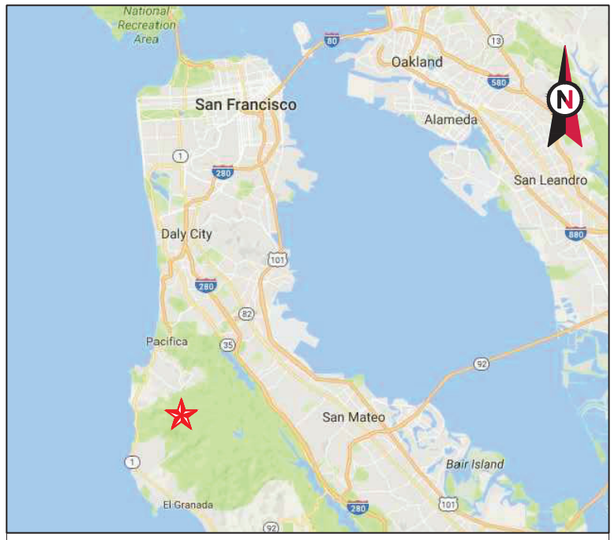


VICINITY MAP

AMERICAN TOWER®

SITE NAME: MONTARA PEAK 2 T1 T5
SITE NUMBER: 8630, 8063, 8187, 8188, 41214
SITE ADDRESS: 3501 WHITING RIDGE ROAD
MONTARA, CA 94038

LOCATION MAP

SPECIAL USE PERMIT RENEWAL

NOTE:
ALL ROADWORK AND MAINTENANCE MUST BE DONE TO SAN MATEO COUNTY STANDARDS AND CERTIFIED BY LICENSED ENGINEER TO INCLUDE ANY AND ALL COMPACTION OF ROADWAY.

COMPLIANCE CODE

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

1. 2019 CALIFORNIA ADMINISTRATIVE CODE
2. 2019 CALIFORNIA BUILDING CODE
3. 2019 CALIFORNIA RESIDENTAL CODE
4. 2019 CALIFORNIA ELECTRICAL CODE
5. 2019 CALIFORNIA PLUMBING CODE
6. 2019 CALIFORNIA ENERGY CODE
7. 2019 CALIFORNIA FIRE CODE
8. 2019 CALIFORNIA EXISTING BUILDING CODE
9. 2018 INTERNATIONAL BUILDING CODE (IBC)
10. NATIONAL ELECTRIC CODE (NEC)
11. LOCAL BUILDING CODE
12. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: PG&E
PHONE: (800) 332-1321

TELEPHONE COMPANY: AT&T
PHONE: (800) 331-0500

811
Know what's **below.**
Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

3501 WHITING RIDGE ROAD
MONTARA, CA 94038
COUNTY: SAN MATEO

GEOGRAPHIC COORDINATES:

LATITUDE: 37.56145556

LONGITUDE: -122.47798333

GROUND ELEVATION: 1866' AMSL

ZONING INFORMATION:

JURISDICTION: SAN MATEO COUNTY

PARCEL NUMBER: 036-370-020

ZONING: RM (RESOURCE MANAGEMENT DISTRICTS)

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWERS LLC
10 PRESIDENTIAL WAY
WOBURN, MA 01801

PROPERTY OWNER:

AMERICAN TOWERS LLC
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER:

ATC TOWER SERVICES
3500 REGENCY PARKWAY SUITE 100
CARY, NC 27518

AGENT:

BONNIE BELAIR
ATTORNEY, AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

PROJECT DESCRIPTION

THIS SUBMITTAL IS FOR RE-PERMITTING WITH THE COUNTY OF SAN MATEO. THIS SET OF DRAWINGS IS INTENDED TO DEPICT EXISTING SITE CONDITIONS.

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. EXISTING FACILITY MEETS OR EXCEEDS ALL FAA AND FCC REGULATORY REQUIREMENTS.
4. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
5. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
6. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

HEADING WEST, TAKE THE BAY BRIDGE (HWY 80 W) TO HWY 101 S. TURN ONTO HWY 280 SOUTH TOWARDS DALY CITY. TAKE HWY 1 SOUTH TOWARDS PACIFICA. GO THROUGH PACIFICA AND THE DEVIL'S SLIDE AREA, 3.6 MI SOUTH ON HWY 1 FROM LINDA MAR BLVD. INTERSECTION. ON YOUR LEFT WILL BE THE MCNEE STATE PARK. AS HWY 1 SOUTH STRAIGHTENS, THE SITE ENTRANCE WILL BE ON YOUR LEFT (A STATE PARK HIKING TRAIL WITH A LOCKED YELLOW GATE). PASS THE RANGER STATION TO THE RIGHT, FOLLOW THE ROAD UP THE HILL FOR FOUR MILES; "B" SITE IS ON THE LEFT, ANOTHER .3 MILES IS SITE "A".

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	03/29/21	AV
C-101	SITE PLAN	0	03/29/21	AV
C-102	ATC SHELTER PLAN	0	03/29/21	AV
C-201	OVERALL TOWER ELEVATIONS	0	03/29/21	AV
C-202	TOWER ELEVATION	0	03/29/21	AV
C-203	TOWER ELEVATION	0	03/29/21	AV
C-204	TOWER ELEVATION	0	03/29/21	AV
C-205	TOWER ELEVATION	0	03/29/21	AV
C-401	OVERALL SITE PLAN	0	03/29/21	AV
C-402	SITE PLAN	0	03/29/21	AV
C-403	SITE PLAN	0	03/29/21	AV
C-404	SITE PLAN	0	03/29/21	AV
C-405	SITE PLAN	0	03/29/21	AV
C-406	SITE PLAN	0	03/29/21	AV
C-407	PICTURES	0	03/29/21	AV
C-501	CONSTRICTION DETAILS	0	03/29/21	AV
C-502	SIGNAGE	0	03/29/21	AV
C-503	SIGNAGE	0	03/29/21	AV
C-504	SIGNAGE	0	03/29/21	AV
C-505	SIGNAGE	0	03/29/21	AV
C-506				
C-602	SPEC			

Attachment 1- Plans

AMERICAN TOWER®
ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AV	03/29/21

ATC SITE NUMBER:
8630, 8063, 8187, 8188, 41241

ATC SITE NAME:
MONTARA PEAK 2 T1 T5

SITE ADDRESS:
3501 WHITING RIDGE ROAD
MONTARA, CA 94038

SEAL:

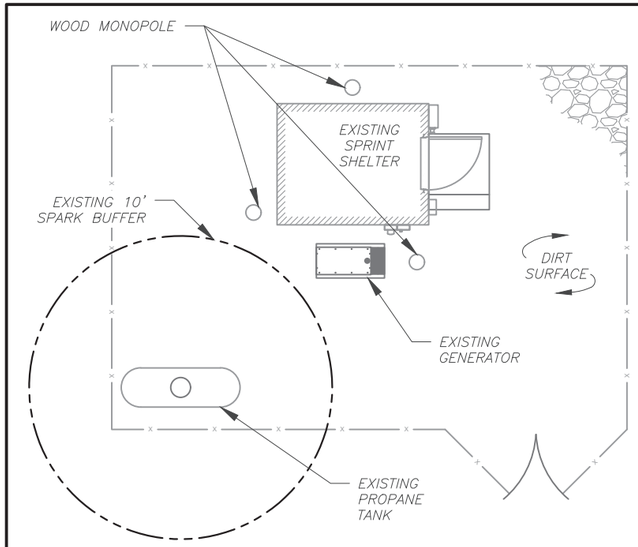
Authorized by "Scott Fletcher"
29 Mar 2021 09:16:33

cosign

DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

TITLE SHEET

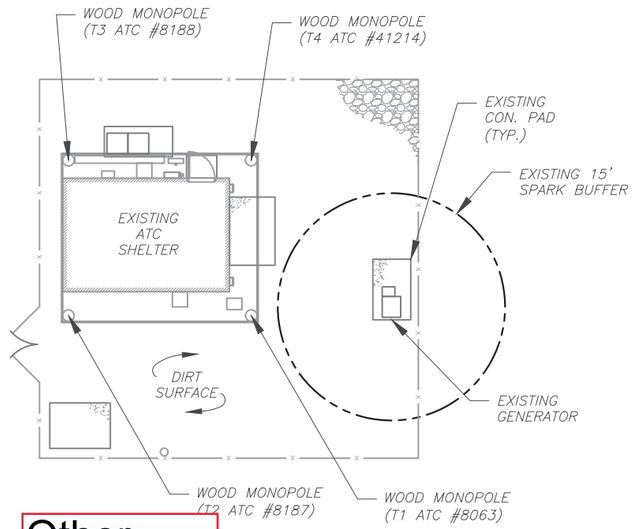
SHEET NUMBER:	REVISION:
G-001	0



1 SPRINT DETAILED SITE PLAN

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

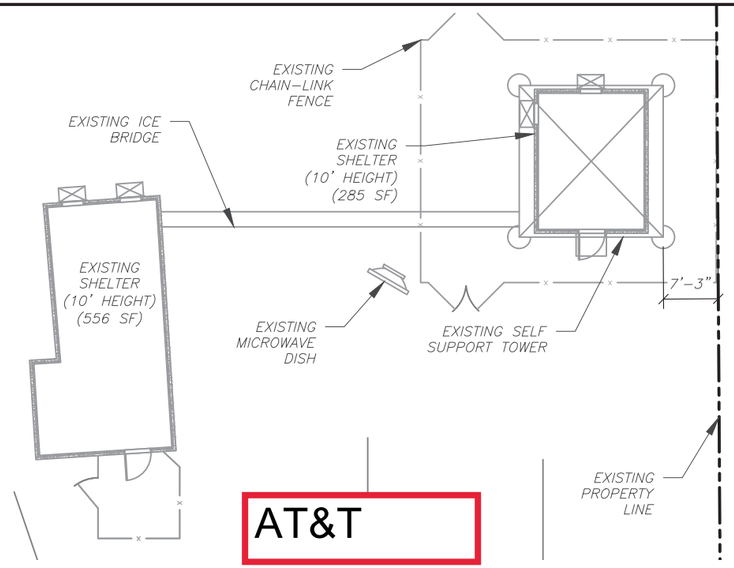


Other carrier

TAILED SITE PLAN

0 20' 40'

SCALE: 1"=20' (11X17)
1"=10' (22X34)



