIVE # 190, SACRAMENTO, CA 95833

SC10416A – DERRICK AVENUE NSB
PG&E COLOCATION PROJECT

25217 S. DERRICK AVENUE
COALINGA, CA 93210
APN: 058-090-19S

SAP 40659920
GATES-PANOCHE #1 230KV
TOWER NUMBER 020/093



LOCATION PLAN

PROJECT DIRECTORY

LANDLORD:
JEFF PERACCHI
JP FARMS
5151 NORTH PALM #900
FRESNO, CA, 93704
559-360-0142

ARCHITECT:
MANUEL S TSIHLAS
MST ARCHITECTS, INC.
1520 RIVER PARK DRIVE
SACRAMENTO, CA 95815
916-565-9630
manuel@mstarchitects.com

OWNER/APPLICANT:
T-MOBILE WEST LLC.
1755 CREEKSIDE OAKS DR. #190
SACRAMENTO, CA 95833

CONSTRUCTION MANAGER:
BUDD WUELFING
T-MOBILE WEST LLC.
1755 CREEKSIDE OAKS DR. #190
SACRAMENTO, CA 95833
530-863-7342

LANDLORD:
STEVE MILLIKEN
PG&E
245 MARKET STREET N10D
SAN FRANCISCO, CA 94105
925-222-0536

PROJECT SUMMARY

PROPERTY INFORMATION:		
LATITUDE	N36° 22' 12.18"	NAD 83
LONGITUDE	W120° 19' 32.31"	NAD 83
ASSESSOR'S PARCEL NUMBER:	058-090-19S	
JURISDICTION:	FRESNO COUNTY	
OCCUPANCY:	U (UNMANNED TELECOMMUNICATIONS FACILITY)	
TYPE OF CONSTRUCTION:	V-B	
ZONING:	AE 40	

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 CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

2016 CALIFORNIA BUILDING STANDARDS CODE, TITLE 24, CALIFORNIA CODE OF REGULATIONS EFFECTIVE JANUARY 1, 2017

PART 1	CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE
PART 2	CALIFORNIA BUILDING CODE
PART 2.5	CALIFORNIA RESIDENTIAL BUILDING CODE
PART 3	CALIFORNIA ELECTRICAL CODE
PART 4	CALIFORNIA MECHANICAL CODE
PART 5	CALIFORNIA PLUMBING CODE
PART 6	CALIFORNIA ENERGY CODE
PART 8	CALIFORNIA HISTORICAL BUILDING CODE
PART 9	CALIFORNIA FIRE CODE
PART 10	CALIFORNIA EXISTING BUILDING CODE
PART 11	CALIFORNIA GREEN BUILDING STANDARDS CODE
PART 12	CALIFORNIA REFERENCE STANDARDS CODE

LOCAL COUNTY OR CITY ORDINANCES

ACCESSIBILITY REQUIREMENTS: THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ACCESSIBILITY NOT REQUIRED IN ACCORDANCE WITH THE 2016 CBC 11B-203.5, AND 11B-202.4 EXCEPTION 7.

PROJECT DESCRIPTION

PROPOSED MODIFICATION OF AN NEW T-MOBILE TELECOMMUNICATIONS FACILITY, INCLUDING:

* INSTALL (6) NEW T-MOBILE PANEL ANTENNAS, (2) PER SECTOR, ON NEW PIPE MOUNTS.
* PROPOSED T-MOBILE 10'-0"x15'-0" LICENSE AREA.
* INSTALL NEW 10'-0"x15'-0" CONCRETE SLAB AND NEW 3'-0"x6'-0" CONCRETE STOOP.
* INSTALL (1) NEW T-MOBILE RBS 6102 EQUIPMENT CABINET ON NEW CONCRETE PAD.
* INSTALL (1) NEW T-MOBILE 200A PPC PANEL AND SERVICE METER MOUNTED ON NEW UTILITY H-FRAME.
* INSTALL (3) NEW T-MOBILE TMA ON NEW PIPE MOUNTS.
* INSTALL NEW PG&E 12'-0" TOP HAT.
* INSTALL (1) NEW T-MOBILE 2' MICROWAVE DISH (VHLP2) W/ (1) ODU.
* INSTALL (1) NEW T-MOBILE 1/2" MICROWAVE CABLE.
* INSTALL (6) NEW T-MOBILE 1-5/8" COAXIAL CABLE.
* INSTALL (9) NEW T-MOBILE RRUS11 ON UTILITY H-FRME.

PROJECT MILESTONES

05/15/2017	90% CONSTRUCTION DOCUMENTS
05/24/2017	100% CONSTRUCTION DOCUMENTS
06/01/2017	100% CONSTRUCTION DOCUMENTS REV 1

INDEX OF DRAWINGS

EXHIBIT 5

DIRECTIONS

FROM T-MOBILE OFFICE @ 1755 CREEKSIDE OAKS DRIVE, SACRAMENTO, CA 95833:

1. HEAD WEST ON CREEKSIDE OAKS DR TOWARD CAPITAL PARK DR.
2. TURN LEFT ONTO CAPITAL PARK DR.
3. TURN LEFT ONTO NATOMAS PARK DR.
4. TURN RIGHT AT THE 1ST CROSS STREET ONTO GARDEN HWY.
5. SLIGHT RIGHT TO MERGE ONTO I-5 S TOWARD LOS ANGELES.
6. MERGE ONTO I-5 S.
7. I-5 S TURNS SLIGHTLY RIGHT AND BECOMES I-5 S.
8. TAKE EXIT 349 FOR DERRICK AVE.
9. TURN RIGHT ONTO S DERRICK AVE.
10. TURN LEFT TOWARD S SAN MATEO AVE.
11. SLIGHT LEFT ONTO S SAN MATEO AVE.

APPROVALS

LEASING: _____ DATE: _____

ZONING: _____ DATE: _____

RF ENGINEER: _____ DATE: _____

CONSTRUCTION: _____ DATE: _____

CONSTRUCTION: _____ DATE: _____

EQUIPMENT ENGINEER: _____ DATE: _____

OWNER: _____ DATE: _____

MST ARCHITECTS
WIRELESS DIVISION
1520 River Park Drive, Sacramento, CA 95815
916-567-9630
www.MSTArchitects.com

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SC10416A – DERRICK AVENUE NSB
PG&E COLOCATION PROJECT
25217 S. DERRICK AVENUE
COALINGA, CA 93210

T··Mobile·
WEST LLC.

SHEET TITLE:
TITLE SHEET, LOCATION PLAN, PROJECT DATA

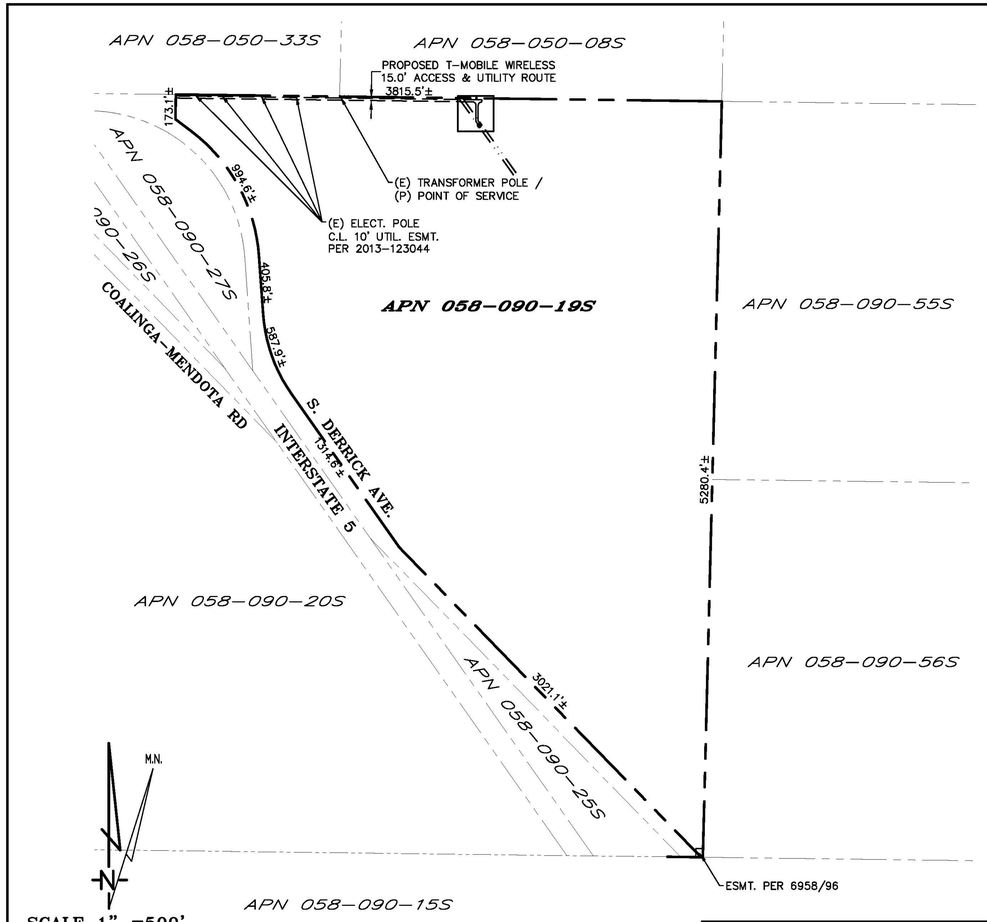
LICENSED ARCHITECT
MANUEL S. TSIHLAS
No. C-28021
Exp. 08-17
STATE OF CALIFORNIA
Not valid unless signed in ink by licensee.

Revisions:
1 06/01/17
2 --
3 --
4 --
5 --

File: 214.0660 _T11.dwg
Drawn By: LX
Checked By: SV
Scale: AS NOTED
Date: 06/01/17

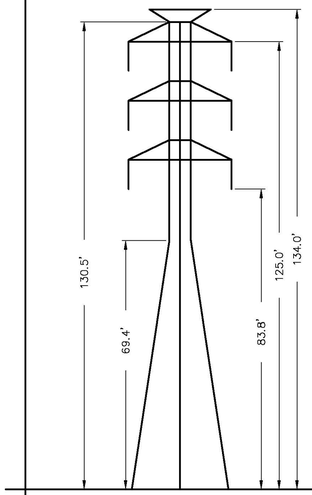
Job No. 214.0660

T1.1



SCALE 1" =500'

OVERALL PROJECT AREA



SCALE 1" = 20'

TOWER DIAGRAM

BOUNDARY SHOWN IS BASED ON MONUMENTATION FOUND AND RECORD INFORMATION. THIS IS NOT A BOUNDARY SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC MAP WITH PROPERTY LINES AND EASEMENTS BEING A GRAPHIC DEPICTION BASED ON INFORMATION GATHERED FROM VARIOUS SOURCES OF RECORD AND AVAILABLE MONUMENTATION FOUND DURING THE FIELD SURVEY. PROPERTY LINES AND LINES OF TITLE WERE NOT INVESTIGATED NOR SURVEYED. NO PROPERTY MONUMENTS WERE SET.

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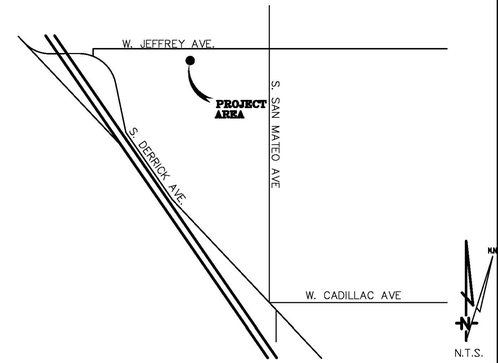


COALINGA, CA

VICINITY MAP

Geil Engineering
and Surveying Inc.
1226 High Street
Auburn, California 95603-5015
phone: 530-885-0426
fax: 530-885-5611

DATE: 01-19-17

SURVEYOR: D. GEIL

DRAWN BY: D. GEIL

REVISIONS:

DATE	DESCRIPTION	INITIAL
01-19-17	DRAWING SUBMITTAL	DG
01-23-17	SPOT ELEV. ADDED	DG
03-19-17	rev. lease & esmts.	DG
05-24-17	rev. esmts.	DG

T-Mobile

DATE OF SURVEY: 01-12-17

SURVEYED BY OR UNDER DIRECTION OF: KENNETH D. GEIL, RCE 14803

LOCATED IN THE COUNTY OF FRESNO, CALIFORNIA

BEARINGS SHOWN ARE BASED UPON MONUMENTS FOUND AND RECORD INFORMATION. THIS IS NOT A BOUNDARY SURVEY.

ELEVATIONS SHOWN ON THIS PLAN ARE BASED UPON U.S.G.S. N.A.V.D. 88 DATUM. ABOVE MEAN SEA LEVEL UNLESS OTHERWISE NOTED.

N.G.V.D. 1929 CORRECTION: SUBTRACT 3.13' FROM ELEVATIONS SHOWN.

CONTOUR INTERVAL: n.a.

THE LATITUDE AND LONGITUDE WERE DETERMINED USING TRIMBLE PATHFINDER GEO XT G.P.S AND UTILIZING PFINDER OFFICE DIFFERENTIAL CORRECTION SOFTWARE AT THE LOCATION SHOWN HEREON.

THIS SURVEY MEETS OR EXCEEDS FAA 1A ACCURACY TOLERANCES.

ASSESSOR'S PARCEL NUMBER: 058-090-19S

LANDLORD(S): PG&E (JULIE STANLEY)
245 MARKET STREET N10D
SAN FRANCISCO, CA

JP FARMS (JEFF PERACCHI)
5151 N. PALM #900
SNO, CA 93704

Date of Observation: 01-12-17

Equipment/Procedure Used to Obtain Coordinates: Trimble GeoXT post processed with Pathfinder Office software.

