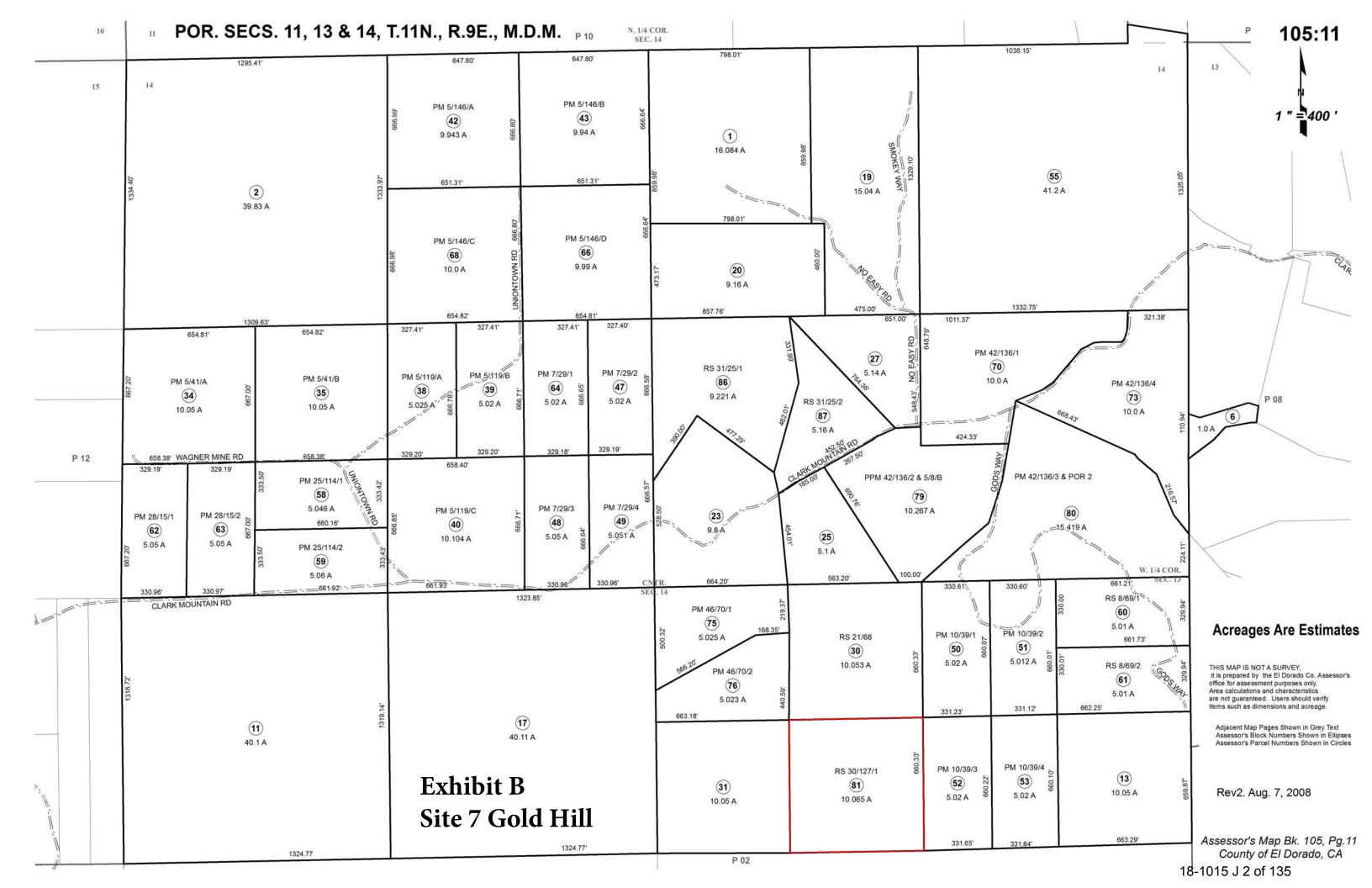
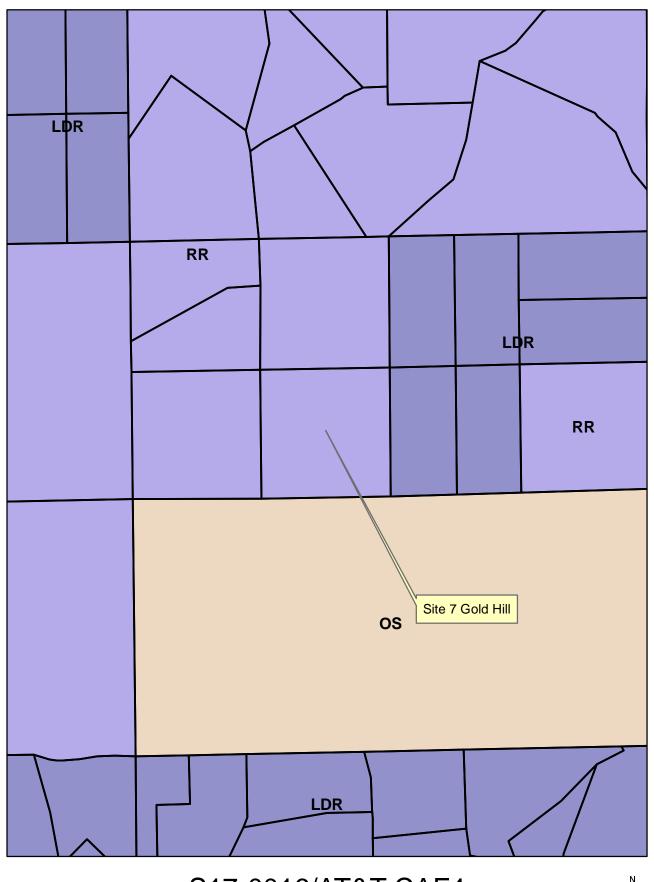


S17-0016/AT&T CAF4
Site 7 Gold Hill
Location Map
Exhibit A



0 0.4 18-1015 J 1 of 135 1.6 Miles





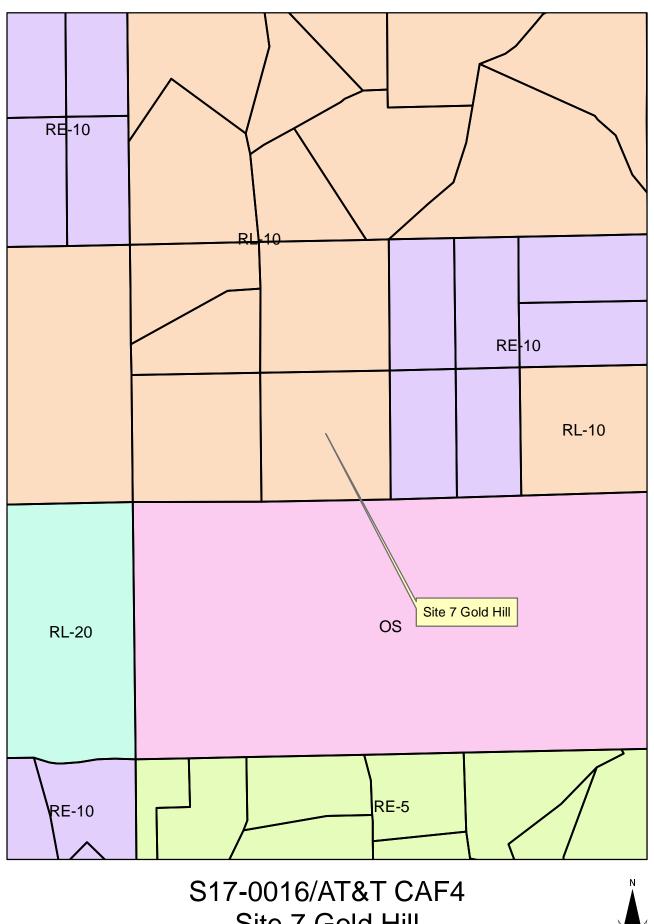
S17-0016/AT&T CAF4 Site 7 Gold Hill General Plan Map Exhibit C

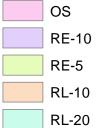


<sup>0</sup>18-1015 J 3 of 135

0.05

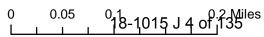


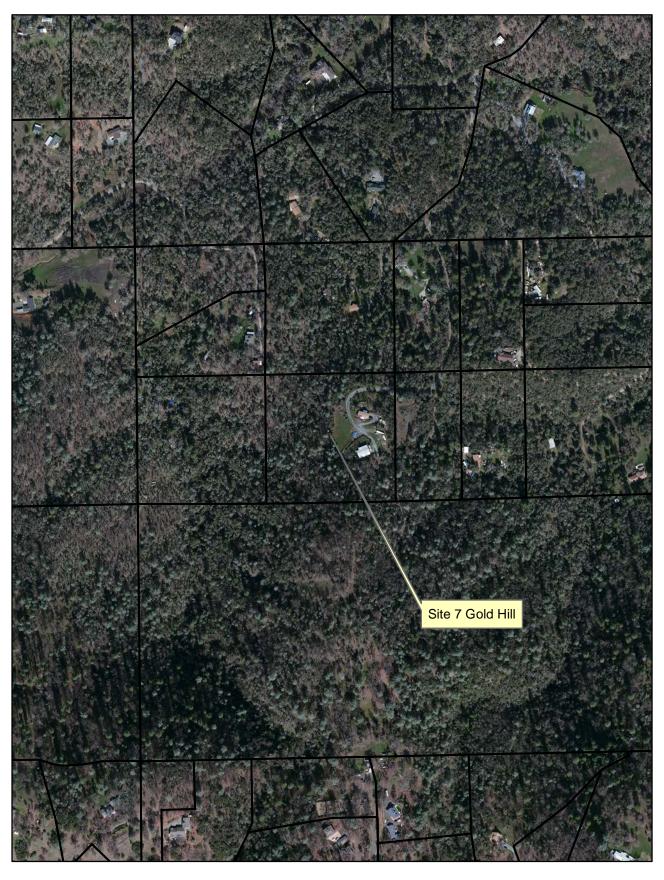




S17-0016/AT&T CAF4
Site 7 Gold Hill
Zoning Map
Exhibit D

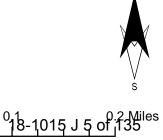






S17-0016/AT&T CAF4
Site 7 Gold Hill
Aerial Map
Exhibit E

0.05





## SITE NUMBER: CVL03054 SITE NAME: GOLD HILL

6812 GODS WAY LOTUS, CA 95651

PROJECT INFORMATION		PROJECT TEAM			SHEET INDEX	
APPLICANT: AT&T MOBILITY 2600 CAMINO RAMON SAN RAMON, CA 94583  CONSTRUCTION MANAGER: PETE MANAS EPIC WRELESS 8700 AUBURN FOLSOM ROAD, SUITE 400 GRANITE BAY, CA 95746 (530) 383-5957  SITE SURVEY GEIL ENGINEERING 1226 HIGH STREET AUBURN, CA 95603 (530) 885-0426  RF ENGINEER: MUHAMMAD AHMED MA912P@ATT.COM  RFDS VERSION/DATE: 1.00.01 / 04-28-17	ENGINEERING FIRM: PEEK SITE—COM 12852 EARHART AVE SUITE 101 AUBURN, CA 95602 (530) 885—6160  SITE ACQUISITION & PLANNING: JARED KEARSLEY EPIC WIRELESS 8700 AUBURN FOLSOM ROAD, SUITE 400 GRANITE BAY, CA 95746 (916) 755—1326  CIVIL VENDOR: VINCULUMS CONSTRUCTION MANAGER KEN ABEL KABEL@VINCULUMS.COM (916) 844—4602	SITE NAME: SITE NUMBER: FA LOCATION#:  SITE ADDRESS:  ASSESSORS PARCEL NUMBER: LATITUDE: LONGITUDE: GROUND ELEVATION:  ZONING: JURISDICTION: COUNTY:  PROPERTY OWNER: OWNER ADDRESS:  POWER AGENCY:	GOLD HILL CVL03054 13787671  6812 GODS WAY LOTUS, CA 95651  105-110-81-100 38.802403* -120.937256* 1,102' AMSL  RL-10 EL DORADO COUNTY EL DORADO ANNE L STROUD TR, RODGER STROUD AND KATHLEEN STF 6812 GODS WAY LOTUS, CA 95651  PG&E 525 MARKET ST, SPEAR TOWER SAN FRANCISCO, CA 94105 PHONE: 1 (800) 310-2355 AT&T	ROUD	T-1 GN-1 GN-2 C-1 C-2 C-3 C-4 A-1 A-2 A-3 A-3.1 A-4 A-4.1	TITLE SHEET GENERAL NOTES SITE SIGNAGE SITE SURVEY EROSION CONTROL PLAN & DETAILS GRADING NOTES & DETAILS GRADING PLAN OVERALL SITE PLAN EQUIPMENT PLAN ANTENNA PLAN & DETAILS DETAILS ELEVATIONS ELEVATIONS
CODE COMPLIANCE	VIC	INITY MAP	DIRECTIONS .	FROM 2	AT&T	PROJECT DESCRIPTION
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CO ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN TH TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE  1. 2016 CALIFORNIA BUILDING CODE 2. 2016 CALIFORNIA FIRE CODE 3. 2016 CALIFORNIA ELECTRICAL CODE 4. 2016 CALIFORNIA PLUMBING CODE 5. 2016 CALIFORNIA MECHANICAL CODE 6. 2016 CALIFORNIA HEALTH AND SAFETY CODE	DDES AS IESE PLANS IS	Laughing Craw of a Campon SITE LOCATION	DIRECTIONS FROM AT&T'S OFFICE AT SAN ROMAN, CA 94583  Summary: 126.4 miles (2 hours, 2 miles) Depart San Ramon on I—680 N Take Ramp (RIGHT) onto I—80 E Road name changes to I—80 Branch To Exit 37 Ponderosa Turn LEFT (North) of Turn RIGHT (East) onto N Shingle Rd Keep STRAIGHT onto Green Valley Rd Keep STRAIGHT onto Lotus Rd Turn LEFT (West) onto Bassi Rd Bear RIGHT (North) onto Petersen Ln Turn LEFT (West) onto Clark Mountain Turn LEFT (South) onto Gods Way  Arrive 6812 Gods Way, Lotus, CA 9565	nutes) O US-50 nto Ponderosa Rd	I <u>AN</u>	AT&T PROPOSES TO CONSTRUCT A NEW UNMANNED TELECOMMUNICATIONS FACILITY. AT&T WILL INSTALL:  • (1) NEW 12' WIDE GRAVEL ACCESS ROAD • (1) NEW 35'X40' FENCED LEASE AREA • (1) NEW 6' CHAIN LINK FENCE • (1) NEW 12' WIDE DOUBLE ACCESS GATE • (1) NEW 112' MONOPINE • (1) NEW PRE-FAB LIGHT WEIGHT EQUIPMENT SHELTER • (1) NEW GPS ANTENNA • (1) NEW GPS ANTENNA • (1) NEW 35Kw PROPANE GENERATOR • (1) LP PROPANE TANK (500 GALLON) • (12) NEW ANTENNAS • (9) NEW RRUS-11, (9) NEW RRUS-32 & (3) FUTURE RRUS • (4) NEW SURGE SUPPRESSORS • (2) FUTURE 4' M/W DISH
OCCUPANCY & CONST. T	TYPE SPECIAL	L INSPECTIONS	APPROVALS			
OCCUPANCY: U (UNMANNED)  CONSTRUCTION TYPE: V-B	*SEE SPECIAL INSPECTION FOI 1. POST—INSTALLED ANCHOR		APPROVED BY:  AT&T:	INITIALS:	DATE:	
CONSTRUCTION THE. V-D	2. HIGH STRENGTH BOLTING		VENDOR:			GENERAL CONTRACTOR NOTES
ACCESSIBILITY REQUIREMENTS:  THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, HARDERS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, CHAPTER 11B, EXCEPTION SECTION 118	THE 2016	Hill	R.F.:  LEASING/LANDLORD:  ZONING:  CONSTRUCTION:  POWER/TELCO:			DO NOT SCALE DRAWINGS  THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE 24"X36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOBSITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.

PG&E:

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS
SET OF DRAWINGS IS PROPRIETARY
BY NATURE, ANY USE OR
DISCLOSURE OTHER THAN THAT WHICH
RELATES TO PEEK SITE-COM IS
STRICTLY PROHIBITED

⊫ CLIENT: =



2600 CAMINO RAMON SAN RAMON, CA 94583

PROJECT INFORMATION: =

## GOLD HILL

6812 GODS WAY LOTUS, CA 95651

REV:	== DATE: ====	DESCRIPTION:	BY
1	6-5-17	90% ZONING DOCUMENTS	AMF
1	8-3-17	95% ZONING DOCUMENTS	ALF
2	8-9-17	100% ZONING DOCUMENTS	ALF
			1

COORDINATING ENGINEER:

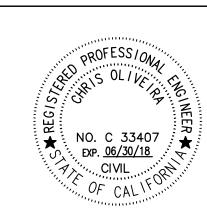
## Peek Site-Com



12852 Earhart Ave. Suite 101 Auburn, California 95602 Phone (530) 885—6160

E-Mail info@peeksitecom.com

SEAL:



= SITE #: = CHK.: = DRAWN BY: = CVL03054 ... AMP = SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

0

== REVISION:=

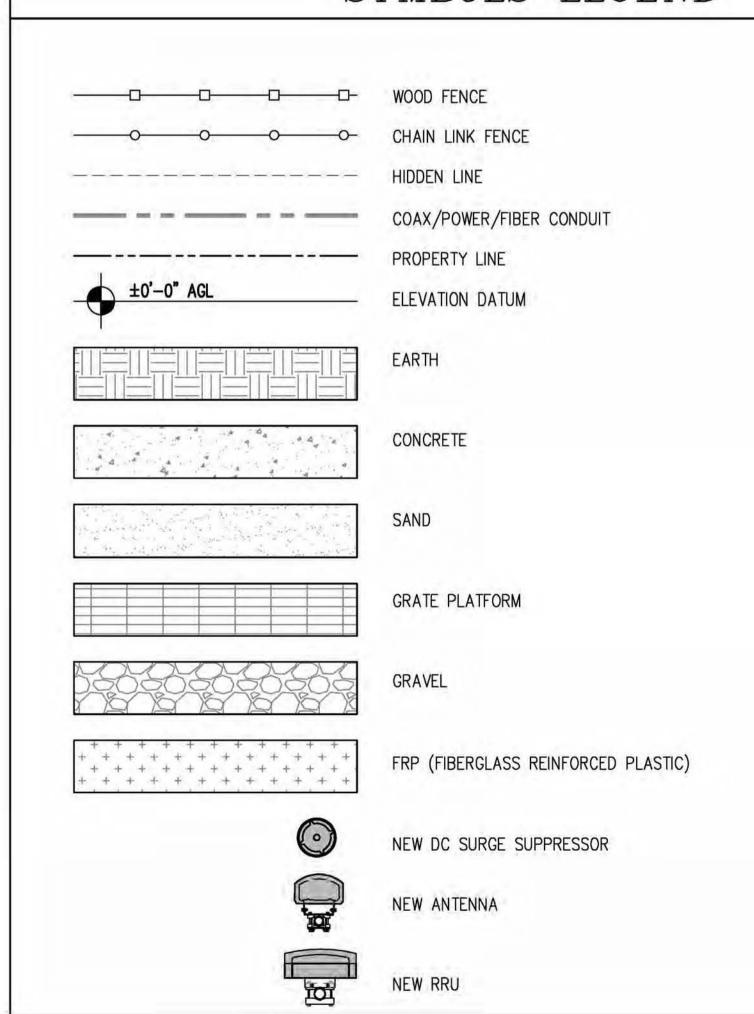
### GENERAL CONSTRUCTION NOTES:

- 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 INCLUDED 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. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.
- 12. 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 CONSTRUCTION ON OR ABOUT THE
- 13. 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.
- 14. 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 DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED OTHERWISE.

### ABBREVIATIONS

ABV.	ABOVE	L.F.	LINEAR FEET (FOOT)
ADD'L	ADDITIONAL	MAX.	MAXIMUM
A.G.L.	ABOVE GROUND LEVEL	M.B.	MACHINE BOLT
ALUM.		MECH.	MECHANICAL
APPROX.	APPROXIMATELY	MFR.	MANUFACTURER
AWG.	AMERICAN WIRE GAUGE	MIN.	MINIMUM
BLDG.		MISC.	MISCELLANEOUS
BLK.	BLOCKING	MTL	METAL
CAB.		(N)	NEW
CONC.			
CONN.	CONNECTION(OR)	NO. (#)	NOT TO SCALE
	CONSTRUCTION	N.T.S.	NOT TO SCALE
CONT.	CONTINUOUS	O.C.	
		P/C	PRECAST CONCRETE
DBL.	DOUBLE	PPC	POWER PROTECTION CABINET
DEPT.		P.S.F.	POUNDS PER SQUARE FOOT
	DOUGLAS FIR	P.S.I.	POUNDS PER SQUARE INCH
DIA.			PRESSURE TREATED
DIM.			QUANTITY
EA.	EACH	RAD. (R)	RADIUS
EL.	ELEVATION	REF.	REFERENCE
ELEC.		REINF.	REINFORCEMENT(ING)
EMT.		REQ.'D	
ENG.	ENGINEER	RGS	RIGID GALVANIZED STEEL
EQ.	EQUAL	SCH.	SCHEDULE
(E)	EXISTING	SHT.	SHEET
EXT.	EXTERIOR	SPEC.	SPECIFICATIONS
FAB.	FABRICATION	SQ.	SQUARE
F.A.	FINISHED FLOOR	S.S.	STAINLESS STEEL
F.B.	FINISHED GRADE	STD.	STANDARD
FT. (')	FOOT (FEET)	STL.	STEEL
FTG.	FOOTING	STRUC.	STRUCTURAL
GA.	GAUGE		
GALV.	GALVANIZE(D)	TEMP. T.O.A.	TEMPORARY TOP OF ANTENNAS
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER		
GPS	GLOBAL POSITIONING SYSTEM	T.O.F.	
GRND.	GROUND(ING)	T.O.P.	
HT.		T.O.W.	
ICGB.	HEIGHT ISOLATED COPPER GROUND BUS	TYP.	TYPICAL
	and the state of t	U/G	UNDER GROUND
IN. (")	INCH(ES)	V.I.F.	VERIFY IN FIELD
INT.	INTERIOR	W	WIDE (WIDTH)
L.B.	LAG BOLTS	W/	WITH
		WT.	WEIGHT

#### SYMBOLS LEGEND



#### PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY BY NATURE, ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO PEEK SITE-COM IS STRICTLY PROHIBITED

= CLIENT: =



2600 CAMINO RAMON SAN RAMON, CA 94583

= PROJECT INFORMATION::

## GOLD HILL

6812 GODS WAY LOTUS, CA 95651

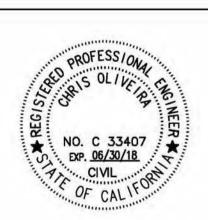
REV:	= DATE: ===	DESCRIPTION:	BY:
1	6-5-17	90% ZONING DOCUMENTS	AMP
1	8-3-17	95% ZONING DOCUMENTS	ALP
2	8-9-17	100% ZONING DOCUMENTS	ALP
		7	+
_			

COORDINATING ENGINEER:

Peek Site-Com 12852 Earhart Ave. Suite 101 Auburn, California 95602 Phone (530) 885-6160

E-Mail info@peeksitecom.com

=SEAL: =



= SITE #: = == CHK.:====== DRAWN BY:= AMP CVL03054 =SHEET TITLE: =

GENERAL NOTES

=SHEET NUMBER:=

= REVISION:=

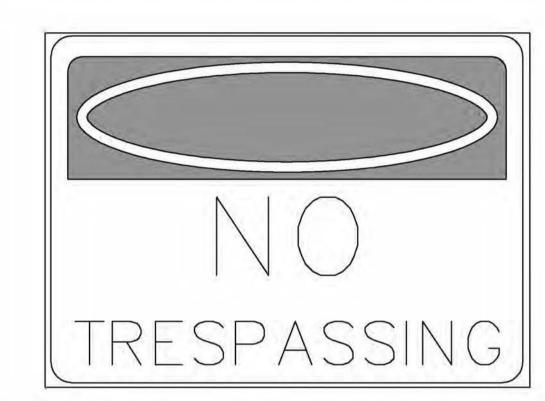


This Site Operated by:

AT&T MOBILITY 2600 CAMINO RAMON, 4W850 N SAN RAMON, CA 94583 IN CASE OF FIRE AND THE NEED FOR SHUTDOWN TO DEACTIVATE ANTENNAS CALL THE FOLLOWING NUMBER: For 24 Hour Emergency Contact and Access Please Call: (800) 832-6662

Reference Site#: <u>CVL03054</u> Site Address: 6812 GODS WAY LOTUS, CA 95651

## FENCED COMPOUND SIGNAGE



FENCED COMPOUND SIGNAGE

## INFORMATION CONTACT AT&T MOBILITY AT 800-368-2822 PRIOR TO PERFORMING ANY MAINTENANCE OR REPAIRS NEAR AT&T MOBILITY ANTENNAS. INFORMACION EN ESTA PROPIEDAD SE UBICAN ANTENAS DE TELECOMUNICACIONES OPERADAS POR AT&T. FAVOR MANTENER UNA DISTANCIA DE NO MENOS DE 3 PIES Y OBEDECER TODOS LOS AVISOS. COMUNIQUESE CON EL PROPIETARIO O LOS PROPIETARIOS DE LAS ANTENAS ANTES DE TRABAJAR O CAMINAR DE MENOS DE 3 PIES COMUNIQUESE CON AT&T MOBILITY 800-638-2822 ANTES DE REALIZAR CUALQUIER MANTENIMENTO O REPARACION DE LAS ANTENAS DE AT&T MOBILITY.

FAVOR COMINUCARSE CON LA OFICINA DE LA ADMINISTRACION DEL EDIFICIO SI ESTA PUENTA O COMPUERTA SE ENCUENTRA SIN CANDADO

INFORMATION SIGN 1-1

LETTERS. THE REF LINE SHALL NE IN 1/8 INCH LETTERS.

FROM A DISTANCE OF APPROXIMATELY 6 FEET IN FRONT OF THE SIGN.

INFORMATION

**Federal Communications Communication** 

**Tower Registration Number** 

Commission rules and antenna tower registration

47CFR 17.4(g).

12"

1234567

LATEST EDITION.

FABRICATION:

BACK W/ BLACK LETTERING

CONTRACTOR SHALL INSTALL ALL INFORMATION SIGNAGE IN ACCORDANCE W/ AT&T

SIGN 1 IS TO BE MADE ON THE 50 MIL ALUMINUM SHEETING (SIZE 8 INCHES BY 12

INCHES) W/ (4) 1/4 INCH MOUNTING HOLES, ONE EACH CORNER OF THE SIGN FOR MOUNTING

W/ HARDWARE W/ TIE WRAPS. THE MAIN BACKGROUND COLOR IS THE BE WHITE FRONT &

THE INFORMATION BAND SHALL BE 1.2 INCH SOLID GREEN BAND W/ 0.5 INCH HIGH BLACK

THE PLACEMENT OF TEXT SHALL BE DONE IN A MANNER THAT WILL PERMIT EASY READING

ALL PAINT WILL BE BAKER W/ ENAMEL W/ UV PROTECTIVE COATING OVER THE FACE OF THE

LETTERING. THE BODY OF THE TEXT SHALL BE IN BLACK LETTERING W/ 0.2 INCH HIGH

\*SIGN I-1: ENTRANCE DOOR, SEE DETAIL 1A, THIS SHEET

INFORMATION ☐ ON THE OUTSIDE FACE OF THIS BUILDING ☐ INFORMATION SIGN 1-2 ☐ ON THIS STRUCTURE STAY BACK A MINIMUM OF 3 FEET FROM THESE ANTENNAS CONTACT AT&T MOBILITY AT 800-638-2822 & FOLLOW THEIR INSTRUCTIONS PRIOR TO PERFORMING ANY MAINTENANCE OR REPAIRS CLOSED THAN 3 FEET FROM THE ANTENNAS 

INFORMATION SIGN 1-2

\*SIGN 1-2 POLE, SEE DETAIL 1B, THIS SHEET. WRELESS DOCUMENT #03-0074, RF EXPOSURE POLICY AND RF SAFETY COMPLIANCE PROGRAM,

> SIGN 2 MUST BE A NON METALLIC LABEL W/ AN ADHESIVE BACKING, THE LABEL SHALL BE MADE USING VINYL OR SIMILAR WEATHERPROOF MATERIAL, THE LABEL SHALL BE APPROXIMATELY 5X7 INCHES W/ A WHITE BACKGROUND AND BLACK LETTERING. THE GREEN BAND SHALL BE 1.375 INCH IN HEIGHT & THE LETTERING SHALL BE BLACK W/ 0.75 INCH HIGH LETTERS. THE TEXT LETTERING SHALL BE BLACK W/ 1/8 INCH HIGH LETTERS. UV PROTECTION SHALL BE PLACED OVER THE FRONT OF THE LABEL.

INFORMATION SIGN 1-3

INFORMATION SIGN 1-4

\*SIGN 1-3: BACK OF ANTENNAS, SEE DETAIL 1C & 3, THIS SHEET

\*SIGN 3 IS A 1 INCH X 2 INCH PANEL THAT CAN BE APPLIED TO THE BACK OR SIDE OF AN ANTENNA TO IDENTIFY IT AS AN AT&T ANTENNA

\*SIGN 1-4: SIDE OF ANTENNAS, SEE DETAIL 1D & 3, THIS SHEET

SIGN 4 IS MADE FROM TRANSPARENT MATERIAL 1-1/2 INCHES WIDE & 24 INCHES LONG. THE LETTERING IS TO BE BLACK W/ 1/2 INCH LETTERING IN A VERTICAL COLUMN. THE SPACING BETWEEN WORDS MUST BE SUCH THAT IT IS EASILY READ & FILLS THE LENGTH OF THE SIGN

#### SIGNAGE AND STRIPING INFORMATION

- THE FOLLOWING INFORMATION IS A GUIDELINE W/ RESPECT TO PREVAILING STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY AND SHOULD BE USED AS SUCH. IF THE SITE'S EMF REPORT OR ANY LOCAL, STATE OR FEDERAL GUIDELINES OR REGULATIONS SHOULD BE IN CONFLICT W/ ANY PART OF THESE NOTES OR PLANS, THE MORE RESTRICTIVE GUIDELINE OR REGULATION SHALL BE FOLLOWED AND OVERRIDE THE LESSER.
- 2. THE PUBLIC LIMIT OF RF EXPOSURE ALLOWED BY AT&T IS 1MWCM\*2 AND THE OCCUPATIONAL LIMIT OF RF EXPOSURE ALLOWED BY AT&T IS 5MWCM\*2
- 3. IF THE BOTTOM OF THE ANTENNA IS MOUNTED (8) EIGHT FEET ABOVE THE GROUND OR WORKING PLATFORM LINE OF THE PERSONAL COMMUNICATION SYSTEM (PCS) AND DOES NOT EXCEED THE PUBLIC LIMIT OF RF EXPOSURE LIMIT THEN NO STRIPING OR BARRICADES SHOULD BE NEEDED.
- 4. IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE AREA IS PUBLICLY ACCESSIBLE (E.G. ROOF ACCESS DOOR THAT CANNOT BE LOCKED, OR FIRE EGRESS) THEN BOTH BARRICADES AND STRIPING SHALL BE PLACED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPING SHALL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER COMPLETION OF SITE CONSTRUCTION. USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.
- 5. IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE AREA IS PUBLICLY ACCESSIBLE (E.G. ROOF ACCESS DOOR THAT CANNOT BE LOCKED, OR FIRE EGRESS) THEN BOTH BARRICADES AND STRIPING SHALL BE PLACED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPING SHALL BE PLACED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES & STRIPING SHALL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER COMPLETION OF SITE CONSTRUCTION. USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING
- ALL TRANSMIT ANTENNAS REQUIRE A THREE LANGUAGE WARNING SIGN WRITTEN IN ENGLISH. SPANISH, AND CHINESE, THIS SIGN SHALL BE PROVIDED TO THE CONTRACTOR Y THE AT&T CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION. THE LARGER SIGN SHALL BE PLACED IN PLAIN SIGHT AT ALL ROOF ACCESS LOCATIONS AND ON ALL BARRICADES. THE SMALLER SIGN SHALL BE PLACED ON THE ANTENNA ENCLOSURES IN A MANNER THAT IS EASILY SEEN BY ANY PERSON ON THE ROOF. WARNING SIGNS SHALL COMPLY W/ ANSI C95.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS. ALL SIGNS SHALL HAVE AT&T'S NAME AND THE COMPANY CONTACT INFORMATION (E.G. TELEPHONE NUMBER) TO ARRANGE FOR ACCESS TO THE RESTRICTED AREAS. THIS TELEPHONE NUMBER SHALL BE PROVIDED TO THE CONTRACTOR BY THE AT&T CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION.
- PHOTOS OF ALL STRIPING, BARRICADES & SIGNAGE SHALL BE PART OF THE CONTRACTORS CLOSE OUT PACKAGE & SHALL BE TURNED INTO THE AT&T CONSTRUCTION PACKAGE & SHALL BE TURNED INTO THE AT&T CONSTRUCTION PROJECT MANAGER AT THE END OF CONSTRUCTION. STRIPING SHALL BE DONE W/ FADE RESISTANT YELLOW SAFETY PAINT IN A CROSS-HATCH PATTERN AS DETAILED BY THE CONSTRUCTION DRAWINGS. ALL BARRICADES SHALL BE MADE OF AN RF FRIENDLY MATERIAL SO AS NOT TO BLOCK OR INTERFERE W/ THE OPERATION OF THE ANTENNAS. BARRICADES SHALL BE PAINTED W/ FADE RESTRAINT YELLOW SAFETY PAINT. THE CONTRACTOR SHALL PROVIDE ALL RF FRIENDLY BARRICADES NEEDED, & SHALL PROVIDE THE AT&T CONSTRUCTION PROJECT MANAGER W/
- 8. SHOP DRAWING OF EACH BARRICADE. UPON CONSTRUCTION COMPLETION.