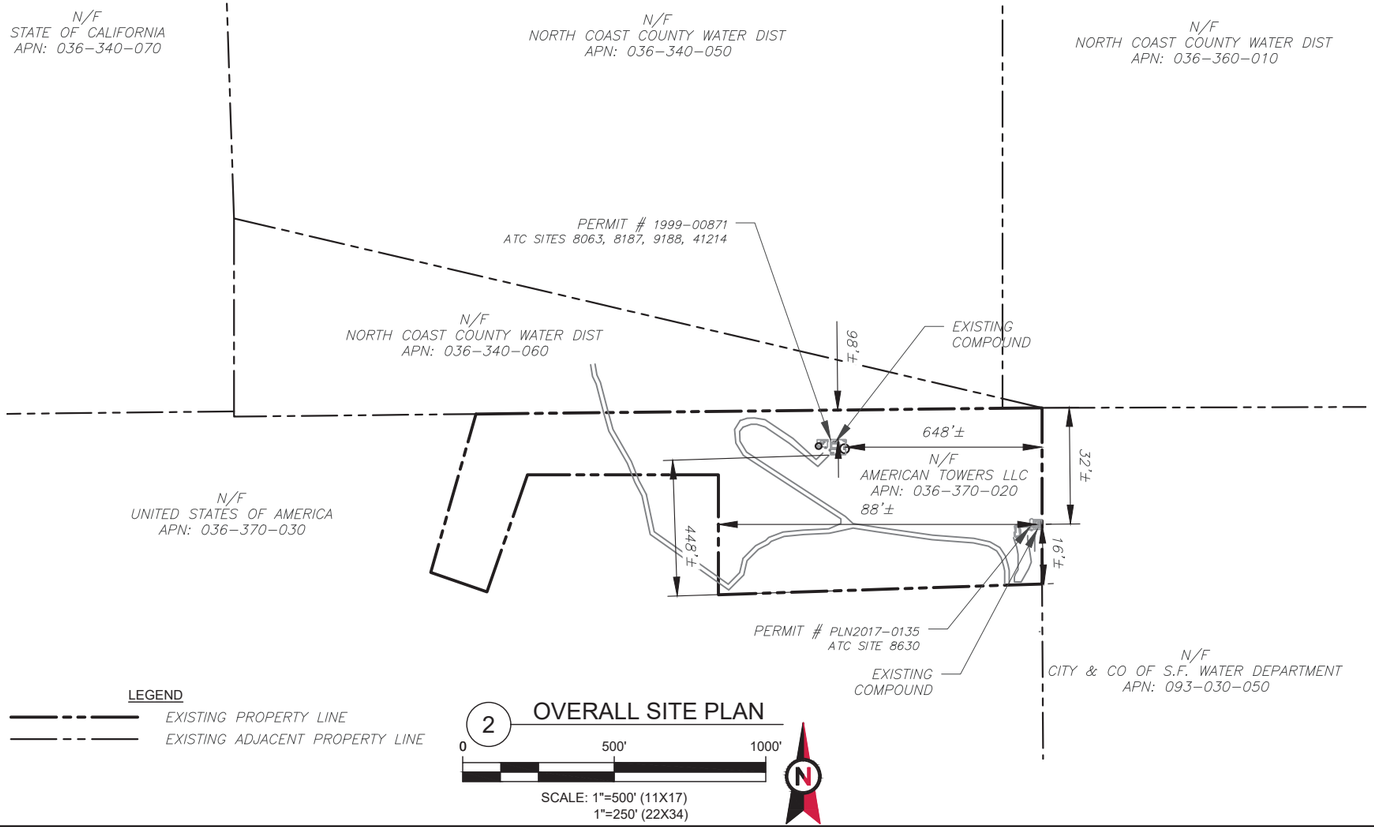
AT&T

2 ATC DETAILED SITE PLAN

0 20' 40'

SCALE: 1"=20' (11X17)
1"=10' (22X34)

NOTES:
1. THIS SET OF DRAWINGS IS INTENDED TO DEPICT EXISTING SITE CONDITIONS ONLY. THE PROJECT WILL NOT RESULT IN ANY PROPOSED WORK.
2. BOUNDARY INFORMATION OBTAINED FROM: DATA TREE ONLINE GIS



LEGEND
EXISTING PROPERTY LINE
EXISTING ADJACENT PROPERTY LINE

2 OVERALL SITE PLAN

0 500' 1000'

SCALE: 1"=500' (11X17)
1"=250' (22X34)

AMERICAN TOWER®
ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AV	03/29/21

ATC SITE NUMBER:
8630, 8063, 8187, 8188, 41241

ATC SITE NAME:
MONTARA PEAK 2 T1 T5

SITE ADDRESS:
3501 WHITING RIDGE ROAD
MONTARA, CA 94038

SEAL:

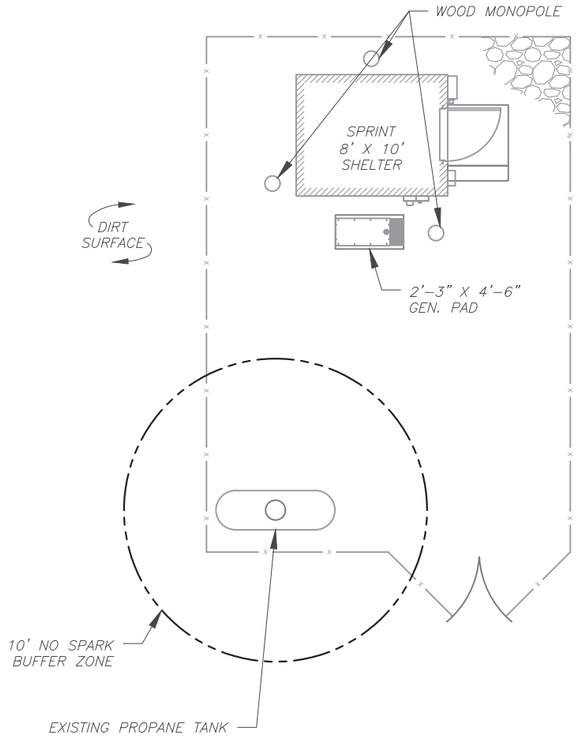
LICENSED PROFESSIONAL ENGINEER
SCOTT ROBERT FLETCHER
C 90765
EXP. 12/31/21
CIVIL
STATE OF CALIFORNIA

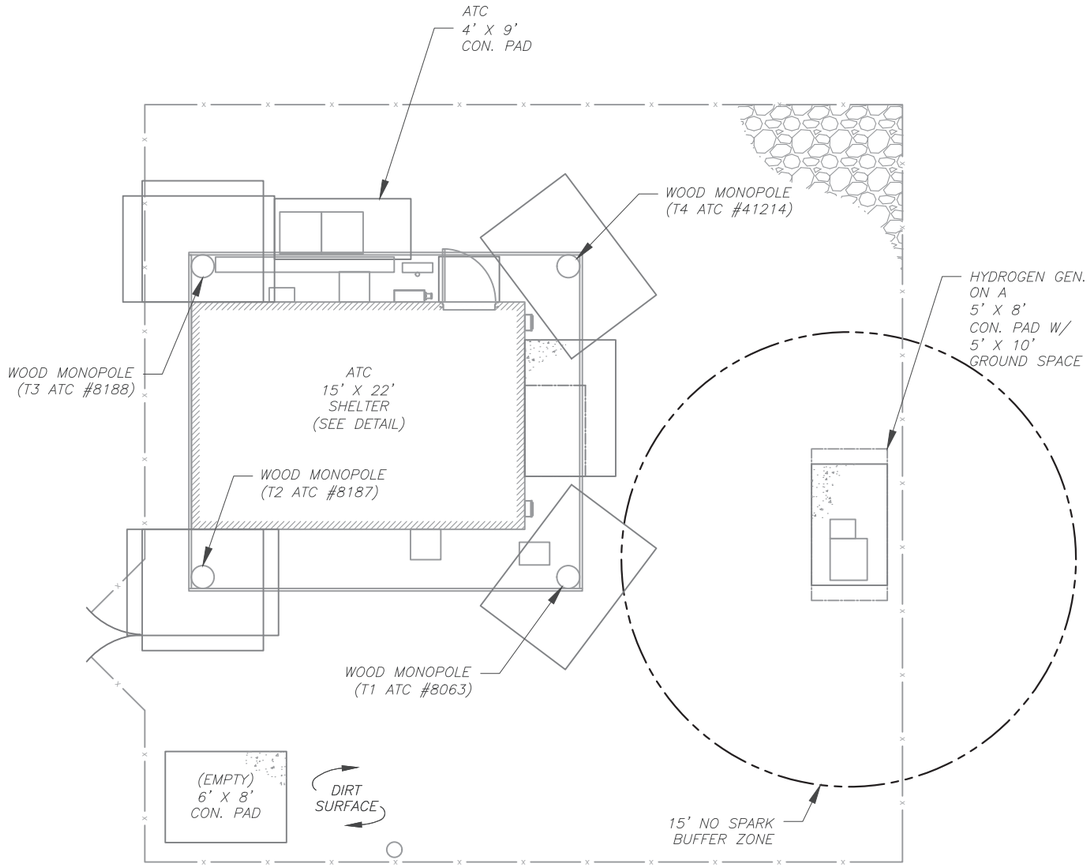
Authorized by "Scott Fletcher"
29 Mar 2021 09:16:33
cosign

DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

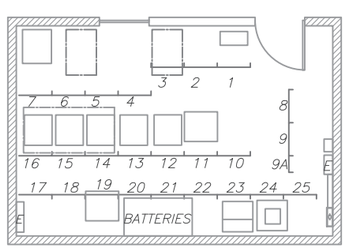
SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0





ATC SHELTER			
CARRIER	EQUIP. #	EQUIP. SIZE	GROUND SPACE
(ABANDONED)	1	N/A	N/A
	11	N/A	N/A
	7	N/A	N/A
	13 & 14	N/A	N/A
	11,12, 15,16	N/A	3' X 6'
	19	N/A	2' X 2'
	24	2' X 2'	N/A
	23	2' X 2'	N/A



DETAIL – BUILDING INTERIOR

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1 ATC SHELTER DETAIL

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

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PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AV	03/29/21

ATC SITE NUMBER:
8630, 8063, 8187, 8188, 41241

ATC SITE NAME:
MONTARA PEAK 2 T1 T5

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MONTARA, CA 94038

SEAL:

LICENSED PROFESSIONAL ENGINEER
SCOTT ROBERT FLETCHER
C 90765
EXP. 12/31/21
CIVIL
STATE OF CALIFORNIA

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29 Mar 2021 09:16:33
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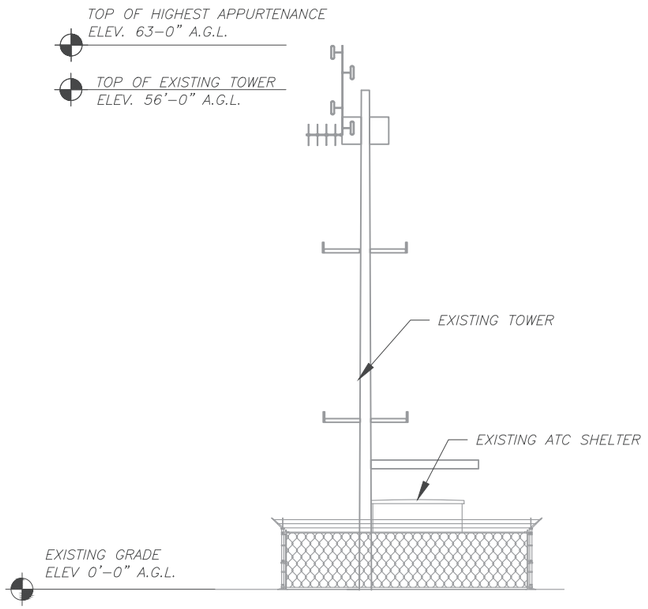
DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

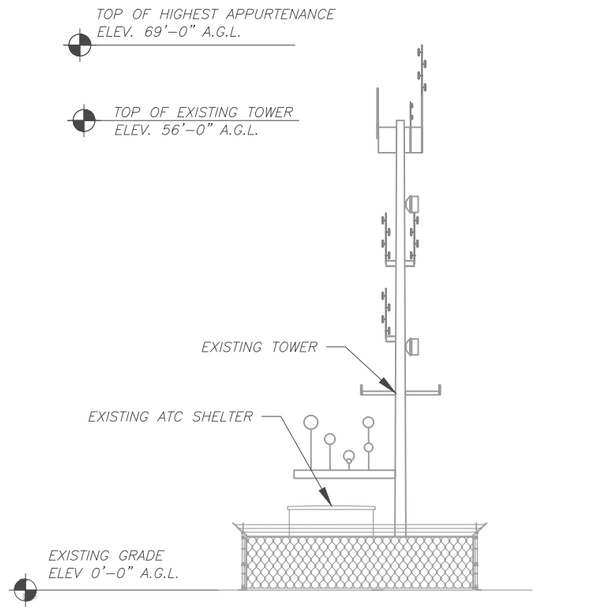
ATC SHELTER PLAN

SHEET NUMBER:	REVISION:
C-102	0

NOTES:
1. ALL UNKNOWN TOWER EQUIPMENT WILL BE REMOVED BY AMERICAN TOWER.

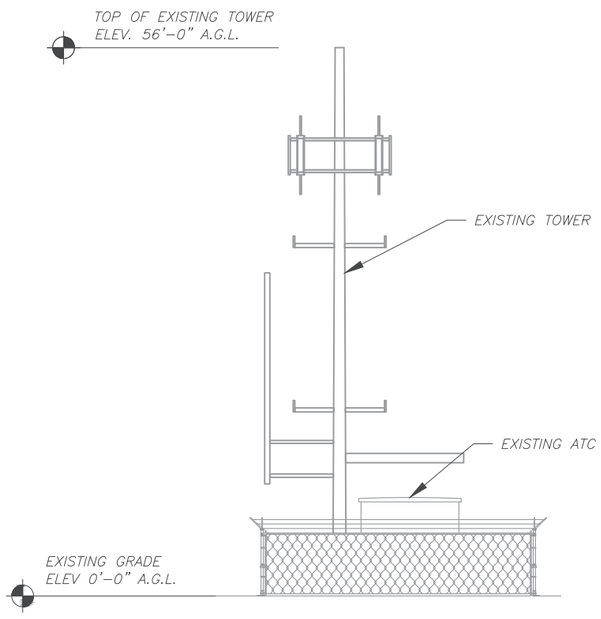


1 TOWER #8063 ELEVATION
SCALE: NOT TO SCALE

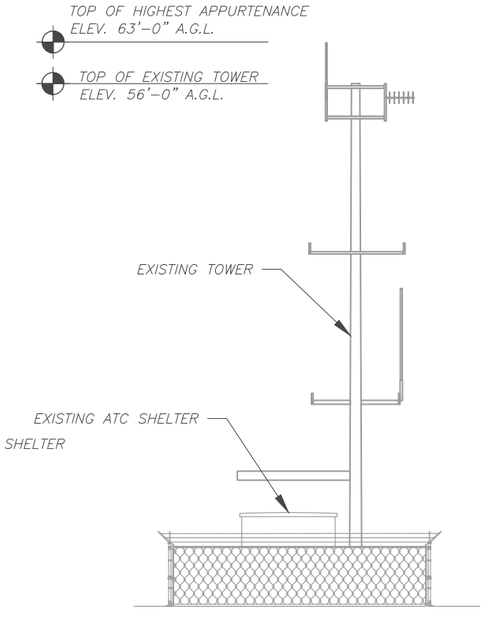


2 TOWER #8187 ELEVATION
SCALE: NOT TO SCALE

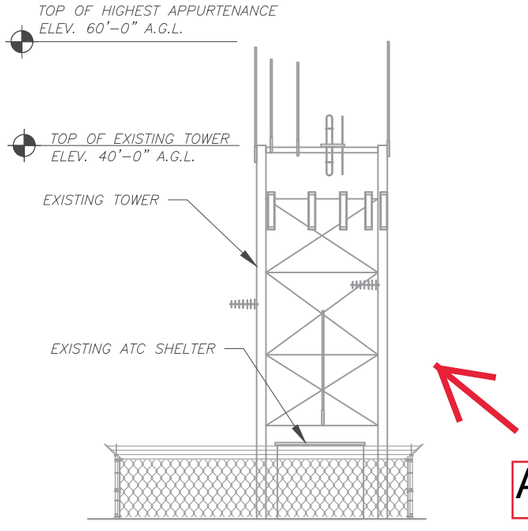
Other carriers



3 TOWER #8188 ELEVATION
SCALE: NOT TO SCALE



4 TOWER #41214 ELEVATION
SCALE: NOT TO SCALE



AT&T

5 TOWER #8630 ELEVATION
SCALE: NOT TO SCALE

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SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AV	03/29/21

ATC SITE NUMBER:
8630, 8063, 8187, 8188, 41241

ATC SITE NAME:
MONTARA PEAK 2 T1 T5

SITE ADDRESS:
3501 WHITING RIDGE ROAD
MONTARA, CA 94038

SEAL:

LICENSED PROFESSIONAL ENGINEER
SCOTT ROBERT FLETCHER
C 90765
EXP. 12/31/21
CIVIL
STATE OF CALIFORNIA

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29 Mar 2021 09:16:33

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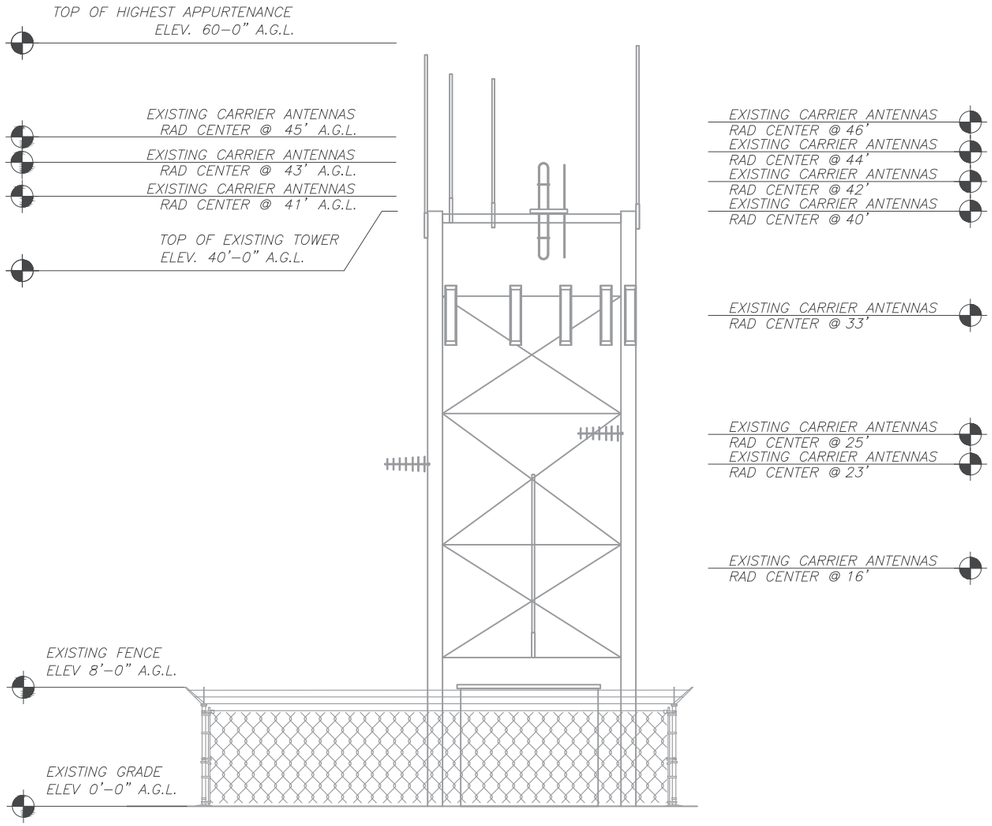
DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

OVERALL TOWER ELEVATIONS

SHEET NUMBER:	REVISION:
C-201	0



AT&T

1 TOWER #8630 ELEVATION
SCALE: NOT TO SCALE

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ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AV	03/29/21

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8630, 8063, 8187, 8188, 41241

ATC SITE NAME:
MONTARA PEAK 2 T1 T5

SITE ADDRESS:
3501 WHITING RIDGE ROAD
MONTARA, CA 94038

SEAL:

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29 Mar 2021 09:16:34

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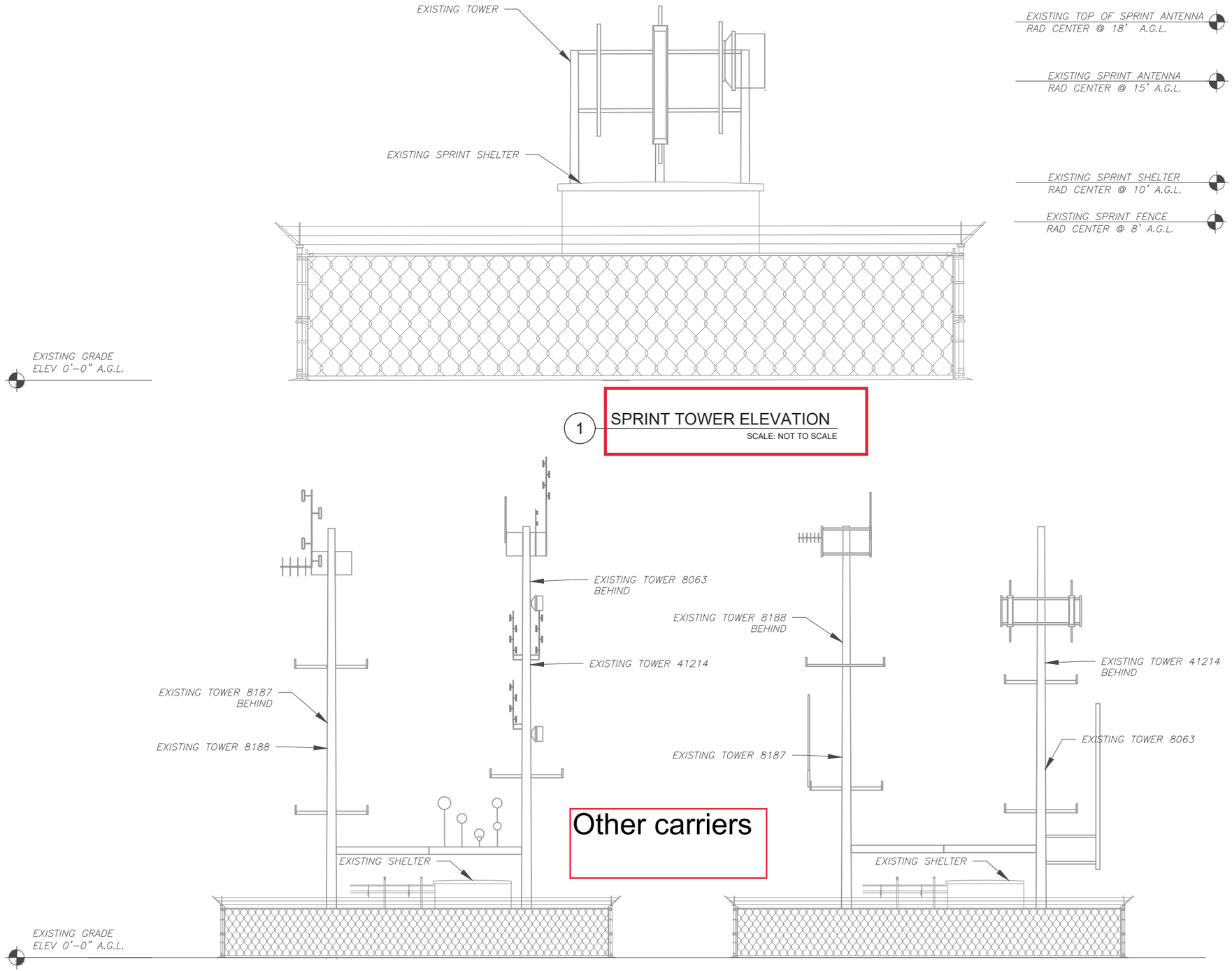
DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-204	0



1 SPRINT TOWER ELEVATION
SCALE: NOT TO SCALE

2 SOUTH TOWER ELEVATION
SCALE: NOT TO SCALE

3 NORTH TOWER ELEVATION
SCALE: NOT TO SCALE

AMERICAN TOWER®
ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
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MONTARA, CA 94038

SEAL:

LICENSED PROFESSIONAL ENGINEER
SCOTT ROBERT FLETCHER
C 90765
EXP. 12/31/21
CIVIL
STATE OF CALIFORNIA

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29 Mar 2021 09:16:34
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DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

TOWER ELEVATION

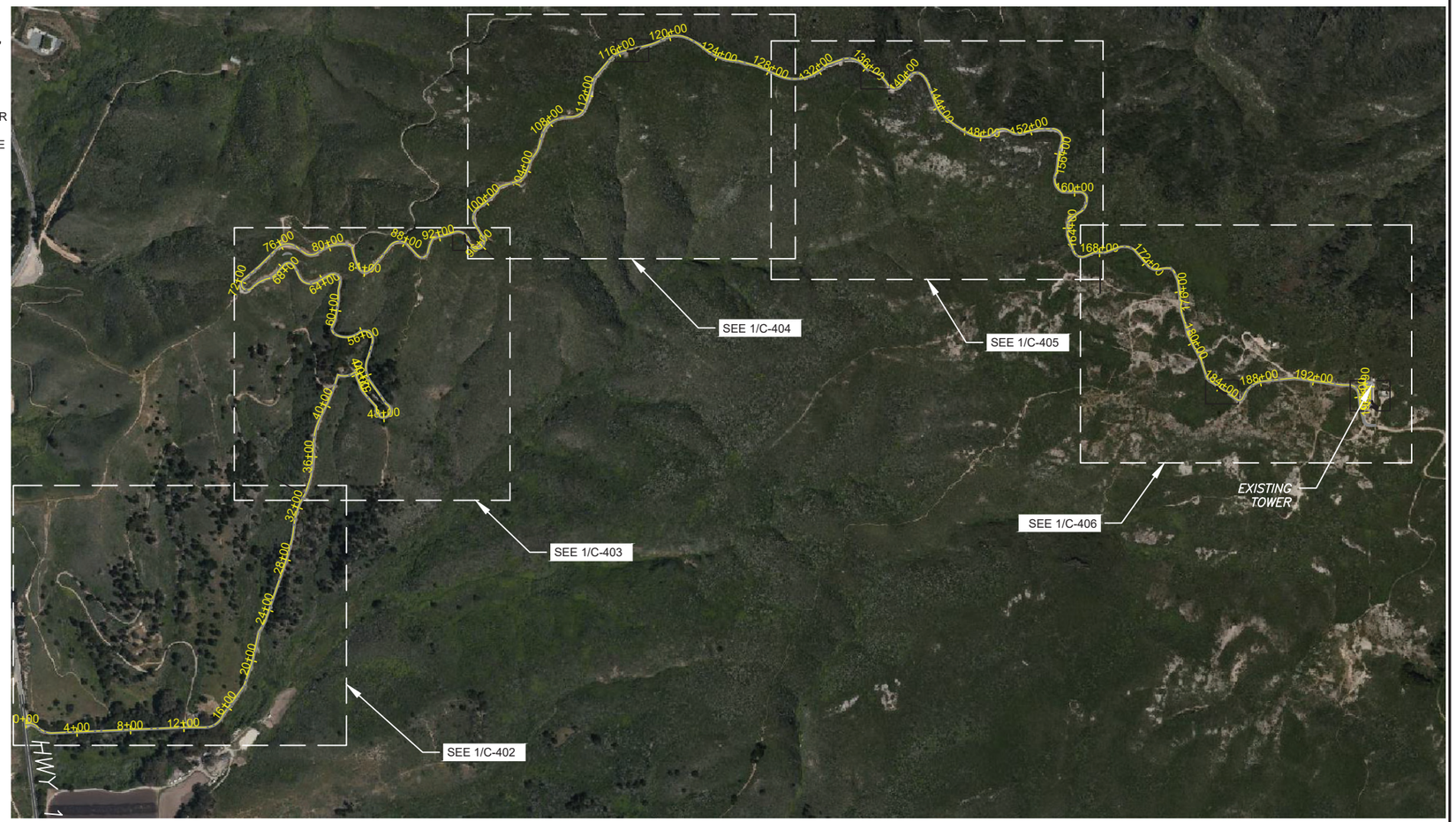
SHEET NUMBER:	REVISION:
C-205	0

CONSTRUCTION NOTES:

1. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
2. NOTIFY ATC CONSTRUCTION MANAGER AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE ONE CALL SYSTEM, INC. SHALL BE NOTIFIED.
4. ALL ROADWORK AND MAINTENANCE MUST BE DONE TO SAN MATEO COUNTY STANDARDS AND CERTIFIED BY LICENSED ENGINEER TO INCLUDE ANY AND ALL COMPACTION OF ROADWAY.

CONSTRUCTION SEQUENCE:

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM AMERICAN TOWER PRIOR TO IMPLEMENTATION.
2. CONTRACTOR TO CLEAR TREES AND VEGETATION TO ALLOW 15' VERTICAL CLEARANCE.
3. CONTRACTOR TO BLADE EXISTING ROAD TO MATCH CROSS SLOPE AS INDICATED ON THE DETAILS. CAPTURE AND RE-USE EXISTING STONE WHERE FEASIBLE.
4. COMPACTION SHALL BE WITH SHEEPSFOOT ROLLER OR RUBBER TIRED ROLLERS WEIGHING AT LEAST EIGHT TONS FOR BASE COURSE AND SMOOTH DRUM VIBRATOR ROLLERS FOR SURFACE COURSE/FINISH GRADE PER ATC SPECIFICATIONS.