Type of Antenna Mount: Existing Transmission Tower

NAD 83 Coordinates (Tower)
Latitude: N 36°22'12.18"
Longitude: W 120°19 32.31"

NAD 27 Coordinates (Tower)
Latitude: N 36°22'12.35"
Longitude: W 120°19'28.66"

ELEVATION at Base of Structure (NAVD88) 489' AMSL
Height of Structure: 130.5' AGL

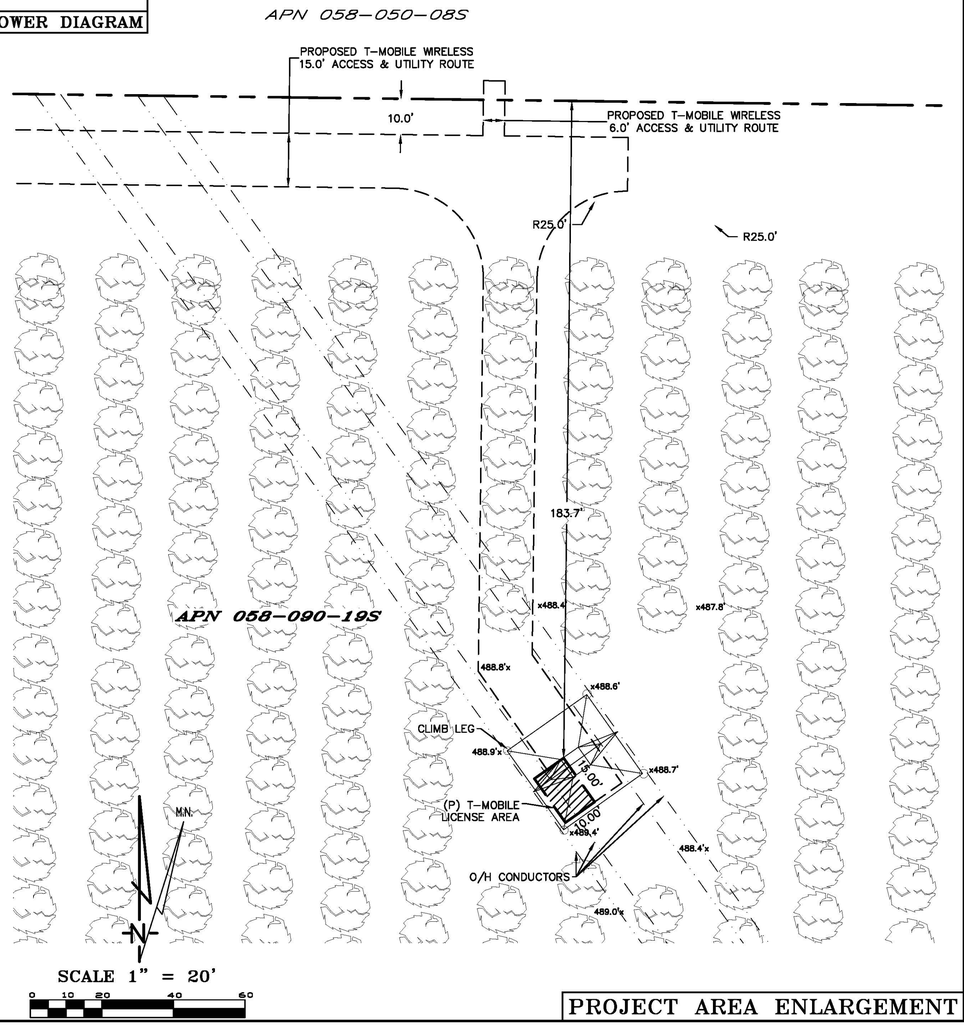
Lease Area Description

All that certain lease area being a portion of Section 15, Township 18 South, Range 15 East M.D.M. as described in Document 2003-0000190 Official Records of Fresno County, California, and being more particularly described as follows:

Beginning at a point having California State Plane Zone 4 Coordinate of N 2020523.15, E 6171402.90; thence from said point of beginning South 35°15'06" East 15.00 feet; thence South 54°44'54" West 10.00 feet; thence North 35°15'06" West 15.00 feet; thence North 54°44'54" East 10.00 feet to the True Point of Beginning.

Together with a non-exclusive route for access and utilities purposes, fifteen feet in width, the centerline of which is described as follows: Beginning at a point which bears North 35°15'06" West 7.50 feet from the Southeast corner of the above described lease area; thence from said point of beginning North 55°12'30" East 1.74 feet; thence North 34°55'29" West 38.67 feet; thence North 00°43'47" East 139.8 feet more or less to a point which lies 17.50 feet South of the North line of the aforementioned Section 15; thence parallel to said North Section line North 89°16'39" West 2105.87 feet more or less to the public right of way.

Also together with a non-exclusive easement for utility purposes six feet in width, from the above described 15.0 foot access and utility route, as necessary for connection to public utility service.



SCALE 1" = 20'

0 10 20 40 60

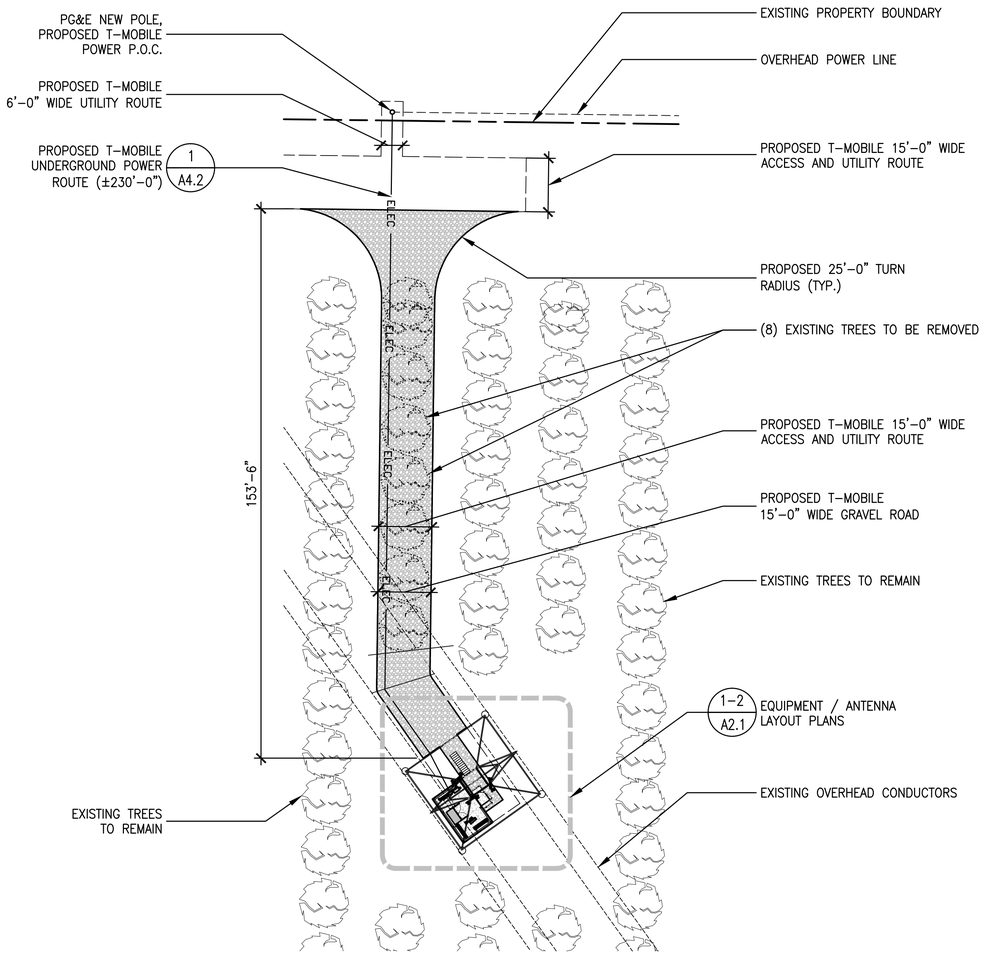
PROJECT AREA ENLARGEMENT

SC10416A
Derrick Avenue PGE

25217 S. Derrick Ave.
Coalinga, CA 93210

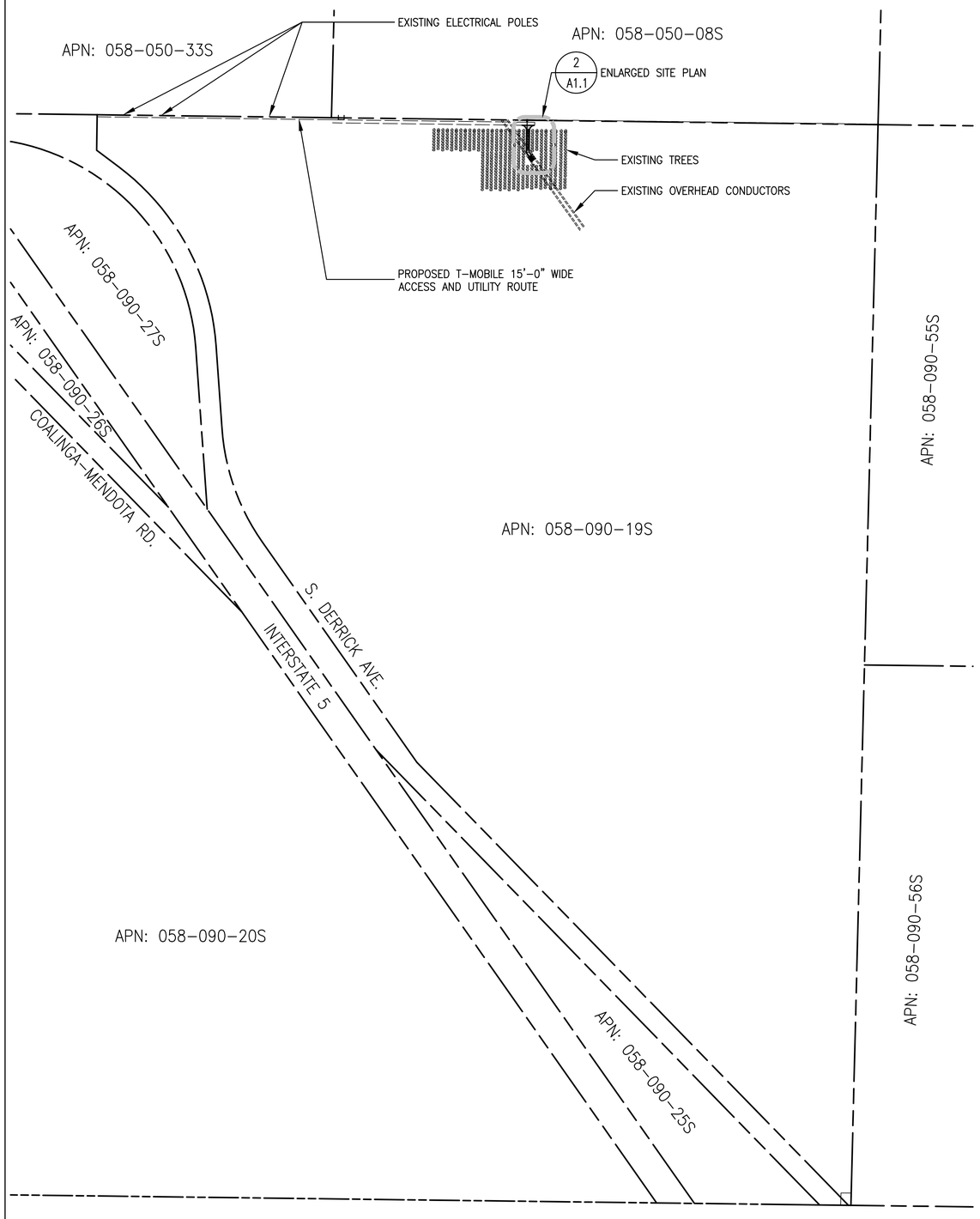
SURVEY

C-1



0' 5' 25' 50'
1" = 20.0'

2 / A1.1 ENLARGED SITE PLAN
SCALE: 1" = 20.0'



0' 60' 300' 600'
1" = 300.0'

1 / A1.1 OVERALL SITE PLAN
SCALE: 1" = 300.0'

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WIRELESS DIVISION
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25217 S. DERRICK AVENUE
COALINGA, CA 93210

T-Mobile WEST LLC.

SHEET TITLE: OVERALL / ENLARGED SITE PLANS

LICENSED ARCHITECT
MANUEL S. TSIHLAS
No. C-28021
Exp. 08-17
STATE OF CALIFORNIA
Not valid unless signed in ink by licensee.

Revisions:
1 06/01/17
2 --
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Checked By: SV
Scale: AS NOTED
Date: 06/01/17

Job No. 214.0660

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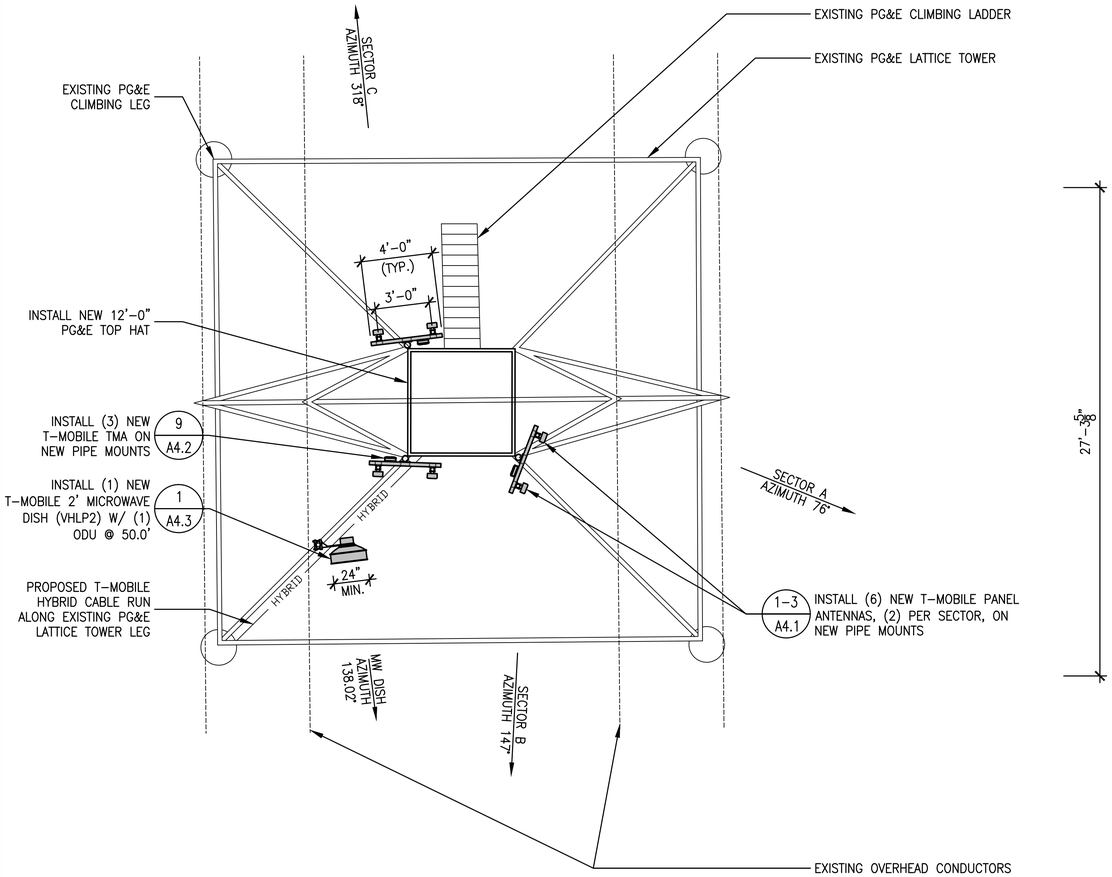