## INFORMATION SIGNAGE

GENERAL NOTES

## **AUTHORIZED** PERSONNEL ONLY

DOOR/EQUIPMENT SIGN

FCC ASR SIGNAGE

Property of AT&T Authorized

Personnel Only

In case of emergency, or prior to performing maintenance on this site, call and reference cell site number

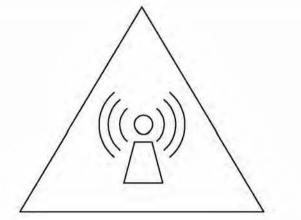
Property of AT&T Authorized Personnel Only

No Trespassing Violators will be Prosecuted

In case of emergency, or prior to performing maintenance on this site, call and reference cell site number

- CONTRACTOR SHALL INSTALL ALL INFORMATION SIGNAGE IN ACCORDANCE W/ AT&T WRELESS DOCUMENT #03-0074, RF EXPOSURE POLICY AND RF SAFETY COMPLIANCE PROGRAM, LATEST EDITION
- CONTRACTOR SHALL CONTACT AT&T R-RFSC FOR NFORMATION ON MPE LEVELS AND INSTRUCTIONS ON LEVEL AND LOCATION OF SIGNAGE

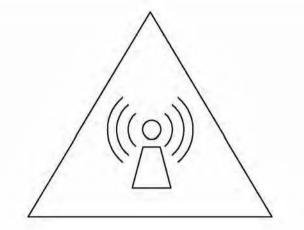
## WARNING



**Beyond This Point** you are entering a controlled area where RF Emissions exceed the FCC **Controlled Exposure limits** Failure to obey all posted signs and site guidelines could result in serious injury

Ref: FCC 47CFR 1.1307(b)

## CAUTION

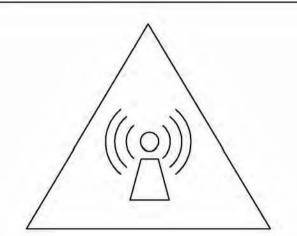


**Beyond This Point** you are entering a controlled area where RF Emissions may exceed the FCC Controlled Exposure limits

Obey all posted signs and site guidelines for working in an RF environment

Ref: FCC 47CFR 1.1307(b)

NOTICE



**Beyond This Point** you are entering an area where RF Emissions may exceed the FCC **General Population Exposure** Limits

Follow all posted signs and site guidelines for working in an RF environment

Ref: FCC 47CFR 1.1307(b)

NOTICE SIGN

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY BY NATURE, ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO PEEK SITE-COM IS STRICTLY PROHIBITED

= CLIENT: =



2600 CAMINO RAMON SAN RAMON, CA 94583

PROJECT INFORMATION:

GOLD HILL 6812 GODS WAY

LOTUS, CA 95651

REV: = DATE: = = DESCRIPTION: 6-5-17 90% ZONING DOCUMENTS AMP 95% ZONING DOCUMENTS 8-9-17 100% ZONING DOCUMENTS **= COORDINATING ENGINEER:** Peek Site-Com

12852 Earhart Ave. Suite 101 Auburn, California 95602 Phone (530) 885-6160

E-Mail info@peeksitecom.com

= SEAL: =



= SITE #: = = DRAWN BY: AMP CVL03054 =SHEET TITLE:

SITE SIGNAGE

=SHEET NUMBER:=

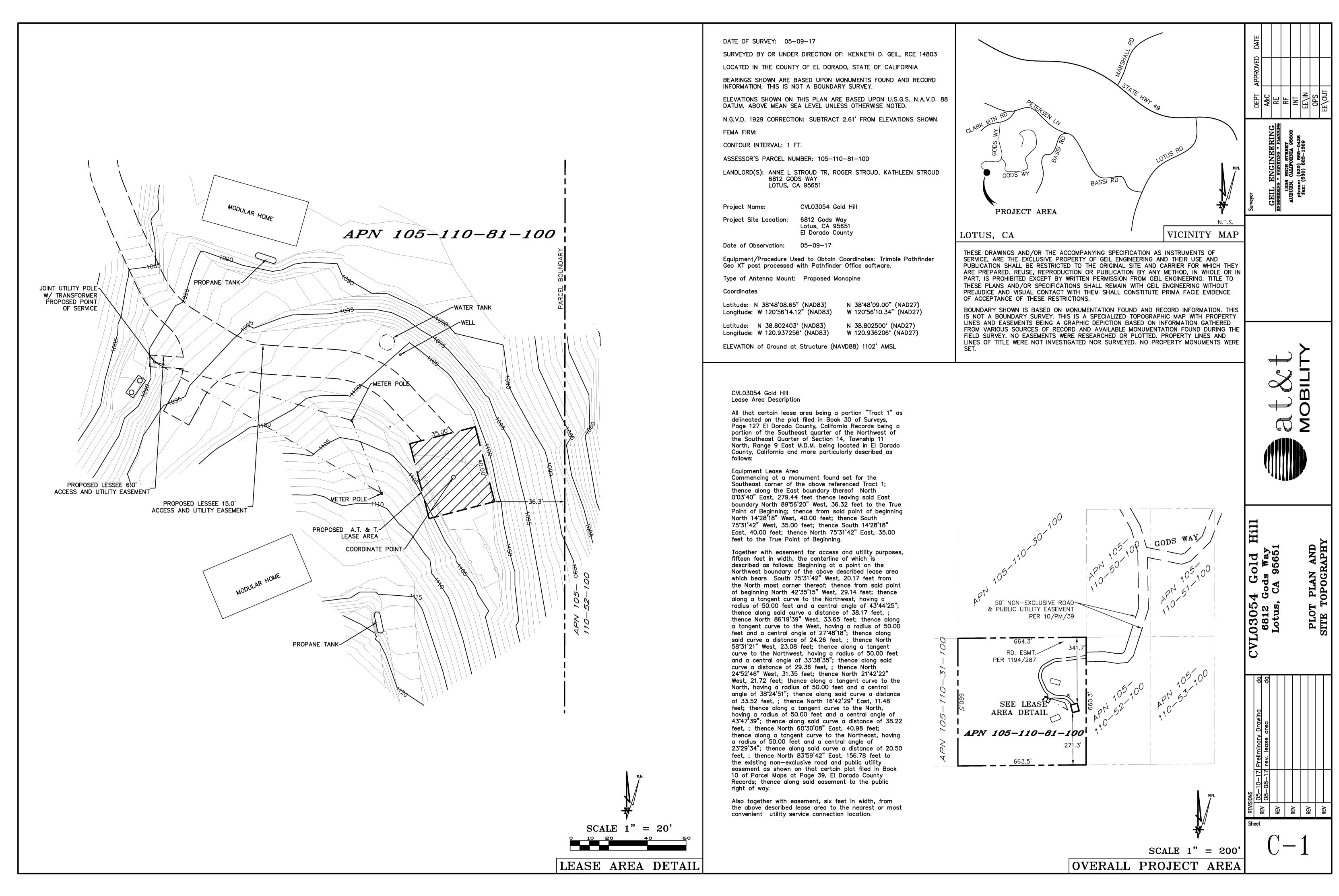
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SHELTER/CABINET DOORS SIGNAGE

GATE SIGNAGE

CAUTION AND WARNING SIGN

18-1015 J 8 of 135



#### GENERAL NOTES

- THE CONTRACTOR SHALL HAVE A RESPONSIBLE PARTY, WHO SHALL HAVE THE AUTHORITY TO REPRESENT AND ACT FOR THE CONTRACTOR, ON THE JOB SITE DURING ALL WORKING
- 2. ALL WORK SHALL BE ACCOMPLISHED TO THE SATISFACTION OF THE WASHOE COUNTY AUTHORIZED REPRESENTATIVE.

#### **DEFINITIONS:**

EROSION AND SEDIMENT CONTROL

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

- CLEAN WATER ACT

(SWPPP) - STORM WATER POLLUTION PREVENTION PLAN

(BMP'S) - BEST MANAGEMENT PRACTICES

#### THE CONTRACTOR SHALL

MAKE HIM/HERSELF AWARE OF THE REQUIREMENTS OF SAID GENERAL PERMIT AND THE PROVISIONS OF THE GRADING & EROSION CONTROL PLANS.

IMPLEMENT THE ESC FEATURES AND BEST MANAGEMENT PRACTICES (BMP'S) CONTAINED IN THE IMPROVEMENT PLANS, AND OTHERWISE DILIGENTLY PURSUE COMPLIANCE WITH THE LOCAL REQUIREMENTS.

ASSIST THE OWNER, ENGINEER, AND PUBLIC WORKS DEPARTMENT STAFF IN THE ASSESSMENT OF THE FUNCTIONALITY OF AND MODIFICATIONS TO THE FEATURES AND PRACTICES IMPLEMENTED AND

MEET WITH THE OWNER AND THE PUBLIC WORKS DEPARTMENT STAFF TO DETERMINE AND DISCUSS THE STATUS OF THE PROJECT, CONSTRUCTION SCHEDULE, AND ANY MODIFICATIONS AND/OR ADDITIONS TO THE ESC FEATURES IN ORDER TO DILIGENTLY PURSUE COMPLIANCE.

DOCUMENT ANY MAINTENANCE, REPLACEMENT, INSPECTION, MODIFICATIONS OR ADDITIONS TO THE PROJECT ESC FEATURES, AND NOTIFY THE ENGINEER. OWNER AND PUBLIC WORKS DEPARTMENT STAFF OF ANY SUBSTANTIAL MODIFICATIONS OR ADDITIONS TO THE ESC PRACTICES AND FEATURES. ALL DISTURBED AREAS SHALL BE PROTECTED WITH APPROVED MATERIALS WITHIN 15 DAYS OF COMPLETION OF THE FINISHED GRADES.

MAINTAIN AN INVENTORY OF ESC MATERIALS (STRAW BALES, 1.5" - 3" CLEAN CRUSHED ROCK, FIBER ROLLS. SILT FENCE, ROCK BAGS, ETC.) ON SITE FOR EMERGENCY USE AS DIRECTED BY THE ENGINEER, OWNER, OR THE PUBLIC WORKS DEPARTMENT STAFF.

#### OTHER RESPONSIBILITIES OF APPLICANT:

- A. PROTECTION OF UTILITIES. THE APPLICANT SHALL BE RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO ANY PUBLIC UTILITIES OR SERVICES.
- B. PROTECTION OF ADJACENT PROPERTY. THE APPLICANT SHALL BE RESPONSIBLE
- C. FOR THE PREVENTION OF DAMAGE TO ADJACENT PROPERTY, NO PERSON(S) SHALL EXCAVATE ON LAND THAT IS SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY, STRUCTURE OR OTHER PUBLIC OR PRIVATE PROPERTY OR EASEMENT WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM ANY DAMAGE WHICH MIGHT OTHERWISE RESULT.
- D. ADVANCE NOTICE. THE APPLICANT SHALL NOTIFY THE COUNTY AT LEAST FORTY-EIGHT HOURS PRIOR TO THE START OF WORK.
- E. EROSION AND SEDIMENT CONTROL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT TO PREVENT DISCHARGE OF SEDIMENT FROM THE SITE, IN QUANTITIES GREATER THAN BEFORE THE GRADING OCCURRED, TO ANY WATERCOURSE, DRAINAGE SYSTEM, OR ADJACENT
- F. COMPLIANCE WITH STORMWATER RUNOFF POLLUTION CONTROL CODE. AT ALL TIMES DURING THE PRECONSTRUCTION AND CONSTRUCTION OF ANY PROJECT FOR WHICH GRADING APPROVAL IS ISSUED UNTIL ALL FINAL IMPROVEMENTS AND PERMANENT STRUCTURES ARE COMPLETE, THE APPLICANT SHALL FULLY COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE STORMWATER RUNOFF POLLUTION CONTROL CODE.

#### BMP INSTALLATION SCHEDULE IMPLEMENTATION | MAINTENANCE SCHEDULE LOCATION MANAGEMENT SCHEDULE PRACTICE A. PRESERVING AROUND PERIMETER EDUCATE EMPLOYEES AND SUBCONTRACTORS EXISTING VEGETATION OF PROJECT SITE CONSTRUCTION IS REGARDING IMPORTANCE AT MAINTAINING EXISTING COMPLETED VEGETATION TO PREVENT EROSION AND FILER AND SEDIMENT IN RUNOFF FROM DISTURBED AREAS ON THE CONSTRUCTION SITE, INSPECT SITE PERIMETER MONTHLY TO VERIFY THE OUTSIDE VEGETATION IS NOT DISTURBED. INSPECT GRADED AREAS AND SLOPES ON AT LEAST A MONTHLY BASIS TO CHECK FOR EROSION. B. PROTECT GRADED THROUGHOUT DURING WET SEASON AREAS AND SLOPES PROJECT SITE REGRADE TRIBUTARY AREAS OR INSTALL FILTER FROM WASHOUT & BARRIER OR SAND BAG DIKES AS NECESSARY TO PREVENT EROSION. C. GRAVEL FILTER ALONG FLOW LINES IN PLACE DURING INSPECT DAILY AND AFTER EACH STORM. REMOVE OF UNPAVED WET SEASON UNTIL ONSITE SEDIMENT DEPOSITED BEHIND BERM OR ROADWAYS WITHIN ROADWAYS ARE BARRIER TO MAINTAIN EFFECTIVENESS. D. INLET FILTER BAG INLETS TO THE INSPECT WEEKLY AND AFTER EACH STORM. REMOVE LANDSCAPING IS IN SEDIMENT AND DEBRIS BEFORE ACCUMULATIONS STORM DRAINAGE SYSTEM HAVE REACHED ONE THIRD THE DEPTH OF THE BAG REPAIR OR REPLACE INLET FILTER BAG AS SOON AS . FIBER ROLL SEE PLAN SHEET CONTINUOUS INSPECT WEEKLY AND AFTER EACH STORM. REMOVE SEDIMENT DEPOSITED BEHIND FIBER ROLL WHENEVER NECESSARY TO MAINTAIN EFFECTIVENESS. IN PLACE DURING BY INSPECT SLOPES ON AT LEAST A MONTHLY BASIS TO . HYDROSEEDING 3:1 SLOPES CHECK FOR EROSION. IF EROSION IS NOTED, SPREAD STRAW MULCH OVER AFFECTED AREAS. CONTINUOUS, UNTIL G. STABILIZED ENTRANCES TO SITE INSPECT ON A MONTHLY BASIS AND AFTER EACH CONSTRUCTION ENTRANCES AND RAINFALL. ADD AGGREGATE BASE MATERIAL WHENEVER FROM PUBLIC **ENTRANCE** ROADWAYS ONSITE ROADWAYS NECESSARY TO PREVENT SEDIMENT FROM BEING TRACKED INTO PUBLIC STREET. ARE PAVED WHEREVER H. WIND EROSION CONTINUOUS UNTIL INSPECT SITE DURING WINDY CONDITIONS TO CONTROL PRACTICES **NECESSARY** GRADING IS IDENTIFY AREAS WHERE WIND EROSION IS OCCURRING AND ABATE EROSION AS NECESSARY THROUGHOUT COMPLETED AND PROJECT SITE SOILS HAVE STABILIZED GOOD THROUGHOUT CONTINUOUS UNTIL INSPECT SITE ON AT LEAST A MONTHLY BASIS TO HOUSEKEEPING PROJECT SITE VERIFY THAT GOOD HOUSEKEEPING PRACTICES ARE CONSTRUCTION IS **MEASURES** COMPLETED BEING IMPLEMENTED. CONTINUOUS UNTIL PROPER DESIGNATED AREA INSPECT SITE ON AT LEAST A WEEKLY BASIS TO CONSTRUCTION VERIFY THAT CONSTRUCTION MATERIALS ARE STORED CONSTRUCTION IS MATERIAL STORAGE COMPLETED IN A MANNER, WHICH COULD NOT CAUSE STORM WATER POLLUTION. DESIGNATED INSPECT SITE ON AT LEAST A WEEKLY BASIS TO K. PROPER CONTINUOUS UNTIL CONSTRUCTION COLLECTION AREA CONSTRUCTION IS ASSURE WASTE IS STORED PROPERLY AND DISPOSED WASTE STORAGE AND AND CONTAINERS COMPLETED OF AT LEGAL DISPOSAL SITE, DAILY. DISPOSAL INCLUDING ) CONCRETE MATERIAL HANDLING IMMEDIATELY AT TIME INSPECT MATERIAL HANDING AREAS ON AT LEAST A SPILL CLEANUP MONTHLY BASIS TO VERIFY PROPER SPILL CLEANUP. OF SPILL INCLUDING 1) PAINT & PAINTING SUPPLIES CONTINUOUS DESIGNATED AREA KEEP AMPLE SUPPLIES OF SPILL CLEANUP 2) VEHICLE FUELING WITH SECONDARY MATERIALS ON SITE & INSPECT ON REGULAR MAINTENANCE & CONTAINMENT CLEANING CONTINUOUS UNTIL STREET AND STREETS AND STORM MAINTAIN STORM DRAINAGE FACILITIES AND PAVED STORM DRAINAGE CONSTRUCTION IS STREETS CLEAR OF SEDIMENT AND DEBRIS. DRAINAGE FACILITIES FACILITY COMPLETED MAINTENANCE

- WET SEASON: ENTIRE PERIOD BETWEEN OCTOBER 1 THROUGH APRIL 30. CONTRACTOR SHALL ALSO IMPLEMENT WET SEASON MEASURES IF WET WEATHER IS EXPECTED DURING THE DRY SEASON.
- INITIAL (STAGE 1): WHEN CLEARING AND GRUBBING ACTIVITIES OCCUR.
- ROUGH (STAGE 2): WHEN CUT AND FILL ACTIVITIES OCCUR AND THE SITE IMPROVEMENTS ARE CONSTRUCTED, INCLUDING UNDERGROUND PIPING, STREETS, SIDEWALKS, AND OTHER IMPROVEMENTS. FINAL (STAGE 3): WHEN FINAL ELEVATIONS ARE SET, AND SITE IMPROVEMENTS ARE COMPLETED AND READY FOR COUNTY

## REQUIRED BMPS

1, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE COUNTY IMPROVEMENT STANDARDS, CURRENT EDITION, AND THE COUNTY EROSION AND SEDIMENT CONTROL GUIDELINES.

EROSION CONTROL NOTES

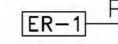
- 2. EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE INSTALLED AND MAINTAINED DURING THE WET SEASON (OCTOBER THROUGH APRIL 30). SEDIMENT CONTROL BMPs SHALL BE INSTALLED AND MAINTAINED ALL YEAR.
- 3. ALL DRAINAGE INLETS IMMEDIATELY DOWNSTREAM OF THE WORK AREAS AND WITHIN THE WORK AREAS SHALL BE PROTECTED WITH SEDIMENT CONTROL AND INLET FILTER BAGS, YEAR ROUND. INLET FILTER BAGS SHALL BE REMOVED FROM THE DRAINAGE INLETS UPON ACCEPTANCE OF THE PUBLIC IMPROVEMENTS BY THE COUNTY.
- 4. ALL AREAS DISTURBED DURING CONSTRUCTION, BY GRADING, TRENCHING, OR OTHER ACTIVITIES, SHALL BE PROTECTED FROM EROSION DURING THE WET SEASON (OCTOBER 1 THROUGH APRIL 30). HYDROSEED, IF UTILIZED, MUST BE PLACED BY SEPTEMBER 15. HYDROSEED PLACED DURING THE WET SEASON SHALL USE A SECONDARY EROSION PROTECTION METHOD.
- 5. SENSITIVE AREAS AND AREAS WHERE EXISTING VEGETATION IS BEING PRESERVED SHALL BE PROTECTED WITH CONSTRUCTION FENCING. SEDIMENT CONTROL BMPs SHALL BE INSTALLED WHERE ACTIVE CONSTRUCTION AREAS DRAIN INTO SENSITIVE OR PRESERVED VEGETATION
- 6. SEDIMENT CONTROL BMPs SHALL BE PLACED ALONG THE PROJECT PERIMETER WHERE DRAINAGE LEAVES THE PROJECT. SEDIMENT CONTROL BMPs SHALL BE MAINTAINED YEAR ROUND UNTIL THE CONSTRUCTION IS COMPLETE OR THE DRAINAGE PATTERN HAS BEEN CHANGED AND NO LONGER LEAVES THE SITE.
- 7. THE FOLLOWING AREAS ARE TO RECEIVE HYDROSEEDING OR OTHER EROSION CONTROL: ALL SLOPES GREATER THAN 10:1.
- 8. FOR DEWATERING OPERATIONS, SEDIMENT- LADEN STORM WATER SHALL BE EITHER PUMPED (NOTE 10) OR ROUTED (TEMPORARY DIVERSION SWALE) TO SEDIMENT TRAP(S) TO ALLOW SEDIMENT TO SETTLE OUT BEFORE DISCHARGE OFF-SITE. ONCE SEDIMENT HAS SETTLED OUT, WATER WILL BE DISCHARGED THROUGH SWALE LINED WITH IMPERVIOUS PLASTIC LINER.
- 9. USE OF FIBER ROLLS SHALL BE AUGMENTED DURING WET SEASON WITH DEWATERING BMP's IN THE EVENT THAT FIBER ROLLS DO NOT EFFECTIVELY RETAIN STORM WATER ON SITE. DEWATERING MAY INCLUDE PUMPS OR BERMS TO ROUTE WATER TO THE SEDIMENT TRAP. IF PUMPS ARE USED. THEN FILTER BAGS SHALL BE USED AT DISCHARGE HOSE ENDS. DEWATERING MATERIAL SHALL NOT BE DISCHARGED DIRECTLY TO THE STORM DRAIN SYSTEM.

- THE FOLLOWING BMPS SHALL BE REQUIRED ON ALL PROJECTS:
- A. ACCESS POINTS TO THE CONSTRUCTION SITE SHALL HAVE A STABILIZED CONSTRUCTION ACCESS.
- B. THE PRESERVATION OF EXISTING VEGETATION SHALL BE DONE IN ACCORDANCE WITH PRESERVATION OF EXISTING VEGETATION, AND SILT FENCE.
- C. PERIMETER PROTECTION ALONG PROPERTY LINES SHALL HAVE PRESERVATION OF EXISTING VEGETATION, OR SILT FENCE.
- D. SLOPES GREATER THAN 3 PERCENT SHALL BE TEMPORARILY SEEDED AND SLOPES GREATER 3:1 (H:V) SHALL HAVE HYDROSEEDING AND/OR GEOTEXTILES, PLASTIC COVERS, AND/OR EROSION
- E. THE TOE OF ALL SLOPES SHALL HAVE SILT FENCE AND/OR FIBER ROLL.

CONTROL BLANKETS INSTALLED.

- F. DISTURBED SOIL AREAS BEHIND THE CURB OR BACK OF WALK (OR CURB) SHALL HAVE STRAW MULCH, SOIL BINDERS OR GEOTEXTILES, PLASTIC COVERS, AND EROSION CONTROL BLANKETS/MATS IN CONJUNCTION WITH HYDROSEEDING. SURFACE TREATMENTS SHALL EXTEND TO THE GREATER OF 6 METERS (20 FEET) OR TO THE TOP OF SLOPE.
- G. ROADWAY SUBGRADES SHALL HAVE FIBER ROLL, SILT FENCE, OR SEDIMENT TRAP.
- H. DEAD END STREETS. TO BE EXTENDED IN THE FUTURE, SHALL HAVE PRESERVATION OF EXISTING VEGETATION. HYDROSEEDING. SEDIMENT TRAP OR OTHER APPLICABLE BMP TO MINIMIZE THE TRANSPORT OF SEDIMENT ONTO OR FROM THE IMPROVED SURFACE.
- I. PROJECTS THAT INCLUDE DETENTION BASINS SHALL HAVE A SEDIMENT BASIN.
- J. PLACE DRAINAGE INLET SEDIMENT BMPS AT ALL STORM DRAIN INLETS. BMPS SHALL INCLUDE INLET SEDIMENT CONTROL BARRIER, INLET FILTER BAG AND CONCRETE STAMPS OR EXPOXIED PLAQUARDS.
- K. EACH CONSTRUCTION SITE SHALL PROVIDE DESIGNATED, PAINT AND WASTE DISPOSAL LOCATIONS AS NECESSARY.
- L. A BMP INSTALLATION SCHEDULE SHALL BE INCLUDED ON THE IMPROVEMENT PLANS. THE SCHEDULE SHALL INCLUDE THE BMPS FOR BOTH THE WET SEASON AND THE DRY SEASON.





FIBER ROLL 200

MM MIN. (8 IN.)

STEEPER SLOPE

19 MM x 19MM

INSTALL A FIBER ROLL

TRANSITIONS INTO A

 $(3/4 \text{ IN.} \times 3/4 \text{ IN.})$ 

1.2 M (4 FT.) SPACING

WOOD STAKES MAX.

NEAR SLOPE WHERE IT

PORTABLE CONCRETE WASHOUT CONTAINER NO SCALE

#### **INSPECTION & MAINTENANCE OF FIBER ROLLS:**

- 1. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING OR SLUMPING FIBER
- 2. INSPECT FIBER ROLLS WHEN RAIN IS FORECAST, FOLLOWING RAIN EVENTS. At LEAST DAILEY DURING PROLONGED RAINFALL, AND AT TWO-WEEK INTERVALS DURING THE NON-RAINY SEASON.
- 3. SEDIMENT SHOULD BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-HALF THE DESIGNATED SEDIMENT STORAGE 'DEPTH. USUALLY ONE-HALF THE DISTANCE BETWEEN THE TOP OF THE FIBER ROLL AND THE ADJACENT GROUND SURFACE. SEDIMENT REMOVED DURING MAINTENANCE MAY BE INCORPORATED INTO THE EARTHWORK ON THE SITE OR DISPOSED AT AN APPROPRIATE LOCATION.
- 1. FILTER BARRIER SHALL BE CONSTRUCTED LONG ENOUGH TO EXTEND ACROSS THE EXPECTED FLOW PATH AND AS APPROVED BY THE
- LANDSCAPE INSPECTOR. 2. FILTER ROLL (8"TO 12" DIAMETER) SHALL BE PLACED INTO THE KEY TRENCH AND STAKES ON BOTH SIDES OF THE ROLL WITHIN & FEET OF EACH END AND THEN EVERY 3' TO 4' WITH 1" X 2"X 23" STAKES. STAKES ARE TYPICALLY DRIVEN IN ON ALTERNATING BIDES OF THE ROLL ADJACENT ROLLS. SHALL TIGHTLY ABUT.
- 3. CLEAR SUBGRADE SO THAT REMOVAL OF ALL LOCAL DEVIATIONS AND TO REMOVE LARGE STONES OR DEBRIS THAT WILL INHIBIT INTIMATE CONTACT THE FIBER ROLL WITH THE SUBGRADE 4. PRIOR TO ROLL INSTALLATION, CONTOUR A CONCAVE TRENCH (2 TO 4 INCHES) DEEP ALONG THE PROPOSED INSTALLATION ROUTEFIBER ROLL
- SHALL BE INSTALLED ALONG THE SIDE OF WALKS AND AROUND THE CATCH BASING. THE BOTTOM EDGE 'OF THE FABER ROLL SHALL EXTEND TO AND ACROSS THE BOTTOM OF THE TRENCH. THE TRENCH SHALL BE BACKFILLED TO 4 INCHES ABOVE GROUND AND COMPACTED TO BURY AND SECURE THE BOTTOM OF THE FIBER ROLL. 5. CONTRACTED SHALL MAKE INSPECTIONS WEEKLY DURING THE WET
- SEASON, MONTHLY DURING THE DRY SEASON AND IMMEDIATELY AFTER EACH RAINFALL TO DETERMINE IF REPAIRS AND SEDIMENT REMOVAL IS Required. SEDIMENT SHALL BE REMOVED BEFORE IT HAS REACHED ONE THIRD THE HEIGHT OF THE FILTER FABRIC.

## REVEGETATION STANDARDS

NO SCALE

TYPICAL FIBER ROLL INSTALLATION

100 MM (4 IN.) MAX.

50 MM (2 IN.) MIN.

SLOPE

**VARIES** 

300 MM MIN.

(12 IN.)

|ER-2|

- PERMANENT REVEGETATION OR LANDSCAPING, IF REQUIRED, IS TO BE COMMENCED ON THE CONSTRUCTION SITE AS SOON AS PRACTICAL AND IN NO CASE EXCEEDING TWELVE MONTHS AFTER ACHIEVING FINAL GRADES AND UTILITY PLACEMENTS. WHENEVER PRACTICAL, LAND IS TO BE DEVELOPED IN INCREMENTS OF WORKABLE SIZE WHICH CAN BE COMPLETED DURING A SINGLE CONSTRUCTION SEASON; EROSION CONTROL MEASURES ARE TO BE COORDINATED WITH THE SEQUENCE OF GRADING OR IMPROVEMENTS.
- 2. ALL SURFACES DISTURBED BY VEGETATION REMOVAL, GRADING, HAUL ROADS, OR OTHER ACTIVITY OF CONSTRUCTION WHICH ALTERS THE NATURAL VEGETATIVE COVER ARE TO BE PREPARED FOR EXPEDIENT REVEGETATION OR OTHERWISE MAINTAINED TO CONTROL EROSION UNLESS COVERED WITH IMPERVIOUS OR OTHER IMPROVED SURFACES PURSUANT TO APPROVED PLANS WITHIN FOURTEEN DAYS FOLLOWING THE COMPLETION OF GRADING, OR REMOVAL OF VEGETATION IF NO GRADING WAS INVOLVED.
- . TOPSOIL REMOVED FROM THE SURFACE IN PREPARATION FOR GRADING SHALL BE RESTORED TO EXPOSE CUT AND FILL EMBANKMENTS OR BUILDING PADS SO AS TO PROVIDE A SUITABLE BASE FOR SEEDING AND PLANTING.
- ACCEPTABLE METHODS OF REVEGETATION INCLUDE STRAW-MULCHING. HYDRO-MULCHING OR PLANTING OF MIXTURE SPECIFIED IN THE IMPROVEMENT STANDARDS. OTHER METHODS OF REVEGETATION MAY BE APPROVED BY THE COUNTY ENGINEER WHERE EQUIVALENT PROTECTION IS PROVIDED.
- . ALL REVEGETATION AND LANDSCAPING ARE TO BE CONDUCTED WITHIN SUITABLE GROWING PERIODS. NATIVE PLANT MATERIALS ARE SPECIFICALLY ENCOURAGED IN ORDER TO REDUCE IRRIGATION DEMANDS.
- TEMPORARY SEDIMENTATION CONTROL FACILITIES ARE TO BE INSTALLED IN CONJUNCTION WITH INITIAL GRADING OPERATIONS AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO REMOVE SEDIMENTS FROM RUNOFF WATERS DURING DEVELOPMENT.
- PERMANENT SEDIMENT CATCHMENT BASINS OR OTHER TYPES OF SEDIMENT RETENTION FACILITIES ARE REQUIRED WHEREVER NECESSARY TO PREVENT DISCHARGE OF SEDIMENT INTO WATERS OF THE STATE. SEDIMENT RETENTION FACILITIES SHALL BE INSPECTED AND CLEANED ACCORDING TO A REGULAR MAINTENANCE SCHEDULE.
- 3. THE PLANTING OR SEEDING OF VEGETATIVE PROTECTION MUST BE EFFECTIVE. IF THE VEGETATION DOES NOT GROW AND OFFER PROPER PROTECTION, IT MUST BE REPLANTED OR RESEEDED.
- THE MAINTENANCE OF VEGETATIVE PROTECTION ON GRADED SLOPES SHALL BE THE RESPONSIBILITY OF THE PERMITTEE AND SHALL BE GUARANTEED UNTIL THE VEGETATION IS WELL ESTABLISHED OR IS OFFICIALLY ASSUMED BY ANOTHER PARTY.

## DUST MITIGATION PLAN

SECTION 1: FUGITIVE DUST PREVENTION AND CONTROL

LAND CLEARING/EARTH MOVING: WATER SHALL BE APPLIED BY MEANS OF TRUCK(S), HOSES AND/OR SPRINKLERS PRIOR TO ANY LAND CLEARING OR EARTH MOVEMENT TO MINIMIZE DUST EMISSIONS. HAUL VEHICLES TRANSPORTING SOIL INTO OR OUT OF THE PROPERTY SHALL BE COVERED.