1 OVERALL SITE PLAN

0 1000' 2000'

SCALE: 1"=1000' (11X17)
1"=500' (22X34)

N

AMERICAN TOWER®
ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AV	03/29/21

ATC SITE NUMBER:

8630, 8063, 8187, 8188, 41241

ATC SITE NAME:

MONTARA PEAK 2 T1 T5

SITE ADDRESS:
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MONTARA, CA 94038

SEAL:

LICENSED PROFESSIONAL ENGINEER
SCOTT ROBERT FLETCHER
C 90765
EXP. 12/31/21
CIVIL
STATE OF CALIFORNIA

Authorized by "Scott Fletcher"
29 Mar 2021 09:16:34

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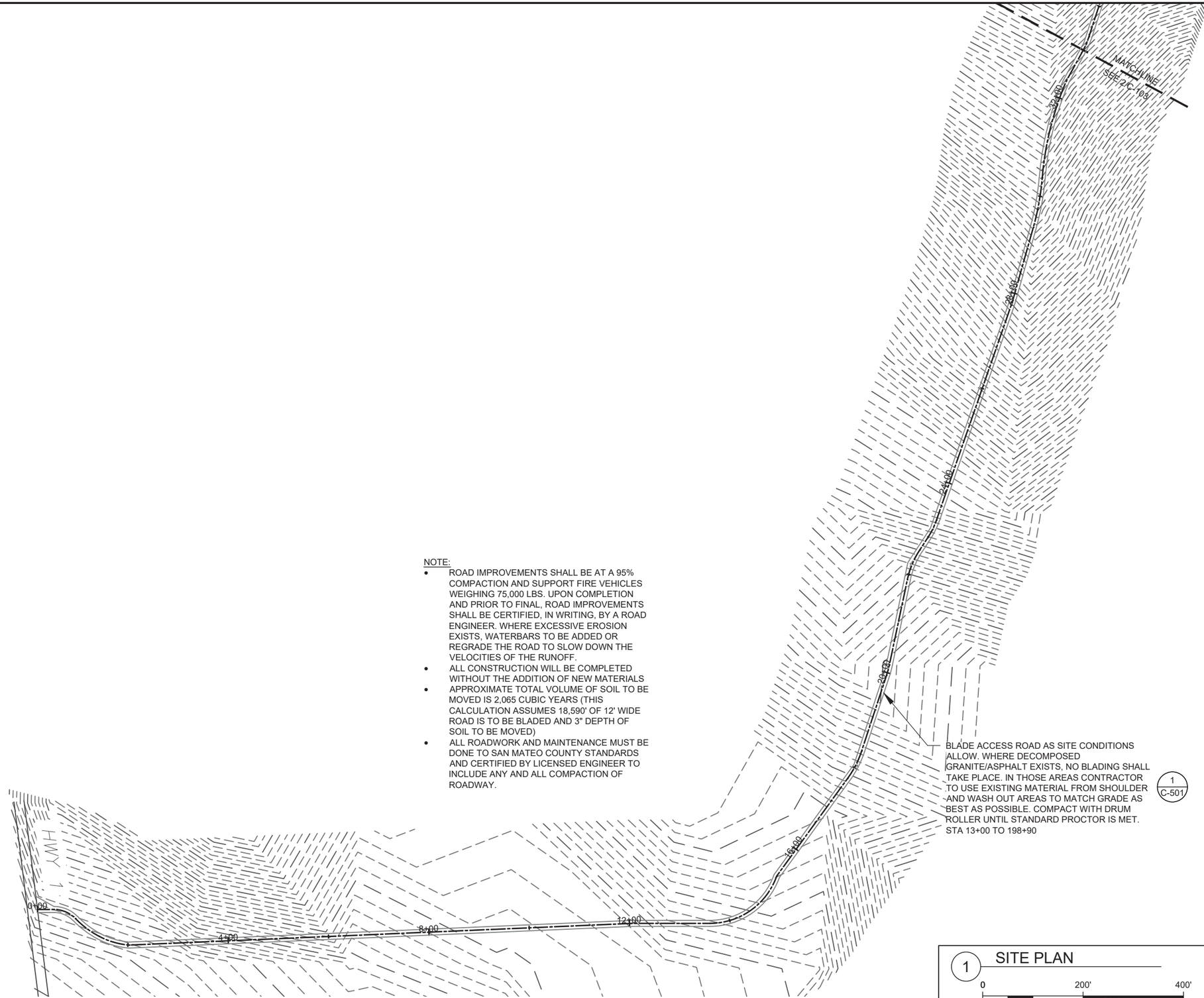
DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

OVERALL SITE PLAN

SHEET NUMBER:	REVISION:
C-401	0



NOTE:

- ROAD IMPROVEMENTS SHALL BE AT A 95% COMPACTION AND SUPPORT FIRE VEHICLES WEIGHING 75,000 LBS. UPON COMPLETION AND PRIOR TO FINAL, ROAD IMPROVEMENTS SHALL BE CERTIFIED, IN WRITING, BY A ROAD ENGINEER. WHERE EXCESSIVE EROSION EXISTS, WATERBARS TO BE ADDED OR REGRADE THE ROAD TO SLOW DOWN THE VELOCITIES OF THE RUNOFF.
- ALL CONSTRUCTION WILL BE COMPLETED WITHOUT THE ADDITION OF NEW MATERIALS
- APPROXIMATE TOTAL VOLUME OF SOIL TO BE MOVED IS 2,065 CUBIC YEARS (THIS CALCULATION ASSUMES 18,590' OF 12' WIDE ROAD IS TO BE BLADED AND 3" DEPTH OF SOIL TO BE MOVED)
- ALL ROADWORK AND MAINTENANCE MUST BE DONE TO SAN MATEO COUNTY STANDARDS AND CERTIFIED BY LICENSED ENGINEER TO INCLUDE ANY AND ALL COMPACTION OF ROADWAY.

BLADE ACCESS ROAD AS SITE CONDITIONS ALLOW. WHERE DECOMPOSED GRANITE/ASPHALT EXISTS, NO BLADING SHALL TAKE PLACE. IN THOSE AREAS CONTRACTOR TO USE EXISTING MATERIAL FROM SHOULDER AND WASH OUT AREAS TO MATCH GRADE AS BEST AS POSSIBLE. COMPACT WITH DRUM ROLLER UNTIL STANDARD PROCTOR IS MET. STA 13+00 TO 198+90

1 / C-501

1 SITE PLAN

0 200' 400'

SCALE: 1"=200' (11X17)
1"=100' (22X34)

N

AMERICAN TOWER®
ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
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SEAL:

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SCOTT ROBERT FLETCHER
C 90765
EXP. 12/31/21
CIVIL
STATE OF CALIFORNIA

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29 Mar 2021 09:16:35

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DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

SITE PLAN

SHEET NUMBER:	REVISION:
C-402	0

NOTE:

- ROAD IMPROVEMENTS SHALL BE AT A 95% COMPACTION AND SUPPORT FIRE VEHICLES WEIGHING 75,000 LBS. UPON COMPLETION AND PRIOR TO FINAL, ROAD IMPROVEMENTS SHALL BE CERTIFIED, IN WRITING, BY A ROAD ENGINEER. WHERE EXCESSIVE EROSION EXISTS, WATERBARS TO BE ADDED OR REGRADE THE ROAD TO SLOW DOWN THE VELOCITIES OF THE RUNOFF.
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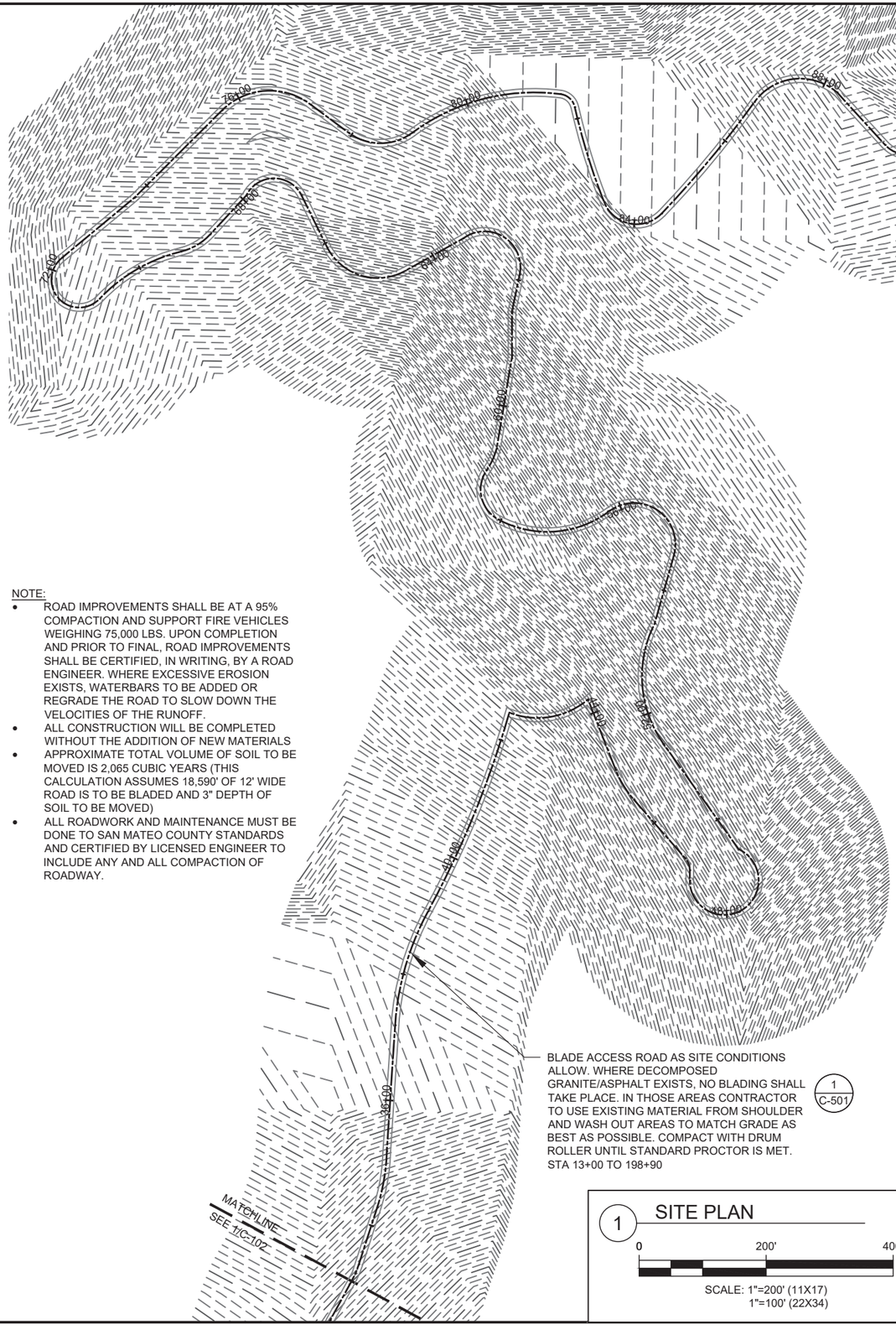
- ALL ROADWORK AND MAINTENANCE MUST BE DONE TO SAN MATEO COUNTY STANDARDS AND CERTIFIED BY LICENSED ENGINEER TO INCLUDE ANY AND ALL COMPACTION OF ROADWAY.