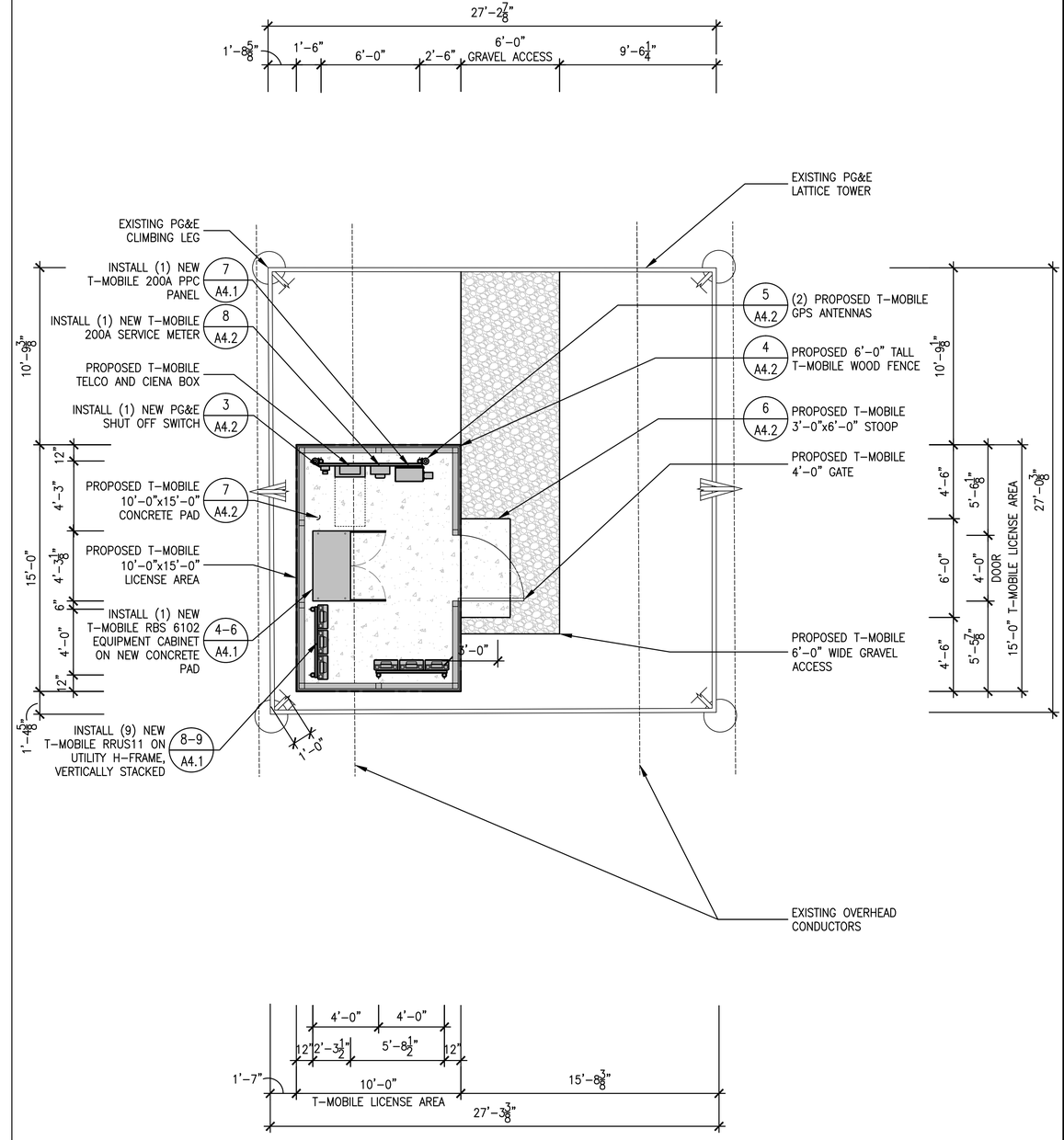

0' 1' 5' 10'
1/4" = 1'-0"

2 A2.1 ANTENNA LAYOUT PLAN
SCALE: 1/4" = 1'-0"

0' 1' 5' 10'
1/4" = 1'-0"

1 A2.1 EQUIPMENT LAYOUT PLAN
SCALE: 1/4" = 1'-0"

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PG&E COLOCATION PROJECT
25217 S. DERRICK AVENUE
COALINGA, CA 93210

SHEET TITLE: EQUIPMENT / ANTENNA LAYOUT PLANS

LICENSED ARCHITECT
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No. C-28021
Exp. 08-17
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Date:	06/01/17

Job No. 214.0660

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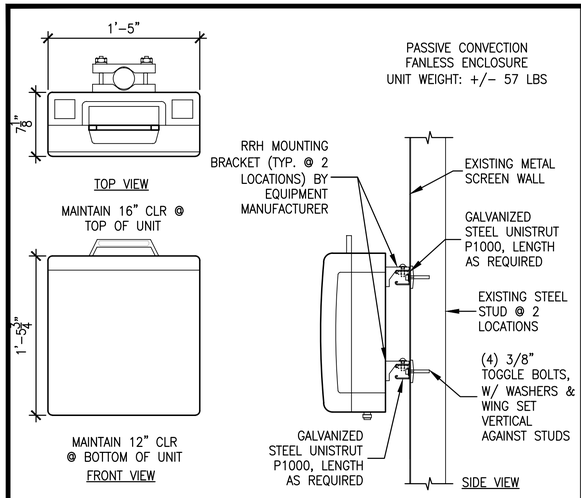
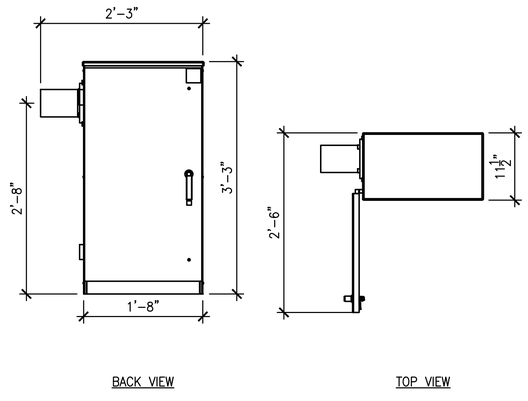
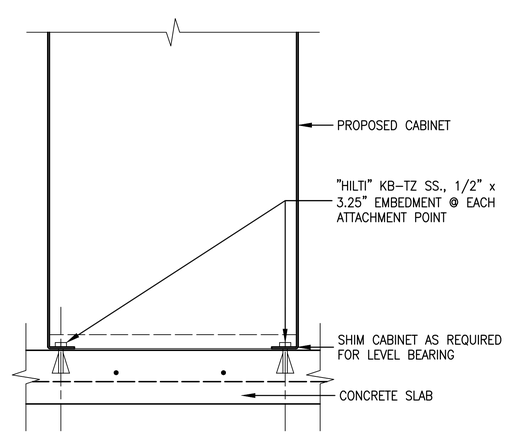
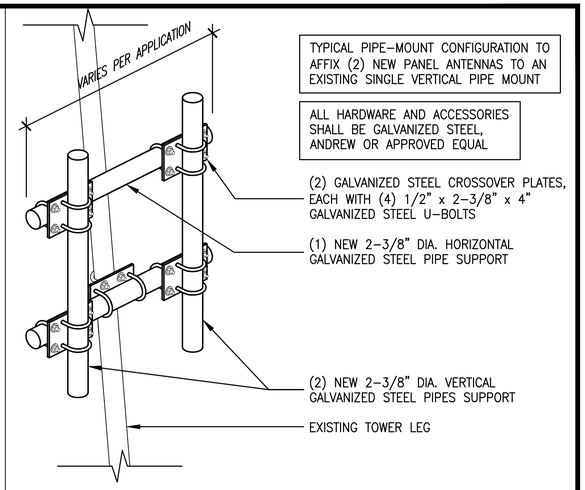


9 A4.1 RRH UNIT (RRUS-11) MOUNTING DETAIL
SCALE: 1-1/2" = 1'-0"





6 A4.1 CABINET ANCHORAGE DETAIL
SCALE: 1-1/2" = 1'-0"



3 A4.1 ANTENNA PIPE MOUNT DETAIL
SCALE: 1/2" = 1'-0"

7 A4.1 POWER PROTECTION CABINET
SCALE: 1" = 1'-0"

5 A4.1 PROPOSED RBS 6102 ANCHORAGE LAYOUT
SCALE: 1" = 1'-0"

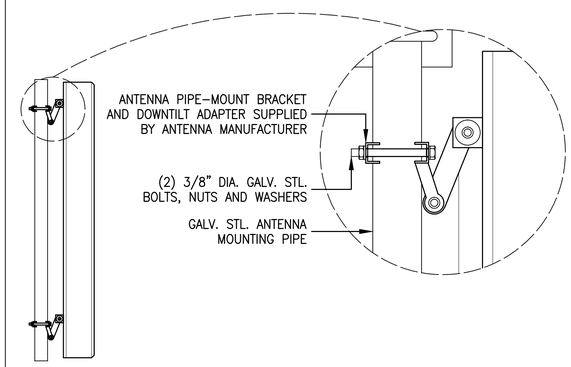
UNIT WEIGHT:
34.6 LBS

2 A4.1 PROPOSED ANTENNA MODEL TMBXX-6516-R2M
SCALE: 3/4" = 1'-0"

8 A4.1 H-FRAME DETAIL
SCALE: 1/2"=1'-0"

GROSS WEIGHT:
792# FULLY EQUIPPED
1422# FULLY EQUIPPED W/ 200AhBATTERIES

4 A4.1 PROPOSED RBS 6102 ELEVATIONS
SCALE: 1" = 1'-0"



1 A4.1 ANTENNA MOUNT DETAIL
SCALE: 1/2"=1'-0"

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T··Mobile·
WESTLLC.

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PG&E COLOCATION PROJECT
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COALINGA, CA 93210

SHEET TITLE: CONSTRUCTION DETAILS

LICENSED ARCHITECT
MANUEL S. TSIALAS
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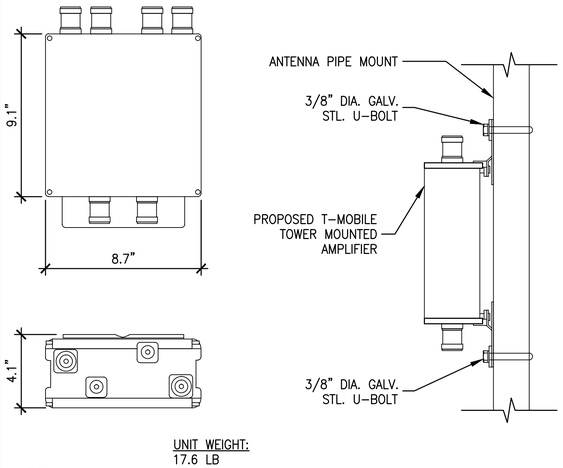
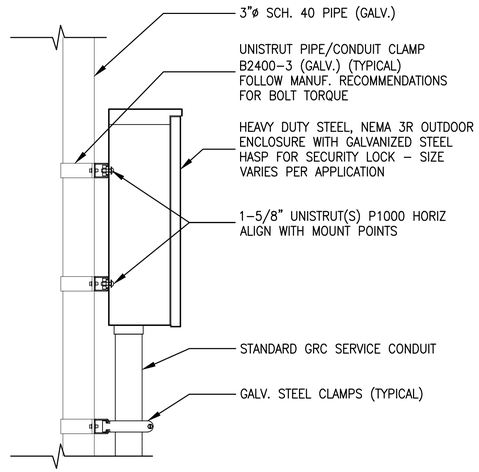
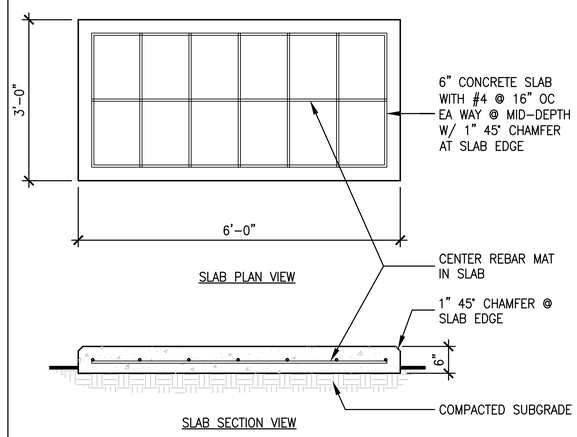


9 A4.2 TOWER MOUNTED AMPLIFIER DETAIL
SCALE: 3" = 1'-0"



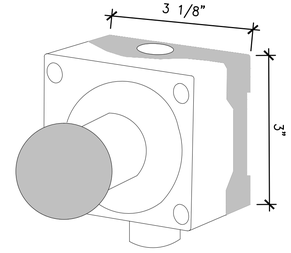
8 A4.2 UTILITY BOX MOUNTING DETAIL
SCALE: 1-1/2" = 1'-0"