VISIBLY DRY DISTURBED SOIL SURFACE AREAS: ALL VISIBLY DRY DISTURBED SOIL SURFACE AREAS OF OPERATION SHALL BE WATERED TO MINIMIZE DUST EMISSIONS.

PAVED ROAD TRACK-OUT: PAVED ROADS SHALL BE CLEANED IF THE AMOUNT OF DIRT TRACKED-OUT OF THE OPERATION AREA HAS THE

POTENTIAL TO CAUSE DUST EMISSIONS. VISIBLY DRY DISTURBED UNPAVED DRIVEWAYS: ALL VISIBLY DRY DISTURBED UNPAVED DRIVEWAY SURFACE AREAS OF OPERATION SHALL BE WATERED TO MINIMIZE

DUST EMISSIONS. UNPAVED DRIVEWAYS MAY BE GRAVELED TO REDUCE DUST EMISSIONS. VEHICLES ENTERING / EXITING CONSTRUCTION AREA:

VEHICLES ENTERING OR EXITING CONSTRUCTION AREA SHALL TRAVEL AT A SPEED WHICH MINIMIZES DUST EMISSIONS.

**EMPLOYEE VEHICLES:** CONSTRUCTION WORKERS PARK IN DESIGNATED PARKING AREA(S) TO HELP REDUCE DUST EMISSIONS.

SOIL PILES:

SOIL PILE SURFACES SHALL BE MOISTENED IF DUST IS BEING EMITTED FROM THE PILE(S). ADEQUATELY SECURED TARPS, PLASTIC OR OTHER MATERIAL MAY BE REQUIRED TO FURTHER REDUCE DUST EMISSIONS.

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS

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2600 CAMINO RAMON

SAN RAMON, CA 94583

6812 GODS WAY

LOTUS, CA 95651

= DESCRIPTION: 3

AMP

ALP

90% ZONING DOCUMENTS

95% ZONING DOCUMENTS

100% ZONING DOCUMENTS

: CLIENT: :

PROJECT INFORMATION: =

 $\mathsf{REV} := \mathsf{DATE} :=$ 

8-3-17

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DISCLOSURE OTHER THAN THAT WHICH

COORDINATING ENGINEER:

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12852 Earhart Ave. Suite 101 Auburn, California 95602 Phone (530) 885-6160

E-Mail info@peeksitecom.com

=SEAL:



= SITE #: = = CHK.: = = DRAWN BY: = AMP CVL03054 =SHEET TITLE: =

EROSION CONTROL NOTES

=SHEET NUMBER:=

= REVISION:

GRADING-EROSION SEDIMENT CONTROL NOTES

#### GRADING STANDARDS

- GENERAL. UNLESS OTHERWISE RECOMMENDED IN THE APPROVED SOILS ENGINEERING OR ENGINEERING GEOLOGY REPORT, GRADING ACTIVITIES SHALL CONFORM TO THE PROVISIONS OF THIS SECTION.
- A. CUT SLOPE. THE SLOPE OF CUT SURFACES SHALL BE NO STEEPER THAN IS SAFE FOR THE INTENDED USE AND SHALL BE NO STEEPER THAN 1 UNIT VERTICAL IN 2 UNITS HORIZONTAL (50% SLOPE) UNLESS THE PERMITTEE FURNISHES A SOILS ENGINEERING OR AN ENGINEERING GEOLOGY REPORT, OR BOTH, STATING THAT THE SITE HAS BEEN INVESTIGATED AND GIVING AN OPINION THAT A CUT AT A STEEPER SLOPE WILL BE STABLE AND NOT CREATE A HAZARD TO PROPERTY OR THE ENVIRONMENT.
- B. FILL SLOPE AND PREPARATION
- (1) PREPARATION OF GROUND. THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NON-COMPLYING FILL, TOPSOIL AND OTHER UNSUITABLE MATERIALS SCARIFYING TO PROVIDE A BOND WITH THE NEW FILL
- (2) FILL MATERIAL. AMOUNT OF ORGANIC MATERIAL DETRIMENTAL TO STRUCTURAL INTEGRITY SHALL NOT BE PERMITTED IN FILLS. EXCEPT AS PERMITTED BY THE BUILDING OFFICIAL, NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 12 INCHES (0.31 M) SHALL BE BURIED OR PLACED IN FILLS.
- (3) EXCEPTION. THE BUILDING OFFICIAL MAY PERMIT PLACEMENT OF LARGER ROCK WHEN THE SOILS ENGINEER PROPERLY DEVISES A METHOD OF PLACEMENT, AND CONTINUOUSLY INSPECTS ITS PLACEMENT AND APPROVES THE FILL STABILITY. THE FOLLOWING CONDITIONS SHALL ALSO APPLY:
- (a) PRIOR TO ISSUANCE OF THE GRADING PERMIT, POTENTIAL ROCK DISPOSAL AREAS SHALL BE SHOWN ON THE GRADING PLAN.
- (b) ROCK SIZES GREATER THAN 12 INCHES (0.31 M) IN MAXIMUM
- DIMENSION SHALL BE 10 FEET (3.05 M) OR MORE BELOW GRADE, MEASURED VERTICALLY.
- (c) ROCKS SHALL BE PLACED SO AS TO ASSURE FILLING OF ALL VOIDS WITH WELL-GRADED SOIL.
- (4) COMPACTION. ALL FILLS SHALL BE COMPACTED TO A MINIMUM OF 90
- PERCENT OF MAXIMUM DRY DENSITY WITH SUFFICIENT TESTING FOR DOCUMENTATION OF COMPLIANCE WITH THIS STANDARD.
- (5) SLOPE. THE SLOPE OF FILL SURFACES SHALL BE NO STEEPER THAN IS SAFE FOR THE INTENDED USE. FILL SLOPES SHALL BE NO STEEPER THAN 1 UNIT VERTICAL IN 2 UNITS HORIZONTAL (50% SLOPE).

#### SETBACKS

- a. GENERAL. CUT AND FILL SLOPES SHALL BE SET BACK FROM SITE BOUNDARIES IN
- b. ACCORDANCE WITH THIS SECTION. SETBACK DIMENSIONS SHALL BE HORIZONTAL DISTANCES MEASURED PERPENDICULAR TO THE SITE BOUNDARY.
- c. TOP OF CUT SLOPE. THE TOP OF CUT SLOPES SHALL NOT BE MADE NEARER TO A SITE
- BOUNDARY LINE THAN A MINIMUM OF 2 FEET. THE SETBACK MAY NEED TO BE INCREASED FOR ANY REQUIRED INTERCEPTOR DRAINS.
- d. TOE OF FILL SLOPE. THE TOE OF FILL SLOPE SHALL BE MADE NOT NEARER TO THE SITE BOUNDARY LINE THAN MINIMUM OF 2 FEET. WHERE A FILL SLOPE IS TO BE LOCATED NEAR THE SITE BOUNDARY AND THE ADJACENT OFFSITE PROPERTY IS DEVELOPED, SPECIAL PRECAUTIONS SHALL BE INCORPORATED IN THE WORK AS THE BUILDING OFFICIAL DEEMS NECESSARY TO PROTECT THE ADJOINING PROPERTY FROM DAMAGE AS A RESULT OF SUCH GRADING. THESE PRECAUTIONS MAY INCLUDE BUT ARE NOT LIMITED TO:
- (1) ADDITIONAL SETBACKS.
- (2) PROVISION FOR RETAINING, OR SLOUGH WALLS.
- (3) MECHANICAL OR CHEMICAL TREATMENT OF THE FILL SLOPE SURFACE TO MINIMIZE
- (4) PROVISIONS FOR THE CONTROL OF SURFACE WATERS.
- e. MODIFICATION OF SETBACKS. THE BUILDING OFFICIAL MAY APPROVE ALTERNATE

SETBACKS. THE BUILDING OFFICIAL MAY REQUIRE AN INVESTIGATION AND

RECOMMENDATION BY A QUALIFIED ENGINEER OR ENGINEERING GEOLOGIST TO DEMONSTRATE THAT THE INTENT OF THIS SECTION HAS BEEN SATISFIED.

- 3. MAINTENANCE REQUIRED. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ADEQUATELY MAINTAINING ALL DRAINAGE FACILITIES INSTALLED PURSUANT TO THIS SECTION.
- GRADING INSPECTION
- GENERAL. GRADING OPERATIONS FOR WHICH A PERMIT IS REQUIRED SHALL BE SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL
- B. PERMITTEE. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE WORK TO BE PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE, AND THE PERMITTEE SHALL ENGAGE CONSULTANTS, IF REQUIRED, TO PROVIDE PROFESSIONAL INSPECTIONS ON A TIMELY BASIS. THE PERMITTEE SHALL ACT AS A COORDINATOR BETWEEN THE CONSULTANTS, THE CONTRACTOR AND THE BUILDING OFFICIAL. IN THE EVENT OF CHANGED CONDITIONS, THE PERMITTEE SHALL BE RESPONSIBLE FOR INFORMING THE BUILDING OFFICIAL OF SUCH CHANGE AND SHALL PROVIDE REVISED PLANS FOR APPROVAL
- C. BUILDING OFFICIAL. THE BUILDING OFFICIAL SHALL INSPECT THE PROJECT AT THE VARIOUS STAGES OF WORK REQUIRING APPROVAL TO DETERMINE THAT ADEQUATE CONTROL IS BEING EXERCISED BY THE PROFESSIONAL CONSULTANTS.
- NOTIFICATION OF NONCOMPLIANCE. IF, IN THE COURSE OF FULFILLING THEIR RESPECTIVE DUTIES UNDER THIS CHAPTER, THE CIVIL ENGINEER, THE SOILS ENGINEER OR THE ENGINEERING GEOLOGIST FINDS THAT THE WORK IS NOT BEING DONE IN CONFORMANCE WITH THIS CHAPTER OR THE APPROVED GRADING PLANS. THE DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE PERMITTEE AND TO THE BUILDING OFFICIAL
- TRANSFER OF RESPONSIBILITY. IF THE CIVIL ENGINEER, THE SOILS ENGINEER. OR THE ENGINEERING GEOLOGIST OF RECORD IS CHANGED DURING GRADING, THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT HAS AGREED IN WRITING TO ACCEPT THEIR RESPONSIBILITY WITHIN THE AREA OF TECHNICAL COMPETENCE FOR APPROVAL UPON COMPLETION OF THE WORK, IT SHALL BE THE DUTY OF THE PERMITTEE TO NOTIFY THE BUILDING OFFICIAL IN WRITING OF SUCH CHANGE PRIOR TO THE RE-COMMENCEMENT OF SUCH GRADING.
- EROSION AND SEDIMENTATION CONTROL
- A. ADMINISTRATION
- (1) THE EROSION AND SEDIMENT CONTROL PROVISIONS OF THIS SECTION SHALL BE APPLICABLE TO ALL FACILITIES AND ACTIVITIES UNDER THE SUPERVISION OF THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS.
- (2) THE ADMINISTRATION OF THIS SECTION, AS IT AFFECTS COUNTY FACILITIES AND ACTIVITIES, IS THE RESPONSIBILITY OF THE DIRECTOR OF THE DEPARTMENT OF PUBLIC
- (3) THE ADMINISTRATION OF THIS SECTION AS IT AFFECTS OTHER BUILDING, GRADING, AND RELATED ACTIVITIES IS THE RESPONSIBILITY OF THE CHIEF BUILDING OFFICIAL. (4) ANY SOILS OR GEOLOGIC REPORTS PREPARED FOR ANY PROJECT WHERE A GRADING PERMIT IS SUBMITTED AS A PART OF A TENTATIVE SUBDIVISION MAP APPLICATION,
- EROSION AND SEDIMENTATION CONTROL. THESE MINIMUM EROSION AND SEDIMENTATION CONTROL STANDARDS SHALL APPLY TO ALL PROJECTS REQUIRING BUILDING, GRADING, AND DEVELOPMENT PERMITS, AND COUNTY OF MENDOCINO PUBLIC WORKS ACTIVITIES, TO PREVENT SEDIMENTATION OR DAMAGE TO ONSITE AND OFFSITE PROPERTY. THESE STANDARDS SHALL BE INCORPORATED INTO THE PROJECT DESIGN AND SHALL BE ADHERED TO DURING PROJECT CONSTRUCTION:

#### (1) GENERAL GUIDELINES

(a) MINIMIZE SOIL EXPOSURE DURING THE RAINY SEASON BY PROPER TIMING OF GRADING AND CONSTRUCTION.

OR RELATED ENVIRONMENTAL DOCUMENT, SHALL BE PLACED IN THE RECORDS OF THE CHIEF BUILDING OFFICIAL.

- (b) RETAIN TREES AND NATURAL VEGETATION TO STABILIZE HILLSIDES, RETAIN MOISTURE, REDUCE EROSION, MINIMIZE SILTATION AND NUTRIENT RUNOFF AND PRESERVE SCENIC QUALITIES.
- (c) VEGETATE AND MULCH DENUDED AREAS TO PROTECT THEM FROM WINTER RAINS.
- (d) DIVERT RUNOFF AWAY FROM STEEP, DENUDED SLOPES OR OTHER CRITICAL AREAS WITH BARRIERS, BERMS, DITCHES OR OTHER FACILITIES.
- (e) LIMIT CONSTRUCTION, CLEARING OF VEGETATION AND DISTURBANCE OF THE SOIL TO AREAS OF PROVEN STABILITY. MITIGATE GEOLOGIC HAZARDS AND ADVERSE SOIL CONDITIONS WHEN THEY ARE ENCOUNTERED.
- (f) REDUCE SEDIMENT TRANSPORT OFF THE SITE TO THE MAXIMUM EXTENT FEASIBLE THROUGH THE USE OF BEST MANAGEMENT PRACTICES (BMPS).

- (g) PROPOSE A NEW OR MODIFIED EROSION AND SEDIMENT CONTROL TECHNIQUE IF THE TECHNIQUE IS PREFERRED AND MEETS THE INTENT OF THESE REGULATIONS. OBTAIN APPROVAL FROM THE COUNTY PRIOR TO IMPLEMENTATION.
- (h) CONDUCT FREQUENT SITE INSPECTIONS TO ENSURE THAT CONTROL MEASURES ARE WORKING PROPERLY AND TO CORRECT PROBLEMS AS NEEDED.
- (i) EMPLOY OTHER MEANS OF EROSION AND SEDIMENT CONTROL AS REQUIRED BY THE CHIEF BUILDING OFFICIAL OR DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AS APPLICABLE.

#### (2) SEDIMENT CONTROL

- (a) USE SEDIMENT BASINS, SILT TRAPS, OR SIMILAR MEASURE TO RETAIN SEDIMENT TRANSPORTED BY RUNOFF WATER ONSITE.
- (b) COLLECT AND DIRECT SURFACE RUNOFF AT NON-EROSIVE VELOCITIES TO THE COMMON NATURAL WATERCOURSE OF THE DRAINAGE AREA.
- (c) AVOID CONCENTRATING SURFACE WATER ANYWHERE EXCEPT SWALES OR WATERCOURSES.
- (d) PREVENT MUD FROM BEING TRACKED ONTO THE PUBLIC ROADWAY BY TRAVELING OVER A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE OR WASHING OFF VEHICLE TIRES BEFORE ENTERING A PUBLIC OR PRIVATE DRIVEWAY.

#### (3) SLOPE CONSTRUCTION

- (a) MINIMIZE LENGTH AND STEEPNESS OF SLOPES BY BENCHING, TERRACING OR CONSTRUCTING DIVERSION STRUCTURES.
- (b) PRESERVE, MATCH, OR BLEND CUTS AND FILLS WITH THE NATURAL CONTOURS AND UNDULATIONS OF THE LAND.
- (c) ROUND SHARP ANGLES AT THE TOP AND SIDES OF CUT AND FILL SLOPES.
- (d) MAINTAIN CUT AND FILL SLOPES AT LESS THAN TWO-TO-ONE (2:1, RUN: RISE) SLOPE UNLESS A GEOLOGICAL AND ENGINEERING ANALYSIS INDICATES THAT STEEPER SLOPES ARE SAFE AND EROSION AND SEDIMENT CONTROL MEASURES CAN SUCCESSFULLY PREVENT EROSION.

#### (4) PROTECTION OF WATERCOURSES AND DRAINAGE INLETS

- (a) PREPARE DRAINAGEWAYS TO HANDLE CONCENTRATED OR INCREASED RUNOFF FROM DISTURBED AREAS BY USING APPROPRIATE LINING MATERIALS OR ENERGY ABSORBING DEVICES TO REDUCE THE VELOCITY OF RUNOFF WATER.
- (b) TRAP SEDIMENT-LADEN RUNOFF IN BASINS TO ALLOW SOIL PARTICLES TO SETTLE OUT BEFORE FLOWS ARE RELEASED TO RECEIVING WATERS, STORM DRAINS, STREETS OR ADJACENT PROPERTY. THIS STANDARD IS NOT MANDATORY FOR GRADING THE SITE IS FULLY WINTERIZED AND STABILIZED PRIOR TO AND WHEN CONDUCTED BETWEEN APRIL 15 AND OCTOBER 15 OCTOBER 15. REMOVE TRAPPED SEDIMENT TO A SUITABLE LOCATION ON-SITE OR AT A DISPOSAL SITE APPROVED BY THE COUNTY.
- (c) DO NOT GRADE OR DRIVE EQUIPMENT IN A STREAMSIDE MANAGEMENT OR OTHER WET AREAS EXCEPT AS ALLOWED THROUGH THE COUNTY STREAMSIDE MANAGEMENT AREA ORDINANCE.
- (d) DEPOSIT OR STORE EXCAVATED MATERIALS AWAY FROM WATERCOURSES.
- (e) PROTECT ALL EXISTING OR NEWLY INSTALLED STORM DRAINAGE STRUCTURES FROM SEDIMENT CLOGGING.
- (f) (F) USE STRAW BALES, FILTER FABRIC WRAPS AND DRAINAGE INLET PROTECTIONS IN A MANNER THAT DOES NOT CAUSE ADDITIONAL EROSION OR FLOODING OF A ROADWAY.

#### (5) DISPOSAL OF EXCAVATED MATERIALS

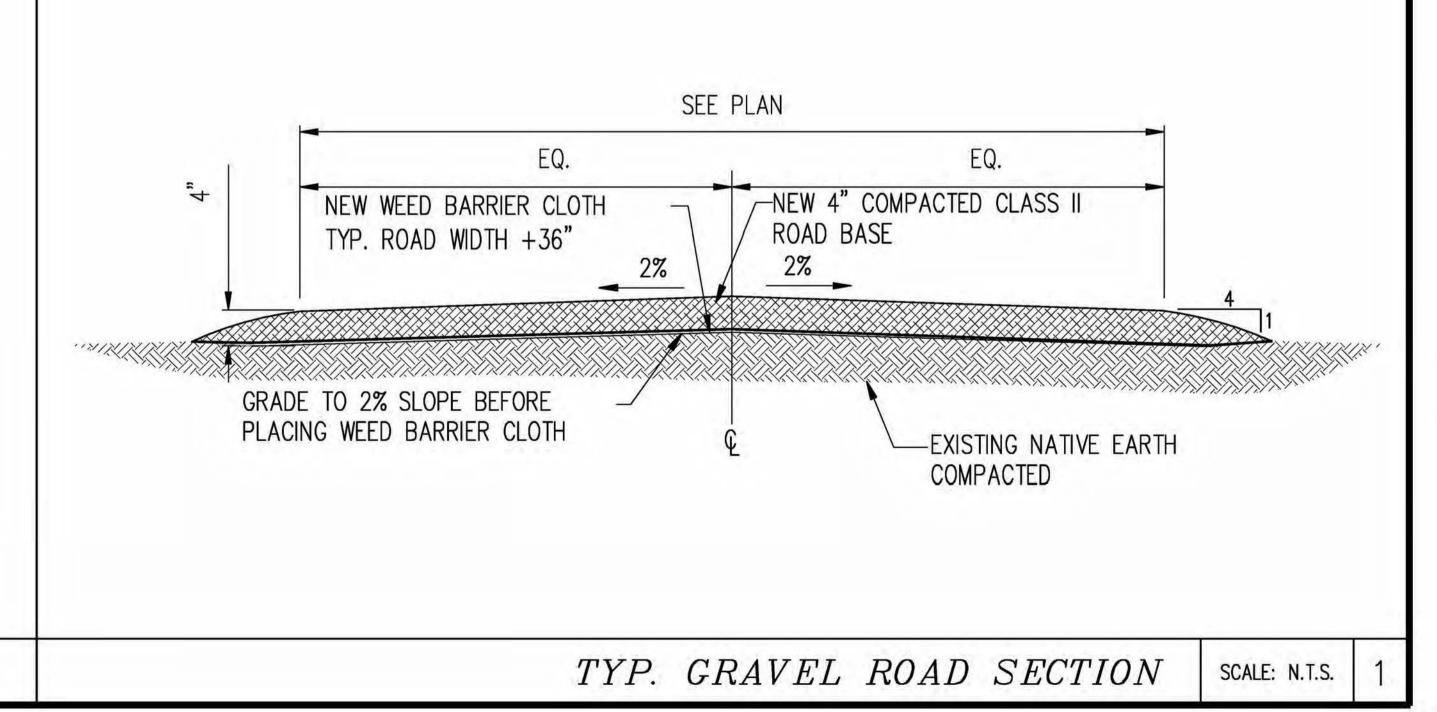
- (a) STOCKPILE TOPSOIL ON THE SITE FOR USE ON AREAS TO BE REVEGETATED.
- (b) PLACE STOCKPILED SOIL IN LOCATIONS, SO THAT IF EROSION OCCURS, IT WILL NOT CONTRIBUTE TO OFFSITE SEDIMENT DISCHARGE.
- (c) PROTECT STOCKPILED SOIL PROMPTLY THROUGH THE USE OF APPROPRIATE BMPS TO REDUCE THE RISK OF EROSION AND SEDIMENT TRANSPORT. APPLY MULCH OR OTHER PROTECTIVE COVERINGS ON STOCKPILED MATERIAL THAT WILL BE EXPOSED THROUGH THE WINTER SEASON.
- (d) DISPOSE OF EXCAVATED MATERIAL NOT USED AT THE SITE AT A LOCATION APPROVED BY THE COUNTY

#### (6) DUST CONTROL

- (a) ALL CONSTRUCTION AREAS, INCLUDING DISPOSAL SITES, SHALL BE TREATED AND MAINTAINED AS NECESSARY TO MINIMIZE THE EMISSION OF DUST. MAINTENANCE SHALL BE CONDUCTED AS NECESSARY TO PREVENT A NUISANCE TO OFFSITE PROPERTIES.
- (b) ALL CONSTRUCTION SITES, INCLUDING DRIVEWAYS, SHALL BE MAINTAINED AS NECESSARY TO MINIMIZE THE EMISSION OF DUST AND PREVENT THE CREATION OF A NUISANCE TO ADJACENT PROPERTIES.

#### (7) REVEGETATION

- (a) APPLY TEMPORARY SEEDING AND MULCHING TO DENUDED AREAS PRIOR TO OCTOBER 15 UNLESS THE PROJECT IS CONDITIONED OTHERWISE.
- (b) ESTABLISH A PERMANENT VEGETATIVE COVER ON DENUDED AREAS NOT OTHERWISE STABILIZED. PERMANENT VEGETATION GROUND COVER MUST CONTROL SOIL EROSION SATISFACTORILY AND SURVIVE SEVERE WEATHER CONDITIONS.
- (c) RETAIN A VEGETATIVE BARRIER WHENEVER POSSIBLE AROUND PROPERTY BOUNDARIES.
- (d) USE SELF-SUSTAINING, NON-INVASIVE PLANTS THAT REQUIRE LITTLE OR NO MAINTENANCE AND DO NOT CREATE AN EXTREME FIRE HAZARD.
- (e) USE NATIVE PLANT SPECIES WHENEVER FEASIBLE.



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2600 CAMINO RAMON SAN RAMON, CA 94583

= PROJECT INFORMATION::

GOLD HILL 6812 GODS WAY LOTUS, CA 95651

REV: = DATE: == DESCRIPTION: 3 6-5-17 90% ZONING DOCUMENTS AMP 8-3-17 | 95% ZONING DOCUMENTS 8-9-17 | 100% ZONING DOCUMENTS = COORDINATING ENGINEER:

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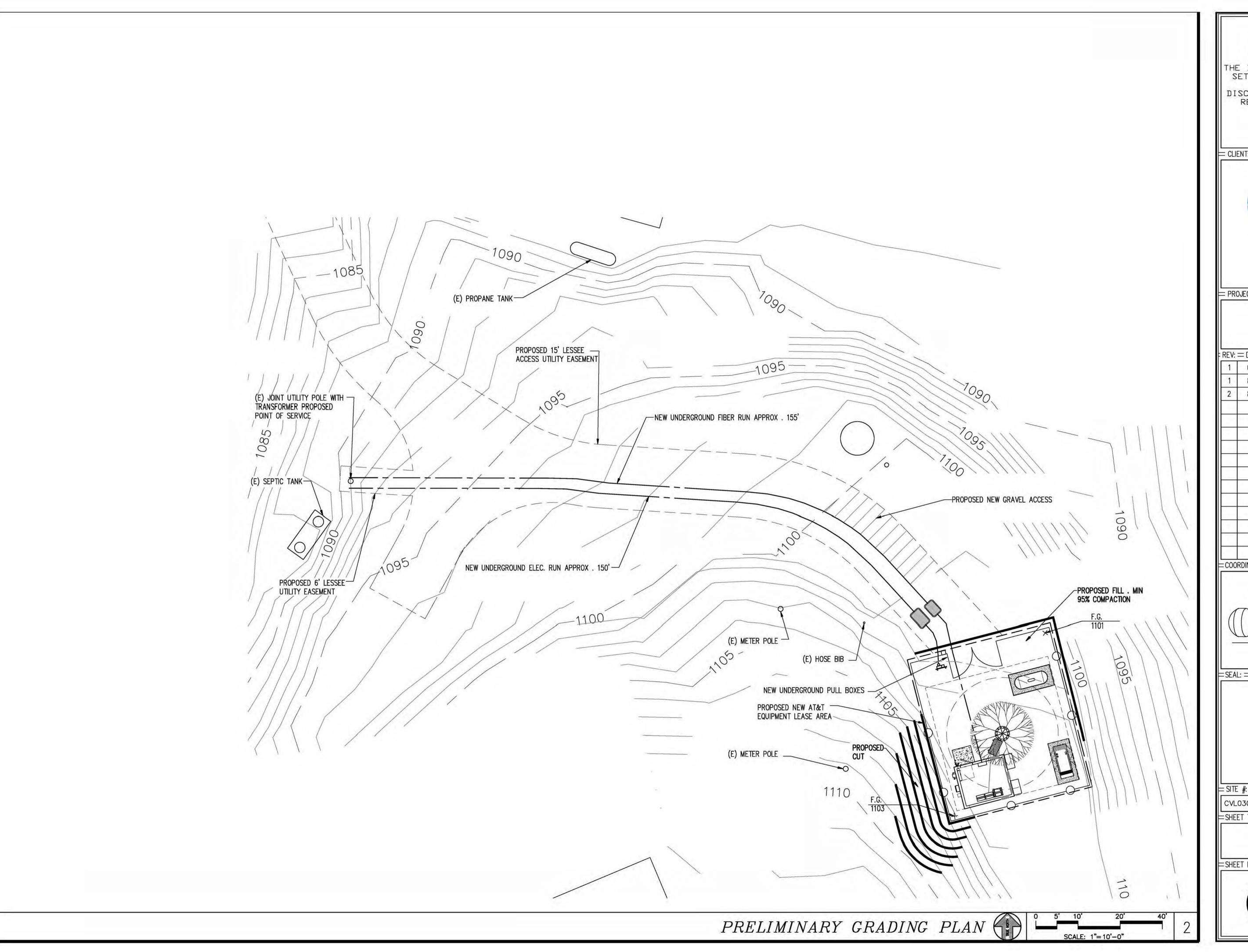


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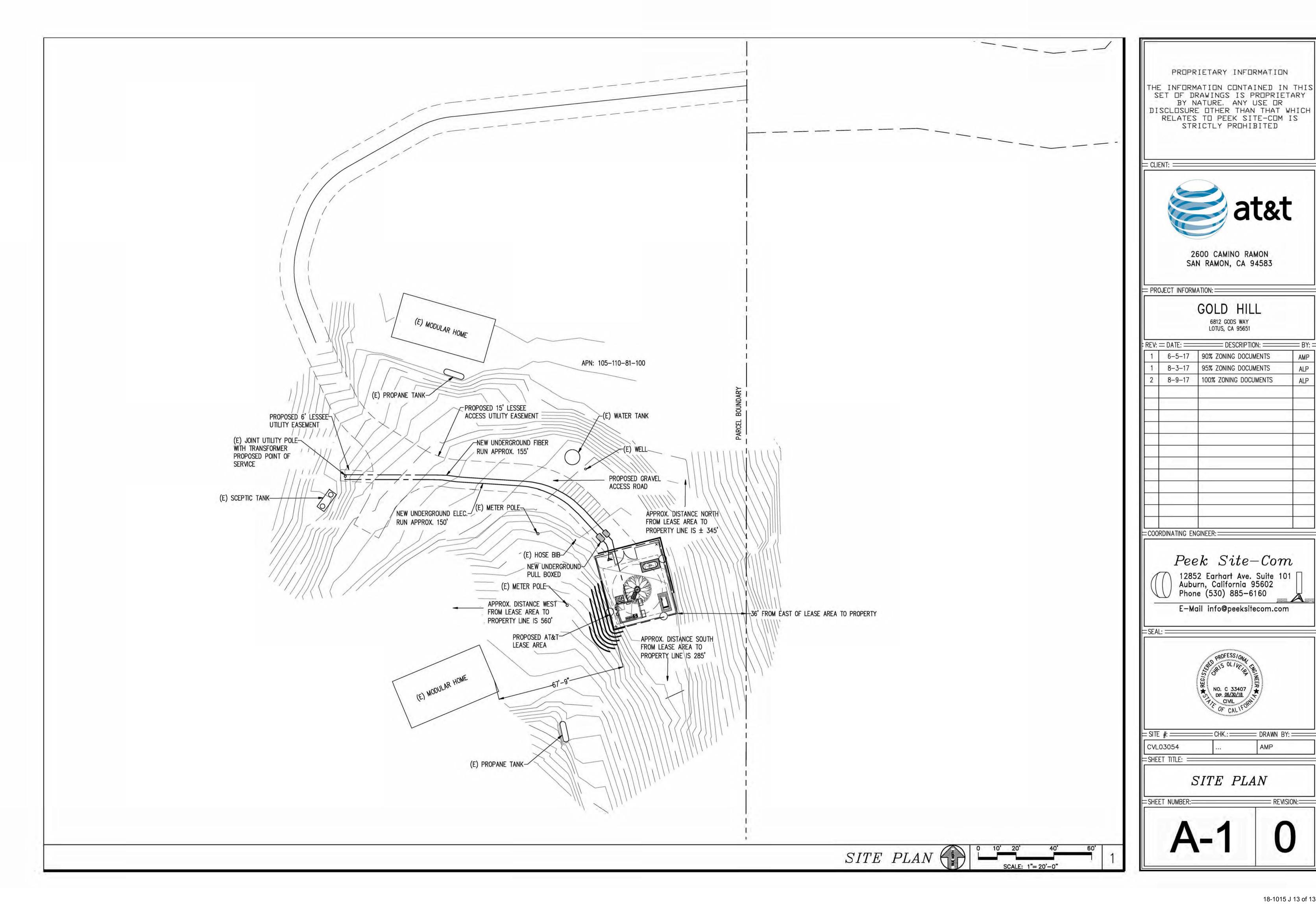
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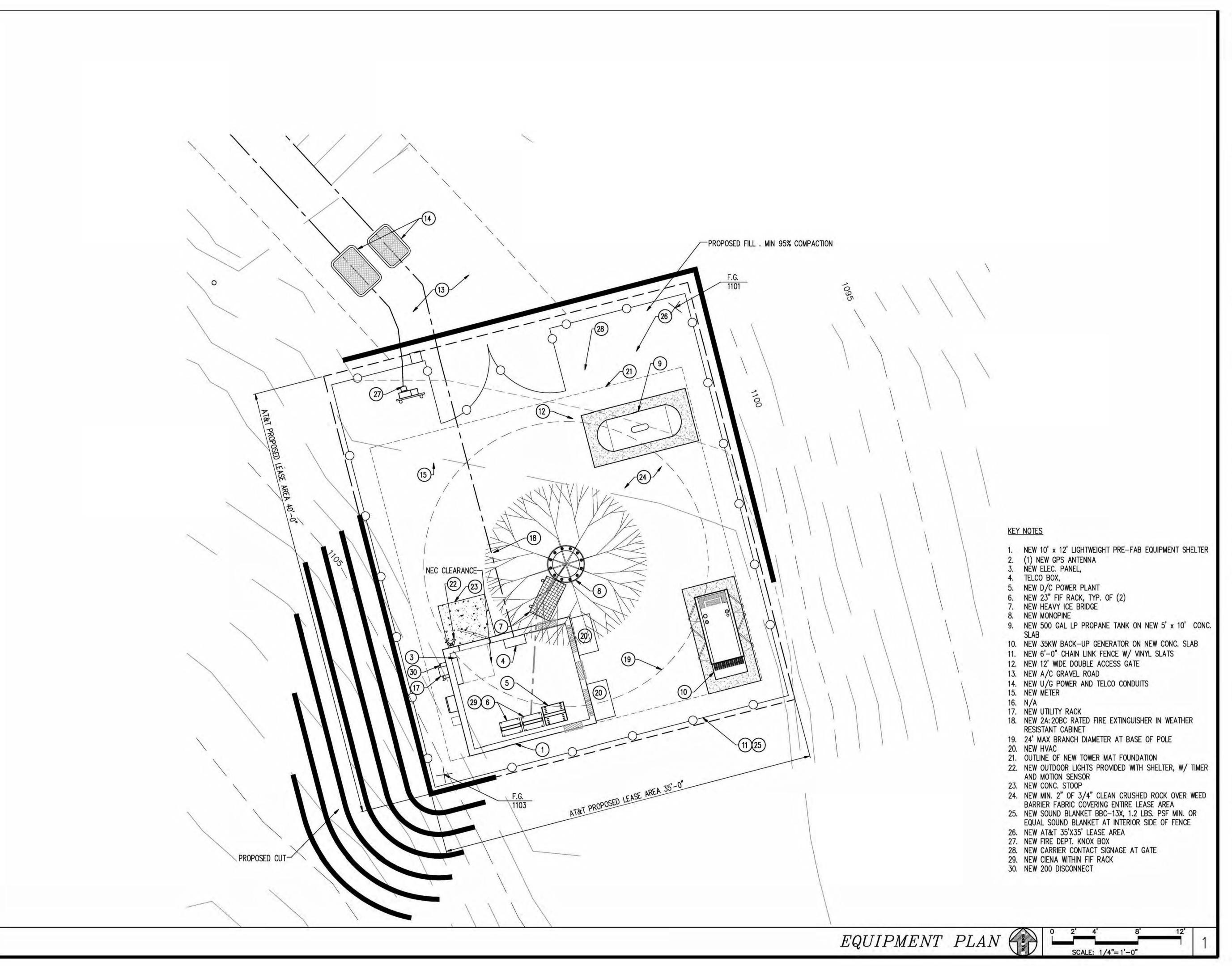
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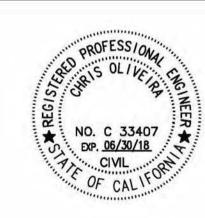
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#### RF SCHEDULE RAD CENTER PHYSICAL SECTOR/POS. ANTENNA MODEL FIBER LENGTH COAX LENGTH COAX DIA. TMA (1) RRUS-11 & (1) RRUS-32 B2 QS6656-3 ± 110' N/A ± N/A N/A 90. ± 150' ± 110' QS6656-3 90. (1) RRUS-11 N/A N/A ± 150' ± N/A (1) RRUS-11 & (1) RRUS-32 B66 N/A HBSAM65R-KU-H6 ± 100' ± N/A ± 150' HBSAM65R-KU-H6 ± 100' (1) RRUS-32 B30 N/A ± 150' ± N/A N/A ± N/A (1) RRUS-11 & (1) RRUS-32 B2 N/A N/A QS6656-3 330° ± 110' ± 150' = CLIENT: = QS6656-3 B/2 ± 110' 330 N/A ± 150' N/A (1) RRUS-11 ± N/A (1) RRUS-11 & (1) RRUS-32 B66 HBSAM65R-KU-H6 ± 100' N/A N/A ± 150' ± N/A B/4 ± 100' 330 (1) RRUS-32 B30 N/A ± 150' ± N/A HBSAM65R-KU-H6 (1) RRUS-11 & (1) RRUS-32 B2 ± 110' ± N/A QS6656-3 210 N/A ± 150' ± 110' 210 N/A ± N/A QS6656-3 (1) RRUS-11 ± 150' HBSAM65R-KU-H6 (1) RRUS-11 & (1) RRUS-32 B66 ± 100' ± N/A N/A N/A ± 150' ± 100' ± 150' ± N/A HBSAM65R-KU-H6 210 (1) RRUS-32 B30 N/A N/A PROJECT INFORMATION: = RF SCHEDULESCALE: N.T.S. - OUTLINE OF 6' MONOPINEBRANCHES SECTOR B REV: = DATE: == - NEW ANTENNA NEW RRUS-11 - NEW ANTENNA NEW ANTENNA -NEW RRUS-32 -AZ=90° SECTOR A NEW RRUS-32 -NEW RRUS-11-- NEW ANTENNA NEW ANTENNA COORDINATING ENGINEER: NEW MONOPOLE 3-SECTOR -T-ARM KIT, SITE PRO MODEL# RMV5-272 OR EQUAL SECTOR C RAD CENTER ± 110' OUTLINE OF 6' MONOPINEBRANCHES SECTOR B OUTLINE OF 6' MONOPINEBRANCHES STANDOFF ARM, SITE PRO -MODEL # MMO2, TYP. OF (4) - NEW SURGE NEW RRUS-32 -SUPPRESSOR =SEAL: - NEW ANTENNA NEW RRUS-11 → NEW ANTENNA -BACK TO BACK PIPE MOUNT NEW RRUS-32 KIT, SITE PRO MODEL # BBPM-K1, TYP. OF (4) - NEW RRUS-32 T.N. SECTOR A NEW RRUS-11 NEW RRUS-32 -**BOTTOM VIEW** RRU PIPE, SITE PRO MODEL NEW RRUS-11-**BOTTOM VIEW** # P263, TYP. OF (12) CCI HBSAM65R-KU-H6 QUINTEL QS6656-3 NEW RRUS-32 -- NEW ANTENNA = SITE #: = NEW D/C POWER -