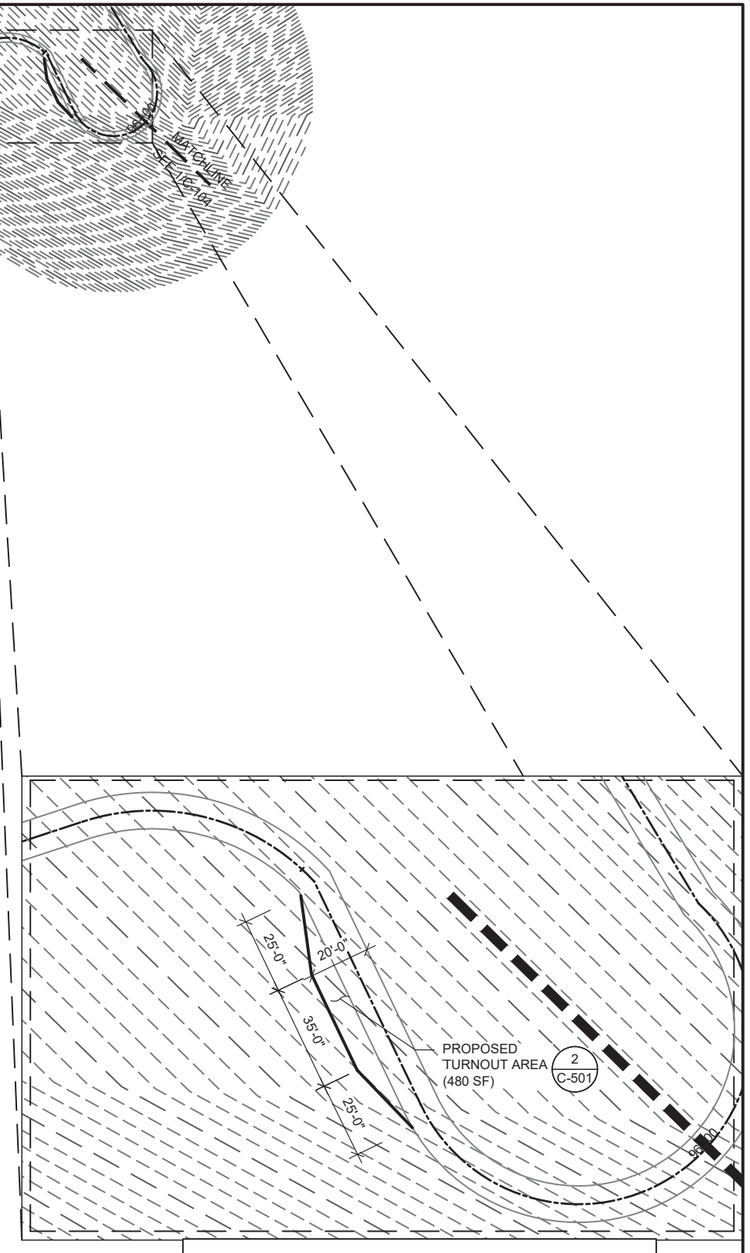
BLADE ACCESS ROAD AS SITE CONDITIONS ALLOW. WHERE DECOMPOSED GRANITE/ASPHALT EXISTS, NO BLADING SHALL TAKE PLACE. IN THOSE AREAS CONTRACTOR TO USE EXISTING MATERIAL FROM SHOULDER AND WASH OUT AREAS TO MATCH GRADE AS BEST AS POSSIBLE. COMPACT WITH DRUM ROLLER UNTIL STANDARD PROCTOR IS MET. STA 13+00 TO 198+90

1 (C-501)

1 SITE PLAN

0 200' 400'

SCALE: 1"=200' (11X17)
1"=100' (22X34)



2 SITE PLAN

0 50' 100'

SCALE: 1"=50' (11X17)
1"=25' (22X34)

AMERICAN TOWER®
ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AV	03/29/21

ATC SITE NUMBER:

8630, 8063, 8187, 8188, 41241

ATC SITE NAME:

MONTARA PEAK 2 T1 T5

SITE ADDRESS:
3501 WHITING RIDGE ROAD
MONTARA, CA 94038

SEAL:

LICENSED PROFESSIONAL ENGINEER
SCOTT ROBERT FLETCHER
C 90765
EXP. 12/31/21
CIVIL
STATE OF CALIFORNIA

Authorized by "Scott Fletcher"
29 Mar 2021 09:16:35

cosign

DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

SITE PLAN

SHEET NUMBER:	REVISION:
C-403	0

NOTE:

- ROAD IMPROVEMENTS SHALL BE AT A 95% COMPACTION AND SUPPORT FIRE VEHICLES WEIGHING 75,000 LBS. UPON COMPLETION AND PRIOR TO FINAL, ROAD IMPROVEMENTS SHALL BE CERTIFIED, IN WRITING, BY A ROAD ENGINEER. WHERE EXCESSIVE EROSION EXISTS, WATERBARS TO BE ADDED OR REGRADE THE ROAD TO SLOW DOWN THE VELOCITIES OF THE RUNOFF.
- ALL CONSTRUCTION WILL BE COMPLETED WITHOUT THE ADDITION OF NEW MATERIALS
- APPROXIMATE TOTAL VOLUME OF SOIL TO BE MOVED IS 2,065 CUBIC YEARS (THIS CALCULATION ASSUMES 18,590' OF 12' WIDE ROAD IS TO BE BLADED AND 3" DEPTH OF SOIL TO BE MOVED)
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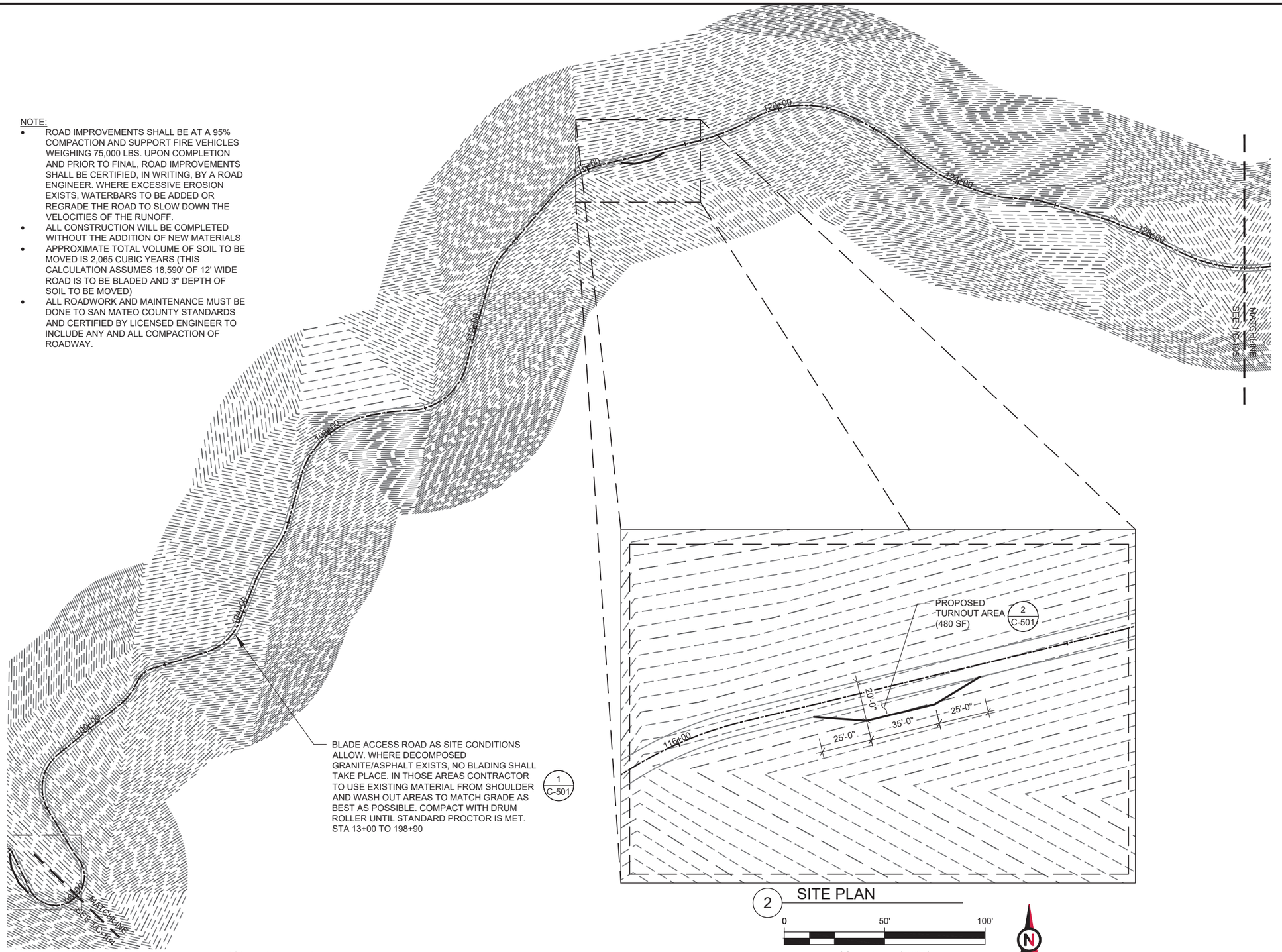

1 SITE PLAN

0 200' 400'

SCALE: 1"=200' (11X17)
1"=100' (22X34)

2 SITE PLAN

0 50' 100'

SCALE: 1"=50' (11X17)
1"=25' (22X34)