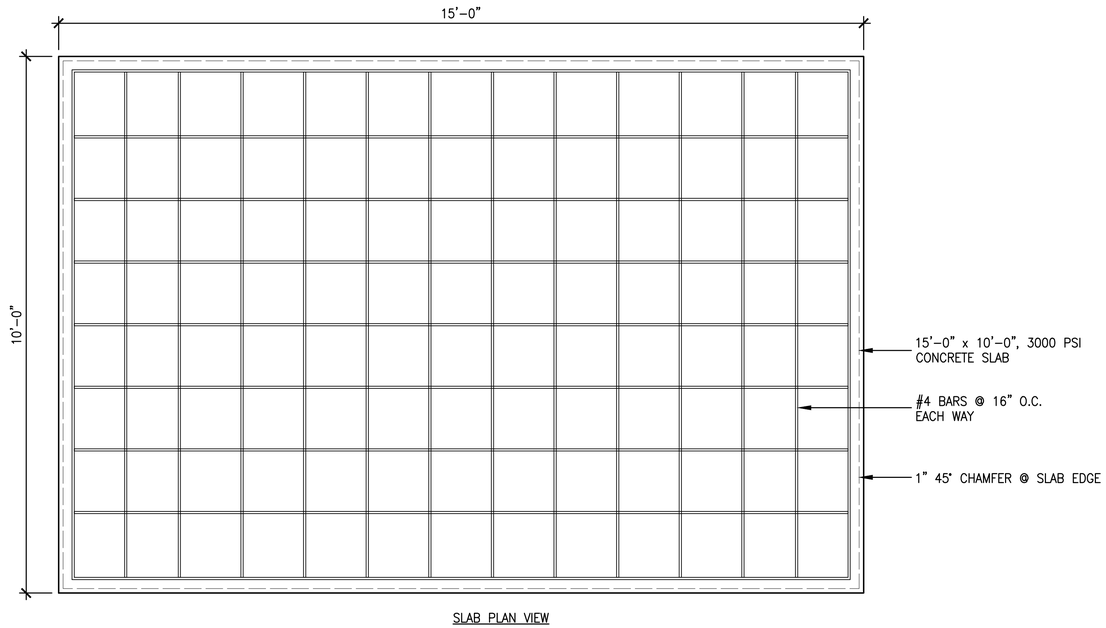
6 A4.2 CONCRETE STOOP DETAIL
SCALE: 3/4" = 1'-0"

EMERGENCY STOP BUTTON:

- NEMA 4 (#B22-SC1-50D)
- MEETS EN418 STANDARD
- MAINTAINED TWIST RELEASE OPERATOR

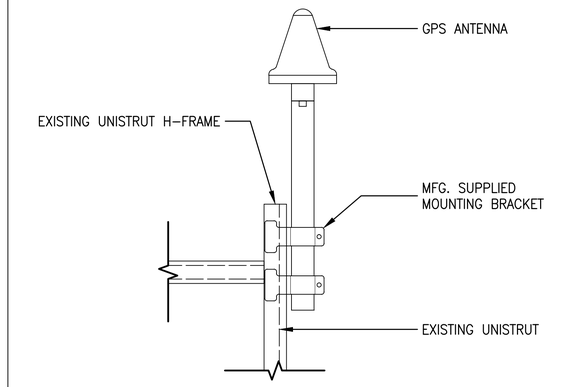


3 A4.2 SHUTDOWN SWITCH DETAIL
SCALE: N.T.S.

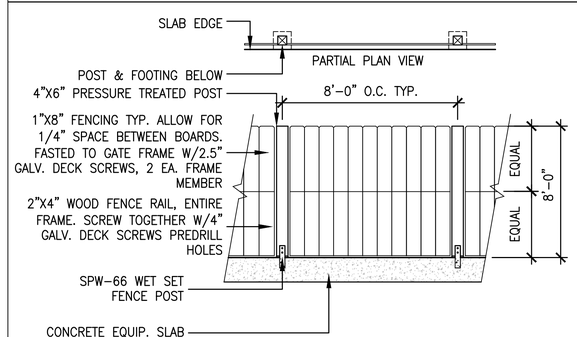


NOTE: MAINTAIN MINIMUM 3" COVER @ ALL REINFORCING STEEL

7 A4.2 EQUIPMENT SLAB DETAIL
SCALE: 3/4" = 1'-0"

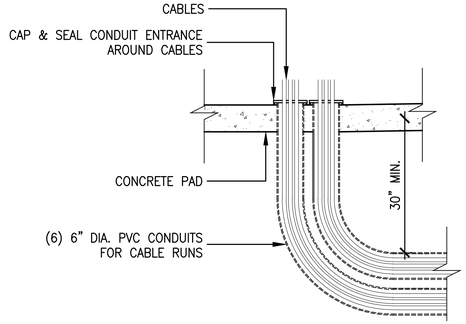


5 A4.2 GPS ANTENNA MOUNTING DETAIL
SCALE: 3" = 1'-0"

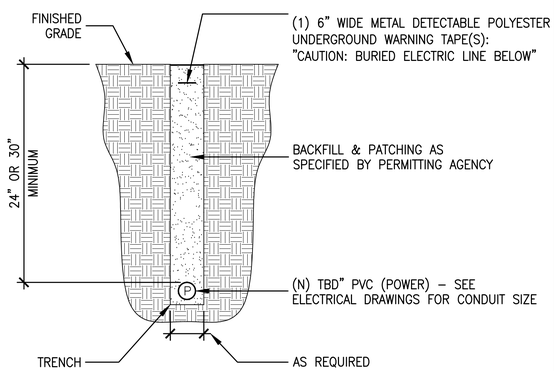


NOTE: FENCE PANELS TO BE CONSTRUCTED IN TWO HORIZONTAL SECTIONS. ALLOW FOR EASY FRAME DISASSEMBLY AND REMOVAL. PROVIDE 4 GARAGE TYPE HANDLES ON THE INSIDE CORNERS FOR HANDLING

4 A4.2 FENCE PANEL DETAIL (PG&E)
SCALE: N.T.S.



2 A4.2 UNDERGROUND CONDUIT DETAIL
SCALE: 3/4" = 1'-0"



NOTE: RESTORE GRADE TO ORIGINAL CONDITION OR BETTER. FILL WITH WELL COMPACTED BACKFILL. IF TRENCH IS UNDER CONCRETE PAD, BACKFILL WITH CRUSHED STONE

1 A4.2 JOINT POWER/TELCO TRENCH DETAIL
SCALE: NONE

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PG&E COLOCATION PROJECT
25217 S. DERRICK AVENUE
COALINGA, CA 93210

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LICENSED ARCHITECT
MANUEL S. TSIALAS
No. C-28021
Exp. 08-17
STATE OF CALIFORNIA
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Job No. 214.0660

A4.2

Product Specifications

COMMSCOPE®

POWERED BY ANDREW.

VHLP2-18-3WH/B

0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 17.700–19.700 GHz, UBR220, white antenna, polymer white radome without flash, standard pack—one-piece reflector

General Specifications

Antenna Type	VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized
Diameter, nominal	0.6 m | 2 ft
Packing	Compact pack
Radome Color	White
Radome Material	Polymer
Reflector Construction	One-piece reflector
Antenna Input	UBR220
Antenna Color	White
Antenna Type	VHLP - ValuLine® High Performance Low Profile Antenna, single-polarized
Diameter, nominal	0.6 m | 2 ft
Flash Included	No
Polarization	Single

Electrical Specifications

Operating Frequency Band	17.700 – 19.700 GHz
Beamwidth, Horizontal	2.1 °
Beamwidth, Vertical	2.1 °
Cross Polarization Discrimination (XPD)	30 dB
Electrical Compliance	Brazil Anatel Class 2 | Canada SRSP 317.8 Part A | ETSI 302 217 Class 3 | US FCC Part 101A
Front-to-Back Ratio	66 dB
Gain, Low Band	38.4 dBi
Gain, Mid Band	38.9 dBi
Gain, Top Band	39.1 dBi
Operating Frequency Band	17.700 – 19.700 GHz
Radiation Pattern Envelope Reference (RPE)	7204B
Return Loss	17.7 dB
VSWR	1.30

Mechanical Specifications

Fine Azimuth Adjustment	±15°
Fine Elevation Adjustment	±15°
Mounting Pipe Diameter	48 mm–115 mm | 1.9 in–4.5 in
Net Weight	11 kg | 25 lb

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Product Specifications

COMMSCOPE®

VHLP2-18-3WH/B

POWERED BY ANDREW.

Side Struts, Included	0
Side Struts, Optional	0
Wind Velocity Operational	200 km/h | 124 mph
Wind Velocity Survival Rating	250 km/h | 155 mph

Wind Forces At Wind Velocity Survival Rating

Axial Force (FA)	1272 N | 286 lbf
Side Force (FS)	630 N | 142 lbf
Twisting Moment (MT)	473 N•m
Weight with 1/2 in (12 mm) Radial Ice	17 kg | 37 lb
Zcg with 1/2 in (12 mm) Radial Ice	162 mm | 6 in
Zcg without Ice	157 mm | 6 in

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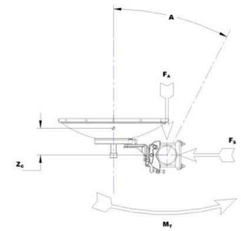
Wind Forces At Wind Velocity Survival Rating Image



Packed Dimensions

Gross Weight, Packed Antenna	16.0 kg | 35.3 lb
Height	330.0 mm | 13.0 in
Length	706.0 mm | 27.8 in
Volume	0.2 m³
Width	798.0 mm | 31.4 in

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Product Specifications

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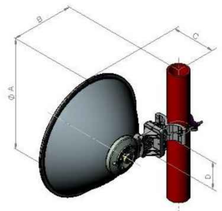
POWERED BY ANDREW.

Antenna Dimensions And Mounting Information



Dimensions in Inches (mm)				
Antenna Size, ft (m)	**A**	**B**	**C**	**D**
2(0.6)	25.9 (658)	14.6 (372)	10.2 (259)	6.4 (162)

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

Included Products

VHLP2-18/B (Product Component—not orderable) — 0.6 m | 2 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 17.700–19.700 GHz

* Footnotes

Axial Force (FA)	Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.
Cross Polarization Discrimination (XPD)	The difference between the peak of the co-polarized main beam and the maximum cross-polarized signal over an angle twice the 3 dB beamwidth of the co-polarized main beam.
Front-to-Back Ratio	Denotes highest radiation relative to the main beam, at 180° ±40°, across the band. Production antennas do not exceed rated values by more than 2 dB unless stated otherwise.

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Product Specifications

COMMSCOPE®

VHLP2-18-3WH/B

POWERED BY ANDREW.

Gain, Mid Band	For a given frequency band, gain is primarily a function of antenna size. The gain of Andrew antennas is determined by either gain by comparison or by computer integration of the measured antenna patterns.
Operating Frequency Band	Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.
Packing	Andrew standard packing is suitable for export. Antennas are shipped as standard in totally recyclable cardboard or wire-bound crates (dependent on product). For your convenience, Andrew offers heavy duty export packing options.
Radiation Pattern Envelope Reference (RPE)	Radiation patterns determine an antenna's ability to discriminate against unwanted signals under conditions of radio congestion. Radiation patterns are dependent on antenna series, size, and frequency.
Return Loss	The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.
Side Force (FS)	Maximum side force exerted on the mounting pipe as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.
Twisting Moment (MT)	Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.
VSWR	Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.
Wind Velocity Operational	The wind speed where the antenna deflection is equal to or less than 0.1 degrees. In the case of ValuLine antennas, it is defined as a maximum deflection of 0.3 x the 3 dB beam width of the antenna.
Wind Velocity Survival Rating	The maximum wind speed the antenna, including mounts and radomes, where applicable, will withstand without permanent deformation. Realignment may be required. This wind speed is applicable to antenna with the specified amount of radial ice.

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1 A4.3 MICROWAVE DISH SPECIFICATIONS
SCALE: 1/4" = 1'-0"

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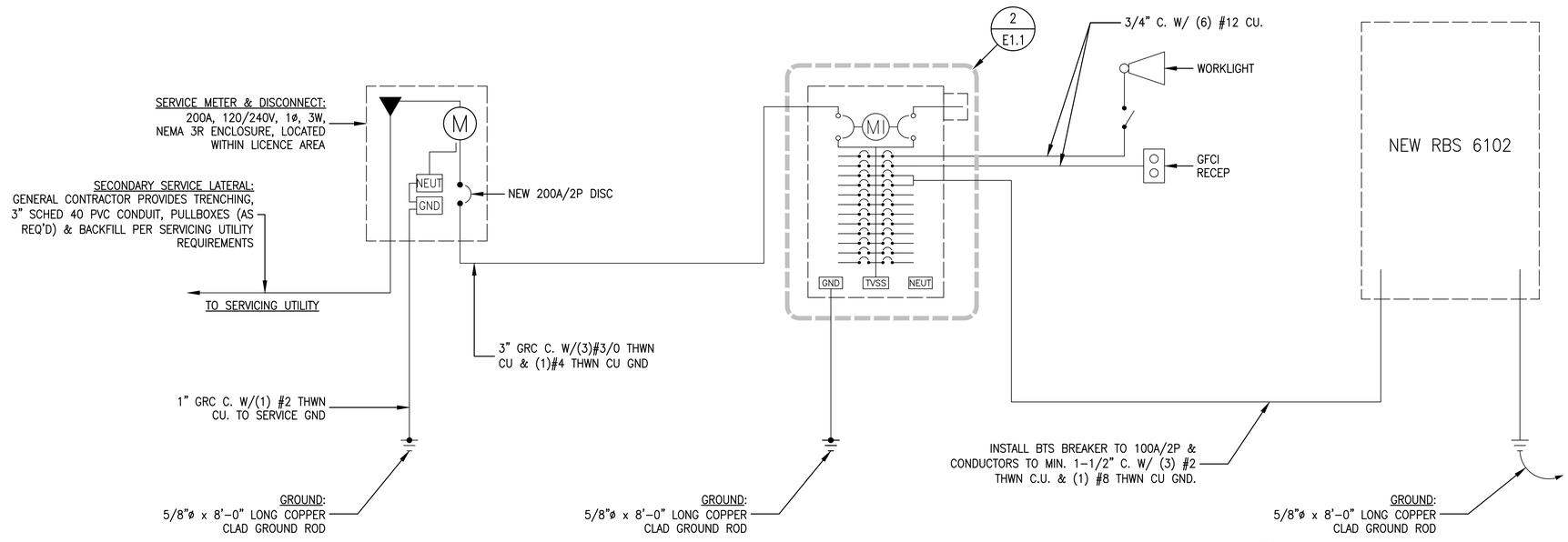
A4.1