& FIBER TRUNKS

NEW RRUS-11

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SIDE VIEW

ANTENNA DETAIL

SIDE VIEW

FRONT VIEW

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FRONT VIEW

SCALE: N.T.S.

- FUTURE RRU

- FUTURE RRU

TYP. OF (3)

NEW RRUS COLLAR MOUNT TO BE MOUNTED DIRECTLY UNDER ANTENNA ARRAY

- NEW SURGE SUPPRESSOR,

─ QUAD UNIVERSAL RING MOUNT, SITE PRO MODEL # UQB4

NEW ANTENNA

SECTOR C RAD CENTER ± 100'

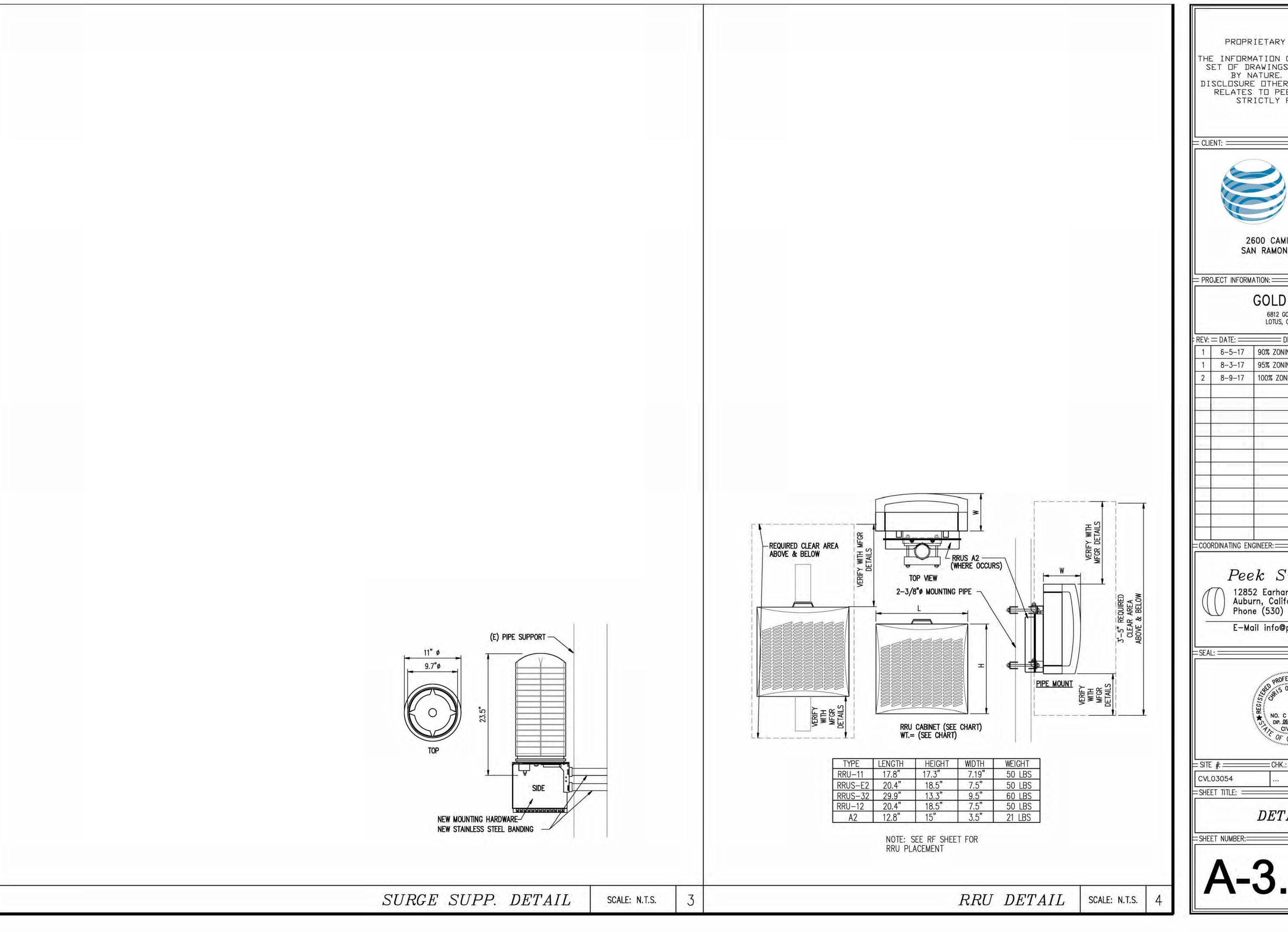
ANTENNA PLAN

NEW MONOPOLE 3-SECTOR T-ARM KIT, SITE PRO MODEL# RMV5-272 OR EQUAL

-NEW ANTENNA

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

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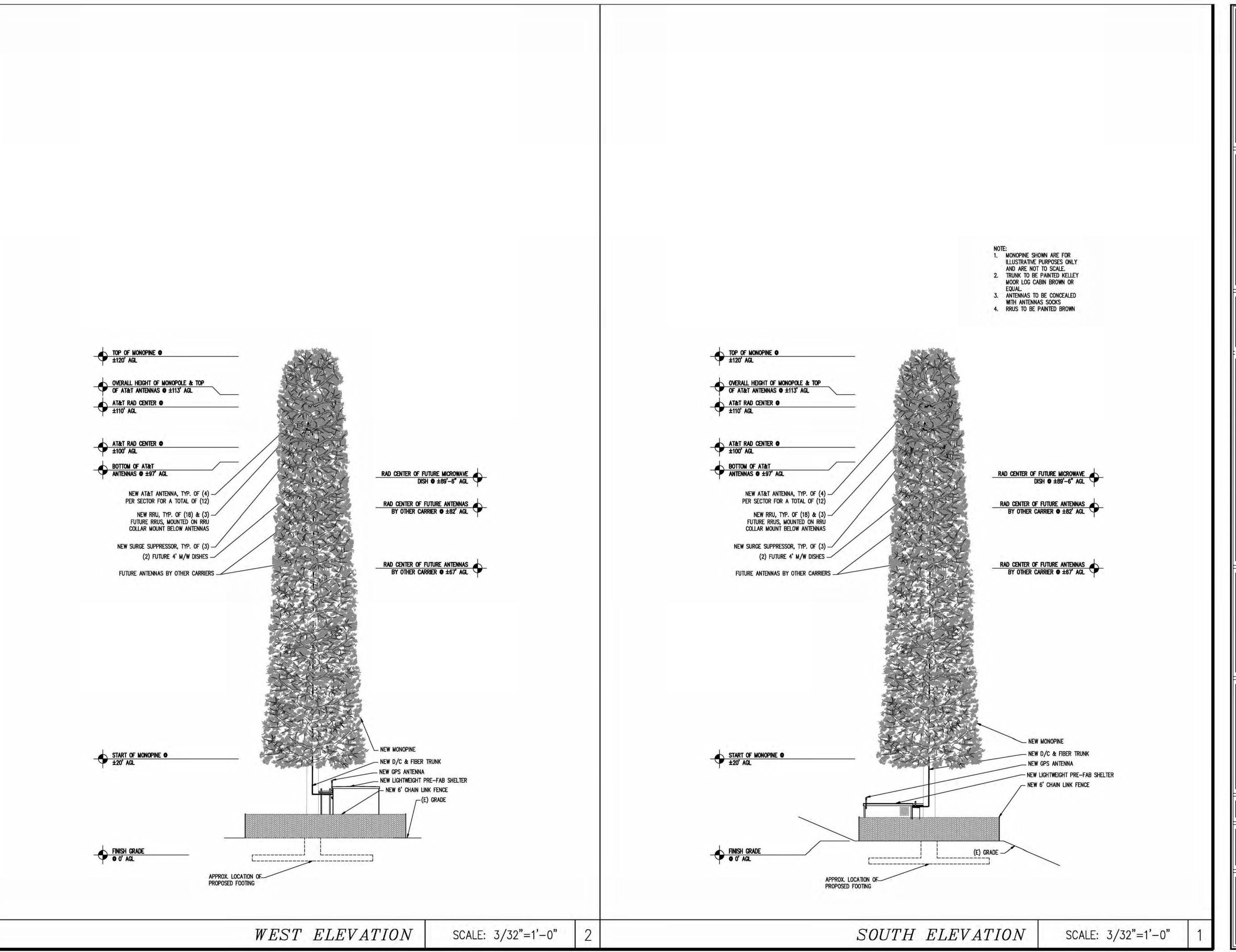
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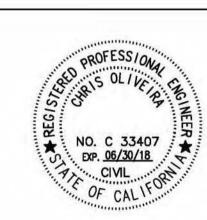
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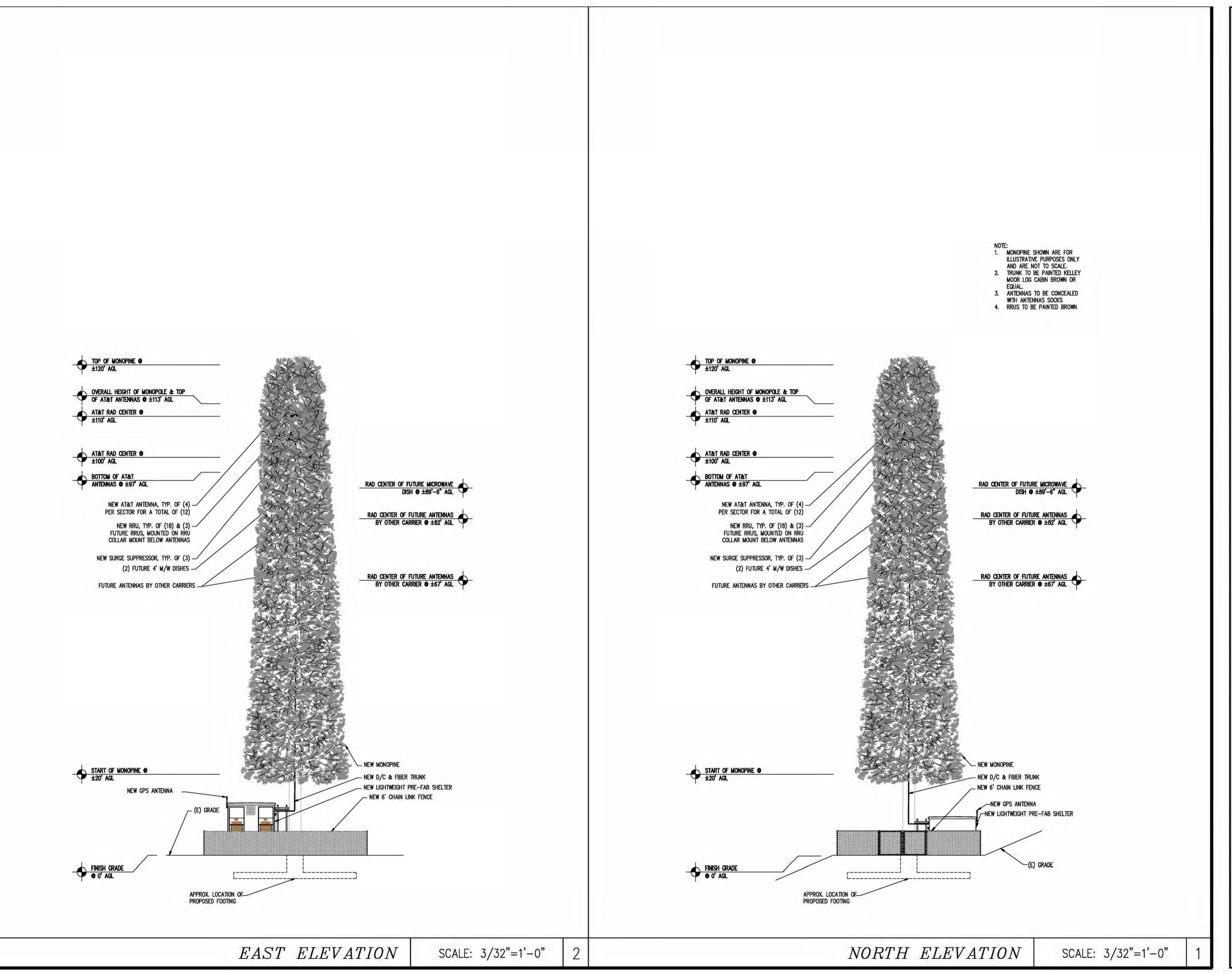
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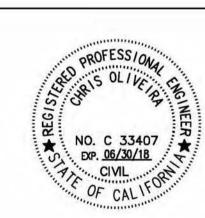
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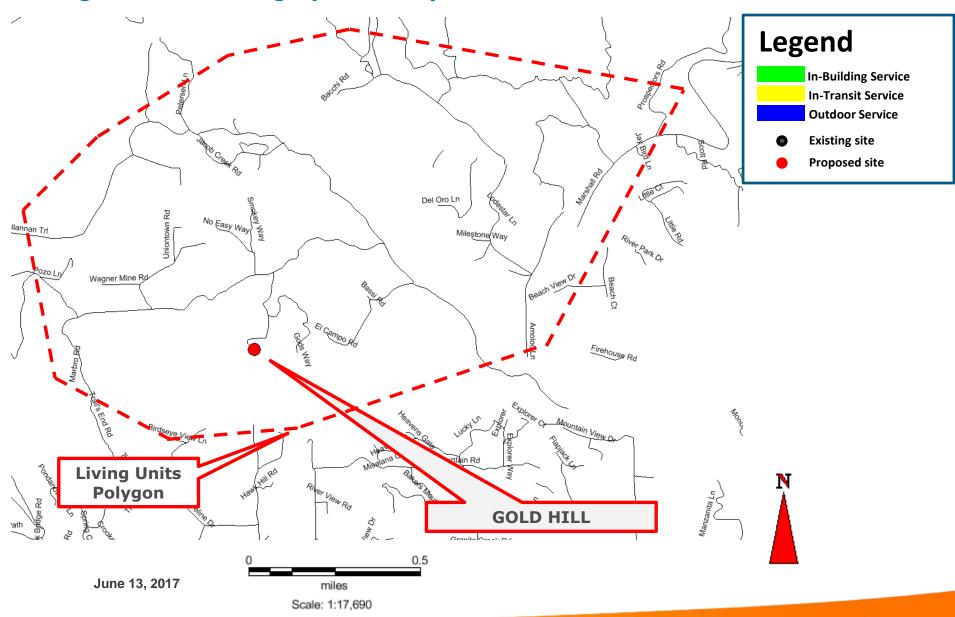
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# **CVL03054 Zoning Propagation Map** June 13, 2017 **Exhibit H**

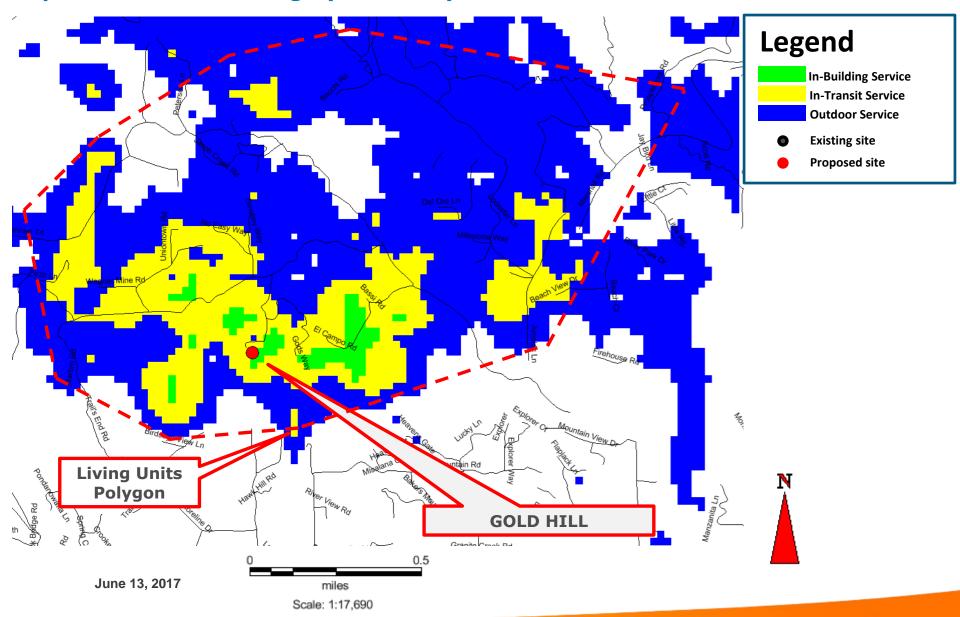
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Site 7 Gold Hill

#### **Existing LTE 700 Coverage (RC = 108')**



#### **Proposed LTE 700 Coverage (RC = 108')**





Radio Frequency Emissions Compliance Report For AT&T Mobility

Site Name: Gold Hill Site Structure Type: Monopine Address: 6812 Gods Way Latitude: 38.802398

Lotus, CA Longitude: -120.937291

Report Date: August 17, 2017 Project: New Build

#### **General Summary**

AT&T Mobility has contracted Waterford Consultants, LLC to conduct a Radio Frequency Electromagnetic Compliance assessment of the proposed Gold Hill site located at 6812 Gods Way, Lotus, CA. This report contains information about the radio telecommunications equipment to be installed at this site and the surrounding environment with regard to RF Hazard compliance. This assessment is based on installation designs and operational parameters provided by AT&T Mobility.

The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure ("MPE") limits. At any location at this site, the power density resulting from each transmitter may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, the FCC General Population limit is considered to be a level that is safe for continuous exposure time. The FCC General Population limit is 5 times more restrictive than the Occupational limits.

	Limits for General Population/ Uncontrolled Exposure		Limits for Occupational/ Controlled Exposure		
Frequency (MHz)	Power Density (mW/cm²)	Averaging Time (minutes)	Power Density (mW/cm²)	Averaging Time (minutes)	
30-300	0.2	30	1	6	
300-1500	f/1500	30	f/300	6	
1500-100,000	1.0	30	5.0	6	

f=Frequency (MHz)

In situations where the predicted MPE exceeds the General Population threshold in an accessible area as a result of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

## Exhibit I Site 7 Gold Hill

Based on the computational guidelines set forth in FCC OET Bulletin 65, Waterford Consultants, LLC has developed software to predict the overall Maximum Permissible Exposure possible at any particular location given the spatial orientation and operating parameters of multiple RF sources. These theoretical results represent worst-case predictions as emitters are assumed to be operating at 100% duty cycle.

For any area in excess of 100% General Population MPE, access controls with appropriate RF alerting signage must be put in place and maintained to restrict access to authorized personnel. Signage must be posted to be visible upon approach from any direction to provide notification of potential conditions within these areas. Subject to other site security requirements, occupational personnel should be trained in RF safety and equipped with personal protective equipment (e.g. RF personal monitor) designed for safe work in the vicinity of RF emitters. Controls such as physical barriers to entry imposed by locked doors, hatches and ladders or other access control mechanisms may be supplemented by alarms that alert the individual and notify site management of a breach in access control. Waterford Consultants, LLC recommends that any work activity in these designated areas or in front of any transmitting antennas be coordinated with all wireless tenants.

#### **Analysis**

AT&T Mobility proposes the following installation at this location:

- Install twelve (12) new panel antennas
- Install nine (9) new RRUS-11 Remote Radio Head units
- Install nine (9) new RRUS-32 Remote Radio Head units

The antennas will be mounted on a 113-foot monopole with centerlines at 100 and 110 feet above ground level. The antennas will be oriented toward 90, 330 and 210 degrees. The Effective Radiated Power (ERP) in any direction from all AT&T Mobility operations will not exceed 26,557 Watts. Other appurtenances such as GPS antennas, RRUs and hybrid cable are not sources of RF emissions. From this site, AT&T Mobility will enhance voice and data services to surrounding areas in licensed 700, 850, 1900, 2100 and 2300 MHz bands. No other antennas are known to be operating in the vicinity of this site.

Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serve to reduce the potential to exceed MPE limits at any location other than directly in front of the antennas. For accessible areas at ground level, the maximum predicted power density level resulting from all AT&T Mobility operations is 0.5265% of the FCC General Population limits (0.1053% of the FCC Occupational limits). Incident at adjacent buildings depicted in Figure 1, the maximum predicted power density level resulting from all AT&T Mobility operations is 0.6315% of the FCC General Population limits (0.1263% of the FCC Occupational limits). The proposed operation will not expose members of the General Public to hazardous levels of RF energy.

Waterford Consultants, LLC recommends posting contact information signage at the gate that informs personnel entering the site of basic precautions to be followed when working around antennas. RF alerting signage (Warning) should be posted at the base of the proposed Monopine to inform authorized climbers of potential conditions near the antennas. These recommendations are depicted in Figure 2.



Figure 1: Antenna Locations

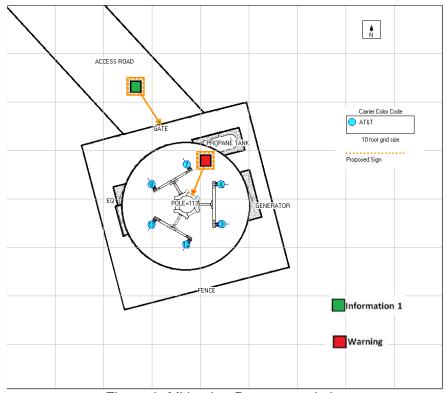


Figure 2: Mitigation Recommendations

#### **Compliance Statement**

Based on information provided by AT&T Mobility and predictive modeling, the installation proposed by AT&T Mobility at 6812 Gods Way, Lotus, CA will be compliant with Radiofrequency Radiation Exposure Limits of 47 C.F.R. § 1.1307(b)(3) and 1.1310. RF alerting signage and restricting access to the Monopine to authorized climbers that have completed RF safety training is required for Occupational environment compliance.

#### Certification

I, David H. Kiser, am the reviewer and approver of this report and am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC's OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.







#### **PROJECT SUPPORT STATEMENT**

AT&T PROJECT NAME: CONNECT AMERICA FUND II (CAF II) PROJECT

**DEVELOPMENT APPLICATION FOR AT&T SITE "GOLD HILL"** 

**AT&T SITE NUMBER: CVL03054** 

**AUTHORIZED AGENT:** 

**EPIC WIRELESS GROUP, LLC** 

**ZONING MANAGER:** 

JARED KEARSLEY; 916-755-1326; jared.kearsley@epicwireless.net

PROPERTY OWNER: ANNE AND ROGER STROUD, KATHLEEN OCONNOR

**LANDOWNER CONTACT: 530-626-4209** 

APN: 105-110-81-100

6812 Gods Way, Lotus, CA 95651

- PROJECT'S BACKGROUND AND OBJECTIVES
- SEARCH RING'S DESCRIPTION AND OBJECTIVES
- POTENTIAL CO-LOCATIONS
- ALTERNATIVE SITE ANALYSIS
- SUBJECT PARCEL AND SITE DETAILS AND SUPPORTING DOCUMENTS
- OPERATIONAL STATEMENT
- FIRE SUPPRESSION SYSTEM
- OTHER CONSIDERATIONS RELATING TO NEW WIRELESS TELECOMMUNICATION FACILITIES PURSUANT TO 17.14.210 AND 17.22.500 OF THE EL DORADO COUNTY ZONING CODE

Exhibit J Site 7 Gold Hill





#### **Project Background and objectives:**

AT&T is participating in a Federal Government funded project called Connect America Fund (CAF) – which is to provide underserved areas throughout the United States in general and throughout El Dorado County in particular with hi-speed broadband internet. The build-up of hi-speed broadband internet throughout rural/underserved areas will not only drive economic growth in rural America, but will expand the online marketplace nationwide, creating jobs, educational and businesses opportunities across the country. The CAF project is required to provide broadband internet services capable of 10 Mbps download and 1 Mbps upload speeds.

AT&T has the necessary technology that allows them to build out their territory in El Dorado County with the much demanded hi-speed broadband internet to help improve the county's rural infrastructure. AT&T's basis for transmitting and receiving hi-speed broadband internet to residences is executed by providing one site with either a microwave fiber hop or a direct fiber line to the site and transferring the high speeds of fiber to each Living Unit (LU) via wireless signals. Each LU being provided with the service will have a small square antenna located in a vantage point on the property where it has a direct line of site to the tower. The square antenna will send and receive wireless broadband internet providing the LU with a minimum of 10/1 Mbps download and upload speeds, respectively.

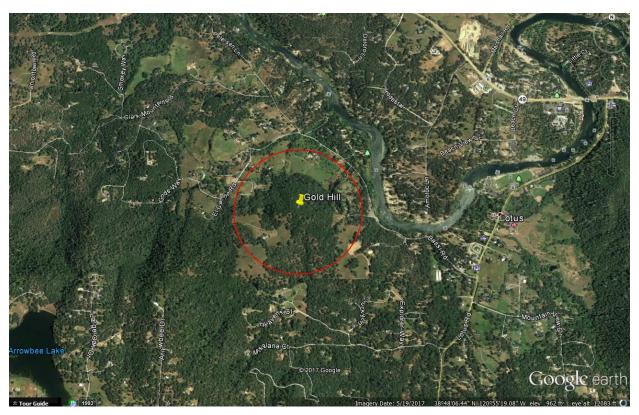
AT&T's secondary objective is to provide and enhance AT&T's Wireless Telecommunications services (cellular services) to underserved areas. Cellular services go hand in hand with building the internet infrastructure throughout these underserved areas. People today rely on their mobile devices not only for educational and business purposes, but also for emergency services. Increasing AT&T's cellular coverage and capacity throughout El Dorado County's rural areas while providing wireless broadband internet will greatly assist with enhancing the county's economic growth and the area's infrastructure.

Given the need for direct line of site to residences, a taller than typical tower will be necessary in order to provide wireless broadband internet services to as many homes in the targeted areas as possible. During the tower design phase, the Radio Frequency (RF) engineer study many variables including surrounding tree heights, tree densities, population densities, and surrounding hill tops, in order to properly design a sufficient tower height with the goal of achieving the FCC's track census block mandates of reaching specific LU coverage objectives per area. Living Unit (LU) coverage objectives are provided by the RF engineer using density maps and are based on the area's approximate population. AT&T's goal is not only to reach the coverage objective, but to outperform the coverage objective to ensure that the maximum amount of homes are being provided this service while taking into consideration a small margin of error during the simulation process.





#### **Search Ring's Description and Objectives:**



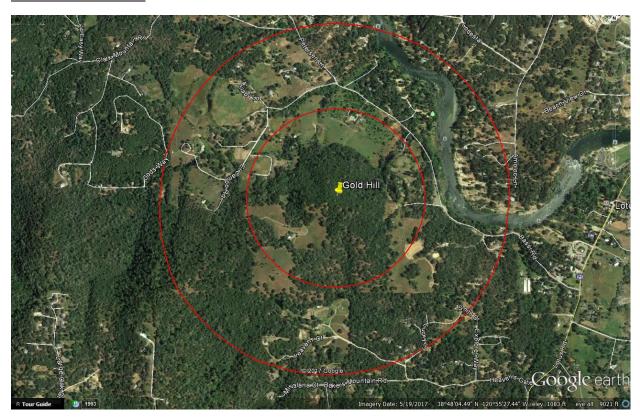
AT&T Mobility is proposing to build and maintain an unmanned wireless telecommunication facility consisting of a  $35' \times 40'$  (1,400) square foot enclosed compound (lease area). The compound will include a 112 foot Stealth Monopine tower, one equipment shelter, one 35kw standby propane generator, and one 500 gallon propane tank. This facility will be located at 6812 Gods Way, Lotus, within El Dorado County's jurisdiction in a 10 acre RL-10 zone. The site is approximately 0.5 miles South of Jacobs Creek and the area consists of evergreen trees, and rolling hills with rocky terrain.