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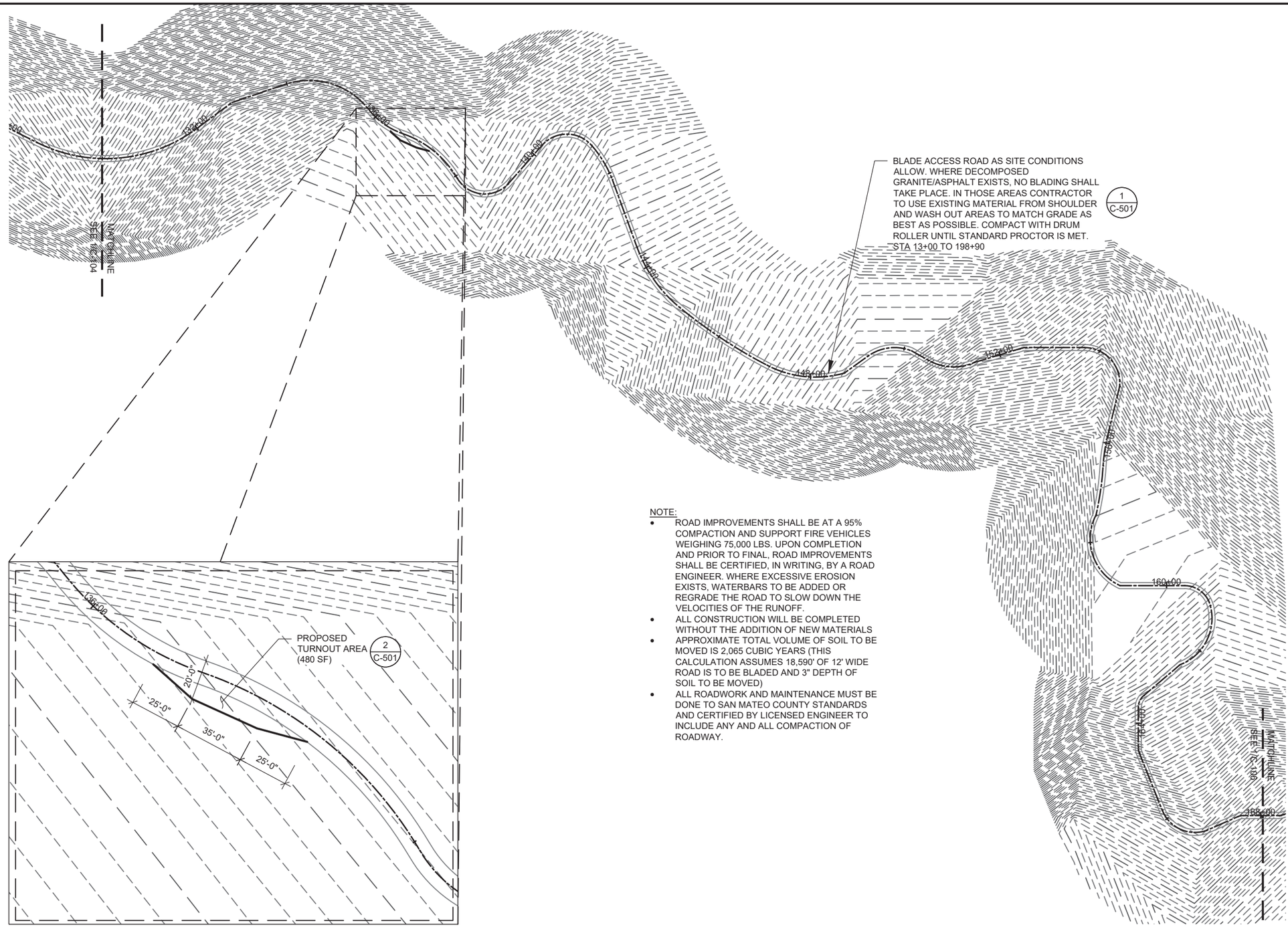
SITE PLAN

SHEET NUMBER:	REVISION:
C-404	0



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1 SITE PLAN

0 50' 100'

SCALE: 1"=50' (11X17)
1"=25' (22X34)

2 SITE PLAN

0 200' 400'

SCALE: 1"=200' (11X17)
1"=100' (22X34)

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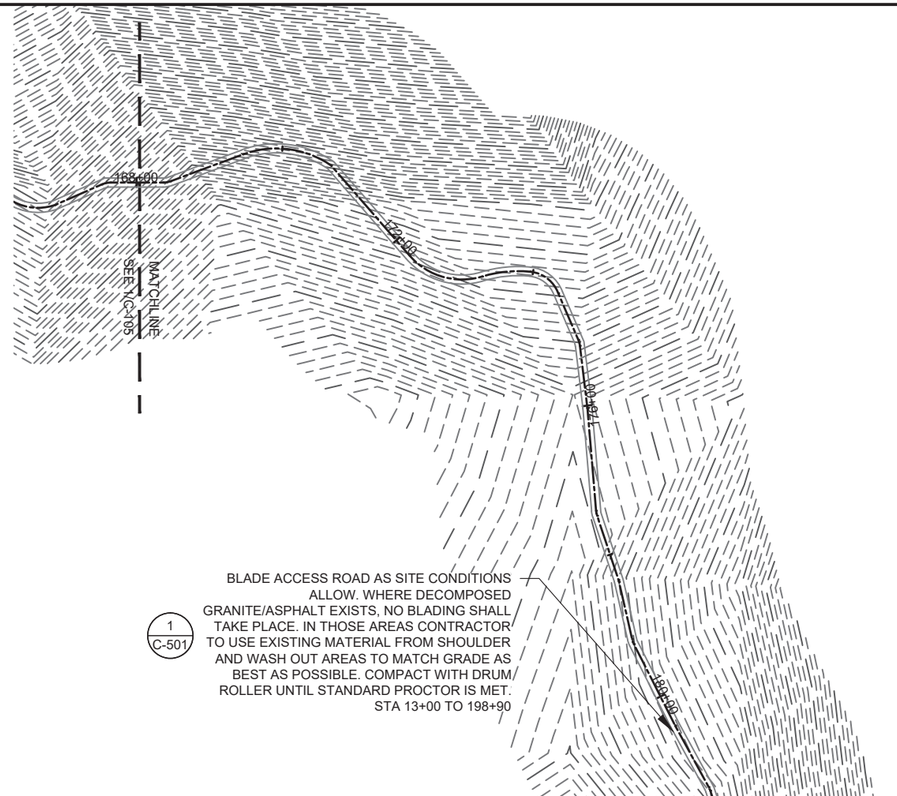
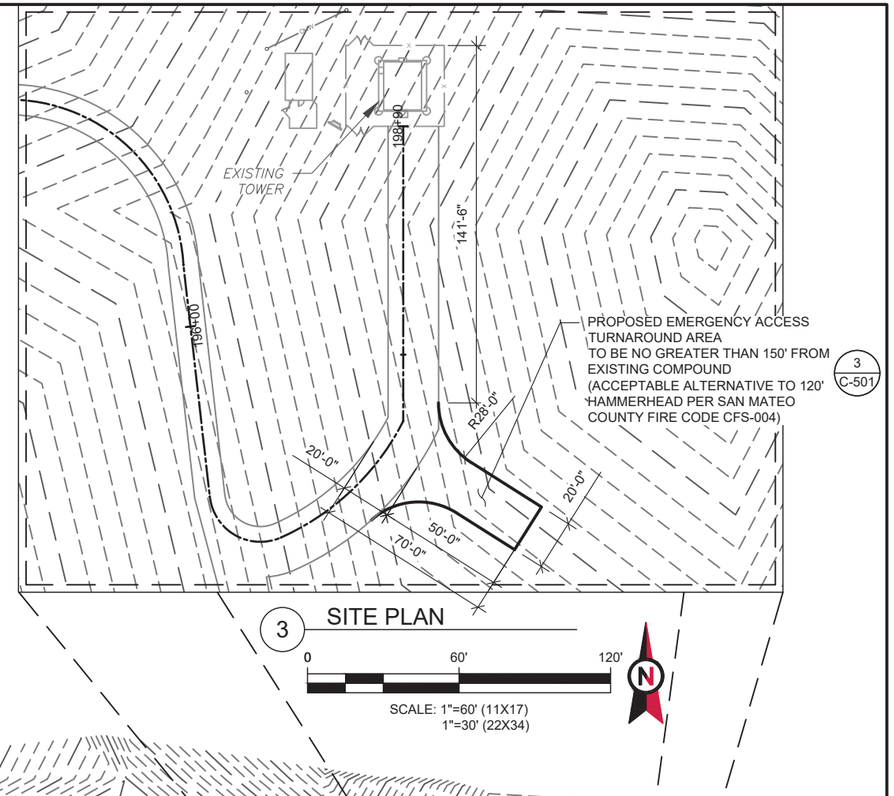
ATC JOB NO:	13626219_E1