PANEL CIRCUIT AND LOAD SCHEDULE

LOAD				LOAD PER PHASE (VA) PHASE									
	DESCRIPTION	QTY	UNIT VA	A	B	Continuous Load	TRIP	POLES	WIRE	AIC	WIRE TYPE		
1	RBS 6102	1	2400	2400		☑	100	2	3	MATCH	THWN		
3		1	2400		2400	☑	100	2	3	MATCH	THWN		
5				0		☐							
7					0	☐							
9				0		☐							
11					0	☐							
13				0		☐							
15					0	☐							
17				0		☐							
19					0	☐							
21				0		☐							
23					0	☐							
25				0		☐							
27					0	☐							
29				0		☐							
	Subtotal Continuous			2400	2400	☐							
	Subtotal Non-Continuous			0	0								
	Voltage:	120/240 1 ph 3w		AIC:	MATCH								
	Bus:	200amps		Main:	LUG								
	Enclosure:	NEMA 3R Outdoor		Mount:	Surface								

DESIGNATION: EXISTING PANEL "T-MOBILE"										
WIRE TYPE	AIC	WIRE	POLES	TRIP	Continuous Load	LOAD PER PHASE (VA) PHASE A	B	LOAD UNIT VA	QTY	DESCRIPTION
THWN	MATCH	12	2	30	☐	0		0	1	SURGE PROTECTOR DEVICE
THWN	MATCH	12	2	30	☐		0	0	1	
THWN	MATCH	12	1	15	☐	380		380	1	GFCI RECEPTACLE AND LIGHTS
THWN	MATCH	12	1	20	☐		180	180	1	OUTDOOR GFCI
THWN	MATCH	12	1	20	☐	300		300	1	OUTDOOR LIGHT
					☐		0			
					☐	0				
					☐		0			
					☐	0				
					☐		0			
					☐	0				
					☐		0			
					☐	0				
					☐		0			
					☐	0				
					☐		0			
					☐	0				
					☐	0	0	Subtotal Continuous		
						680	180	Subtotal Non-Continuous		
								Total KVA Continuous X 1.25 =		**6.00**
								Total KVA Non-Continuous =		**0.86**
								TOTAL KVA =		**6.86**
								Total Amperage =		**28.58**

2 / E1.1 PANEL SCHEDULE
SCALE: NO SCALE



1 / E1.1 ONE-LINE DIAGRAM
SCALE: NO SCALE

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SHEET TITLE: ELECTRICAL ONE-LINE DIAGRAM, PANEL SCHEDULE

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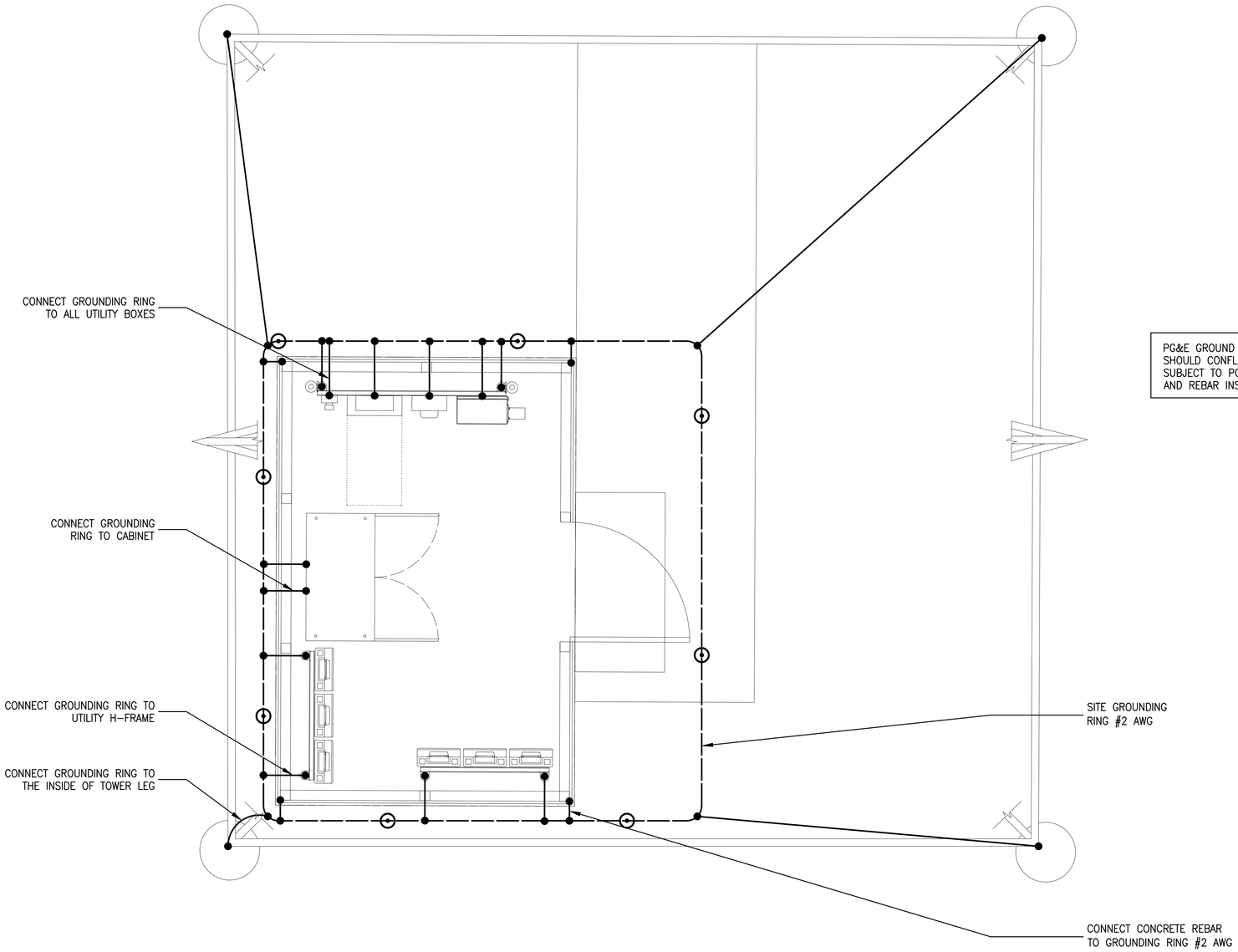
E1.1



PG&E GROUND GRID TO SUPERCEDE SHOULD CONFLICTS EXIST. SITE SUBJECT TO PG&E GROUND GRID AND REBAR INSPECTIONS

NOTES:
#1 NO CADWELDS TO ANY GROUND BARS
#2 RUN 2/0 GREEN INSULATED GROUND FROM THE COAX GROUND BAR TO THE MASTER GROUND BAR
#3 CONNECT LEAD 20 FROM THE GROUND BAR INSIDE THE ILC PANEL TO THE MASTER GROUND BAR
#4 BE SURE NEUTRAL & GROUND ARE NOT BONDED IN THE GENERATOR
#5 GROUND ALL METAL ENCLOSURES TO THE HALO, INCLUDING LOUVERS, ALARM BLOCK, ETC.
#6 PLASTIC TY-RAPS ARE NOT TO BE USED ON ANY GROUND ATTACHMENTS BUT ONLY WAX STRING

N 1/E2.1 GROUNDING PLAN
SCALE: 1/4" = 1'-0"

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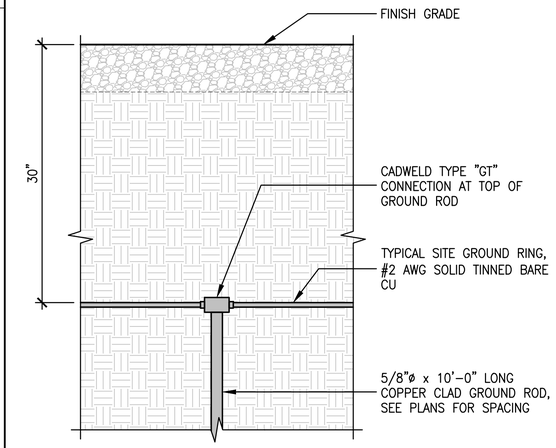
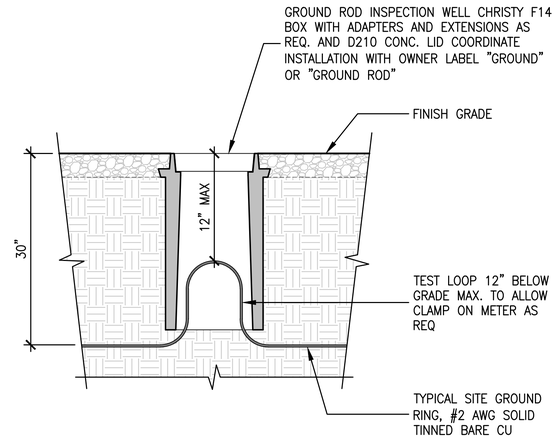
E2.1

GROUNDING NOTES

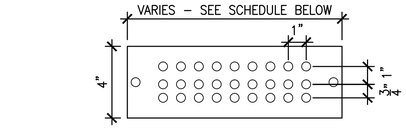
1. GROUNDING SHALL COMPLY WITH NEC ART. 250.
2. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURER'S COAX CABLE GROUNDING KITS SUPPLIED BY PBMS.
3. USE #2 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
4. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
5. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY.
6. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PBMS EQUIPMENT OR CABINET TO THE MASTER GROUND BAR.
7. CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PEDESTAL GROUND OR SURGE PROTECTOR); SURGE ABSORBERS (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING OBJECTS (EGB GROUND IN BTS)
8. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS AND NO-OX OR EQUIVALENT PLACED BETWEEN CONNECTOR AND GROUND BAR.
9. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS UNIFORMLY SPACED AROUND CELL SITE. THE GROUND RODS SHALL BE 5/8"X8'-0" COPPER CLAD STEEL. THE RODS SHALL BE INTERCONNECTED WITH #2 SOLID TINNED COPPER GROUND WIRE BURIED A MINIMUM 2-1/2' BELOW THE SURFACE OF THE SOIL.
10. ALL UNDERGROUND ELECTRODES SHALL BE BONDED TO STEEL REINFORCING EMBEDDED IN THE CONCRETE SLAB AND CONCRETE MONOPOLE FOUNDATION.
11. MUST APPLY BUTYL & ELECTRICAL TAPE OVER COLD SHRINK AT ALL LOCATIONS. FOR WEATHER PROOFING OVER GROUND KITS. MORE BUTYL TAPE MAY NEED TO BE APPLIED THAN WHAT IS PROVIDED WITH THE MFGR. KIT.
12. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.



6 E2.2 TYPICAL GROUND ROD
SCALE: 3" = 1'-0"



3 E2.2 TYPICAL GROUND RING & INSPECTION WELL DETAIL
SCALE: NOT TO SCALE 1'-0"

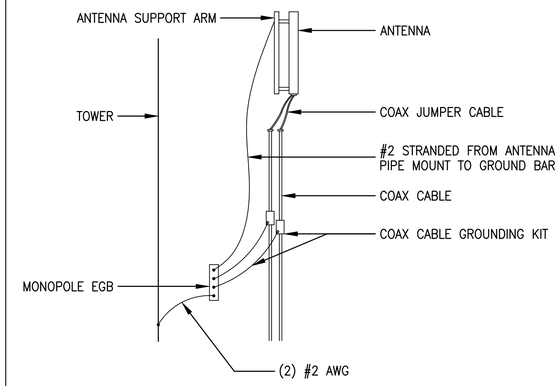


T-MOBILE GALVANIZED STEEL GROUND BAR W/ANTI-THEFT HARDWARE, NON-REMOVABLE PROVIDED BY ELECTRIC MOTION COMPANY	
PART #	BAR DESCRIPTION
EM SGC 49-T-MOBILE-NR	1/4"x4"x9"
EM SGC 412-T-MOBILE-NR	1/4"x4"x12"
EM SGC 418-T-MOBILE-NR	1/4"x4"x18"
EM SGC 420-T-MOBILE-NR	1/4"x4"x20"
EM SGC 424-T-MOBILE-NR	1/4"x4"x24"

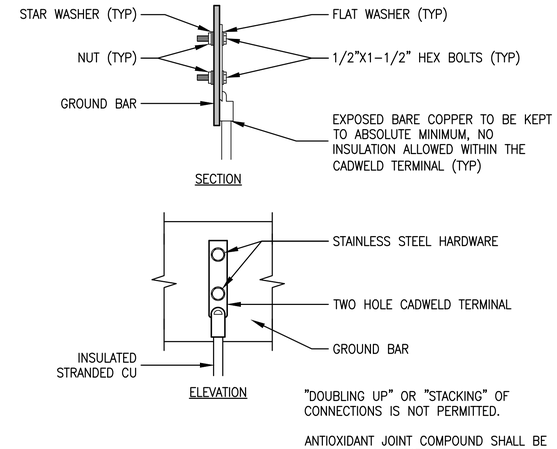
INCLUDES TWO STAINLESS STEEL TORQUE SHEAR HEAD BOLTS, W/ANTI LOOSENING COMPOUND

GENERAL CONTRACTOR TO STAMP "T-MOBILE" & SITE NUMBER BAR & PAINT ANTI-THEFT COMPOUND PROVIDED BY ELECTRIC MOTION COMPANY, PRODUCT #EM 5101

8 E2.2 GROUND BAR DETAIL
SCALE: NONE



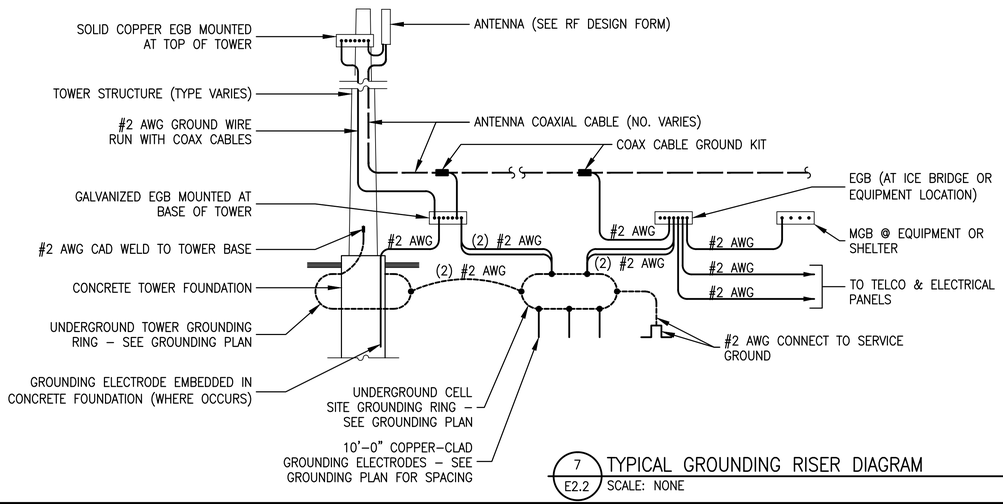
5 E2.2 COAX CONNECTION & GROUNDING DETAIL
SCALE: NONE



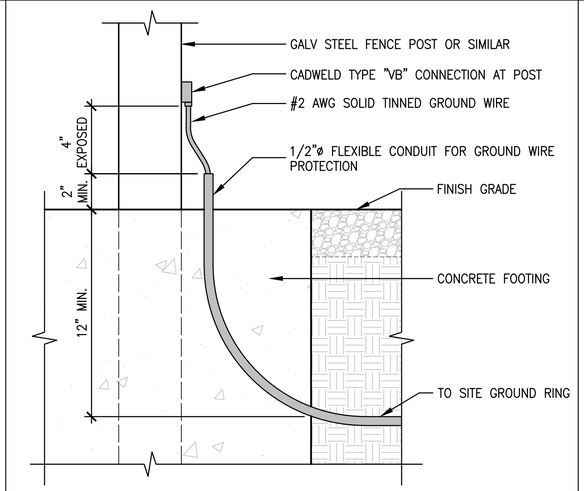
"DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.