AT&T's objective for the Gold Hill site is to provide wireless hi-speed broadband internet and cellular services to the nearby residences. This site is to provide hi-speed internet and enhanced cellular coverage & capacity to the Lotus area, in all directions of the search ring which is a relatively dense underserved area. The site location's elevation is approximately 1,105 feet while the surrounding community's elevation averages around 850 feet, giving the homes within the community great potential for line of site to the tower. After running a coverage simulation at the site location, AT&T is anticipating meeting their FCC objective for this Search Ring.





#### **Potential Co-locations:**



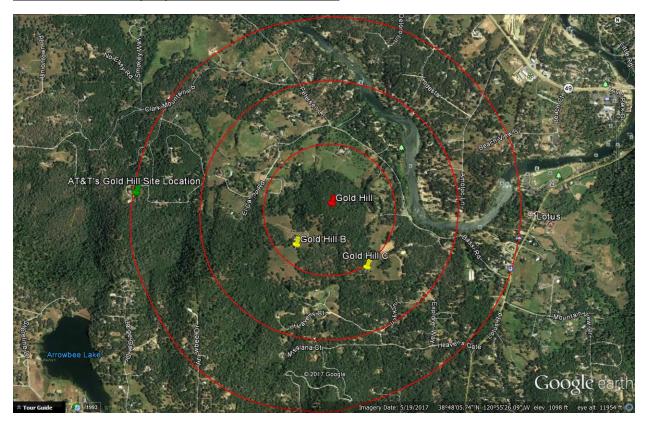
There are no potential Co-location opportunities in the near vicinity of the provided Search Ring. The targeted area is a relatively low populated area, therefore, typical cellular services are less prone to be present.

The nearest wireless facility is located approximately 2.5 miles northeast on a hill top in the Coloma area. The tower is owned by American Tower Co. (ATC) and was designed to cover the Coloma area. The existing ATC tower does not support CAF II coverage for AT&T's targeted area in for their Search Ring Gold Hill.





#### Alternative Site Analysis pursuant to 17.14.210 (B) (1):



Above is a map showing the Search Ring (center is the red pin), Proposed Site (green pin) and the two alternative sites (yellow pins) that were considered for placement of the telecommunications facility. Each Alternative Site is discussed below:





**Gold Hill Alternative Candidate B:** 

1111 El Campo Road, Lotus, CA 95651

Latitude/Longitude: 38.799644, -120.926345

**Proposal – New Tower** 



#### Considerations:

Candidate B is located approximately 1,095 feet south-west of the center of AT&T's search ring. The proposed tower would be located on an 89.52 acre, RE-5 zoned property owned by Charles and Susan Tryson. The property is located at the end of El Campo Road and the site was proposed on the south side of the property. Candidate B was selected as AT&T's third candidate as the site yielded approximately 20% few LU's than the subject property located on Gods Way. The nearest home to the site was approximately 1,100 feet away resulting an a very unobtrusive site location. No oak woodlands were anticipated needing to be removed. The surrounding Land Uses for the area are RR, LDR, and OS. After the initial primary candidate became disqualified, Epic reached out to both the Stroud's on Gods Way and Candidate B, and unfortunately, Candidate B was no longer interested. AT&T found this information permissible given the chosen candidate on God's Way produced 20% more LUs than Candidate B.





#### **Gold Hill Alternative Candidate C:**

105-090-03-100; Placerville, CA 95667 (Property does not have a physical address)

Latitude/Longitude: 38.798162, -120.920812

**Proposal – New Tower** 



#### Considerations:

Candidate C is located approximately 1,460 feet south-east of the center of AT&T's search ring. The proposed tower would be located on a 15.34 acre, RE-5 zoned property owned by Robert and Denise Hansen. The property is located on the south side of Bassie Rd and the site was proposed on the south side of the property. Candidate C was originally chosen as AT&T's primary candidate as the RF Engineer's simulation yielded 6% more LU's than the subject site located at 6812 Gods Way (Subject Parcel). However, the site location was disqualified after further due diligence and found the adjacent dwelling unit's septic system interfered with AT&T's access route. An alternative access route was entertained, however, the cost was too high given the great amount of ground disturbance required for said new access route. For those reasons, the candidate was disqualified indefinitely. The other site's qualities became irrelevant given the site was not feasible any longer.





# Additional alternative sites considered and letters of interest sent out but received either no response by landlords or uninterested landlords included the following parcels:

5500 Bassi Road, Lotus, CA 95651 – APN: 105-080-27; Owner: Edward & Theresa Markie

4890 Heavens Court, Lotus, CA 95651 – APN: 105-150-09; Owner: Greg and Stephanie Spangler

6920 Gods Way, Lotus, CA 95651 – APN: 105-110-60; Owner: Kevin Barchers

1988 Lullaby Lane, Lotus, CA 95651 – APN: 105-080-88; Owner: Danny and Deanna Lulla

4400 Baker Road, Placerville, CA 95667 – APN: 105-150-16; Owner: Thoren and Anna Tivol





#### **Actual View of the Proposed Location:**

The proposed lease area is located on the south-east side of the subject property. The site will not interfere with the existing Land Use of the property (RR). Access will be directly off of Gods Way. The site is elevated above the surrounding area and has great potential for line of site to the communities down below the subject parcel. The nearest home to the site location is approximately 470 feet to the east which is substantially below grade of the site location. The next nearest home is approximately 730 feet due northeast and is also substantially below grade of the site. Dense foliage is present between the site location and both residences that will naturally stealth their view to the tower. No Oak Woodlands are required to be removed and no oaks will be significantly impacted. No Special Species or animals will be affected by the installation, per Sycamore Environmental Consultants, Inc.







PARCEL DATA INFORMATION

7/31/2017



#### Assessor's Parcel Number: 105-110-81

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LAND USE DES.	AG DIST.	ECOLOGICAL PRESERVES				RAL				RURAL CENTER		SPECIFIC PLANS	ADOPTED PLAN NAME
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Eligibility Review Required

NOTE: The flood zone information presented here is based solely on data derived from the FEMA Flood Information Rate Maps, and does not include data from any other flood studies.

Ref ID: Gold Hill

# Property Detail Report

#### For Property Located At:

6812 GODS WAY, LOTUS, CA 95651-9719



Owner Information

Owner Name: STROUD ANNE L & A L

6812 GODS WAY, LOTUS CA 95651-9719 H001 Mailing Address:

Vesting Codes: /A/TR

**Location Information** 

Legal Description: RS 30/127/1

EL DORADO, CA APN: 105-110-81-100 County: Census Tract / Block: 309.01 / 1 Alternate APN: 105-110-81-100

Township-Range-Sect: Subdivision: Legal Book/Page: Map Reference:

Tract #: Legal Lot:

School District: Legal Block: EL DORADO UN Market Area: School District Name:

Neighbor Code: Munic/Township:

Owner Transfer Information

Recording/Sale Date: 10/06/2015 / 09/29/2015 Deed Type: TRUSTEE'S DEED(TRANSFER)

1st Mtg Document #: Sale Price:

Document #: 46447

Last Market Sale Information

Recording/Sale Date: 07/21/2006 / 07/11/2006 1st Mtg Amount/Type: \$266,000 / CONV

Sale Price: 1st Mtg Int. Rate/Type: \$512,500 Sale Type: FULL 1st Mtg Document #: 49173 Document #: 2nd Mtg Amount/Type: 49172 **GRANT DEED** 2nd Mtg Int. Rate/Type: Deed Type:

Transfer Document #: Price Per SqFt: \$333.01 Multi/Split Sale:

New Construction:

PLACER TITLE CO. Title Company:

Lender. WASHINGTON MUTUAL BK FA Seller Name: APGAR BOB & DIANA TRUST

Prior Sale Information

Prior Rec/Sale Date: 06/27/2000 / 06/21/2000 Prior Lender: LENDER SELLER Prior 1st Mtg Amt/Type: Prior Sale Price: \$52,000 \$42,000 / CONV

Prior Doc Number: Prior 1st Mtg Rate/Type: 31503 /FIX

**GRANT DEED** Prior Deed Type:

**Property Characteristics** 

Gross Area: Construction: Parking Type: Living Area: 1.539 Garage Area: Heat Type: Tot Adj Area: Garage Capacity: Exterior wall: Above Grade: Parking Spaces: Porch Type: 6 Total Rooms: Basement Area: Patio Type: Bedrooms: 3 Finish Bsmnt Area: Pool: Bath(F/H): 2/ Basement Type: Air Cond:

Year Built / Eff: 2001/2001 Roof Type: Style: Fireplace: Foundation: Quality: GOOD Roof Material: # of Stories: 1.00 Condition: **AVERAGE** 

Other Improvements:

Site Information

MOBILE HOME ON 2.5+ AC Zoning: **RE-10** Acres: 10.06 County Use: (28)

Lot Area: 438.431 Lot Width/Depth: State Use: Land Use: MOBILE HOME Res/Comm Units: 2/ Water Type:

Sewer Type: Site Influence:

Tax Information

Total Value: \$324,500 Assessed Year: 2016 Property Tax: \$3,361.62 Improved %: Tax Area: Land Value: 62% 072036 \$123,500 Improvement Value: \$201,000 Tax Year: 2016 Tax Exemption: **HOMEOWNER** 

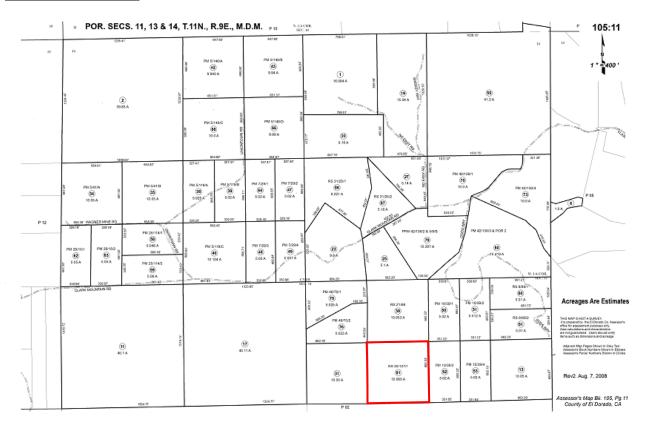
Total Taxable Value: \$317,500

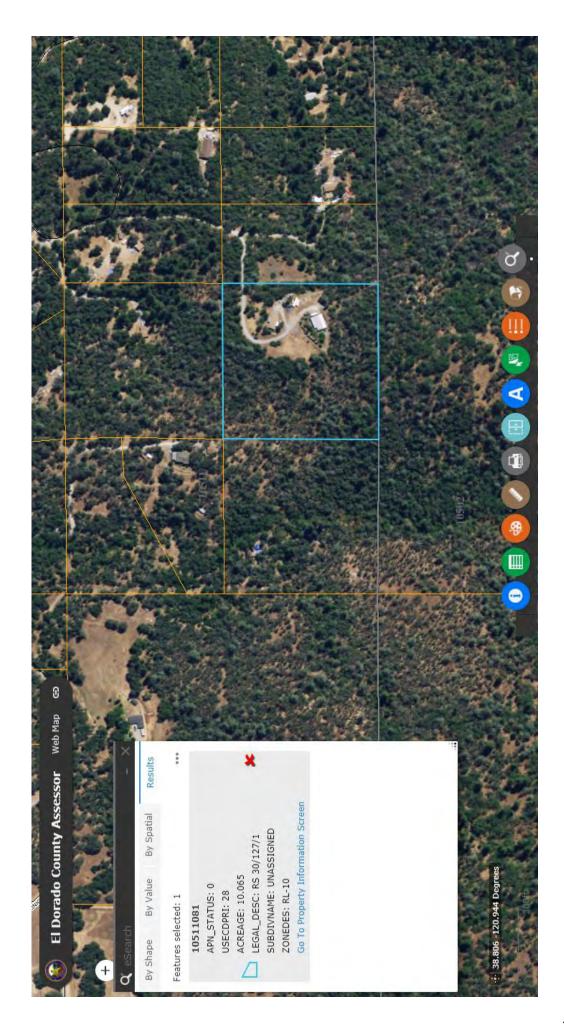


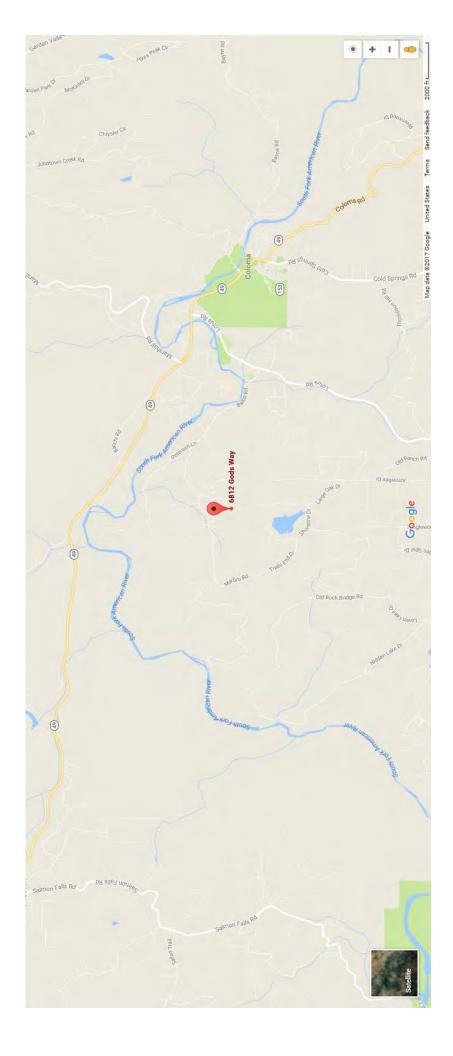




## **Assessor's Parcel Map**



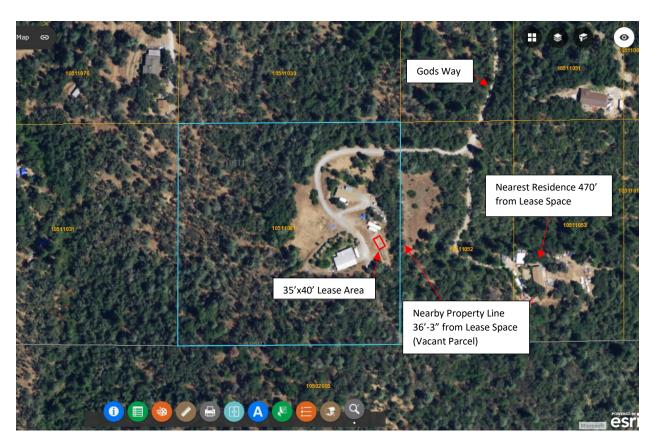








#### Overhead View of Lease Area and Distances to nearby residences:

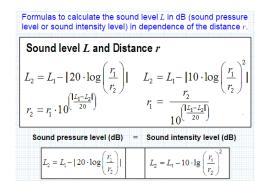


#### **Emergency 35kw Propane Generator and 4 Ton HVAC Noise Analysis:**

#### Equation and Calculation Method:

The sound analysis methods and results are hypothetical only, using Sound Level and Distance calculations. These calculations do not take outside sounds, trees, hills, buildings, and other sound dampening variables into consideration, but, only raw sound levels after specific traveled distances which results in the worst case scenario for the sounds of the onsite backup generator and HVAC systems.

The use of emergency equipment is exempted from these limits per section 130.37.20(B).







#### **Sound Specifications:**

Emergency Generator Model: SG035 Generac

Average decibel (dBa) level at 23 feet = 64.9 dBa

HVAC Model: ASDCA48

Average decibel (dBa) level at 50 feet = 57 dBa

#### Sound Specifications while taking the Sound Blanket into consideration:

• Emergency Generator Model: SG035 Generac

Average decibel (dBa) level at 23 feet = 58.11 dBa

HVAC Model: ASDCA48

Average decibel (dBa) level at 50 feet = 46.36 dB

#### **Findings**:

1. Distance to the nearest property line = 36'-3"

a. Generator Decibel level at 36'-3" = 54.16 dBa

b. HVAC Decibel level at 36'-3" = 49.15 dBa

2. Distance to a nearest residence = 470'

a. Generator Decibel level at 470' = 31.9 dBa

b. HVAC Decibel level at 470' = 26.9 dBa

#### **Conclusion:**

After calculating all decibel levels at each nearby residence's property line and actual residence, the onsite Emergency Backup Generator and HVAC systems are within El Dorado County's noise level standards according to El Dorado County Title 130 Zoning and Noise Ordinance, Chapter 130.37 – Noise Standards.

Table 1 – Eldorado County Table 130.37.060.1

Noise Level Performance Standards for Noise Sensitive Land Uses

Affected by Non-Transportation Sources

Noise Level	Daytir 7 a.m. – 7		Eveni 7 p.m. – 1		Night 10 p.m. – 7 a.m.		
Descriptor	Community / Rural Centers	Rural Regions	Community / Rural Centers	Rural Regions	Community / Rural Centers	Rural Regions	
Hourly Leq, dBA	55	50	50	45	45	40	
Maximum Level, dBA	70	60	60	55	55	50	

#### **BBC-13X Sound Curtains**

Sound Seal's **BBC-13X** offers the benefits of both a noise barrier and a sound absorber for outdoor applications. The BBC-13X consists of a one-inch thick vinyl-coated-fiberglass-cloth faced quilted fiberglass that is bonded to a one-pound per sq. ft. reinforced loaded vinyl noise barrier. "X" style Sound Curtain panels are constructed with grommets across the top and **bottom**, **and exterior grade** Velcro seals along the vertical edges. The product is also available in roll form with edges bound or unbound.



- Class A (or 1) flammability rated per ASTM E 84
- For use on Indoor or Outdoor Applications
- Available facing colors: gray, tan, black, or off-white
- Available barrier colors: gray, tan, blue or olive drab

## **Applications:**

Even in the harshest environments, with a minimum life span of 5 years\* and wind load ratings of 120 mph, this product is typically used as a temporary noise barrier on outdoor applications such as construction site noise mitigation projects. Also available with a two-pound psf noise barrier or a two-inch thick quilted fiberglass sound absorber for better acoustical performance.

#### **Product Data:**

**Description** Vinyl coated fiberglass cloth facing on 1" quilted fiberglass

1lb-psf reinforced loaded vinyl barrier

**Flammability** Flame Spread: 23.0

Smoke density: 30.0

Nominal thickness 1.0 inch

Temperature range -20° to +180° F

Standard roll size 54" wide x 25' long

Weight 1.2 lb psf

#### **Acoustical Performance:**

#### **Sound Transmission Loss**

		OCTAVE BAND FREQUENCIES (Hz)											
Product	125	125 250 500 1000 2000 4000 ST											
BBC-13 X	11	16	24	30	35	35	27						

ASTM E-90 & E 413

#### **Sound Absorption Data**

		OCTAVE BAND FREQUENCIES (Hz)										
Product	125	250	500	1000	2000	4000	NRC					
BBC-13 X	.12	.47	.85	.84	.64	.62	.70					

ASTM C 423

<sup>\*</sup> when properly installed.





#### **Operation Statement:**

This project is an AT&T Mobility unmanned Telecommunication Wireless Facility. It will consist of the following:

#### NEW SITE BUILD UNMANNED TELECOMMUNICATIONS FACILITY.

- 1. (1) NEW 12' WIDE GRAVEL ACCESS ROAD
- 2. **(1)** NEW 35' X 40' FENCED LEASE AREA
- 3. (1) NEW 6' CHAIN LINK FENCE
- 4. (1) NEW 12' WIDE DOUBLE ACCESS GATE
- 5. (1) NEW 112' MONOPINE TOWER
- 6. (1) NEW PRE-FAB EQUIPMENT SHELTER
- 7. (1) NEW GPS ANTENNA
- 8. (1) NEW 35KW PROPANE GENERATOR
- 9. (1) LP PROPANE TANK (500 GALLON)
- **10. (12) NEW ANTENNAS**
- 11. (9) NEW RRUS-11, (9) NEW RRUSS-32 & (3) FUTURE RRUS
- 12. (4) NEW SURGE SUPPRESSORS
- 13. (2) FUTURE 4' M/W DISH

The facility will operate 24 hours a day 7 days a week. Maintenance workers will visit the site approximately once a month. A 15 foot wide access route will be created directly from Gods Way. There will be minimal noise from the standby generator, turning on once a week for 15 minutes for maintenance purposes and during emergency power outages. The Facility is approximately 36'-3" feet west of the nearest property line and approximately 470 feet west of the nearest residence. The location is surrounded by evergreen trees which will naturally stealth the facility. The surrounding area is covered with evergreen tree backdrops. The tower will be built to provide co-location opportunities.

#### **Fire Suppression System:**

A 15 foot wide access route will be created directly from Gods Way. A Hammer Head Fire Turnaround will be proposed within the access route. A Fire Department Knox Box will be located at the Facility's access gate. The El Dorado County Fire Deprartment Station 74 is only 2.5 miles east of the Proposed Facility. Additionally, a 2A:20BC Rated Fire Extinguisher in a weather resistant cabinet will be mounted on the exterior wall of the proposed shelter.





#### **Conclusion:**

Candidate A, 6812 Gods Way, meets the FCC's mandated objectives for the targeted area of Gold Hill and is the best choice for the surrounding area. The chosen location will meet and exceed the FCC's mandated coverage objectives with providing hi-speed broadband internet to homes in the Targeted area of El Dorado County. The Stealth Monopine Tower design has been chosen to blend into the existing surrounding environment as the least intrusive means while filling AT&T's significant gap in coverage. The property's surrounding foliage and tree canopy will naturally camouflage the facility thereby proving low visual impact to the surrounding residents. No Oak Woodlands will be removed or significantly impacted. No special species or protected animals will be impacted per the biological resource assessment prepared by Sycamore Environmental Consultants, Inc.

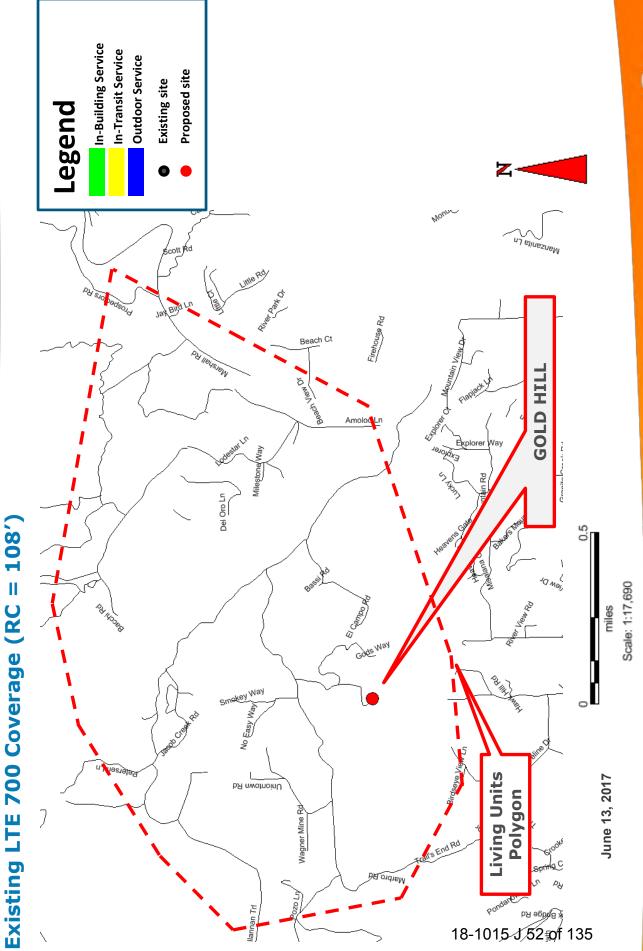
# LETTER OF AUTHORIZATION TO FILE PERMIT APPLICATIONS

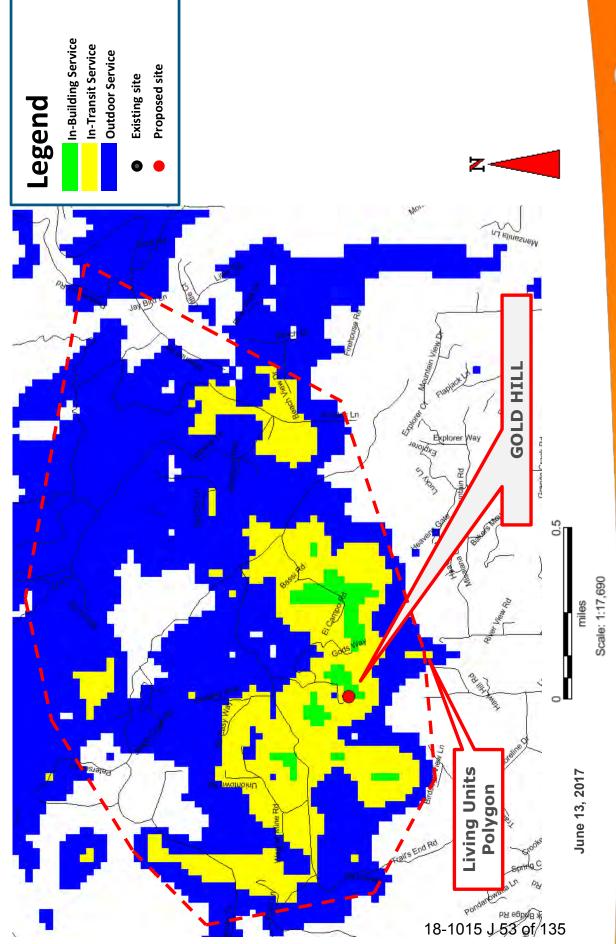
Re: El Dorado County <u>APN # 105-110-81-100</u>

To Whom It May Concern:

The undersigned, Landlord, are the owners of the property located at 6812 Gods Way, Lotus, CA 95651, County Assessor's Parcel No. #105-110-81-100, that is the subject of an CUP application for a new Telecommunications Facility. The undersigned has leased a portion of the property to AT&T Mobility C/O Epic Wirelss Group, and hereby authorizes Epic Wireless Group, its agent, to act as applicant to obtain any and all permits required for the approval and construction of this antenna/communication facility.

# CVL03054 Zoning Propagation Map June 13, 2017 18-1015 J 51 of 135





Proposed LTE 700 Coverage (RC = 108')



Radio Frequency Emissions Compliance Report For AT&T Mobility

Site Name: Gold Hill Site Structure Type: Monopine Address: 6812 Gods Way Latitude: 38.802398

Lotus, CA Longitude: -120.937291

Report Date: August 17, 2017 Project: New Build

#### **General Summary**

AT&T Mobility has contracted Waterford Consultants, LLC to conduct a Radio Frequency Electromagnetic Compliance assessment of the proposed Gold Hill site located at 6812 Gods Way, Lotus, CA. This report contains information about the radio telecommunications equipment to be installed at this site and the surrounding environment with regard to RF Hazard compliance. This assessment is based on installation designs and operational parameters provided by AT&T Mobility.

The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure ("MPE") limits. At any location at this site, the power density resulting from each transmitter may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, the FCC General Population limit is considered to be a level that is safe for continuous exposure time. The FCC General Population limit is 5 times more restrictive than the Occupational limits.

	Limits for General Populate	ion/ Uncontrolled Exposure	Limits for Occupational/ Controlled Exposure			
Frequency (MHz)	Power Density (mW/cm²)	Averaging Time (minutes)	Power Density (mW/cm²)	Averaging Time (minutes)		
30-300	0.2	30	1	6		
300-1500	f/1500	30	f/300	6		
1500-100,000	1.0	30	5.0	6		

f=Frequency (MHz)

In situations where the predicted MPE exceeds the General Population threshold in an accessible area as a result of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

Based on the computational guidelines set forth in FCC OET Bulletin 65, Waterford Consultants, LLC has developed software to predict the overall Maximum Permissible Exposure possible at any particular location given the spatial orientation and operating parameters of multiple RF sources. These theoretical results represent worst-case predictions as emitters are assumed to be operating at 100% duty cycle.

For any area in excess of 100% General Population MPE, access controls with appropriate RF alerting signage must be put in place and maintained to restrict access to authorized personnel. Signage must be posted to be visible upon approach from any direction to provide notification of potential conditions within these areas. Subject to other site security requirements, occupational personnel should be trained in RF safety and equipped with personal protective equipment (e.g. RF personal monitor) designed for safe work in the vicinity of RF emitters. Controls such as physical barriers to entry imposed by locked doors, hatches and ladders or other access control mechanisms may be supplemented by alarms that alert the individual and notify site management of a breach in access control. Waterford Consultants, LLC recommends that any work activity in these designated areas or in front of any transmitting antennas be coordinated with all wireless tenants.

# **Analysis**

AT&T Mobility proposes the following installation at this location:

- Install twelve (12) new panel antennas
- Install nine (9) new RRUS-11 Remote Radio Head units
- Install nine (9) new RRUS-32 Remote Radio Head units

The antennas will be mounted on a 113-foot monopole with centerlines at 100 and 110 feet above ground level. The antennas will be oriented toward 90, 330 and 210 degrees. The Effective Radiated Power (ERP) in any direction from all AT&T Mobility operations will not exceed 26,557 Watts. Other appurtenances such as GPS antennas, RRUs and hybrid cable are not sources of RF emissions. From this site, AT&T Mobility will enhance voice and data services to surrounding areas in licensed 700, 850, 1900, 2100 and 2300 MHz bands. No other antennas are known to be operating in the vicinity of this site.

Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serve to reduce the potential to exceed MPE limits at any location other than directly in front of the antennas. For accessible areas at ground level, the maximum predicted power density level resulting from all AT&T Mobility operations is 0.5265% of the FCC General Population limits (0.1053% of the FCC Occupational limits). Incident at adjacent buildings depicted in Figure 1, the maximum predicted power density level resulting from all AT&T Mobility operations is 0.6315% of the FCC General Population limits (0.1263% of the FCC Occupational limits). The proposed operation will not expose members of the General Public to hazardous levels of RF energy.

Waterford Consultants, LLC recommends posting contact information signage at the gate that informs personnel entering the site of basic precautions to be followed when working around antennas. RF alerting signage (Warning) should be posted at the base of the proposed Monopine to inform authorized climbers of potential conditions near the antennas. These recommendations are depicted in Figure 2.



Figure 1: Antenna Locations

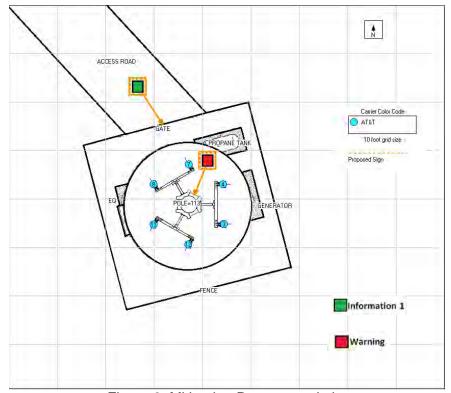


Figure 2: Mitigation Recommendations

#### **Compliance Statement**

Based on information provided by AT&T Mobility and predictive modeling, the installation proposed by AT&T Mobility at 6812 Gods Way, Lotus, CA will be compliant with Radiofrequency Radiation Exposure Limits of 47 C.F.R. § 1.1307(b)(3) and 1.1310. RF alerting signage and restricting access to the Monopine to authorized climbers that have completed RF safety training is required for Occupational environment compliance.

#### Certification

I, David H. Kiser, am the reviewer and approver of this report and am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC's OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.



# Marvair DC Free Air HVAC Unit with 48 VDC Evaporator Fan Motor, 100% Free Cooling and CoolLinks™ Controller

#### Models ASDCA36-42-48-60-72



# **General Description**

The Marvair® ComPac® II air conditioners are designed to cool telecommunications shelters where the high internal heat load requires year round cooling-even when ambient temperatures are below 60°F (15°C). To provide cooling during a wide range of ambient conditions, the ASDCA air conditioners have the necessary controls and components for year round cooling. The unit uses the non-ozone depleting R-410A refrigerant.

#### DC power provides emergency cooling/ventilation

Should there be loss of power to the site, the Marvair DC Free Air unit will continue to cool/ventilate the site by utilizing DC power to introduce outside air into the shelter for free cooling. The DC Free Air unit will continue to ventilate the site and extend the run time of the equipment until battery power is exhausted or, at the minimum, owner specified pull down of battery drain.



ASDCA36

The ASDCA models operate on both AC and DC power. The compressor, condenser fan motor and electric heat operate on AC power, but the evaporator motors, the 100% free cooling economizer damper and the internal control board operate on DC power – an inverter is **not** required. Since these key components are all powered by 48 VDC – the same 48 VDC power used by the shelter's radios- they are always operational.

The 48 VDC power supply connects to an internal DC breaker. From this breaker, power is supplied to the DC indoor blower and control board. A 48 VDC to 24 VDC converter powers the 100% DC free cooling damper.

#### Free Cooling with the Marvair 100% Full flow Economizer

When the outside air is cool and dry, the economizer damper opens and draws in filtered, outside air to cool the shelter. The Marvair 100% full flow economizer means the same CFM of outside air is brought into the shelter as the rated air flow of the unit. The innovative design of the full flow economizer assembly also allows outside air to exit the building – pressure relief- when the full flow economizer is operating. This design eliminates the need for additional, costly penetrations in the shelter.

Free cooling provides temperature control, energy savings, and increased reliability by decreasing the operating hours of the compressor and the condenser fan. To insure proper operation and optimum performance, all economizers are non-removable, factory installed and tested.

#### CoolLinks™ PLC controller

The Siemens PLC-based CoolLinks controller sequences the operation of the two Marvair ComPac II units to ensure the most energy-efficient conditioning of the shelter space and the most balanced use of the conditioning equipment. The CoolLinks system determines the need to cool or heat the shelter based on an indoor temperature sensor and outside temperature/humidity sensor connected directly to the controller. When cooling or heating is required, the controller selects the unit that was not running in the previous cooling/heating cycle. This lead/lag operation ensures that each unit receives equal runtime and therefore extends the operating life of the units. In the event that one of the units is unavailable, for example, scheduled maintenance, the system will automatically select the active unit. Similarly, if the internal shelter temperature continues to rise/fall, the system will run both units.

For cooling requests, the CoolLinks controller first examines the external shelter conditions to establish whether DC Free Cooling is possible. If acceptable, the 100% full flow economizer damper on the lead unit is opened to 100%. The damper then modulates its position, regulated by the controller, to cool the shelter to the target set point. During extreme cold outdoor temperatures this prevents "shocking" the equipment in the shelter.

If DC Free Cooling is active on one unit and the internal temperature continues to rise, DC Free Cooling will then be activated on the second unit. Should the temperature continue to rise, the DC Free Cooling will be disabled on both units, both economizer dampers will be closed, and mechanical cooling activated on the lead unit. The control scheme allows the CoolLinks controller to make as efficient use of the external air as possible to minimize HVAC power consumption.

The CoolLinks controller communicates with the Marvair air conditioners over Ethernet. Should communications between the controller and one of the units fail, the unit will continue to run in stand-alone mode and cool to a mixed-air set point of 55°F (12.8°C). Whenever communications are restored, the CoolLinks controller will assume control of the air conditioner. An Ethernet connection is also provided for a SNMP interface through which the Network Operations Center can receive traps (alarms), monitor/change cooling and heating set points, and monitor HVAC unit and system operational parameters.

#### Air Conditioner Alarms and Lockouts

Each air conditioner is monitored over Ethernet and if a problem is detected, an alarm is generated. The alarm is displayed on the CoolLinks PLC in the shelter **and** sent via SNMP trap to the network operations center.

- High Pressure Alarm the refrigerant pressure has exceeded the set point pressure *once* in a cooling cycle. The air conditioner will continue to operate, but notification is sent that there is a high pressure fault.
- High Pressure Lockout Alarm the refrigerant pressure has exceeded the set point pressure *twice* in a cooling cycle. The air conditioner will shut down and notification will be sent that there is a high pressure lockout.
- Low Pressure Alarm the refrigerant pressure has dropped below the set point pressure *once* in a cooling cycle. The air conditioner will continue to operate, but notification is sent that there is a low pressure fault.
- Low Pressure Lockout Alarm the refrigerant pressure has dropped below the set point pressure *twice* in a cooling cycle. The air conditioner will shut down and notification will be sent that there is a low pressure lockout.
- Damper Alarm if the 100% full flow damper does not open when required, an alarm notification is sent that the damper is not open.
- Dirty Filter Alarm a switch monitors the pressure on either side of the filter. If the differential pressure exceeds the set point pressure, an alarm notification is sent that there is not sufficient air flow through the filter
- Communications Alarm a signal is sent if there is a loss of communication between the air conditioner and the CoolLinks controller.

#### **Shelter & System Alarms**

- In addition to the HVAC alarms, the CooLinks controller also provides Shelter and System alarms. The alarm is displayed on the CoolLinks PLC in the shelter **and** also sent via SNMP trap to the network operations center.
- First Stage High Temperature Alarm Inside temperature above 85°F (29.4°C).
- Second Stage High Temperature Alarm Inside temperature above 90°F (32.2°C).
- Low Temperature Alarm Inside temperature is below 45°F (7.2°C).
- Landline Power Alarm A loss of landline power.
- Smoke Alarm If the smoke sensor input to the CoolLinks system is active, the Compressor, Heater, and Indoor Blower Motor on both HVAC units will be shut down and the damper will closed completely. This will stop air flow within the shelter.
- Hydrogen Detector Alarm- If the hydrogen sensor input to the CoolLinks system is active, the damper(s)
  on units that are not currently in mechanically cooling will be fully opened and the Indoor Blower Motor(s)
  will be turned on. This will expel noxious gases and introduce outside air into the shelter. If one unit is
  in mechanical cooling, it will continue to run. The other air conditioner will turn on and operate in the
  emergency ventilation mode.
- Generator Operation Alarm If the generator running input to the CoolLinks system is active, only one HVAC unit will be permitted to run in mechanical cooling. As the generator is typically sized to run only one HVAC unit, this ensures that the generator load is not exceeded.

#### **Remote Access Data Points**

Through the Ethernet connection, the network operations center can monitor and change various data points in the HVAC system and the shelter.

Data Points which can be monitored **and** changed:

- First Stage Cooling Set Point Temperature
- Second Stage Cooling Set Point Differential Temperature
- First Stage Heating Set Point Temperature
- Second Stage Heating Set Point Differential Temperature

Data points which can only be monitored:

- Inside Temperature Current
- Outside Temperature Current
- Outside Humidity Current
- Dew point Current
- Inside Temperature Average Last Hour
- Outside Temperature Average Last Hour
- Outside Humidity Average Last Hour
- Dew point Average Last Hour
- Unit 1 & Unit 2 Mechanical Cooling Time Last Hour
- Unit 1 & Unit 2 Mechanical Cooling Requests Last Hour
- Unit 1 & Unit 2 DC Free Air Cooling Time Last Hour
- Unit 1 & Unit 2 DC Free Air Cooling Requests Last Hour
- Unit 1 & Unit 2 Heating Time Last Hour
- Unit 1 & Unit 2 Heating Requests Last Hour

#### Standard Features

#### **Designed for Operation in Low Ambient Conditions**

- Low ambient control cycles condenser fan to maintain proper refrigerant pressures. Allows operation in mechanical cooling (compressor) down to 0°F (-18°C). Note: low temperature operation is affected by ambient conditions, e.g. wind and humidity.
- Three minute by-pass of the low pressure switch for startup of compressor when outdoor temperatures are below 55°F (13°C).
- Factory built-in economizer.

#### **High Efficiency**

- High efficiency compressor.
- · Lanced fins standard on all evaporator and condenser coils.

#### **Built-in Reliability**

- High pressure switch and low pressure switch with lockout protects refrigerant circuit.
- Adjustable .03 to ten minute delay on make for short cycle protection.

#### Ease of Installation

- Sloped top with flashing eliminates Service access valves are need of rain hood.
- Built-in mounting flanges facilitate Standard 2" (50 mm) pleated installation and minimize chance of water leaks.
- Supply and return openings exactly match previous models.
- Factory installed disconnect on all
- Single Point Power Entry complies with latest edition of U.L. Standard

#### **Rugged Construction**

- Copper tube, aluminum fin evaporator & condenser coils.
- Field or factory installed heaters on discharge side of evaporator coil (optional)
- Baked on neutral beige finish over galvanneal steel for maximum cabinet life. (Other finishes are available.)

#### Ease of Service

- standard
- filter with a MERV rating of 8 changeable from outside.
- All major components are readily accessible.
- Front Control Panel allows easy access and complies with NEC clearance codes on redundant side-by-side systems.
- LEDs indicate operational status and fault conditions.
- · Foiled backed insulation on the indoor air path.
- A minimum position potentiometer that can be adjusted to prevent the economizer damper from closing completely. This control ensures that whenever the evaporator fan is operating, fresh air is being introduced into the building.

Kim: are these statements valid?

# **Grilles**

#### For ASDCA36

Supply Grille: Return Grille: For ASDCA42-48-60-72 Supply Grille:

Return Grille:

# **Factory Installed Accessories**

Phase Monitor - Monitors 3Ø power supply and will turn the air conditioner off if power supply is not phased properly. Not required on 1Ø units.

Compressor Sound Jacket - To reduce sound of compressor.

#### Right & Left Side Compressor Configuration -

The air conditioners can be built with the compressor on the opposite side to facilitate service access when two units are installed side by side. In the 36, the standard location for the compressor is on the right hand side. In the 42-48-60, the standard location for the compressor is on the left hand side. In the 72, the compressor is accessed from the front of the unit and an opposing configuration is not required.

Hard Start Kit - Used on single phase equipment to give the compressor higher starting torque under low voltage conditions. (Field installed only) (Note: Not recommended for use on scroll compressors.)

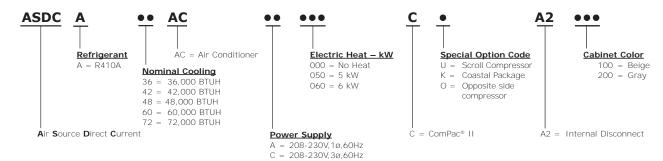
# **Options**

Coastal Environment Package – Recommended for units to be installed near an ocean or on seacoast. Includes corrosion resistant fasteners, sealed or partially sealed condenser fan motor, protective coating applied to all exposed internal copper and metal in the in the condenser section and an impregnated polyurethane on the condenser coil and fan blades. See Coastal Environmental Technical Bulletin for more details.

Protective Coil Coatings - Either the condenser or evaporator coil can be coated, however, coating of the evaporator coil is not common. For harsh conditions, e.g., power plants, paper mills or sites were the unit will be exposed to salt water, the coil should be coated. Note: Cooling capacity may be reduced by up to 5% on units with coated coils.

## MODEL # - ASDCA48ACA050C-A2-100-VAR

#### **Model Identification**



# **Electrical Characteristics - Compressor, Fan & Blower Motors**

BASIC	COMPRE		OUTDOOL	R FAN N	IOTOR		INDOOR BLOWER MOTORS					
MODEL	VOLTS / HZ / PH	RLA <sup>1</sup>	LRA <sup>2</sup>	VOLTS / HZ / PH	RPM <sup>3</sup>	FLA⁴	HP⁵	QTY	VDC <sup>6</sup>	RPM <sup>3</sup>	FLA⁴	HP⁵
ASDCA36ACA	208/230-60-1	14.7	84.0	208/230-60-1	1075	1.8	1/4	2	48	2070	4.4	1/6
ASDCA42ACA	208/230-60-1	15.7	84.0	208/230-60-1	825	2.8	1/3	2	48	1930	6.0	1/4
ASDCA48ACA	208/230-60-1	<mark>18.6</mark>	102.0	208/230-60-1	825	2.8	1/3	2	48	1930	<mark>6.0</mark>	1/4
ASDCA60ACA	208/230-60-1	23.0	130.0	208/230-60-1	825	2.8	1/3	2	48	1930	6.0	1/4
ASDCA72ACA	208/230-60-1	30.1	158.0	208/230-60-1	825	2.9	1/2	2	48	1930	6.0	1/4
ASDCA36ACC	208/230-60-3	13.2	88.0	208/230-60-1	1075	1.8	1/4	2	48	2070	4.4	1/6
ASDCA42ACC	208/230-60-3	13.6	83.1	208/230-60-1	825	2.8	1/3	2	48	1930	6.0	1/4
ASDCA48ACC	208/230-60-3	13.7	83.1	208/230-60-1	825	2.8	1/3	2	48	1930	6.0	1/4
ASDCA60ACC	208/230-60-3	15.6	111.0	208/230-60-1	825	2.8	1/3	2	48	1930	6.0	1/4
ASDCA72ACC	208/230-60-3	22.4	149.0	208/230-60-1	825	2.9	1/2	2	48	1930	6.0	1/4
<sup>1</sup> RLA = Rated Load	Amps <sup>2</sup> LRA = Locked	Rotor Ar	nps ³RF	PM = Revolutions per M	linute 4	FLA = Ful	Load Am	ps ⁵HP	= Horsep	oower 6	VDC = Vo	lts, DC

# **Summary Electrical Ratings (Wire and Circuit Breaker Sizing)**

ELEC	TRIC HEAT	000 =	: None	050 =	= 5 kw	060 =	6 kw	
BASIC	VOLTAGE	SP	SPPE <sup>3</sup>		PE <sup>3</sup>	SPPE <sup>3</sup>		
MODEL	PHASE / HZ	MCA <sup>1</sup>	MFS <sup>2</sup>	MCA <sup>1</sup>	MFS <sup>2</sup>	MCA <sup>1</sup>	MFS <sup>2</sup>	
ASDCA36ACA	208/230-1-60	24.2	40	26.0	40			
ASDCA42ACA	208/230-1-60	27.6	45	27.6	45			
ASDCA48ACA	208/230-1-60	30.1	50	30.1	50			
ASDCA60ACA	208/230-1-60	35.6	60	35.6	60			
ASDCA72ACA	208/230-1-60	40.5	60	40.5	60			
ASDCA36ACC	208/230-3-60	18.3	30			18.3	30	
ASDCA42ACC	208/230-3-60	19.8	30			19.8	30	
ASDCA48ACC	208/230-3-60	19.9	30			19.9	30	
ASDCA60ACC	208/230-3-60	22.3	35			22.3	35	
ASDCA72ACC	208/230-3-60	30.9	50			30.9	50	

<sup>1</sup>MCA = Minimum Circuit Ampacity (Wiring Size Amps) <sup>2</sup>MFS = Maximum Fuse Size <sup>3</sup>SPPE = Single Point Power Entry MCA & MFS are calculated at 230 volts on the ACA & ACC models. This chart should only be used as a guideline for estimating conductor size and overcurrent protection. For the requirements of specific units, always refer to the data label on the unit.

# **Unit Load Amps**

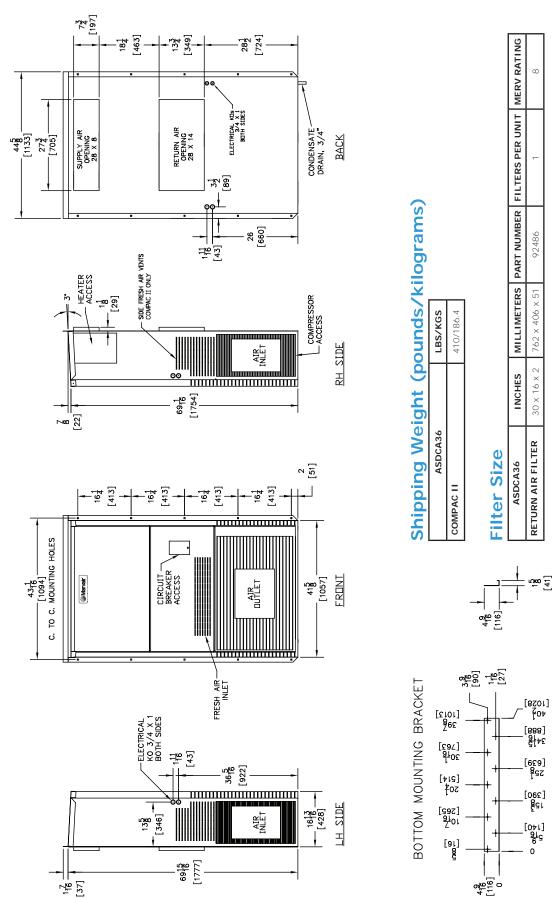
OTHIC Edu									
BASIC	VOLTAGE	CURRENT (MOTO	-	LOAD OF RESISTIVE HEATING - ELEMENTS ONLY (AMPS)					
MODEL NUMBER	VOLTAGE PHASE / HZ	Compressor & Outdoor Fan	Indoor Blower	TOTAL MAXIMUM HEATING AMPS (VAC) ALL HEATING ELEMENTS ARE ON A SEPARATE CIRCU					
NUMBER			Diower		L ON A SEFARATE CIRCUIT				
		VAC Amps	DC Amps	05 kW	06 kW				
ASDCA36ACA	208/230-1-60	19.7	8.8	20.8					
ASDCA42ACA	208/230-1-60	22.6	12.0	20.8					
ASDCA48ACA	208/230-1-60	24.6	12.0	20.8					
ASDCA60ACA	208/230-1-60	29.0	12.0	20.8					
ASDCA72ACA	208/230-1-60	33.0	12.0	20.8					
ASDCA36ACC	208/230-3-60	15.0	8.8		14.4				
ASDCA42ACC	208/230-3-60	16.4	12.0		14.4				
ASDCA48ACC	208/230-3-60	16.5	12.0		14.4				
ASDCA60ACC	208/230-3-60	18.4	12.0		14.4				
ASDCA72ACC	208/230-3-60	25.3	12.0		14.4				

Heating kW is rated at 240 volts 
Total heating and cooling amps includes all VAC motors.

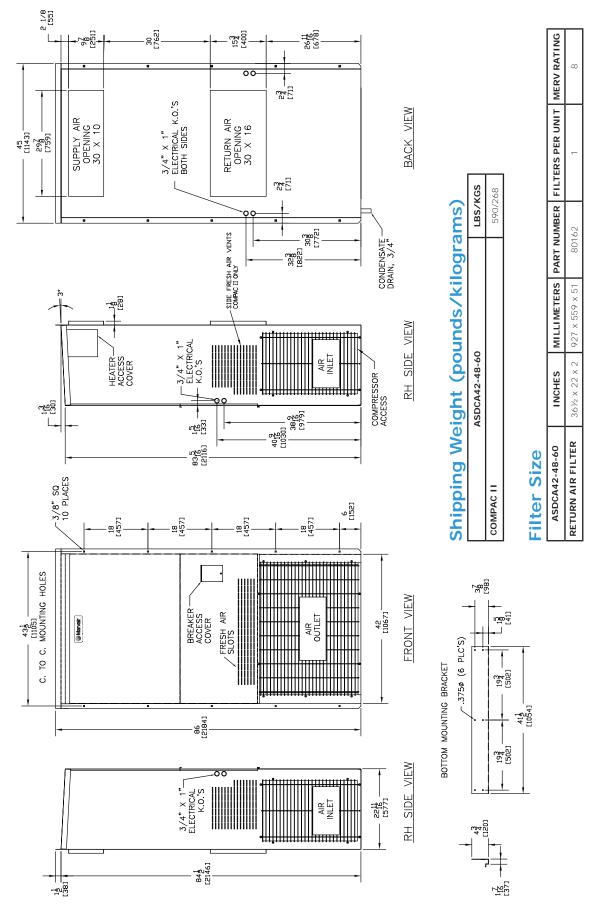
Loads are not equally balanced on each phase and values shown are maximum phase loads. Three phase models contain single phase motor loads.

Derate heater output by 25% for operation at 208 volts.

# **Dimensional Data - ASDCA36**

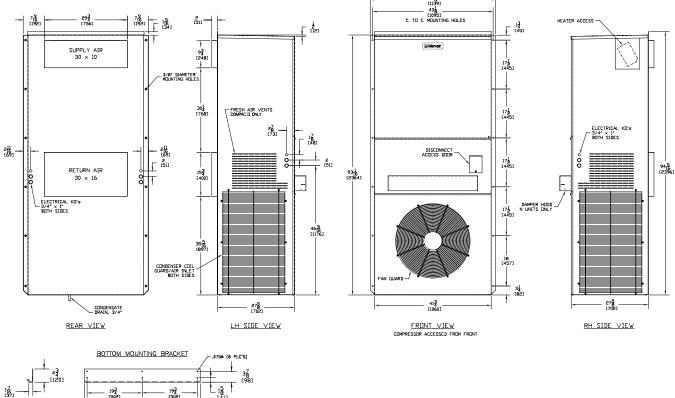


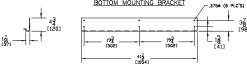
#### Dimensional Data - ASDCA42-48-60





# **Dimensional Data - ASDCA72**





# Shipping Weight (pounds/kilograms)

ASDCA72	LBS/KGS
COMPAC II	640/291

## Filter Size

ASDCA72	INCHES	MILLIMETERS	PART NUMBER	FILTERS PER UNIT	MERV RATING
RETURN AIR FILTER	18 x 24 x 2	457 x 610 x 51	, <del>⊺BD</del>	2	8



Please consult the Marvair® website at www.marvair.com for the latest product literature. Detailed dimensional data is available upon request. A complete warranty statement can be found in each product's Installation/Operation Manual, on our website or by contacting Marvair at 229-273-3636. As part of the Marvair continuous improvement program, specifications are subject to change without notice.



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# Supplement to the ComPac Product Manual for the ASDC air conditioners

This supplement to the ComPac Product Manual describes the 48 VDC wiring, the connection of the Ethernet cable (page 2) and the CoolLinks<sup>™</sup> Operator Interface Instructions (page 3) for the ASDCA air conditioners. These air conditioners require a 48 Volt DC power to operate the evaporator air movers and the free cooling damper motor.

# 48 VDC wiring

- 1. If the air conditioners are powered, remove AC **and** DC power to the air conditioners by switching the breakers **in the shelter** to the OFF position.
- 2. Size a 2 conductor wire cable per NEC standard taking into account the ampacity of the DC circuit listed on the rating plate and the location of the power supply. Connect the properly sized cable between a DC breaker in the shelter and the DC breaker in the air conditioner. The DC breaker in the air conditioner is located on the right side of the bank of breakers.
- 3. Turn on the DC breaker in the shelter.
- 4. Verify the polarity and the voltage to make sure the polarity is correct and that there is 48 VDC at the breaker in the air conditioner. If the polarity is not correct, switch the wires.
- 5. Turn on the DC breaker in the air conditioner. (See photos on following page.)

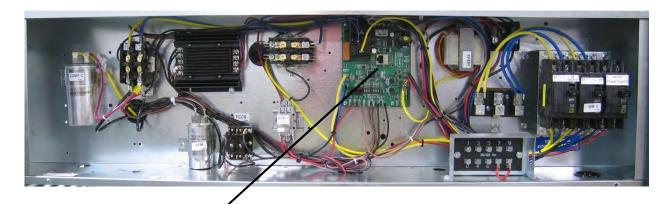






# Connection of PLC controller board in shelter to CoolLinks™ board in the air conditioner

Route a standard Cat 5e Ethernet cable from the PC board in the air conditioner to the PLC controller in the shelter. If the cable is routed through the air stream, it must be plenum rated. When the PLC is configured, the air conditioners will be designated as AC #1 and AC#2.



CoolLinks Ethernet jack



# **Operator Interface Instructions**

# **System Status**

The main screen displays the status of the Marvair CoolLinks system and the two Marvair HVAC units. Standing inside the shelter facing the HVAC return air vents, unit 1 is the left-hand unit and unit 2 is the right-hand unit. The fields on the status screen are as follows:

Indoor Temperature: Indoor temperature from the temperature sensor

> mounted on the wall between the HVAC return air grilles. This sensor controls the enabling/disabling

of the cooling/heating.

IBM Pushbutton: Indicates the status of the Indoor Blower Motor

> (IBM) as Running or Stopped. If the blower motor is not under automatic control, pressing the pushbutton will turn the motor on and off. Press once to turn on and press again to turn off. The motor is under automatic control whenever the HVAC unit is the lead unit, during cooling postpurge, free-air operation, and emergency

ventilation.

Unit Status Panel: Indicates the status of the HVAC unit as follows:

> Yes: unit is lead unit, No: unit is lag unit Lead

> Cool Yes: unit is cooling, No: unit is not cooling

Heat Yes: unit is heating, No: unit is not

heating

• Filter Ok: filter is good, Maint: filter is blocked

• Comm Yes: PLC comms active, No: PLC comms

fault

Lead Swap Pushbutton: Swap the lead and lag unit. Note that if the lag unit

> is in lockout or has a comms fault, the system will not swap. If the lead unit experiences a lockout or

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comms failure, the system will automatically swap to the lag unit.

Comfort Mode Pushbutton: Drop the first-stage cooling set point to 75°F to

allow a service technician to work comfortably inside the shelter. After one hour the set point will return to its previous value. Comfort mode is also cancelled if the technician enters a new first-stage

cooling set point.

Reset Lockout Pushbutton: Resets the lockout condition on whichever unit is in

lockout. Note that a call for cooling must be active

before the lockout can be reset.

Outdoor Air: Outside air temperature (°F).

Humidity: Outside air relative humidity (%).

Dew Point: Dew point temperature (°F). When the calculated

dew point (based on outside air temperature and relative humidity) is below the maximum dew point temperature and the free-air enable temperature, and the outside air temperature is below the indoor

air temperature, then enable free-air cooling.

Alarm Message: Active unit alarms are displayed in the alarm

message window between the IBM (Indoor blower Motor) pushbutton and the unit status panel. If multiple alarms are present the system scrolls through the active alarms with each alarm displayed for five seconds. If no alarms are present, the message window is blank. Thirteen possible alarm

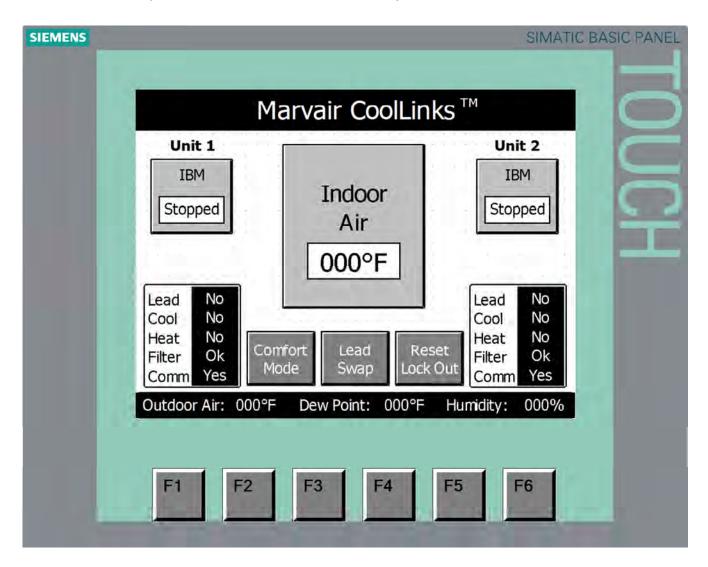
messages may be displayed:

- High Pressure Switch Alarm
- Low Pressure Switch Alarm
- High Pressure Switch Lockout Alarm
- Low Pressure Switch Lockout Alarm
- 1<sup>st</sup> High Indoor Temperature Alarm (> 85°F)



- 2<sup>nd</sup> High Indoor Temperature Alarm (> 90°F)
- Low Indoor Temperature Alarm (< 45°F)
- Landline Power Alarm
- Damper Alarm
- Smoke Alarm
- Generator Running
- Hydrogen Alarm
- Communications Alarm

The main screen with each of the operator/display fields is presented below. Note that the six function keys at the bottom of the screen are not currently assigned and have no effect on the operation of the Marvair CoolLinks system.



Page 5 of 10



# **Changing Set Points**

Set points control the cooling and heating operation of the Marvair CoolLinks system. Basically, there are two groups of set points, cooling first and second stage set points, and heating first and second stage set points. The minimum set point for cooling is 50°F and the maximum set point for heating is 90°F. To access these set points, simply touch the top or bottom of the Indoor Temperature display. This will then enable the set point control panel. If a new set point value is not entered within ten seconds, the display will revert back to the Indoor Temperature display. From the set point control panel, alter the set points as follows:

# Cooling First Stage:

Press the Cooling push-button then press the 1st Stage push-button. Both push buttons will turn dark gray with white text and the current cooling first-stage set point value will be displayed. Next, press the set point value to display the numeric entry screen and enter the desired set point. The system will now enable cooling whenever the indoor temperature is 1° F above the set point and disable cooling when the indoor temperature drops to 2° F below the set point.

# Cooling Second Stage:

Press the Cooling push-button then press the 2<sup>nd</sup> Stage push-button. Both push buttons will turn dark gray with white text and the current cooling second-stage set point value will be displayed. Next, press the set point value to display the numeric entry screen and enter the differential set point. The system will now enable second-stage cooling whenever the indoor temperature is 1° F higher than the first-stage cooling set point plus the second stage cooling differential and disable second-stage cooling when the indoor temperature drops to 2° F below the first-stage set point. It is strongly recommend that the second-stage cooling differential be set to a minimum of 5° F to allow the first-stage cooling time to operate fully and to prevent short-cycling of the second unit.



# Cooling Example:

First-Stage Set Point: 78°F Second-Stage Differential: 5°F

First-stage cooling will start when the indoor temperature reaches 79°F (set point + 1°F) and will stop when the indoor temperature reaches 76°F (set point -2°F).

Second-stage cooling will start when the indoor temperature reaches 84°F (set point + 1°F + 5°F) and will stop when the indoor temperature reaches 76°F (set point – 2°F).

Note that once first-stage cooling is enabled, the unit will run for at least **five minutes** even if the indoor temperature reaches the disable temperature. This is to prevent short-cycling of the unit and to allow the compressor sufficient time to remove moisture from the air as well cool the shelter.

# Heating First Stage:

Press the Heating push-button then press the 1<sup>st</sup> Stage push-button. Both push buttons will turn dark gray with white text and the current heating first-stage set point value will be displayed. Next, press the set point value to display the numeric entry screen and enter the desired set point. The system will now enable heating whenever the indoor temperature is 1°F below the set point and disable heating when the indoor temperature rises to 1° F above the set point.

# Heating Second Stage:

Press the Heating push-button then press the 2<sup>nd</sup> Stage push-button. Both push buttons will turn dark gray with white text and the current heating second-stage set point value will be displayed. Next, press the set point value to display the numeric entry screen and enter the differential set point. The system will now enable second-stage heating whenever the indoor temperature is 1° F lower than the first-stage heating set point minus the second stage heating differential and disable second-stage heating when the indoor temperature rises to 1° F above the first-stage set point. It is strongly recommend that the second-stage heating differential be set to a minimum of



two degrees F to allow the first-stage heating time to operate fully and to prevent short-cycling of the second unit.

# Heating Example:

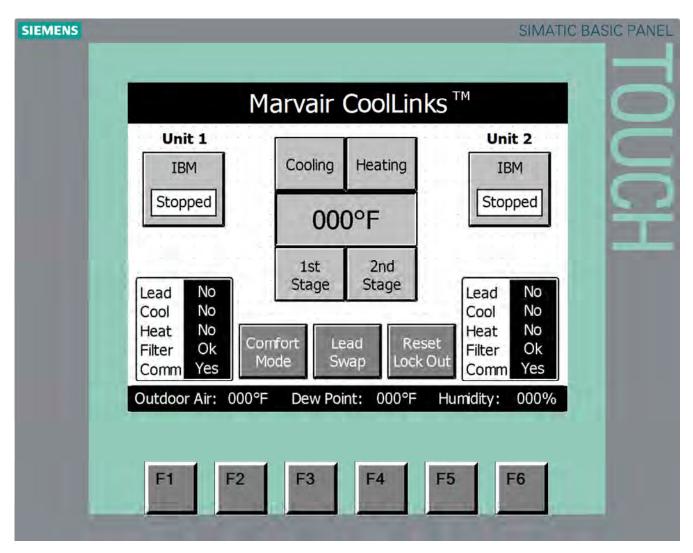
First-Stage Set Point: 60°F Second-Stage Differential: 2°F

First-stage heating will start when the indoor temperature reaches 59°F (set point -1°F) and will stop when the indoor temperature reaches 61°F (set point +1°F).

Second-stage heating will start when the indoor temperature reaches 57°F (set point  $-1^{\circ}$  - 2°F) and will stop when the indoor temperature reaches 61°F (set point  $+1^{\circ}$ F).

The main screen with the set point control panel is presented below. Note that if the cooling and heating temperature set points overlap, the system will only allow cooling to be active. As with the status screen, the six function keys at the bottom of the screen are not currently assigned and have no effect on the operation of the Marvair CoolLinks system.





# **DC Free-Air Cooling**

When the outside temperature and humidity are below acceptable limits, mechanical cooling is disabled and outside air is introduced to cool the shelter. The position of the damper is first opened to 100% then regulated to maintain a mixed air temperature of 55°F. This set point is user-selectable on the CoolLinks HVAC board for 55°, 57°, 59°, or 61°F. Both the damper and the Indoor Blower Motor are powered by 48 VDC. Every twenty-four hours, the damper is opened to 25% to verify the operation of damper motor, damper fault switch, and damper actuator linkage.



# **Emergency Ventilation**

The Marvair CoolLinks system will enable emergency ventilation if landline power is lost or if both HVAC units are in lockout. In this situation, the system will fully open the damper and run the Indoor Blower Motor on each HVAC unit. The system will also try to modulate the damper position to maintain a mixed air temperature of 55°F).

#### **Smoke Detection**

If the smoke sensor input to the CoolLinks system is active, the Compressor, Heater, and Indoor Blower Motor on both HVAC units will be shut down and the damper will be fully closed. This is to halt the flow of air within the shelter.

# **Hydrogen Detection**

If the hydrogen sensor input to the CoolLinks system is active, the damper(s) on units that are not currently mechanically cooling will be fully opened and the Indoor Blower Motor(s) will be turned on. The intention here is to expel noxious gases and to introduce outside air into the shelter.

# **Generator Running**

If the generator running input to the CoolLinks system is active, only one HVAC unit will be permitted to run mechanical cooling. As the generator is sized to run only one HVAC unit, this ensures that the generator load is not exceeded.

Note: When in generator run mode, the HVAC unit is **not** allowed to operate in the DC Free-Air Cooling mode. This prevents "wet stacking" of the generator because the engine would be running at a small percentage of its capacity.

# **STANDBY POWER RATING**

35 kW, 44 kVA, 60 Hz

# **PRIME POWER RATING\***

32 kW, 39 kVA, 60 Hz





\*Built in the USA using domestic and foreign parts

<sup>\*</sup>EPA Certified Prime ratings are not available in the U.S. or its Territories.