ANTIOXIDANT JOINT COMPOUND SHALL BE USED AT ALL LOCATIONS.

2 E2.2 TYPICAL GROUND BAR CONNECTIONS
SCALE: NONE



7 E2.2 TYPICAL GROUNDING RISER DIAGRAM
SCALE: NONE



4 E2.2 POST GROUNDING DETAIL
SCALE: 3" = 1'-0"

TWO HOLE OFFSET LUG	TYPE TA	ONE HOLE OFFSET LUG
TYPE HS	TYPE VN	TYPE NC
TYPE VV	TYPE VS	TYPE VB
TYPE GT	TYPE GY	TYPE GR

TYPICAL CADWELD CONNECTION TYPES BY "ERICO"

1 E2.2 GROUNDING CONNECTION DETAIL
SCALE: NONE

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T-Mobile WEST LLC.

BU814450 - CUTNER ALMADEN
SF542190 - COLO PROJECT
2179 STONE AVENUE
SAN JOSE, CA 95125

SHEET TITLE: GROUNDING DETAILS

LICENSED ARCHITECT
MANUEL S. TSIALAS
No. C-28021
Exp. 08-17
STATE OF CALIFORNIA
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Revisions:
1 --
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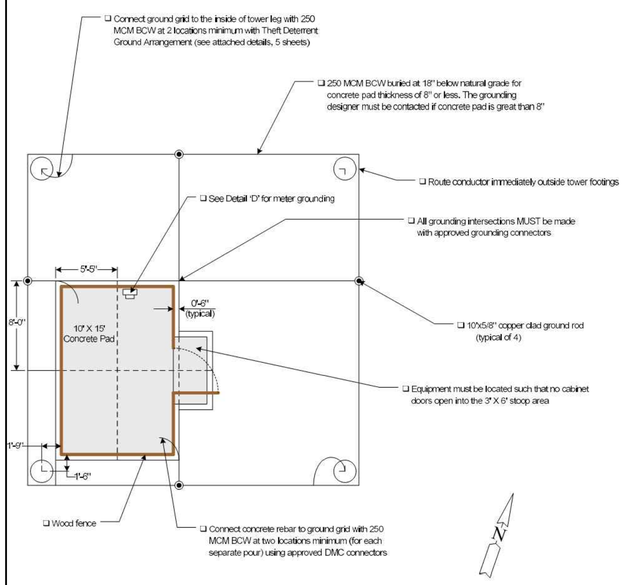
File:213.0381_E22.dwg
Drawn By: LX
Checked By: ALB
Scale: AS NOTED
Date: 04/21/2017

Job No. 213.0381

E2.2

PG&E Grounding Requirements-Sheet 1

(Required Design Details are Located on Sheet 2)



Carrier: T-Mobile
Title: Derrick Avenue C
Site No.: TM-SC10416
Co-Location: None
Line Name: Gated – Panoche #1 / Gates – Panoche #2, 230 kV
Tower No.: 020/093
Tower SAP No.: 40659920

Designed By: Steve Maddix Phone: 925-866-5410	SIZE 0	PG&E Proj Mgr: Steven Milliken Phone: 925-222-0536	DWG NO TM-SC10416	REV 0
	From Drawings Dated: 5/15/2017	Issue Date: 5/25/2017	SHEET 1 of 2	

The following design details MUST BE incorporated into the final engineering and construction drawings for the cell site ground grid. Where conflicts arises between these details and cell vendor generic details, these details SHALL prevail.

REQUIRED DESIGN DETAILS:

❑_____1. All grounding connections and grid intersections SHALL be made using approved 'DMC' GroundLok System' compression components. Carrier to supply 250MCM BCW pigtail with DMC 2-hole NEMA connector. Final connection to the tower legs SHALL be made per the Theft Deterrent Tower Ground Arrangement.

❑_____2. Ground grid safety calculations are based on the ground grid conductors being at 18" below natural grade with a concrete equipment pad of no more than 8" thick. Any pad thickness greater than 8" MUST be verified as acceptable by the grounding designer.

❑_____3. Fence MUST be located on top of the outer edge of the concrete pad (i.e. no separate footings for the fence posts will be allowed). No metallic equipment SHALL be installed outside fence. At fence door swings, metallic equipment must be 3'-0" minimum from edge of concrete pad.

❑_____4. All concrete SHALL contain #4 rebar with a 1'-0" maximum grid spacing. All rebar intersections MUST be securely tied together. If concrete is poured in separate sections, each section must be connected to ground grid with 2-250 MCM BCW or equivalent.

❑_____5. Coax ground MUST be connected to the ground grid with 2-250 MCM BCW or equivalent. If more than one ground bus is used, all ground buses must be either connected together or connected to ground grid separately with #2 BCW or larger.

❑_____6. All fences MUST be of non-conductive material.

❑_____7. Electric meter MUST be located within the boundary of the wood fence on the concrete pad. Any exception to this MUST be cleared through Steve Maddix (925) 866-5410 prior to construction. Special service requirements may be required to isolate ground grid from other customer neutral wires.

❑_____8. Meter ground rod MUST be attached to the cell site ground grid with a 250 MCM BCW or equivalent.

❑_____9. Ground grid backfill material (at least 6") covering the 250 MCM BCW MUST be clean loamy material (or conductive material) and be free of rocks and foreign material.

❑_____10. If drilling is required to achieve ground rod depth, a minimum 2" hole is required. The hole MUST be backfilled with bentonite (or equivalent) material.

❑_____11. For safety reasons, the ground grid MUST be completely installed (fully covered), the concrete pad MUST be completed before the ground grid is attached to the tower legs. Do not allow ground pigtails to come into contact with tower until the final connection is ready to be made.

❑_____12. Concrete pad size or any dimension stated on sheet 1 can not be changed without prior authorization from the grounding designer.

Carrier: T-Mobile
Title: Derrick Avenue C
Site No.: TM-SC10416
Co-Location: None
Line Name: Gated – Panoche #1 / Gates – Panoche #2, 230 kV
Tower No.: 020/093
Tower SAP No.: 40659920

Designed By: Steve Maddix Phone: 925-866-5410	SIZE 0	PG&E Proj Mgr: Steven Milliken Phone: 925-222-0536	DWG NO TM-SC10416	REV 0
	From Drawings Dated: 5/15/2017	Issue Date: 5/25/2017	SHEET 2 of 2	

Pacific Gas and Electric Company

Report Date: 5/25/17
Revision: 0

High Voltage Transmission Tower Cell Site Datasheet

Site Information

Company:	T-Mobile		
Site name:	Derrick Avenue C	Site number:	TM-SC10416
Site address:	25217 Derrick Avenue, Coalinga, CA		
PG&E Contact:	Steve Maddix	Phone:	(925) 866-5410

Soil Data

Soil Model:			
	Top Layer	22.0 Ohm-meters	11.7 Feet
	Bottom	14.1 Ohm-meters	Infinite thickness

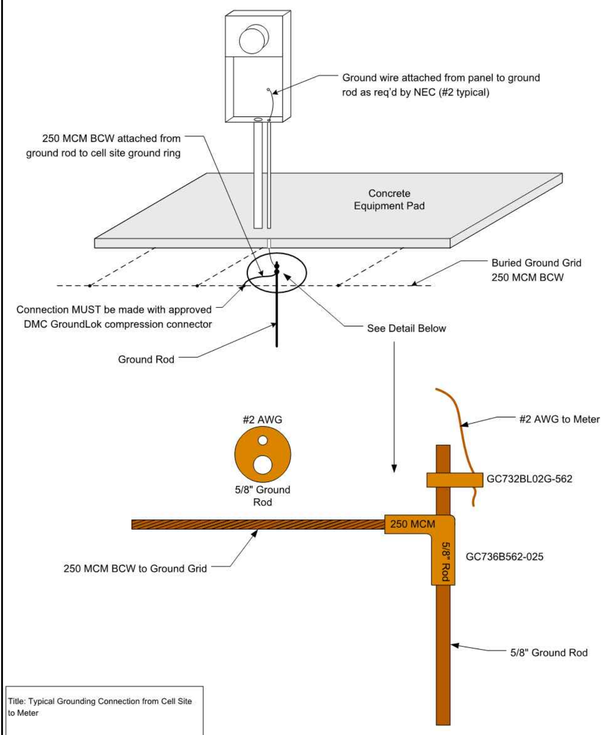
GPR Information

Grid Area	870	Ft^2
Grid Resistance	0.79	Ohms
Ground Fault Duty	10,590	Amps $_{RMS}$
X/R Ratio	6.9	
Voltage $_{(Line-Line)}$	230	kV $_{RMS}$
DC Offset	1.63	
GPR $_{RMS}$	8,410	Volts $_{RMS}$
GPR Peak Symmetrical	11,894	Volts (Peak Symmetrical)
GPR Peak with DC Offset	19,438	Volts (Peak Asymmetrical)

Steve Maddix
PG&E Representative

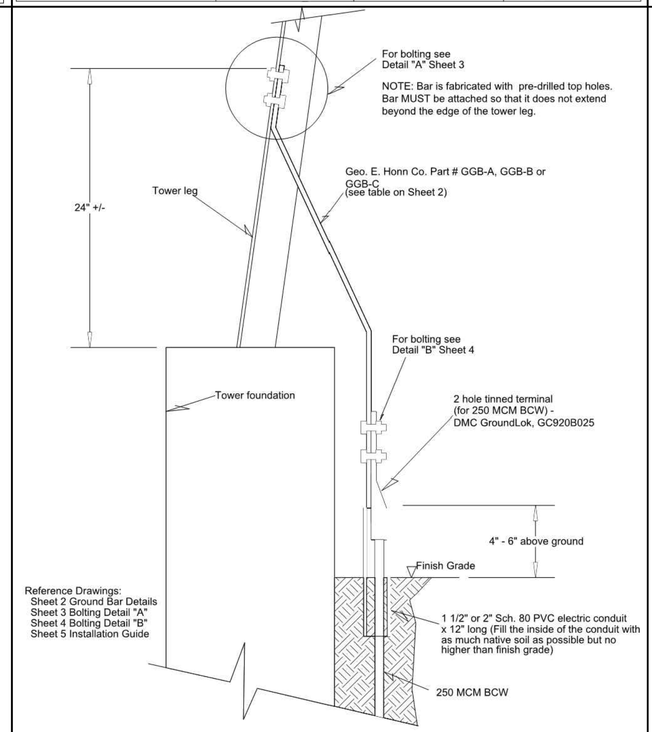
5/25/2017
Date

'DETAIL D'
Typical Meter Connection to Ground Grid



Title: Typical Grounding Connection from Cell Site to Meter

Drawn By: Steve Maddix	SIZE 0	Revision Date: 8/4/2011	DWG NO Meter Connection – Detail 'D'	REV 3
Approved By: Marcia Eblen, PE	SCALE none		SHEET 1 of 1	



Title: Theft Deterrent Tower Ground Arrangement

Drawn By: Bill DeHart Revision Drawn By: Steve Maddix	SIZE 0	Revision Date: 7/29/09	DWG NO	REV 5
Approved By: Marcia Eblen	SCALE none		SHEET 1 of 5	

N 1 E2.3 PG&E GROUNDING PLAN
SCALE: 1/4" = 1'-0"

MST ARCHITECTS
WIRELESS DIVISION
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SC10416A – DERRICK AVENUE NSB
PG&E COLOCATION PROJECT
25217 S. DERRICK AVENUE
COALINGA, CA 93210

T-Mobile WEST LLC.