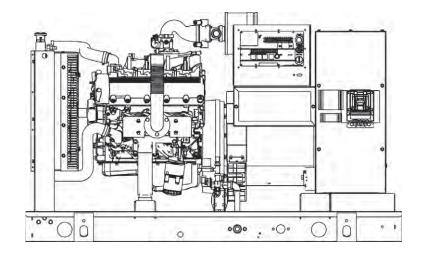


Image used for illustration purposes only

#### **CODES AND STANDARDS**

Generac products are designed to the following standards:



UL2200, UL508, UL142, UL498



NFPA70, 99, 110, 37



NEC700, 701, 702, 708



ISO9001, 8528, 3046, 7637, Pluses #2b, 4



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41



os pd IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

#### **POWERING AHEAD**

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

INDUSTRIAL

# **SG035** | **5.4L** | **35** kW

# INDUSTRIAL SPARK-IGNITED GENERATOR SET

**EPA Certified Stationary Emergency** 

# **STANDARD FEATURES**

#### **ENGINE SYSTEM**

#### General

- · Oil Drain Extension
- · Air Cleaner
- · Fan Guard
- · Stainless Steel flexible exhaust connection
- · Factory Filled Oil & Coolant
- Radiator Duct Adapter (open set only)
- · Critical Exhaust Silencer (enclosed only)

#### Fuel System

- · Flexible fuel line NPT Connection
- · Primary and secondary fuel shutoff

#### Cooling System

- · Closed Coolant Recovery System
- UV/Ozone resistant hoses
- · Factory-Installed Radiator
- 50/50 Ethylene glycol antifreeze
- · Radiator drain extension

#### **Engine Electrical System**

- · Battery charging alternator
- · Battery cables
- · Battery tray
- Rubber-booted engine electrical connections
- · Solenoid activated starter motor

#### **ALTERNATOR SYSTEM**

- UL2200 Genprotect ™
- · Class H insulation material
- 2/3 Pitch
- Skewed Stator
- · Brushless Excitation
- Sealed Bearings
- · Amortisseur winding
- · Full load capacity alternator

#### **GENERATOR SET**

**GENERAC** 

- Internal Genset Vibration Isolation
- · Separation of circuits high/low voltage
- · Separation of circuits multiple breakers
- · Wrapped Exhaust Piping
- · Standard Factory Testing
- · 2 Year Limited Warranty (Standby rated Units)
- . 1 Year Warranty (Prime rated units)
- Silencer mounted in the discharge hood (enclosed only)

# **ENCLOSURE (IF SELECTED)**

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material (L1 & L2)
- Gasketed doors
- · Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- · Stainless steel lift off door hinges
- · Stainless steel lockable handles
- . Rhino Coat™ Textured polyester powder coat

# **CONTROL SYSTEM**



# Control Panel

- · Digital H Control Panel Dual 4x20 Display
- · Programmable Crank Limiter
- · 7-Day Programmable Exerciser
- · Special Applications Programmable PLC
- RS-232/485
- · All-Phase Sensing DVR
- · Full System Status
- · Utility Monitoring
- · Low Fuel Pressure Indication
- · 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run

- · Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- · Coolant Temperature
- · Coolant Level
- · Engine Speed
- · Battery Voltage
- Frequency
- · Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/sealed Connectors
- · Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- · Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- · Customizable Alarms, Warnings, and Events
- · Modbus protocol
- · Predictive Maintenance algorithm
- Sealed Boards
- · Password parameter adjustment protection

- · Single point ground
- 15 channel data logging
- 0.2 msec high speed data logging
- Alarm information automatically comes up on the display

#### Alarms

- Oil Pressure (Pre-programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-programmed Over speed Shutdown)
- · Battery Voltage Warning
- Alarms & warnings time and date stamped
- Alarms & warnings for transient and steady state conditions
- Snap shots of key operation parameters during alarms & warnings
- Alarms and warnings spelled out (no alarm codes)

2 OF 6

#### **CONFIGURABLE OPTIONS**

#### **ENGINE SYSTEM**

General

- O Engine Block Heater
- O Oil Heater
- O Air Filter Restriction Indicator
- O Stone Guard (Open Set Only)
- O Critical Exhaust Silencer (Open Set Only / Standard on Ultra Low Emissions Option)

Fuel Electrical System

- O 10A & 2.5A UL battery charger
- O Battery Warmer

#### ALTERNATOR SYSTEM

- O Alternator Upsizing
- O Anti-Condensation Heater
- O Tropical Coating
- O Permanent Magnet Excitation

#### **CIRCUIT BREAKER OPTIONS**

- O Main Line Circuit Breaker
- O 2nd Main Line Circuit Breaker
- O Shunt Trip and Auxiliary Contact
- O Electronic Trip Breaker

#### **GENERATOR SET**

- O Gen-Link Communications Software (English Only)
- O Extended Factory Testing (3 Phase Only)
- O IBC Seismic Certification
- O 8 Position Load Center
- O 2 Year Extended Warranty
- O 5 Year Warranty
- O 5 Year Extended Warranty

#### **ENCLOSURE**

- Standard Enclosure
- O Level 1 Sound Attenuation
- O Level 2 Sound Attenuation
- O Steel Enclosure
- O Aluminum Enclosure
- O 150 MPH Wind Kit
- O 12 VDC Enclosure Lighting Kit
- O 120 VAC Enclosure Lighting Kit
- O AC/DC Enclosure Lighting Kit
- O Door Alarm Switch

#### CONTROL SYSTEM

- O 21-Light Remote Annunciator
- O Remote Relay Board (8 or 16)
- O Oil Temperature Sender with Indication Alarm
- O Remote E-Stop (Break Glass-Type, Surface Mount)
- O Remote E-Stop (Red Mushroom-Type, Surface Mount)
- O Remote E-Stop (Red Mushroom-Type, Flush Mount)
- O Remote Communication Bridge
- O Remote Communication Ethernet
- O 10A Run Relay
- O Ground Fault Indication and Protection **Functions**

# **ENGINEERED OPTIONS**

# **ENGINE SYSTEM**

- O Fluid containment Pans
- O Coolant heater ball valves

# **ALTERNATOR SYSTEM**

O 3rd Breaker Systems

# **GENERATOR SET**

- O Special Testing
- O Battery Box

#### **ENCLOSURE**

- O Motorized Dampers
- O Enclosure Ambient Heaters

#### **CONTROL SYSTEM**

- O Spare inputs (x4) / outputs (x4) H Panel Only
- O Battery Disconnect Switch

#### **RATING DEFINITIONS**

Standby - Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.

Prime - Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. A 10% overload capacity is available for 1 out of every 12 hours. The Prime Power option is only available on International applications. Power ratings in accordance with ISO 8528-1, Second Edition

# **SG035** | 5.4L | 35 kW

# INDUSTRIAL SPARK-IGNITED GENERATOR SET

**EPA Certified Stationary Emergency** 

# APPLICATION AND ENGINEERING DATA

General		Cooling System	
Make	Generac	Cooling System Type	Pressurized Closed Recovery
Cylinder #	8	Water Pump Flow -gal/min (I/min)	38 (144)
Туре	V	Fan Type	Pusher
Displacement - L (cu In)	5.4L (329.53)	Fan Speed (rpm)	2143
Bore - mm (in)	90.17 (3.55)	Fan Diameter mm (in)	508 (20)
Stroke - mm (in)	105.92 (4.17)	Coolant Heater Wattage	1500
Compression Ratio	9:1	Coolant Heater Standard Voltage	120 V
Intake Air Method	Naturally Aspirated		
Number of Main Bearings	4		
Connecting Rods	Forged	Fuel System	
Cylinder Head	Aluminum	Fuel Type	Natural Gas, Propane Vapor
Cylinder Liners	No	Carburetor	Down Draft
Ignition	Single Fire	Secondary Fuel Regulator	Standard
Piston Type	Aluminum Alloy	Fuel Shut Off Solenoid	Standard
Crankshaft Type	Nodular Iron	Operating Fuel Pressure	7" - 11" H <sub>2</sub> 0
Lifter Type	Hydraulic	operating rate recount	
Intake Valve Material	Steel Alloy		
Exhaust Valve Material	Hardened Steel		
Hardened Valve Seats	Yes	Engine Electrical System	
Engine Governing		System Voltage	12 VDC
	Electronic	Battery Charging Alternator	Standard
Governor Frequency Regulation (Steady State)	Electronic ±0.25%	Battery Size	See Battery Index 0161970SBY
		Battery Voltage	12 VDC
Lubrication System		Ground Polarity	Negative
Oil Pump Type	Gear		
Oil Filter Type	Full-flow sping-on cartridge		
Crankcase Capacity - L (gts)	5.7 (6)	<del></del>	

# **ALTERNATOR SPECIFICATIONS**

Standard Model	390mm	Standard Excitation	Brushless
Poles	4	Bearings	Sealed Ball
Field Type	Revolving	Coupling	Flexible Disc
Insulation Class - Rotor	Н	Prototype Short Circuit Test	Yes
Insulation Class - Stator	Н	Voltage Regulator Type	Full Digital
Total Harmonic Distortion	<5%	Number of Sensed Phases	All
Telephone Interference Factor (TIF)	<50	Regulation Accuracy (Steady State)	±0.25%

**EPA Certified Stationary Emergency** 

# **OPERATING DATA**

# **POWER RATINGS**

		Natural Gas	Propane Vapor
Single-Phase 120/240 VAC @1.0pf	35 kW	Amps: 146	Amps: 146
Three-Phase 120/208 VAC @0.8pf	35 kW	Amps: 121	Amps: 121
Three-Phase 120/240 VAC @0.8pf	35 kW	Amps: 105	Amps: 105
Three-Phase 277/480 VAC @0.8pf	35 kW	Amps: 53	Amps: 53
Three-Phase 347/600 VAC @0.8pf	35 kW	Amps: 42	Amps: 42

# STARTING CAPABILITIES (sKVA)

0171111110	0711 712	0 (	,,,,				sKVA vs. \	Voltage Dip					
				480	VAC					208/2	40 VAC		
Alternator	kW	10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	35	24	36	48	60	72	84	18	27	36	45	54	63
Upsize 1	40	27	41	54	68	81	95	20	31	41	51	61	71
Upsize 2	50	34	52	69	86	103	120	26	39	52	65	77	90
Upsize 3	60	42	63	83	104	125	146	32	47	62	78	94	110

# **FUEL CONSUMPTION RATES\***

# Natural Gas - ft 3/hr (m 3/hr)

Percent Load	Standby
25%	239 (6.8)
50%	409 (11.6)
75%	553 (15.7)
100%	682 (19.3)

#### Propane Vapor - ft<sup>3</sup>/hr (m <sup>3</sup>/hr)

	Percent Load	Standby
	25%	79.7 (2.3)
	50%	136.6 (3.9)
	75%	184.4 (5.2)
_	100%	227.7 (6.4)

<sup>\*</sup> Fuel supply installation must accommodate fuel consumption rates at 100% load.

# **COOLING**

		Standby	
Air Flow (inlet air combustion and radiator)	ft³/min(m³/min)	2460 (69.7)	
Coolant Flow per Minute	gal/min (l/min)	38 (144)	
Coolant System Capacity	gal (I)	3 (11.36)	
Heat Rejection to Coolant	BTU/hr	144,000	
Max. Operating Air Temp on Radiator	°F (°C)	122 (50)	
Max. Operating Ambient Temperature (before derate)	°F (°C)	110 (43.3)	
Maximum Radiator Backpressure	in H <sub>2</sub> 0	0.5	

# **COMBUSTION AIR REQUIREMENT**

	Standby	
Flow at Rated Power cfm (m3/min)	87 (2.5)	

# **ENGINE**

#### Standby Rated Engine Speed rpm 1800 Horsepower at Rated kW\*\* 54 hp Piston Speed ft/min 1251 **BMEP** psi 72

# **EXHAUST**

		Standby	
Exhaust Flow (Rated Output)	cfm (m³/min)	260 (7.4)	
Max. Backpressure (Post Turbo)	inHg (Kpa)	1.5 (5.1)	
Exhaust Temp (Rated Output - post silencer)	°F (°C)	900 (482)	
Exhaust Outlet Size (Open Set)	mm (in)	63.5 (2.5)	

Deration - Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

<sup>\*\*</sup> Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

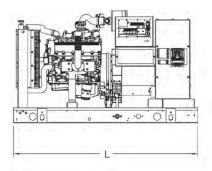
INDUSTRIAL SPARK-IGNITED GENERATOR SET

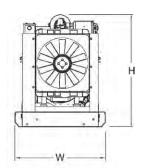
| **5.4L** | 35 kW

**EPA Certified Stationary Emergency** 

GENERAC | INDUSTRIAL

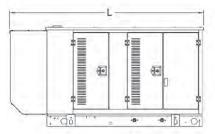
# **DIMENSIONS AND WEIGHTS**

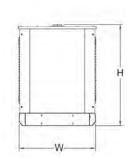






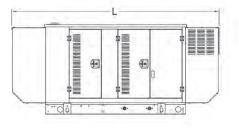
L x W x H in (mm)	76 (1930) x 37.4 (949.9) x 46 (1176)
Weight lbs (kg)	2199 (997)

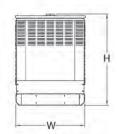




# STANDARD ENCLOSURE

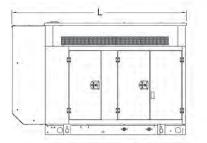
L x W x H in (mm)	94.8 (2408.9) x 38 (965.1) x 49.5 (1258.1)
Weight lbs (kg)	Steel: 2639 (1197) Aluminum: 2417 (1096)

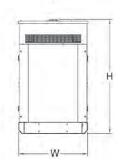




# **LEVEL 1 ACOUSTIC ENCLOSURE**

L x W x H in (mm)	112.5 (2857.1) x 38 (965.1) x 49.5 (1258.1)
Weight lbs (kg)	Steel: 2719 (1233) Aluminum: 2451 (1112)





# **LEVEL 2 ACOUSTIC ENCLOSURE**

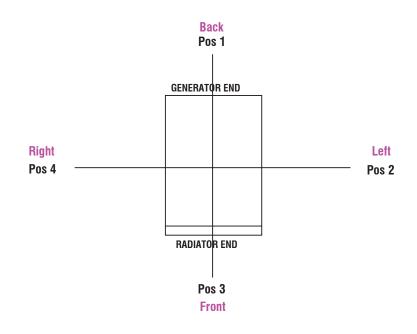
L x W x H in (mm)	94.8 (2408.9) x 38 (965.1) x 62 (1573.9)
Weight lbs (kg)	Steel: 2871 (1302) Aluminum: 2517 (1142)

# YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

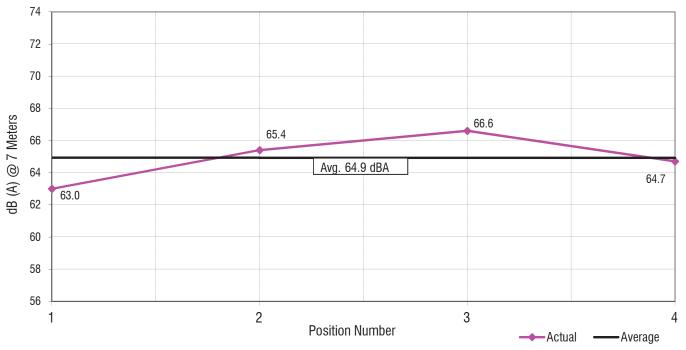
Specification characteristics may change without notice. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.



# **LEVEL 2 ACOUSTIC ENCLOSURE** SG35 5.4L



# Measured Sound Levels - 60 Hz



Notes:

- 1. All positions 23 ft (7M) from side faces of generator set.
- 2. Generator operating at full load.
- 3. Test conducted on a 100 foot diameter asphault surface.
- 4. Non-enclosed sets do not include exhaust sound during testing.



**DATA** 



# STATEMENT OF EXHAUST EMISSIONS 2016 SPARK-IGNITED GENERATORS INDUSTRIAL SERIES

1 of 2

	NON-SCAQMD											
Madal	Fasins	EPA Engine	Fuel	CATALYST	Comb Cat or	EPA	(	Grams/bhp-h	r.	Rated RPM	ВНР	Fuel Flow
Model	Engine	Family	Fuel	Req'd	Separate Cat	Cert #	THC	NOx	CO			(lb/hr)
SG035	5.4	GGNXB05.42NN	NG	No	NR	GGNXB05.42NN-049	1.60	2.52	95.32	1800	82.10	36.91
SG035	5.4	GGNXB05.42NL	LPG	No	NR	GGNXB05.42NL-048	1.24	3.45	112.01	1800	82.30	34.60
SG050	5.4	GGNXB05.42NN	NG	No	NR	GGNXB05.42NN-049	1.60	2.52	95.32	1800	82.10	36.91
SG050	5.4	GGNXB05.42NL	LPG	No	NR	GGNXB05.42NL-048	1.24	3.45	112.01	1800	82.30	34.60
SG050	6.8	GGNXB06.82NL	LPG	No	NR	GGNXB06.82NL-010	1.86	2.67	172.30	1800	84.66	46.55

NR: Not Required

Refer to page 2 for definitions and advisory notes.

	CALIFORNIA SCAQMD CERTIFIED											
Model	Engine	EPA Engine	Fuel	CATALYST	SCAQMD	EPA	Grams/bhp-hr.		Rated	BHP	Fuel Flow	
Model	Eligilie	Family	ruei	Req'd	CEP#	Cert #	THC	NOx	CO	RPM	DIT	(lb/hr)
SG035	5.4	GGNXB05.42L1	NG	Yes	530212	GGNXB05.42L1-017	0.38	0.22	0.64	1800	81.95	24.91
SG035	5.4	GGNXB05.42L2	LPG	Yes	530215	GGNXB05.42L2-018	0.04	0.10	0.70	1800	81.70	29.13
SG050	5.4	GGNXB05.42L1	NG	Yes	530212	GGNXB05.42L1-017	0.38	0.22	0.64	1800	81.95	24.91
SG050	5.4	GGNXB05.42L2	LPG	Yes	530215	GGNXB05.42L2-018	0.04	0.10	0.70	1800	81.70	29.13
SG050	6.8	GGNXB06.82L6	LPG	Yes	470347	GGNXB06.82L6-024	0.01	0.05	0.50	1800	85.92	34.14

Refer to page 2 for definitions and advisory notes.





# STATEMENT OF EXHAUST EMISSIONS 2016 SPARK-IGNITED GENERATORS

#### 2016 EPA SPARK-IGNITED EXHAUST EMISSIONS DATA

Effective since 2009, the EPA has implemented exhaust emissions regulations on stationary spark-ignited (gaseous) engine generators for emergency applications. All Generac spark-ignited gensets, including SG, MG, QTA and QT series gensets, that are built with engines manufactured in 2009 and later meet the requirements of 40CFR part 60 subpart JJJJ and are EPA certified. These generator sets are labeled as EPA Certified with decals affixed to the engines' valve covers.

The attached documents summarize the general information relevant to EPA certification on these generator sets. This information can be used for submittal data and for permitting purposes, if required. These documents include the following information:

The EPA Engine Family is assigned by the Manufacturer under EPA guidelines for certification purposes and appears on the EPA certificate.

Indicates whether an exhaust catalyst and Air/Fuel Ratio control system are required on the generator set to meet EPA certification requirements. Generally, units rated 80kW and smaller do not require a catalyst to meet EPA certification requirements. Please note that some units that do not require a catalyst to meet EPA requirements do need a catalyst if the California SCAQMD option is selected. Please see "California SCAQMD" below for additional information on this option.

#### **Combination Catalyst or Separate Catalyst**

SG and MG series generator sets typically utilize a single combination catalyst/silencer as part of meeting EPA certification requirements. Many QT and QTA series generator sets use the same engines as SG and MG series units, but have different exhaust configurations that require the use of conventional silencers with additional separate catalysts installed.

#### **EPA Certificate Number**

Upon certification by the EPA, a Certificate Number is assigned by the EPA.

#### Emissions Actuals - Grams/bhp-hr

Actual exhaust emission data for Total Hydrocarbons (THC), Nitrogen Oxides (NOx) and Carbon Monoxide (CO) that were submitted to EPA and are official data of record for certification. This data can be used for permitting if necessary. Values are expressed in grams per brake horsepowerhour; to convert to grams/kW-hr, multiply by 1.341. Please see advisory notes below for further information.

#### California Units, SCAQMD CEP Number

A separate low-emissions option is available on many Generac gaseous-fueled generator sets to comply with the more stringent South Coast Air Quality Management District requirements that are recognized in certain areas in California. Gensets that include this option are also EPA Certified.

#### **General Advisory Note to Dealers**

The information provided here is proprietary to Generac and its' authorized dealers. This information may only be disseminated upon request, to regulatory governmental bodies for emissions permitting purposes or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc.

#### **Advisory Notes on Emissions Actuals**

- The stated values are actual exhaust emission test measurements obtained from units representative of the generator types and engines described.
- · Values are official data of record as submitted to the EPA and SCAQMD for certification purposes. Testing was conducted in accordance with prevailing EPA protocols, which are typically accepted by SCAQMD and other regional authorities.
- No emission values provided are to be construed as guarantees of emissions levels for any given Generac generator unit.
- Generac Power Systems reserves the right to revise this information without prior notice.
- · Consult state and local regulatory agencies for specific permitting requirements.
- The emissions performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basis and must be consulted by the permit applicant/equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems cannot be construed as a guarantee of installability of the generator set.
- •The emission values provided are the result of multi-mode, weighted scale testing in accordance with EPA testing regulations, and may not be representative of any specific load point.
- · The emission values provided are not to be construed as emission limits.



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CERTIFICATE OF CONFORMITY WITH THE CLEAN AIR ACT 2016 MODEL YEAR

**OFFICE OF TRANSPORTATION** ANN ARBOR, MİCHIGAN 48105 AND AIR QUALITY

> Certificate Issued To: Generac Power Systems, Inc. (U.S. Manufacturer or Importer)

Certificate Number: GGNXB05.42NL-048

Effective Date: 10/20/2015

**Expiration Date:** 

12/31/2016

"Thermers Compliance Division

10/20/2015 Issue Date:

Revision Date: N/A

Manufacturer: Generac Power Systems, Inc.

Mobile/Stationary Certification Type: Stationary Engine Family: GGNXB05.42NL

Fuel: LPG/Propane

**Emission Standards:** 

HC + NOx (g/kW-hr): 13.4 CO (g/kW-hr): 519 Part 90 Phase 1

Emergency Use Only: Y

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR Part 60, 1065, 1068, and 60 (stationary only and combined stationary and mobile) and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following nonroad engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and produced in the stated model year.

documentation required by 40 CFR Part 60 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60. This certificate of conformity does This certificate of conformity covers only those new nonroad spark-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the not cover nonroad engines imported prior to the effective date of the certificate. It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068.20 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 60. It is also a term of this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 60.

This certificate does not cover large nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

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California Historical Resources Information System



AMADOR EL DORADO NEVADA PLACER SACRAMENTO YUBA California State University, Sacramento 6000 J Street, Folsom Hall, Suite 2042 Sacramento, California 95819-6100 phone: (916) 278-6217 fax: (916) 278-5162 email: ncic@csus.edu

5/23/2017 NCIC File No.: ELD-17-37

Jared Kearsley Epic Wireless Group 8700 Auburn Folsom Road, Suite 400 Granite Bay, CA 95746

Records Search Results for AT&T/Epic Wireless/El Dorado County Resource Record Search Request – APN: 105-110-81

# Jared Kearsley:

Per your request received by our office on 5/5/2017, a complete records search was conducted by searching California Historic Resources Information System (CHRIS) maps for cultural resource site records and survey reports in El Dorado County within a 1/4-mile radius of the proposed project area.

Review of this information indicates that the proposed project area contains zero (0) prehistoric-period resource(s) and zero (0) historic-period cultural resource(s). Additionally, zero (0) cultural resources study reports on file at this office cover a portion of the proposed project area.

Outside the proposed project area, but within the 1/4-mile radius, the broader search area contains zero (0) prehistoric-period resource(s) and zero (0) historic-period cultural resource(s). Additionally, one (1) cultural resources study reports on file at this office cover a portion of the broader search area.

In this part of El Dorado County, archaeologists locate prehistoric-period habitation sites "along streams or on ridges or knolls, especially those with southern exposure." (Moratto 1984:290) This region is known as the ethnographic-period territory of the Nisenan, also called the Southern Maidu. The Nisenan maintained permanent settlements along major rivers in the Sacramento Valley and foothills; they also periodically traveled to higher elevations (Wilson and Towne 1978:387-389). The proposed project search area is situated in the Sierra Nevada about one eighth of a mile east of drainage to Jacobs Creek. Given the extent of known cultural resources and the environmental setting, there is <u>low potential</u> for locating prehistoric-period cultural resources in the immediate vicinity of the proposed project area.

Within the search area, the 1866 GLO plat of T11N, R9E shows no evidence of nineteenth-century historical activity. The 1950 Coloma 7.5' USGS topographical map shows evidence of a twentieth-century unpaved road. Given the extent of known cultural resources and patterns of local history, there is <a href="low potential">low potential</a> for locating historic-period cultural resources in the immediate vicinity of the proposed project area.

# **SENSITIVITY STATEMENT:**

- 1) With respect to cultural resources, it appears that the proposed project area is not sensitive.
- 2) Should the lead agency/authority require a cultural resources survey, a list of qualified local consultants can be found at http://chrisinfo.org.
- 3) If cultural resources are encountered during the project, avoid altering the materials and their context until a qualified cultural resources professional has evaluated the project area. Project personnel should not collect cultural resources. Prehistoric-period resources include: chert or obsidian flakes, projectile points, and other flaked-stone artifacts; mortars, grinding slicks, pestles, and other groundstone tools; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include: stone or adobe foundations or walls; structures and remains with square nails; mine shafts, tailings, or ditches/flumes; and refuse deposits or bottle dumps, often located in old wells or privies.
- 4) Identified cultural resources should be recorded on DPR 523 (A-J) historic resource recordation forms, available at <a href="http://ohp.parks.ca.gov/?page\_id=1069">http://ohp.parks.ca.gov/?page\_id=1069</a>.
- 5) Review for possible historic-period cultural resources has included only those sources listed in the referenced literature and should not be considered comprehensive. The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historical value. If the area of potential effect contains such properties not noted in our research, they should be assessed by an architectural historian before commencement of project activities.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact North Central Information Center at (916) 278-6217 if you have any questions about this record search. An invoice is enclosed.

Sincerely,

Dr. Nathan Hallam, Coordinator North Central Information Center

14 July 2017

Mr. Jared Kearsley Leasing / Zoning Manager Epic Wireless Group 8700 Auburn Folsom Road, Suite 400 Granite Bay, CA 95746

Subject: AT&T Gold Hill Site CVL03054 Project in El Dorado County, CA

Dear Mr. Kearsley:

Phone: 916-755-1326

Sycamore Environmental prepared a Biological Resources Evaluation (BRE) for the AT&T Gold Hill Site CVL03054 Project in El Dorado County, CA. The BRE is a baseline document. This letter identifies potential biological resource issues and recommended avoidance and minimization measures.

#### **Trees**

The 2004 El Dorado County General Plan Policy 7.4.4.4 requires all new development projects adhere to tree canopy retention and replacement standards. For parcels greater than one acre in size with 1 percent oak tree canopy cover or greater, 90 percent of the canopy must be retained.

#### **Recommendation:**

• The limits of construction will be fenced by the Contractor to minimize impacts on trees. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation removal or ground disturbing activities will be permitted beyond the fencing. Incorporation of this measure will help ensure that trees are not impacted beyond what is permitted by construction entitlements.

#### **Migratory Birds and Birds of Prey**

Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 15 January through 31 August.

#### **Recommendation:**

- Tree and vegetation removal shall occur outside of the nesting season (15 January through 31 August annually). All tree removal shall occur between 1 September and 14 January, which is outside of nesting season for MBTA and Fish and Game Code protected birds. If work occurs outside the nesting season, there will be no need to conduct a preconstruction survey for active nests.
- If project work occurs during the nesting season, a qualified biologist shall conduct a preconstruction survey for nesting birds of prey and other birds protected by the MBTA and Fish and Game Code within 15 days prior to the start of construction. The survey area shall cover the Project, a 500 ft radius for nesting birds of prey, and a 100 ft radius for all other MBTA and Fish and Game Code protected birds. If no active nest of a bird of prey, MBTA bird, or other Fish and Game Code-protected bird is found, then no further mitigation measures are necessary.

- Should an active nest of a protected bird be identified, an exclusion zone of 500 feet shall be established around the nest if it is a bird of prey, and 100 feet if it is a protected bird other than a bird of prey. Buffer sizes may be adjusted at the discretion of the biologist depending on the species of bird, the location of the nest relative to the project, the existing level of disturbance, and other site-specific conditions. No work will be allowed in the exclusion zone until the biologist determines that the nest is no longer active, or monitoring determines that a smaller ESA will protect the active nest.
- From 15 January through 31 August, if additional trees or shrubs need to be trimmed and/or
  removed after construction has started, a survey will be conducted for active nests in the area to
  be affected. If an active nest is found, the above measures will be implemented.
- If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.

Please contact me with any questions.

Sincerely,

Jessie Quinn, Ph.D.

Ecologist

Enclosure: Biological Resources Evaluation

# Biological Resources Evaluation for the AT&T Gold Hill Site CVL03054 Project

El Dorado County, CA

# Prepared by:

Sycamore Environmental Consultants, Inc.

6355 Riverside Blvd., Suite C Sacramento, CA 95831 Phone: 916/427-0703 Contact: Jessie Quinn

# Prepared for:

Epic Wireless Group, LLC 8700 Auburn Folsom Road, Suite 400 Granite Bay, CA 95746 Phone: 916/755-1326

Contact: Jared Kearsley

July 2017

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# Biological Resources Evaluation for the AT&T Gold Hill Site CVL03054 El Dorado County, CA

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# **APPENDICES**

Appendix A. Plant and Wildlife Species Observed

Appendix B. USFWS Species List

Appendix C. CNDDB Summary Report and CNPS Inventory Query

Appendix D. Photographs

# I. SUMMARY OF FINDINGS AND CONCLUSIONS

This Biological Resources Evaluation report was prepared for the AT&T Gold Hill Site CVL03054 Project (Project) to document baseline biological conditions observed in 2017. The approximately 0.39-acre (ac) Biological Study Area (BSA) is located south of Highway 49 in the community of Lotus, in unincorporated El Dorado County, CA.

Trees and vegetation in and adjacent to the BSA provide habitat for nesting birds protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code. The nesting bird season is generally defined as 15 February through 31 August, though some species of birds may begin nesting as early as 15 January.

No special-status wildlife or plant species have the potential to occur in the BSA. The BSA is in a previously disturbed area within an Important Biological Corridor. The BSA is not in a Rare Plant Mitigation Area or within Important Habitat for Migratory Deer Herds. Based on aerial images in Google Earth from October 2016, the 10.065-acre parcel on which the BSA is located contains more than 1 percent canopy cover of oak woodlands. There are no wetlands or waters in the BSA.

# II. INTRODUCTION

# A. Purpose of Report

The purpose of this Biological Resources Evaluation (BRE) report is to document baseline biological resources in the AT&T Gold Hill Site CVL03054 Project (Project) Biological Study Area (BSA).

# **B.** Project Location

The approximately 0.39-ac BSA is located in the western foothills of the Sierra Nevada Mountains in unincorporated El Dorado County, California. The BSA is located in a rural residential area, and is bound by large lot residences to the north and undeveloped mixed oak woodland to the south. The BSA is on the Coloma USGS topographic quad (T11N R9E, Section 14, Mt. Diablo Base & Meridian; Figure 1), and is in the South Fork American Hydrologic Unit (Hydrologic Unit Code 18020129). The geographic coordinates of the BSA are 38.802850° north, 122.648761° east (WGS84), and the UTM coordinates (Zone 10N) are 679,067 meters east, 4,296,912 meters north. Elevation in the BSA ranges from approximately 1,110 to 1,050 ft above sea level. The BSA is located on the top of a hill. Figure 2 is an 11 July 2016 aerial photo of the BSA and surrounding area.

# C. Project Applicant

# **Applicant**:

AT&T Mobility 2600 Camino Ramon San Ramon, CA 94583

# **Consulting Planner**

Epic Wireless Group, LLC 8700 Auburn Folsom Road, Suite 400 Granite Bay, CA 95746

Phone: 916/755-1326 Contact: Mr. Jared Kearsley

# D. Project Description

AT&T intends to construct a wireless telecommunications facility at 6812 Gods Way, Lotus, in northeastern El Dorado County. The proposed AT&T Gold Hill Site CVL03054 Project (Project) facility

tower will be a new 110-ft monopine tower with a new GPS antenna; six wireless antennas and nine remote radio units (RRUs) mounted at 108 ft; six wireless antennas, one surge protector, and nine RRUs mounted at 100 ft; and six RRUs and three surge protectors on a collar mount directly below the sectors. In the future, the tower can also accommodate three additional RRUs and two 4-ft diameter microwave dishes mounted at 89.5 ft. Future antennas can be mounted by other carriers at approximately 82 and 67 ft. The tower has been designed with pine foliage to match the existing surrounding trees. The foliage would extend horizontally approximately seven ft above the top of the structure to an overall structure height of approximately 117 ft. Antennas will be concealed with socks. The monopine "trunk" and RRUs will be painted brown.