SHEET TITLE: PG&E GROUNDING PLAN

LICENSED ARCHITECT
MANUEL S. TSIHLAS
No. C-28021
Exp. 08-17
STATE OF CALIFORNIA
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Revisions:
1 06/01/17
2 --
3 --
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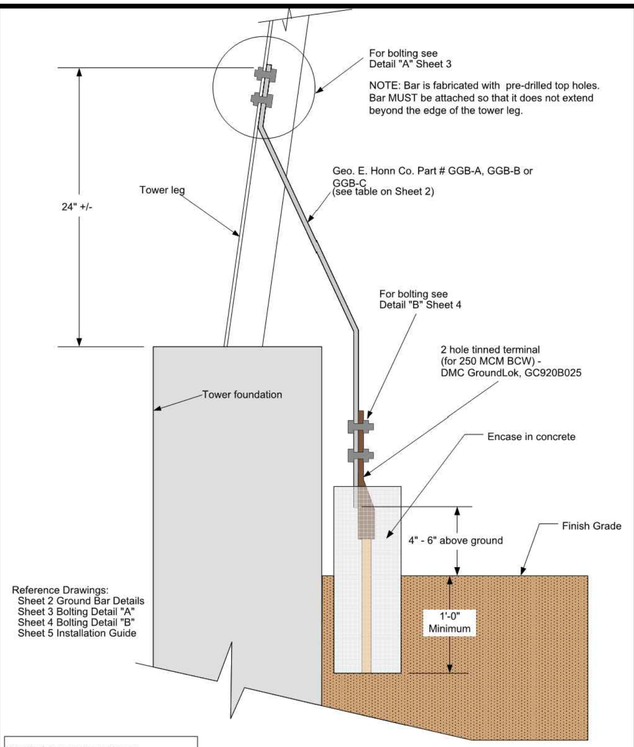
File: 214.0660_E23.dwg
Drawn By: ALB
Checked By: MST
Scale: AS NOTED
Date: 06/01/17

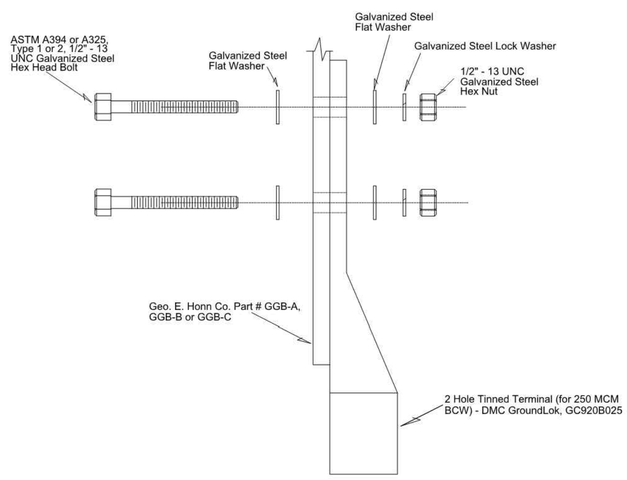
Job No. 214.0660

E2.3



Title: Theft Deterrent Tower Ground Arrangement				
Drawn By: Bill DeHart	SIZE 0	Revision Date: 7/29/09	DWG NO	REV 5
Revision Drawn By: Steve Maddix				
Approved By: Marcia Eblen	SCALE none		SHEET 1 of 5	

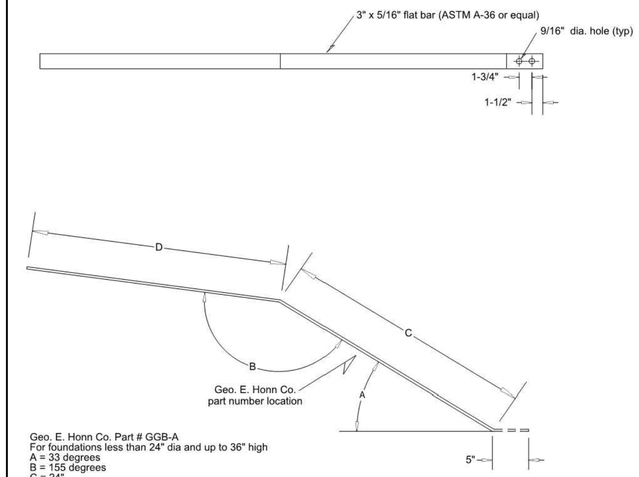
Connection Detail "B"



Reference Drawings:
Sheet 1 Arrangement
Sheet 2 Ground Bar Details
Sheet 3 Bolting Detail "A"
Sheet 5 Installation Guide

Notes:
1. Coat any cut or drilled surfaces with cold galvanizing compound.
2. Clean area on flat bar where connector is to be bolted with a wire brush. Use Penetrox "A" or equivalent as a coating between connector and tower leg.
3. All bolting material per ASTM A 394 or A325, Type 1 or 2. Bolts to be torqued to 480 in/lbs.
4. After installation and torquing, center punch the bolt threads in at least one location at the Hex Nut interface.

Title: Theft Deterrent Tower Ground Bolting Detail 'B'				
Drawn By: Bill DeHart	SIZE 0	Revision Date: 7/29/09	DWG NO	REV 3
Revision Drawn By: Steve Maddix				
Approved By: Marcia Eblen	SCALE none		SHEET 4 of 5	



Geo. E. Honn Co. Part # GGB-A
For foundations less than 24" dia and up to 36" high
A = 33 degrees
B = 155 degrees
C = 24"
D = 51"

Geo. E. Honn Co. Part # GGB-B
For foundations 24" to 36" dia. and up to 36" high
A = 42 degrees
B = 146 degrees
C = 26"
D = 49"

Geo. E. Honn Co. Part # GGB-C
Alternate for foundations 24" to 36" dia. and up to 36" high
A = 45 degrees
B = 147 degrees
C = 28"
D = 47"

Note: Hot dip galvanize after fabrication

Reference Drawings:
Sheet 1 Arrangement
Sheet 3 Bolting Detail "A"
Sheet 4 Bolting Detail "B"
Sheet 5 Installation Guide

Title: Theft Deterrent Tower Ground Bar Details				
Drawn By: Bill DeHart	SIZE 0	Revision Date: 7/29/09	DWG NO	REV 2
Revision Drawn By: Steve Maddix				
Approved By: Marcia Eblen	SCALE none		SHEET 2 of 5	

Installation Guide

1. Select connection bar that best fits site conditions (Geo. E. Honn Co. Part # GGB-A,GGB-B or GGB-C). Use table on Sheet 2 as a guide.
2. Install with pre-drilled holes at top. Fit bar to tower leg per arrangement on Sheet 1. If bar needs to be cut to fit, cut from bottom.
3. Slip 1 1/2" or 2" Sch. 80 PVC sleeve over 250 MCM BCW (2" sleeve may be put on before Step 7).
4. Attach DMC GroundLok to 250 MCM BCW per manufacturer's instructions.
5. Drill or punch bar to accommodate DMC GroundLok fitting per Sheet 1. Coat any cut/punched/drilled surfaces with cold galvanizing compound per manufacturer's instructions.
6. Using a wire brush, clean the GroundLok/bar contact surfaces. Coat the contact surfaces with Penetrox "A" or equivalent.
7. Connect the DMC GroundLok to the bar with bolts, lock washers, flat washers and nuts per Sheet 4. Torque bolts to 480 in/lbs.
8. Center punch the bolt threads in at least one location at the hex nut interface.
9. Temporarily clamp bar to tower leg at the location determined in step 2.
10. Backfill to finish grade keeping the top of the PVC sleeve against the bottom of the flat bar and 4" to 6" above grade.
11. Remove the clamp holding the bar to the tower leg and insert a length of 4" PVC conduit over the bar conduit to the tower leg to temporarily insulate the bar from the tower leg until the ground grid system is completed. Secure the conduit to the tower leg.

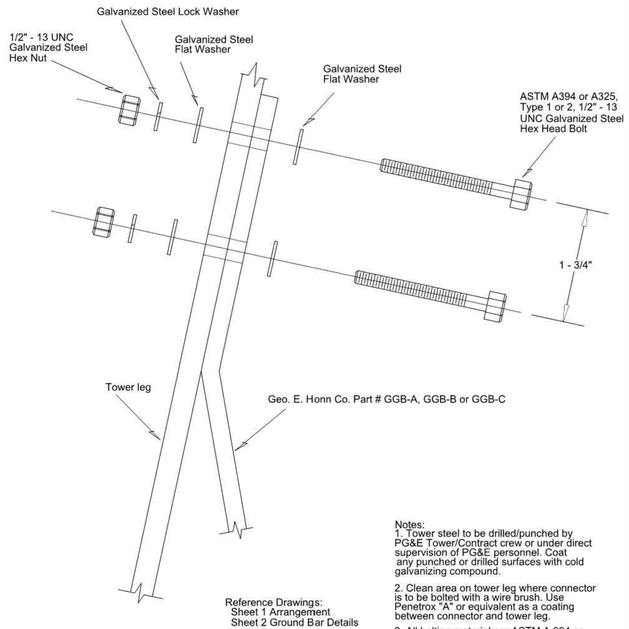
DO NOT PROCEED TO STEP 12 UNTIL GROUND GRID SYSTEM IS COMPLETED

12. Punch or drill tower leg to accommodate the bar to tower connection. Tower steel to be drilled or punched by PG&E Tower/ Contract crew or under direct supervision of PG&E personnel.
13. Coat any punched or drilled surfaces with cold galvanizing compound per manufacturer's instructions.
14. Using a wire brush, clean the bar/tower leg contact surfaces. Coat the contact surfaces with Penetrox "A" or equivalent.
15. Connect the bar to the tower leg with bolts, lock washers, flat washers and nuts per Sheet 3. Torque bolts to 480 in/lbs.
16. Center punch the bolt threads in at least one location at the hex nut interface

Reference Drawings:
Sheet 1 Arrangement
Sheet 2 Ground Bar Details
Sheet 3 Bolting Detail "A"
Sheet 4 Bolting Detail "B"

Title: Theft Deterrent Tower Ground Installation Guide				
Drawn By: Bill DeHart	SIZE 0	Revision Date: 7/29/09	DWG NO	REV 5
Revision Drawn By: Steve Maddix				
Approved By: Marcia Eblen	SCALE none		SHEET 5 of 5	

Connection Detail "A"



Reference Drawings:
Sheet 1 Arrangement
Sheet 2 Ground Bar Details
Sheet 4 Bolting Detail "B"
Sheet 5 Installation Guide

Notes:
1. Tower steel to be drilled/punched by PG&E Tower/Contract crew or under direct supervision of PG&E personnel. Coat any punched or drilled surfaces with cold galvanizing compound.
2. Clean area on tower leg where connector is to be bolted with a wire brush. Use Penetrox "A" or equivalent as a coating between connector and tower leg.
3. All bolting material per ASTM A 394 or A325, Type 1 or 2. Bolts to be torqued to 480 in/lbs.
4. After torquing, center punch the bolt threads in at least one location at the Hex Nut interface.

Title: Theft Deterrent Tower Ground Bolting Detail 'A'				
Drawn By: Bill DeHart	SIZE 0	Revision Date: 7/29/09	DWG NO	REV 2
Revision Drawn By: Steve Maddix				
Approved By: Marcia Eblen	SCALE none		SHEET 3 of 5	

N 1 E2.4 PG&E GROUNDING PLAN
SCALE: 1/4" = 1'-0"

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WIRELESS DIVISION
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PG&E COLOCATION PROJECT
25217 S. DERRICK AVENUE
COALINGA, CA 93210

SHEET TITLE: PG&E GROUNDING PLAN

LICENSED ARCHITECT
MANUEL S. TSIHLAS
No. C-28021
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1 06/01/17
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Checked By: MST
Scale: AS NOTED
Date: 06/01/17

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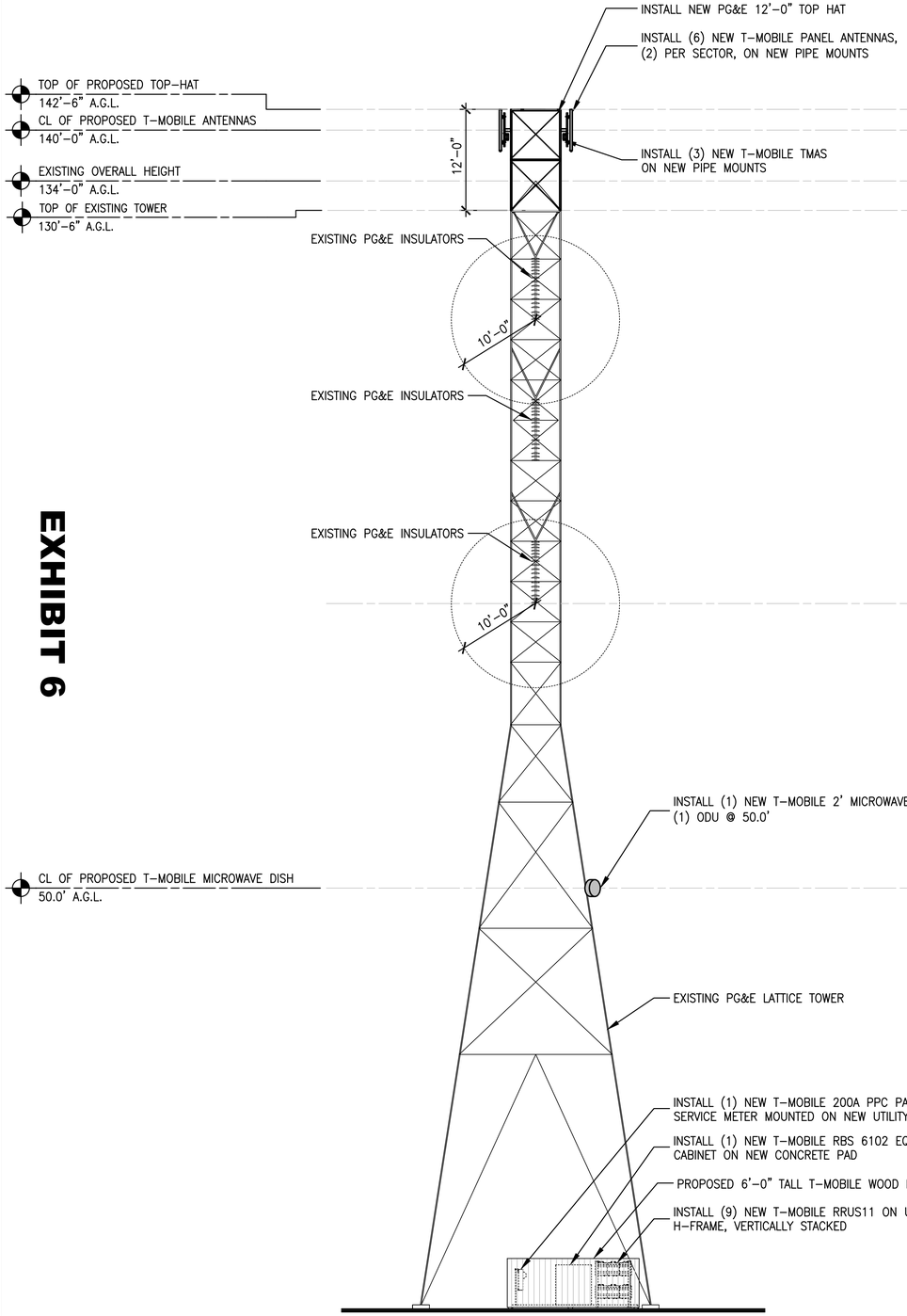
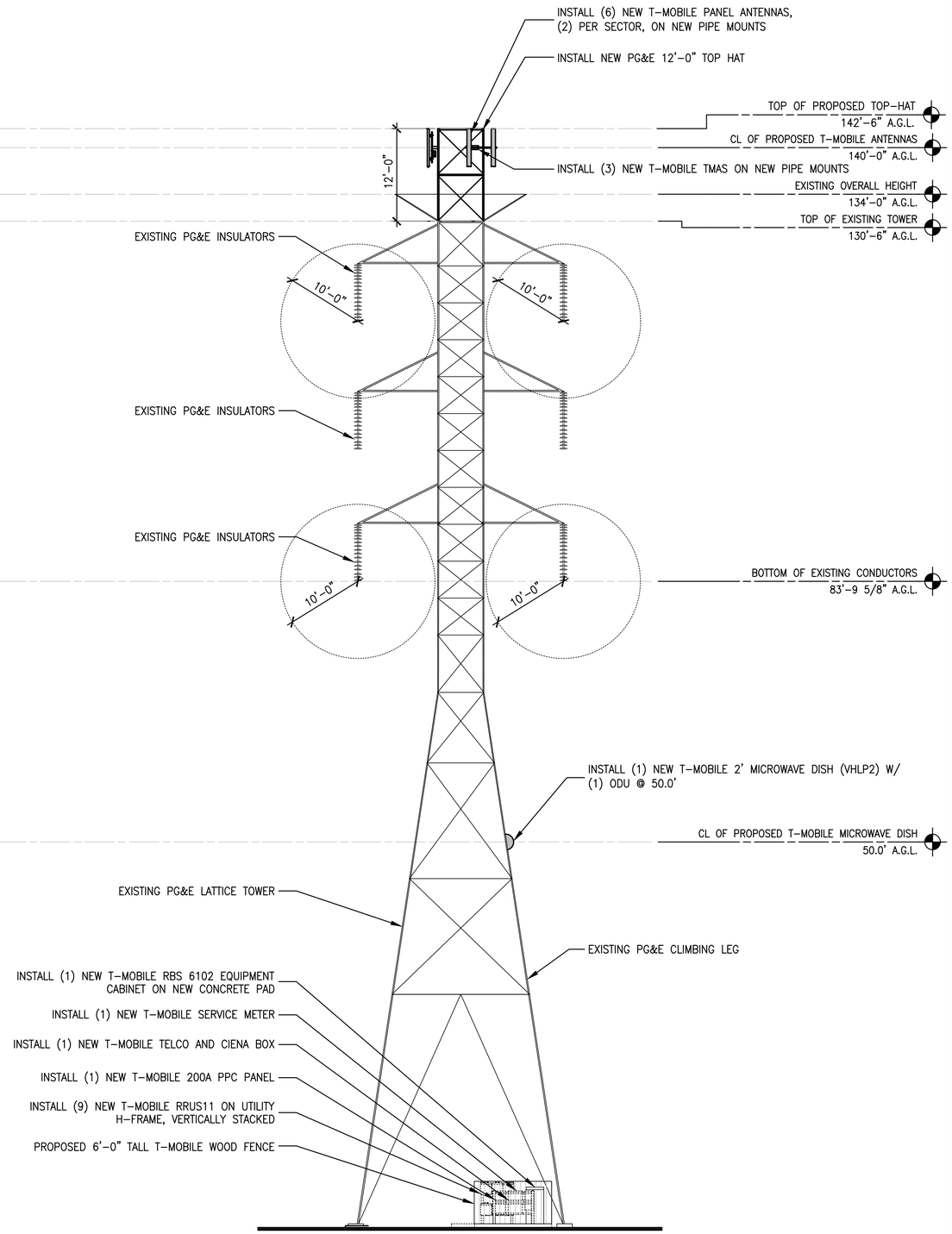
EXHIBIT 6



2 A3.1 SOUTHWEST ELEVATION
SCALE: 1/8" = 1'-0"



1 A3.1 NORTHWEST ELEVATION
SCALE: 1/8" = 1'-0"

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PG&E COLOCATION PROJECT
25217 S. DERRICK AVENUE
COALINGA, CA 93210

SHEET TITLE: PROJECT ELEVATIONS

LICENSED ARCHITECT
MANUEL S. TSIHLAS
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Date: 06/01/17

Job No. 214.0660

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cup 3594

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COUNTY OF FRESNO

AUG 28 2017

DEPARTMENT OF PUBLIC WORKS
AND PLANNING
DEVELOPMENT SERVICES DIVISION

Operational Statement

T-Mobile's PG&E Derrick Avenue Collocation Site SC10416 / 25217 S. Derrick Road, Coalinga, CA 93210 / APN: 058-090-19S

This proposed, new T-Mobile wireless communications facility will be constructed on and beneath an existing PG&E lattice tower near the intersection of W. Jeffrey Avenue and S. San Mateo Avenue west of I-5 not far from the Town of Three Rocks, CA

T-Mobile will be installing its outdoor, ground mounted equipment in a 10' x 15' lease area within the 27' x 27' tower base of an existing PG&E transmission tower. T-Mobile's ground mounted equipment will consist of outdoor Radio Cabinets (BTS Units), Power and Telco interface units and Remote Radio Units (RRU's). The equipment will be mounted on a new Slab-On-Grade. The lease area and related equipment will be surrounded by 6'-0" wood fence.

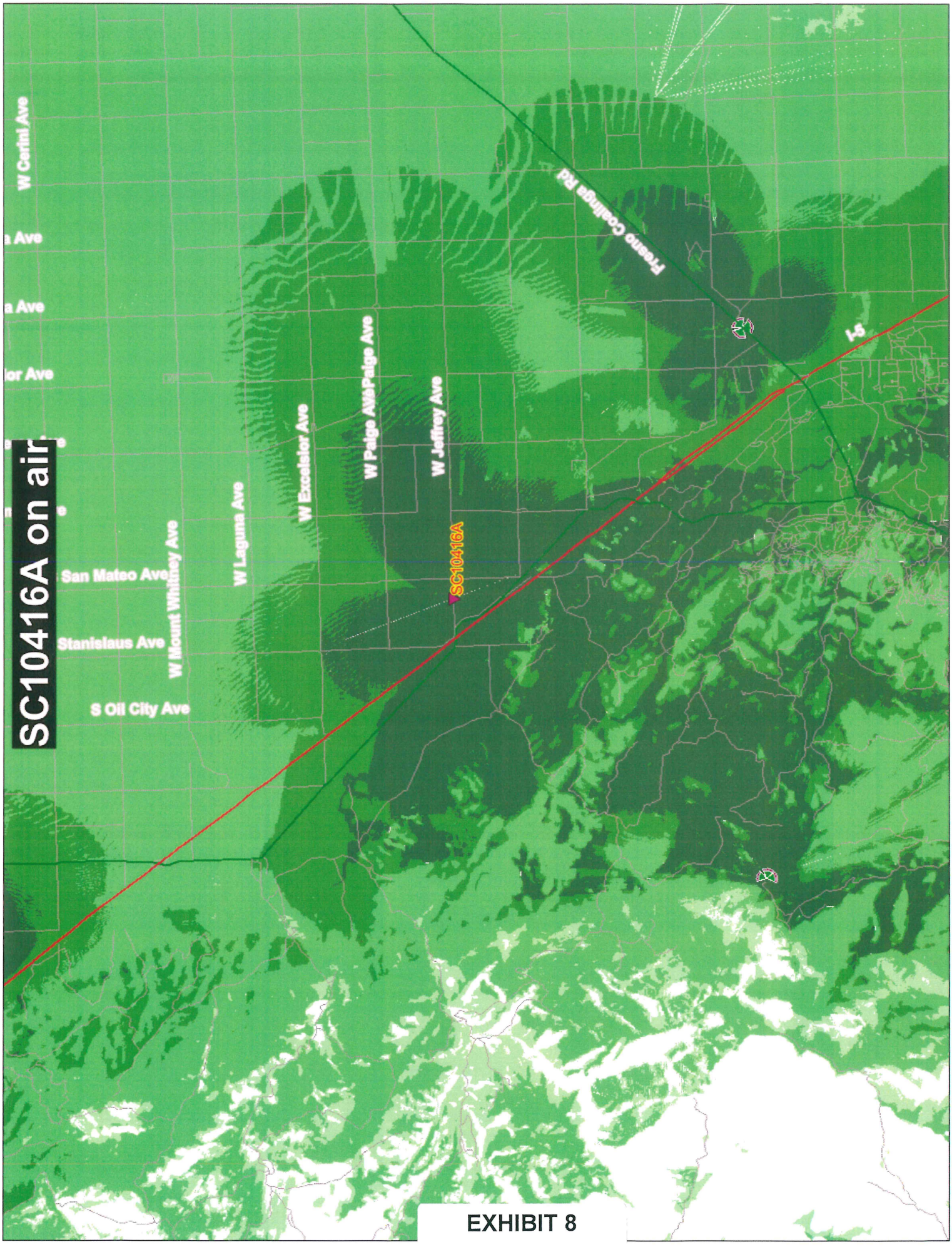
T-Mobile's tower mounted equipment will consist of six panel antennas and three tower mounted amplifiers (TMA's) which will be mounted on a 12'-0" tower extension. The existing PG&E tower is 130'-6" AGL, the new 12'-0" tower extension will raise the overall height of the tower to 142'-6" AGL. The centerline height of T-Mobile's panel antennas will be 140'-0" AGL. Six, new 1-5/8" coaxial cables will be mounted on the southeast tower leg and run from the ground mounted equipment up to the panel antennas. One 2' dia. microwave dish will be installed at 50'-0" AGL.

The tower extension will move the panel antennas a safe working distance from the existing transmission lines per PG&E safety guidelines and provide improved wireless communications coverage in and around the intersection of I-5 and Derrick Avenue and along Interstate 5. The commercial and agricultural nature of this parcel combined with the many, existing transmission towers near this proposed facility make this an ideal location for a communications facility and will greatly improve wireless service to T-Mobile customers on I-5.

Access to the proposed T-Mobile lease area will be from W. Jeffrey Ave. via 12'-0" wide non-exclusive access and utility easement. There will also be a 6'-0" wide non-exclusive utility easement for the purpose of bringing power from existing distribution points on the parcel to T-Mobile's new facility. Power and telco (fiber) will be run underground from existing utility points of demarcation to the new T-Mobile facility.

This T-Mobile facility will operate 24/7/365. It is visited regularly as a part of a standard maintenance routine. This unmanned facility does not produce any waste or use any water. The sealed, gel-filled batteries used at this facility are well below those levels established and outlined in the Comprehensive Hazardous Waste and Substances Statement list.

EXHIBIT 7


SC10416A on air
W Carini Ave
Fresno Coalinga Rd
I-5
W Paige Ave
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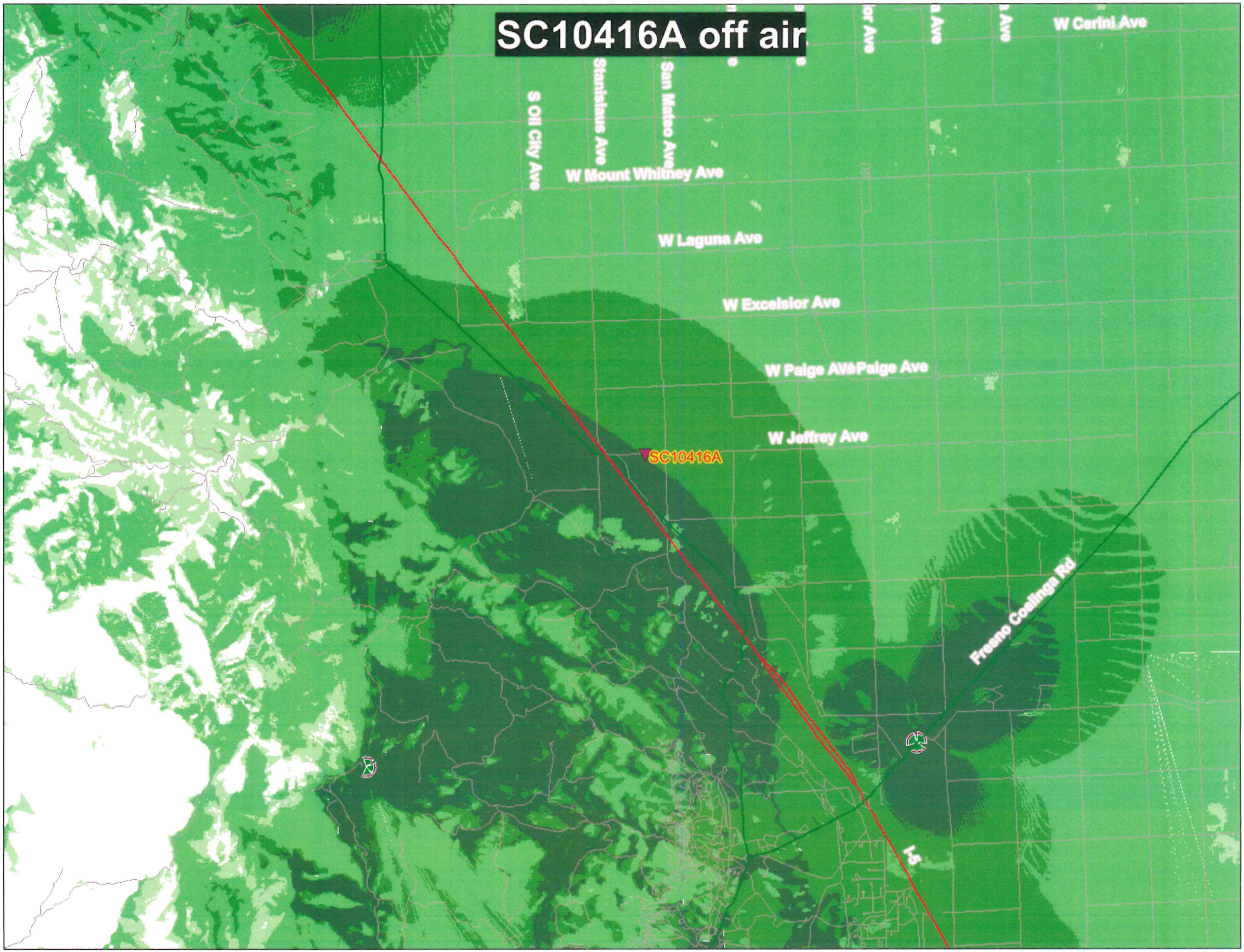
San Mateo Ave
Stanislaus Ave
S Oil City Ave
SC10416A

EXHIBIT 8


SC10416A off air
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W Mount Whitney Ave
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W Excelsior Ave
W Paige AvePaige Ave
W Jeffrey Ave
SC10416A
Fresno Coalinga Rd
5

Derrick Avenue PG&E
25217 S Derrick Ave
Coalinga, CA 93210
SC10416A

T-Mobile

Photosimulation of the view looking east from the freeway overcrossing.

EXHIBIT 9

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Photosimulation of the view looking west from the orchards. Not a public viewpoint.

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Photosimulation of the view looking south from the dirt access roads. Not a public viewpoint.

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SC10416A

T-Mobile

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