The Project will extend an existing 12-ft wide gravel driveway on the property by roughly 100 ft to provide access to the proposed facility. The new access road will remain within the proposed 15-ft wide lessee access utility easement. The facility will include a pre-fabricated equipment shelter and a new 15-Kw propane generator and a 500-gallon propane tank, each located on new 50-ft<sup>2</sup> concrete pads. The facility will be located on a 35-ft by 40-ft lease area and enclosed with a new 6-ft chain link fence and 12-ft wide double access gate. Connecting the facility with existing power and fiber lines will require excavation of an approximately 155-ft long linear utility trench along the proposed access road, through which to run cables. At the point of connection, a 6-ft wide and 10.5-ft long utility easement is proposed, which will allow the Project to join the new cables to the existing joint utility pole with a transformer. Two new underground power and telecommunication conduits will be installed less than 5 ft northeast of the double gate of the lease area.

The Project does not include removal or pruning of oak trees.

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AT&T Gold Hill Site CVL03054 Project El Dorado County, CA 6 July 2017





Aenal Photograph: 11 July 2016 NAIP2016 USDA FSA Imagery ESRI ArcGIS Basemap Layer

Figure 2. Aerial Photograph

Biological Resources Evaluation AT&T Gold Hill Site CVL03054 Project El Dorado County, CA

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# III. STUDY METHODS

# A. Studies Conducted

An evaluation of biological resources was conducted to determine whether any special-status plant or wildlife species, their habitat, or sensitive habitats occur in the BSA. Data on known special-status species and habitats in the area was obtained from state and federal agencies. Maps and aerial photographs of the BSA and surrounding area were reviewed. The field survey, map review, and a review of the biology of evaluated species and habitats were used to determine the special-status species and sensitive habitats that could occur in the BSA.

Special-status species in this report are those listed under the federal or state endangered species acts, under the California Native Plant Protection Act, as a California species of special concern or fully protected by the California Department of Fish and Wildlife (CDFW), or that are California Rare Plant Rank 1 or 2 (CNPS 2017). This is consistent with special-status species definitions in the El Dorado County General Plan EIR (2004). Special-status natural communities are waters, wetlands, riparian communities, and any natural community ranked S1, S2, or S3 by CDFW (2010). Special-status species and communities may also include those considered locally important or sensitive. El Dorado County identifies Important Biological Corridors and Important Habitat for Migratory Deer Herds in its General Plan (2016), and Rare Plan Mitigation areas per the Board of Supervisors Resolution No. 205-98. General Plan Policy 7.4.4.4 requires all new development projects adhere to tree canopy retention and replacement standards.

Data received from USFWS, CNDDB, and CNPS records (Appendices B and C) were used to evaluate species and habitats of concern with potential to occur within the BSA. The CNDDB tracks other species that have not been designated by CDFW as a California species of special concern; these species were not evaluated as special-status species in this BRE.

# B. Survey Dates, Personnel, and Coverage

Fieldwork for this BRE, covering the 0.39-ac BSA, was conducted by Jessica Orsolini, Senior Wildlife Biologist, and Juan Mejia, Biologist, on 28 June 2017.

# C. Problems Encountered and Limitations That May Influence Results

No problems or limitations were encountered.

# D. Literature Search

An IPaC Trust Resource Report was obtained from the U.S. Fish and Wildlife Service (USFWS), Sacramento Field Office on 26 June 2017 (Appendix B). The list identifies federal-listed, candidate, and proposed species that potentially occur in, or could be affected by, the Project.

The California Natural Diversity Database (CNDDB) was queried prior to field surveys for known occurrences of special-status species in or near the BSA (Coloma Quad and the eight surrounding quads). The list was updated most recently on 26 June 2017 (CDFW 2017, Appendix C). The California Native Plant Society (CNPS) inventory of rare and endangered plants was queried prior to field surveys for known occurrences of special-status plants in or near the BSA (Coloma Quad and the eight surrounding

quads). The list was updated most recently on 26 June 2017 (Appendix C). Table 1 lists the USGS quads evaluated.

Table 1. USGS Quads Evaluated for the AT&T Gold Hill Site CVL03054 Plan Project

Auburn	Greenwood	Georgetown
Pilot Hill	Coloma	Garden Valley
Clarksville	Shingle Springs	Placerville

# E. Field Survey Methods

Biological surveys conducted for this report consisted of biologists walking through the BSA while looking for special-status wildlife species, their sign, and their habitat. Areas adjacent to the BSA were also inspected for important habitat features such as elderberry shrubs, vernal pools, burrows, and other wetlands/waters. Biological community boundaries were recorded with a sub-meter accurate GPS. All wildlife species observed in or near the BSA were recorded (Appendix A).

# F. Mapping

Biological communities observed by Sycamore Environmental were mapped using a Trimble GeoXT submeter accurate GPS. The 6 July aerial photo in Figures 2 and 4 was downloaded from ESRI World Imagery. Biological communities were mapped based on GPS data, field observations, and interpretation of the aerial photographs available on Google Earth. No additional sensitive biological resources were observed.

# IV. ENVIRONMENTAL SETTING

The BSA is located in an undeveloped area south of highway 49 in Coloma, CA. Land use adjacent to the BSA consists of undeveloped forest and dispersed residences. The South Fork American River is to the north and Arrowbee Lake is located to the south. The parcel on which the BSA is located is approximately 10.065 acres in size.

#### A. Soils

Mapped soil units in the BSA were determined using the Soil Survey of El Dorado Area (NRCS 1974). Mapped soil units in the BSA is Boomer very rocky loam, 30-50% slopes (Figure 3; NRCS 2016). Figure 3 is a soils map.

# Boomer very rocky loam, 30-50% Percent Slopes:

These soils occur on uplands with black oak, ponderosa pine and manzanita. A typical profile of Boomer loam is dark brown (7.5YR 5/4) loam from 0 to 3 inches; dark brown (7.5YR 3/4) gravelly sandy clay loam from 3 to 11 inches; yellowish red (5YR 4/6) gravelly clay loam from 11 to 23 inches; yellowish red (5YR 4/6) gravelly clay loam from 11 to 23 inches; yellowish red (5YR 4/6) clay loam from 23 to 33 inches; strong brown (7.5 YR 5/8) silty clay loam from 33 to 45 inches; and strongly weathered greenstone below 45 inches. This soil is neutral to medium acidic. Boomer series are fine-loamy, mixed, superactive mesic Ultic Haploxeralfs. These soils formed in material weathered from metavolcanic rock. Permeability is moderately slow. Surface runoff is slow to very rapid and erosion hazard is moderate.

# **B.** Weather and Climate Conditions

Fieldwork was conducted on 28 June 2017. Precipitation in California is typically reported for the period from 1 July through 30 June of the next calendar year. The historic average precipitation from 1 July through 25 April for the National Weather Service Sacramento Executive Airport gauge is 18.18 inches. From 1 July 2016 through 25 April 2017, the Sacramento Executive Airport Gauge received 33.08 inches of rain (NWSFO 2017), or 182% of the average precipitation. The BSA had wetter than average hydrologic conditions during the 28 June fieldwork. Weather during the survey was sunny, calm, and dry.

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# C. Biological Communities

Biological communities are defined by species composition and relative abundance. Biological communities correlate where applicable with the list of California terrestrial natural communities recognized by CDFW (2010). Descriptions of biological communities present in the BSA are included below. Biological community descriptions include plant species identified during the field surveys. Biological communities are mapped in Figure 4 and their acreages are in Table 2. Photographs of the BSA are in Appendix D.

Table 2. Biological Communities in the BSA

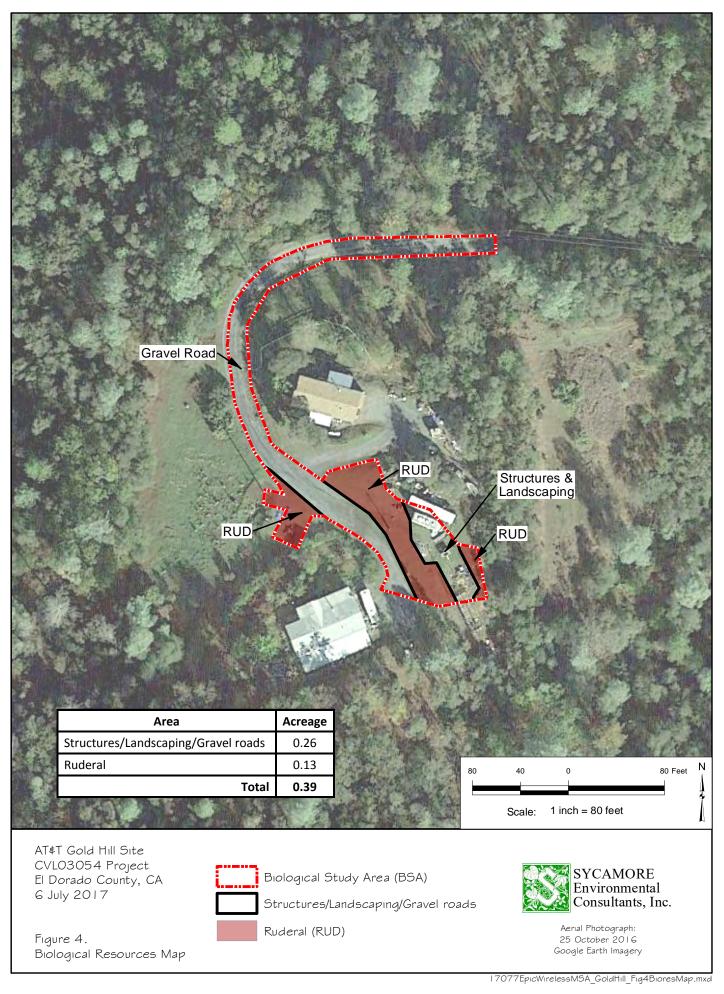
Biological Community	Vegetation Alliances and CDFW Alliance Codes <sup>1</sup>	Rarity Rank <sup>2</sup>	Acreage <sup>3</sup>
Structures/Landscaping/Gravel roads		1	0.26
Ruderal		-	0.13
Total:			0.39

<sup>&</sup>lt;sup>1</sup> Vegetation alliances based on descriptions and classification methods in Sawyer et al. (2009). Alliance codes from CDFW (2010). Some communities may lack recognized vegetation alliances or contain multiple alliances.

<sup>&</sup>lt;sup>2</sup> Rarity ranking follows NatureServe's Heritage Methodology and is based on degree of imperilment as measured by rarity, trends, and threats. State (S) ranks of 1-3 are considered highly imperiled by CDFW (2010). Nonnative vegetation has no rarity rank.

<sup>&</sup>lt;sup>3</sup> Acreages were calculated using ArcMap functions.

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#### 1. Structures/landscaping/gravel roads

A total of 0.26 acre of developed land use occurs in the BSA, including a gravel road, structures, and associated landscaping.

#### 2. Ruderal

A total of 0.13 ac of ruderal land occurs in the south end of the BSA on either side of the gravel road. This non-native grassland community is dominated by American bird's foot trefoil (*Acmispon americanius*) lesser hawkbit (*Leontodon saxatilis*), yellow starthistle (*Centaurea solstitalis*), harvest brodiaea (*Brodiea elegans*), Monterey centaury (*Zeltnara muehlangergii*), prickly lettuce (*Lactuca seriola*), and clustered clover (*Trifolium glomeratum*). Ruderal land has no special status.

#### D. The Existing Level of Disturbance

The vast majority of the BSA has a high level of existing disturbance from the gravel roads, mowing of the grass, and human access.

#### V. BIOLOGICAL RESOURCES IN THE BIOLOGICAL STUDY AREA

# A. Determination of Special-Status Species and Communities in the Biological Study Area

Field surveys were conducted by Sycamore Environmental biologists to determine if individuals or habitat for special-status species identified in the file data were present in the BSA. Special-status species for which suitable habitat is present are discussed below.

Special-status wildlife species, plant species, and communities for which suitable habitat is not present, or whose distributional limits preclude the possibility of their occurrence in the BSA, are not discussed in Section V of this report.

### **B.** Evaluation of Special-Status Natural Communities

The BSA is located within an Important Biological Corridor (IBC), in a previously disturbed and developed area. There are no special-status natural communities within the BSA.

The project is not located within Important Migratory Deer Habitat.

Based on aerial images in Google Earth from October 2016, the 10.065-acre parcel on which the BSA is located contains more than 1 percent canopy cover of oak woodlands.

#### C. Evaluation of Special-Status Fish and Wildlife Species

#### 1. Birds

#### **Migratory Birds and Birds of Prev**

**STATUS:** Fish and Game Code 3503.5 protects all birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey). Birds of prey include raptors, falcons, and owls. Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All migratory bird species are protected by the MBTA. Any disturbance that causes direct injury, death, nest abandonment, or forced fledging of migratory birds, is restricted under the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a 'take' of the species under federal law.

**HABITAT PRESENT IN THE BSA:** No bird of prey nests or nests of other birds protected by the MBTA or Fish and Game Code were observed in the BSA during biological surveys. Bird species observed are listed in Appendix A. Trees and vegetation in the BSA provide nesting habitat for birds of prey and other birds protected by the MBTA and Fish and Game Code.

**DISCUSSION:** The nesting bird season is generally defined as February 15<sup>th</sup> through August 31<sup>st</sup>, though some species can begin nesting as nearly as January 15<sup>th</sup>.

# D. Evaluation of Special-Status Plant Species

The project is not located in a Rare Plant Mitigation Area. There are no special status plant species with potential to occur in the BSA.

# E. Potentially Jurisdictional Waters

Field surveys conducted by Sycamore Environmental biologists included evaluation of potential wetlands or waters within the BSA.

There are no potentially jurisdictional waters in the BSA.

#### VI. LITERATURE CITED & PERSONAL COMMUNICATIONS

#### A. Literature Cited

- Baldwin, B. et al. (ed.). 2012. The Jepson Manual, Vascular Plants of California, 2nd ed. University of California Press, Berkeley, CA.
- California Department of Fish and Wildlife (CDFW). 10 September 2010. List of California Vegetation Alliances. Biogeographic Data Branch, CNDDB, Sacramento, CA.
- California Department of Fish and Wildlife (CDFW). April 2017 (2017a). Special Plant and Animal Lists, including the following: Special Vascular Plants, Bryophytes, and Lichens List, Endangered, Threatened and Rare Plants List, Special Animals List and Endangered and Threatened Animals List. Nongame Wildlife, Sacramento, CA. http://www.dfg.ca.gov/wildlife/nongame/list.html
- California Native Plant Society (CNPS). Accessed May and June 2017. Inventory of rare and endangered plants (online edition, v8-01a). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org/
- El Dorado County. January 2004, Certified 19 July 2004 (2004). El Dorado County general plan, final environmental impact report (EIR). Resolution No. 234-2004, State Clearinghouse No. 2001082030. Prepared by EDAW.
- El Dorado County. Adopted 19 July 2004, last amended 6 December 2016 (2016). 2004 El Dorado County General Plan A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief. Resolution No. 235-2004, State Clearinghouse No. 2001082030. Prepared by El Dorado County Planning Department, Placerville, CA.
- National Resources Conservation Service (NRCS). 16 September 2016. Soil Survey Geographic (SSURGO) database for El Dorado County, CA. USDA, NRCS. http://SoilDataMart.nrcs.usda.gov
- Natural Resources Conservation Service (NRCS). Accessed May 2017. Official soil series descriptions (OSD). Soil Survey Staff, United States Department of Agriculture. https://soilseries.sc.egov.usda.gov/
- National Weather Service Forecast Office (NWSFO), Sacramento, CA. Accessed July 2017. Observed Weather. http://www.nws.noaa.gov/climate/index.php?wfo=sto
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California vegetation, 2nd ed. California Native Plant Society, Sacramento, CA.

#### VII. PREPARERS

Adrienne Levoy, B.S., Conservation and Resource Studies, University of California, Berkeley, CA. Over 9 years experience as a professional biologist. Conducts wildlife surveys, yellow-billed cuckoo, burrowing owl, and Swainson's hawk protocol surveys, biological resource evaluations, worker awareness training, and construction monitoring; prepares impact/mitigation analyses, and assists with permit application preparation. She prepares reports used in the CEQA/NEPA process that document resources, identify impacts, recommends mitigation measures, and assists with permit application preparation. She holds a USFWS recovery permit for listed yellow-billed cuckoo (TE-78073B-0) and a CDFW Scientific Collecting Permit (SC-13362).

Responsibilities: Report preparation.

Jessica Quinn, Ph.D., Ecology, University of California, Davis, CA. Over 8 years of experience as a professional ecologist. Conducts special-status plant and wildlife surveys; provides technical support for wetland delineations; and coordinates and prepares PES submissions. Project management, prepares CEQA documents and reports used in the CEQA/NEPA process that document resources, identify impacts, and recommend mitigation measures. She has managed and conducted wetland functional analyses, environmental risk assessments, environmental screening evaluations, and restoration design evaluations, and has received training in biology and survey techniques for CA red-legged frog, NEPA and Habitat Conservation Planning. Her background includes 13 additional years of experience managing and conducting ecological research on mammals, birds, and grassland ecology. Dr. Quinn holds a CDFW Rare, Threatened and Endangered Plant Voucher Collecting Permit (#2081(a)-16-053-V), and is an authorized individual on the CDFW Scientific Collecting Permit (SC-7617). Responsibilities: Project manager, report preparation.

**Jeffery Little**, Vice President, Sycamore Environmental. Over 24 years experience with preparation of NES, BA, and NEPA/CEQA compliance documents, impact analysis, agency formal and informal consultations and permitting. Project management, conducts special-status species surveys, jurisdictional delineations, and prepares mitigation and monitoring plans. CAD/ GIS Manager responsible for data collection, map creation, impact analyses, and report preparation. He holds a California Department of Fish and Wildlife Rare, Threatened and Endangered Plant Voucher Collecting Permit (2081(a)-14-078-V), and is an authorized individual on the CDFW Scientific Collecting Permit (SC-7617). Responsibilities: Principal-in-Charge, QA/QC

Aramis Respall, GIS Analyst/ CAD Operator. Over 20 years experience in drafting and spatial analysis using AutoCAD map and ArcGIS for public and private projects. Prepares figures for biological and permitting documents such as project location maps, biological resource maps, wetlands/waters delineation maps, impact analysis maps, and other supporting graphics. Primary experience evolved from surveying and civil engineering practices to advanced GPS/GIS technology. Responsibilities: Figure preparation and spatial analysis.

# **APPENDIX A**

# Plant and Wildlife Species Observed

Plant Species Observed. Taxonomy follows Baldwin et al. 2012.

Family	Scientific Name	Common Name	N/I	CAL-IPC <sup>2</sup>
GYMNOSPERMS				<u>I</u>
EUDICOTS				
Asteraceae	Baccharis pilularis	Coyote brush	N	
	Centaurea solstitialis	Yellow star-thistle	I	High
	Carduus pycnocephalus ssp. pycnocephalus	Italian thistle	I	Moderate
	Cirsium vulgare	Bull thistle	I	Moderate
	Lactuca serriola	Prickly lettuce	I	
	Leontodon saxatilis	Hairy hawkbit	I	
	Tragopogon dubius	Yellow salsify	I	
Euphorbiaceae	Croton setigerus	Turkey-mullein	N	
Fabaceae	Acmispon americanus var. americanus	Deervetch	N	
	Trifolium hirtum	Rose clover	I	Limited
	Trifolium glomeratum	Clustered clover	I	
Gentianaceae	Zeltnera muehlenbergii	Monterey centaury	N	
Geraniaceae	Erodium botrys	Storksbill, filaree	I	
Rosaceae	Rubus armeniacus	Himalayan blackberry	I	High
	Galium aparine	Goose grass	N	
Scrophulariaceae	Verbascum thapsus	Woolly mullein	I	Limited
MONOCOTS				
Poaceae	Aira caryophyllea	Silver hair grass	I	
	Avena barbata	Slender wild oat	I	Moderate
	Cynodon dactylon	Bermuda grass	I	Moderate
	Cynosurus echinatus	Bristly dogtail grass	I	Moderate
	Hordeum murinum ssp. leporinum	Hare barley	I	Moderate
Themidaceae	Brodiaea elegans ssp. elegans	Harvest brodiaea	N	

<sup>&</sup>lt;sup>1</sup> N = Native to CA; I = Introduced.

<sup>&</sup>lt;sup>2</sup> Negative ecological impact according to the California Invasive Plant Council (Cal-IPC 2006).

# Wildlife Species Observed

COMMON NAME	SCIENTIFIC NAME
BIRDS	
Spotted towhee	Pipilo maculatus
Lesser goldfinch	Spinus psaltria
Tree swallow	Tachycineta bicolor
Turkey vulture	Cathartes aura



# United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846 Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To: June 26, 2017

Consultation Code: 08ESMF00-2017-SLI-2438

Event Code: 08ESMF00-2017-E-06633

Project Name: Gold Hill Wireless Telecommunication Facility

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

#### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected\_species\_list/species\_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle\_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

#### Attachment(s):

Official Species List

# **Official Species List**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846 (916) 414-6600

18-1015 J 120 of 135

# **Project Summary**

Consultation Code: 08ESMF00-2017-SLI-2438

Event Code: 08ESMF00-2017-E-06633

Project Name: Gold Hill Wireless Telecommunication Facility

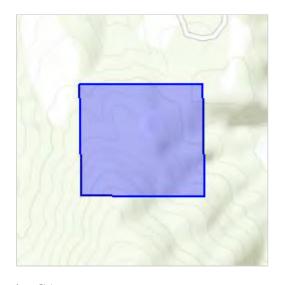
Project Type: \*\* OTHER \*\*

Project Description: Installation of wireless telecommunication facility in northeastern El

Dorado County.

#### **Project Location:**

Approximate location of the project can be viewed in Google Maps: <a href="https://www.google.com/maps/place/38.802414294515486N120.93724781487958W">https://www.google.com/maps/place/38.802414294515486N120.93724781487958W</a>



Counties: El Dorado, CA

# **Endangered Species Act Species**

There is a total of 6 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

# **Amphibians**

NAME STATUS

California Red-legged Frog (Rana draytonii)

Threatened

There is a **final** <u>critical</u> <u>habitat</u> designated for this species. Your location is outside the designated critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/2891

#### **Fishes**

NAME STATUS

Delta Smelt (*Hypomesus transpacificus*)

Threatened

There is a **final** <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>

Steelhead (Oncorhynchus (=Salmo) mykiss)

Threatened

Population: Northern California DPS

There is a **final** <u>critical habitat</u> designated for this species. Your location is outside the designated

critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/1007">https://ecos.fws.gov/ecp/species/1007</a>

# **Flowering Plants**

NAME

Layne's Butterweed (Senecio layneae)

Threatened

Endangered

Endangered

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4062">https://ecos.fws.gov/ecp/species/4062</a>

Pine Hill Ceanothus (Ceanothus roderickii)

No critical habitat has been designated for this species.

Species profile: <a href="https://ecos.fws.gov/ecp/species/3293">https://ecos.fws.gov/ecp/species/3293</a>

Stebbins' Morning-glory (Calystegia stebbinsii)

No critical habitat has been designated for this species.

Species profile: <a href="https://ecos.fws.gov/ecp/species/3991">https://ecos.fws.gov/ecp/species/3991</a>

#### **Critical habitats**

There are no critical habitats within your project area.



#### **Selected Elements by Scientific Name**

# California Department of Fish and Wildlife California Natural Diversity Database



**Query Criteria:** 

Quad<span style='color:Red'> IS </span>(Auburn (3812181)<span style='color:Red'> OR </span>Greenwood (3812088)<span style='color:Red'> OR </span>Georgetown (3812087)<span style='color:Red'> OR </span>Pilot Hill (3812171)<span style='color:Red'> OR </span>Coloma (3812078)<span style='color:Red'> OR </span>Garden Valley (3812077)<span style='color:Red'> OR </span>Clarksville (3812161)<span style='color:Red'> OR </span>Shingle Springs (3812068)<span style='color:Red'> OR </span>Placerville (3812067))

Consider	Flavorit Oc.	Fadaual Otati	Ctata Ctata	Olahal Davi	Otata David	Rare Plant Rank/CDFW
Species Assimitar contilio	Element Code	Federal Status	State Status	Global Rank G5	State Rank	SSC or FP
Accipiter gentilis northern goshawk	ABNKC12060	None	None	Go	33	330
Agelaius tricolor	ABPBXB0020	None	Candidate	G2G3	S1S2	SSC
tricolored blackbird	ABF BAB0020	None	Endangered	G2G3	3132	330
Allium jepsonii	PMLIL022V0	None	None	G2	S2	1B.2
Jepson's onion	T WEILOZZ VO	None	None	02	02	10.2
Ammonitella yatesii	IMGASB0010	None	None	G1	S1	
tight coin (=Yates' snail)	IWO/IODOOTO	140110	140110	01	01	
Andrena blennospermatis	IIHYM35030	None	None	G2	S2	
Blennosperma vernal pool andrenid bee						
Andrena subapasta	IIHYM35210	None	None	G1G2	S1S2	
An andrenid bee						
Aquila chrysaetos	ABNKC22010	None	None	G5	S3	FP
golden eagle						
Arctostaphylos nissenana	PDERI040V0	None	None	G1	S1	1B.2
Nissenan manzanita						
Ardea alba	ABNGA04040	None	None	G5	S4	
great egret						
Ardea herodias	ABNGA04010	None	None	G5	S4	
great blue heron						
Athene cunicularia	ABNSB10010	None	None	G4	S3	SSC
burrowing owl						
Balsamorhiza macrolepis	PDAST11061	None	None	G2	S2	1B.2
big-scale balsamroot						
Banksula californica	ILARA14020	None	None	GH	SH	
Alabaster Cave harvestman						
Banksula galilei	ILARA14040	None	None	G1	S1	
Galile's cave harvestman						
Bombus morrisoni	IIHYM24460	None	None	G4G5	S1S2	
Morrison bumble bee						
Bombus occidentalis	IIHYM24250	None	None	G2G3	S1	
western bumble bee						
Branchinecta lynchi	ICBRA03030	Threatened	None	G3	S3	
vernal pool fairy shrimp						
Calystegia stebbinsii	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
Stebbins' morning-glory						
Calystegia vanzuukiae	PDCON040Q0	None	None	G2Q	S2	1B.3
Van Zuuk's morning-glory						



# **Selected Elements by Scientific Name**

# California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Carex cyrtostachya	PMCYP03M00	None	None	G2	S2	1B.2
Sierra arching sedge						
Carex xerophila	PMCYP03M60	None	None	G2	S2	1B.2
chaparral sedge						
Ceanothus roderickii	PDRHA04190	Endangered	Rare	G1	S1	1B.1
Pine Hill ceanothus		-				
Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
Central Valley Drainage Hardhead/Squawfish Stream						
Chlorogalum grandiflorum	PMLIL0G020	None	None	G2	S2	1B.2
Red Hills soaproot						
Clarkia biloba ssp. brandegeeae	PDONA05053	None	None	G4G5T4	S4	4.2
Brandegee's clarkia						
Corynorhinus townsendii	AMACC08010	None	None	G3G4	S2	SSC
Townsend's big-eared bat						
Cosumnoperla hypocrena	IIPLE23020	None	None	G2	S2	
Cosumnes stripetail						
Crocanthemum suffrutescens	PDCIS020F0	None	None	G2Q	S2	3.2
Bisbee Peak rush-rose						
Desmocerus californicus dimorphus	IICOL48011	Threatened	None	G3T2	S2	
valley elderberry longhorn beetle						
Elanus leucurus	ABNKC06010	None	None	G5	S3S4	FP
white-tailed kite						
Emys marmorata	ARAAD02030	None	None	G3G4	S3	SSC
western pond turtle						
Falco peregrinus anatum	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
American peregrine falcon						
Fremontodendron decumbens	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Pine Hill flannelbush						
Fritillaria eastwoodiae	PMLIL0V060	None	None	G3Q	S3	3.2
Butte County fritillary						
Galium californicum ssp. sierrae	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
El Dorado bedstraw						
Haliaeetus leucocephalus	ABNKC10010	Delisted	Endangered	G5	S3	FP
bald eagle						
Horkelia parryi	PDROS0W0C0	None	None	G2	S2	1B.2
Parry's horkelia						
Hydrochara rickseckeri	IICOL5V010	None	None	G2?	S2?	
Ricksecker's water scavenger beetle				0-		
Lasionycteris noctivagans	AMACC02010	None	None	G5	S3S4	
silver-haired bat	DDE15			0.57:70	0.405	
Lathyrus sulphureus var. argillaceus	PDFAB25101	None	None	G5T1T2	S1S2	3
dubious pea						



# **Selected Elements by Scientific Name**

# California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Myotis yumanensis	AMACC01020	None	None	G5	S4	
Yuma myotis						
Oncorhynchus mykiss irideus	AFCHA0209K	Threatened	None	G5T2Q	S2	
steelhead - Central Valley DPS						
Packera layneae	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Layne's ragwort						
Pekania pennanti	AMAJF01021	Proposed	Candidate	G5T2T3Q	S2S3	SSC
fisher - West Coast DPS		Threatened	Threatened			
Phrynosoma blainvillii	ARACF12100	None	None	G3G4	S3S4	SSC
coast horned lizard						
Rana boylii	AAABH01050	None	None	G3	S3	SSC
foothill yellow-legged frog						
Rana draytonii	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California red-legged frog						
Riparia riparia	ABPAU08010	None	Threatened	G5	S2	
bank swallow						
Sagittaria sanfordii	PMALI040Q0	None	None	G3	S3	1B.2
Sanford's arrowhead						
Viburnum ellipticum	PDCPR07080	None	None	G4G5	S3?	2B.3
oval-leaved viburnum						
Wyethia reticulata	PDAST9X0D0	None	None	G2	S2	1B.2
El Dorado County mule ears						

**Record Count: 51** 



# Plant List

# Inventory of Rare and Endangered Plants

31 matches found. Click on scientific name for details

#### Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3, 4], Found in Quads 3812181, 3812088, 3812087, 3812171, 3812078, 3812077, 3812161 3812068 and 3812067;

# 

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Listing Status	Federal Listing Status
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2		
Allium sanbornii var. congdonii	Congdon's onion	Alliaceae	perennial bulbiferous herb	Apr-Jul	4.3		
Allium sanbornii var. sanbornii	Sanborn's onion	Alliaceae	perennial bulbiferous herb	May-Sep	4.2		
Arctostaphylos mewukka ssp. truei	True's manzanita	Ericaceae	perennial evergreen shrub	Feb-Jul	4.2		
Arctostaphylos nissenana	Nissenan manzanita	Ericaceae	perennial evergreen shrub	Feb-Mar	1B.2		
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2		
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar- Jun	4.2		
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jul	1B.1	CE	FE
Calystegia vanzuukiae	Van Zuuk's morning-glory	Convolvulaceae	perennial rhizomatous herb	May-Aug	1B.3		
Carex cyrtostachya	Sierra arching sedge	Cyperaceae	perennial herb	May-Aug	1B.2		
Carex xerophila	chaparral sedge	Cyperaceae	perennial herb	Mar-Jun	1B.2		
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	May-Jul	4.3		
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	1B.1	CR	FE
<u>Chlorogalum</u> grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	May-Jun	1B.2		
<u>Clarkia biloba ssp.</u> <u>brandegeeae</u>	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	4.2		
<u>Claytonia parviflora</u> ssp. grandiflora	streambank spring beauty	Montiaceae	annual herb	Feb-May	4.2		
Cordylanthus tenuis ssp. brunneus	serpentine bird's- beak	Orobanchaceae	annual herb (hemiparasitic)	Jul-Aug	4.3		
	Bisbee Peak	Cistaceae	perennial evergreen	Apr-Aug	3.2		
				4	0 4045 1	400 - 44	0.5

<u>Crocanthemum</u> <u>suffrutescens</u>	rush-rose		shrub				
<u>Delphinium hansenii</u> <u>ssp. ewanianum</u>	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	4.2		
Eriogonum tripodum	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	4.2		
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	4.3		
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	Apr-Jul	1B.2	CR	FE
Fritillaria eastwoodiae	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	3.2		
Galium californicum ssp. sierrae	El Dorado bedstraw	Rubiaceae	perennial herb	May-Jun	1B.2	CR	FE
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	1B.2		
Lathyrus sulphureus var. argillaceus	dubious pea	Fabaceae	perennial herb	Apr-May	3		
<u>Lilium humboldtii ssp.</u> <u>humboldtii</u>	Humboldt lily	Liliaceae	perennial bulbiferous herb	May- Jul(Aug)	4.2		
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	1B.2	CR	FT
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May- Oct(Nov)	1B.2		
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3		
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	Apr-Aug	1B.2		

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### **APPENDIX D**

# **Photographs**



Photo 1. View facing northwest towards gravel road from the south end of the BSA. 28 June 2017.



Photo 2. View facing southeast towards ruderal community and landscaped garden on the south end of BSA. 28 June 2017.



Photo 3. View facing east towards gravel road from the north end of the BSA.



Photo 4. View facing north towards the existing gravel road from the center of the BSA. 28 June 2017.



Photo 5: View facing south towards ruderal community and gravel road from center of the BSA. 28 June 2017.



Photo 6. View facing southeast towards ruderal community and existing structures from the south end of the proposed access road. Existing gravel road on the right. 28 June 2017.