SITE PLAN

SHEET NUMBER:	REVISION:
C-405	0

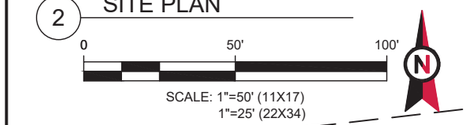


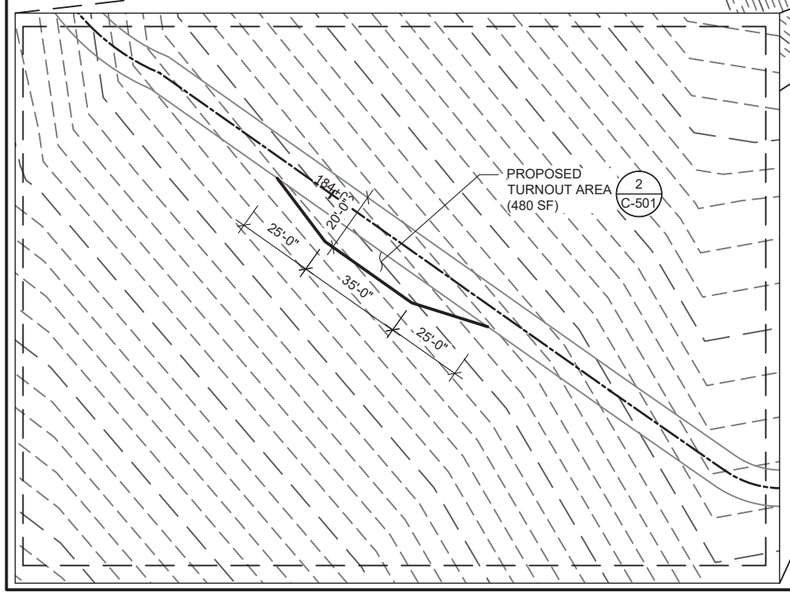


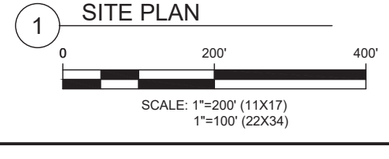
3 SITE PLAN

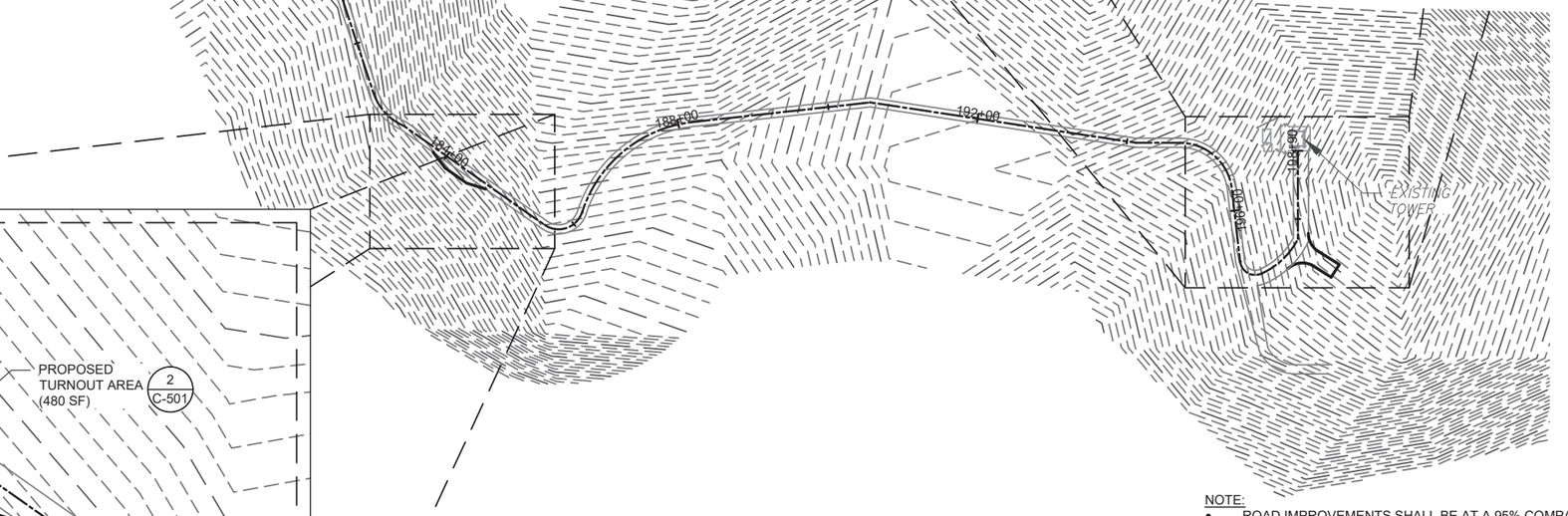
0 60' 120'

SCALE: 1"=60' (11X17)
1"=30' (22X34)









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PHONE: (919) 468-0112

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0	FOR CONSTRUCTION	AV	03/29/21

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8630, 8063, 8187, 8188, 41241

ATC SITE NAME:
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MONTARA, CA 94038

SEAL:

LICENSED PROFESSIONAL ENGINEER
SCOTT ROBERT FLETCHER
C 90765
EXP. 12/31/21
CIVIL
STATE OF CALIFORNIA

Authorized by "Scott Fletcher"
29 Mar 2021 09:16:37

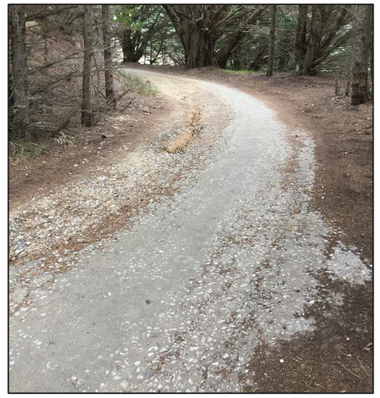
cosign

DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

SITE PLAN

SHEET NUMBER: C-406

REVISION: 0



1 ACCESS ROAD

2 ACCESS ROAD

3 ACCESS ROAD

4 ACCESS ROAD

5 ACCESS ROAD

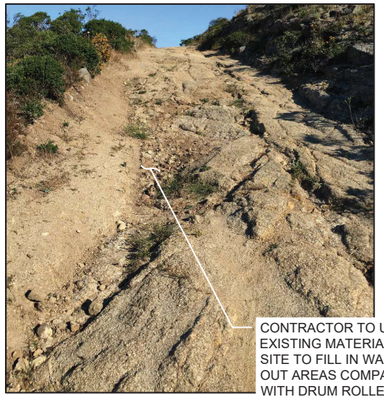
6 ACCESS ROAD

7 ACCESS ROAD

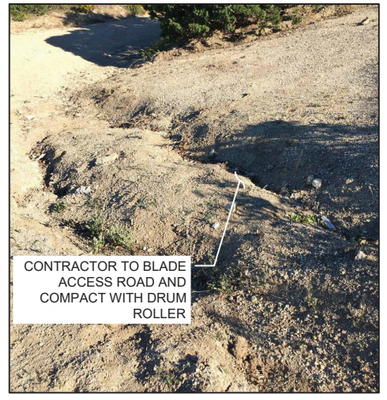
8 ACCESS ROAD

9 ACCESS ROAD

10 ACCESS ROAD



11 ACCESS ROAD



12 ACCESS ROAD

AMERICAN TOWER®
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CARY, NC 27518
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REV.	DESCRIPTION	BY	DATE
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ATC SITE NAME:

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MONTARA, CA 94038

SEAL:

Authorized by "Scott Fletcher"
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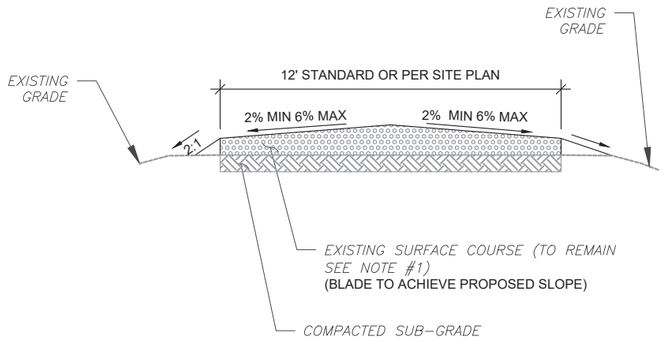
cosign

DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

PICTURES

SHEET NUMBER:	REVISION:
C-407	0



NOTES:
1. TYPICAL ACCESS ROAD COMPACTION SHALL BE WITH SHEEPSFOOT ROLLER OR RUBBER TIRED ROLLERS WEIGHING AT LEAST EIGHT TONS FOR BASE COURSE AND SMOOTH DRUM VIBRATOR ROLLERS FOR SURFACE COURSE/FINISH GRADE.
2. THE PREFERRED CUT AND FILL SLOPE IS 2:1, HOWEVER THE ENGINEER OF RECORD MAY REVISE THE CUT SLOPE TO 1:1 OR 1.5:1 IF CUT SLOPE IS ROCK OR WELL CEMENTED SOIL AND THE FILL SLOPE TO 3:1 OR GREATER IF THE FILL SLOPE IS POOR SOILS AND PRONE TO LANDSLIDES OR SEVERE EROSION
3. REFER TO SIEVE ANALYSIS IN ATC SPECIFICATIONS SECTION 312000 PART 2.1 SOIL MATERIALS FOR APPROVED GRADATION. COMMON REFERENCED NAMES ARE CRUSHER RUN, ABC, 2A, 2RC.

AMERICAN TOWER MASTER SPECIFICATION:
1. DIVISION 31 EARTHWORK SECTION 0312000 FOR ACCESS ROADS AND EARTH WORK
2. DIVISION 31 EARTHWORK SECTION 0312500 FOR EROSION AND SEDIMENT CONTROLS

NOTE:
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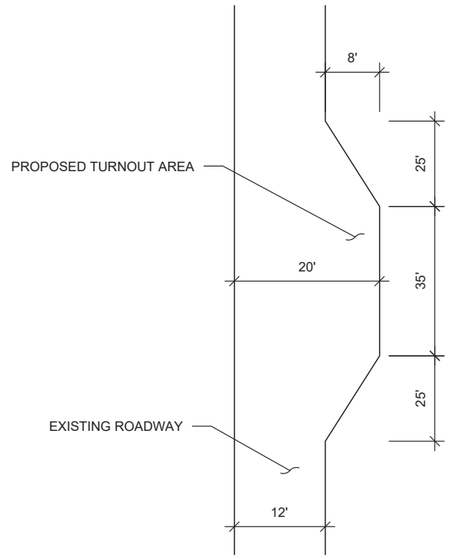
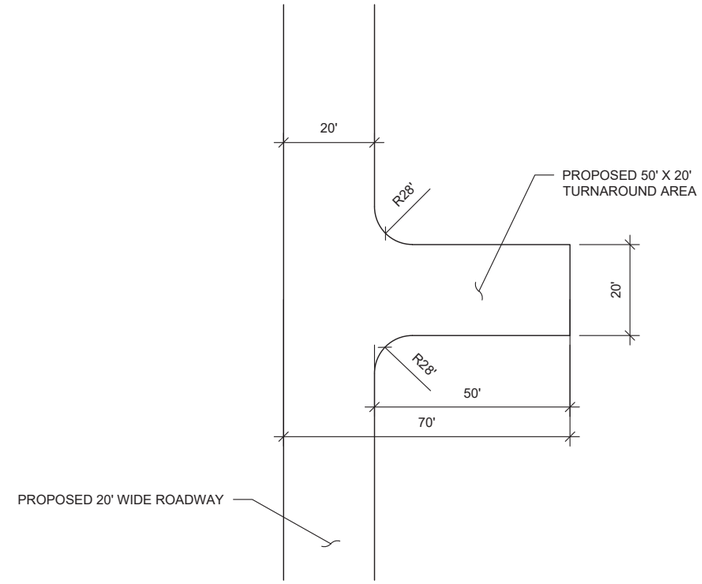
1 ACCESS ROAD REPAIR (BLADE ONLY)
SCALE: NOT TO SCALE



2 TURNOUT AREA
SCALE: NOT TO SCALE



3 ALTERNATIVE TO 120' HAMMERHEAD TURNAROUND
SCALE: NOT TO SCALE

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ATC SITE NUMBER:
8630, 8063, 8187, 8188, 41241

ATC SITE NAME:
MONTARA PEAK 2 T1 T5

SITE ADDRESS:
3501 WHITING RIDGE ROAD
MONTARA, CA 94038

SEAL:

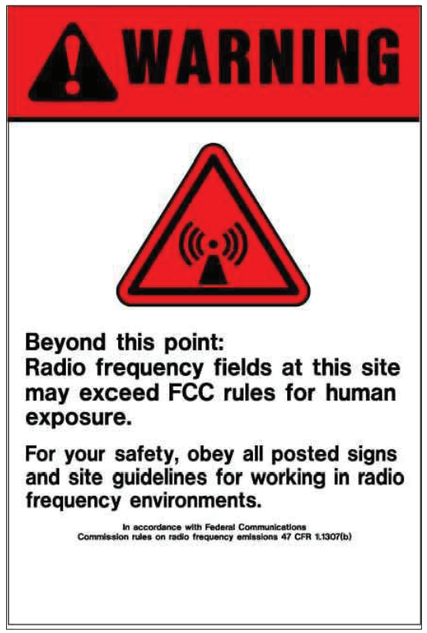
Authorized by "Scott Fletcher"
29 Mar 2021 09:16:38
cosign

DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

CONSTRICTION DETAILS

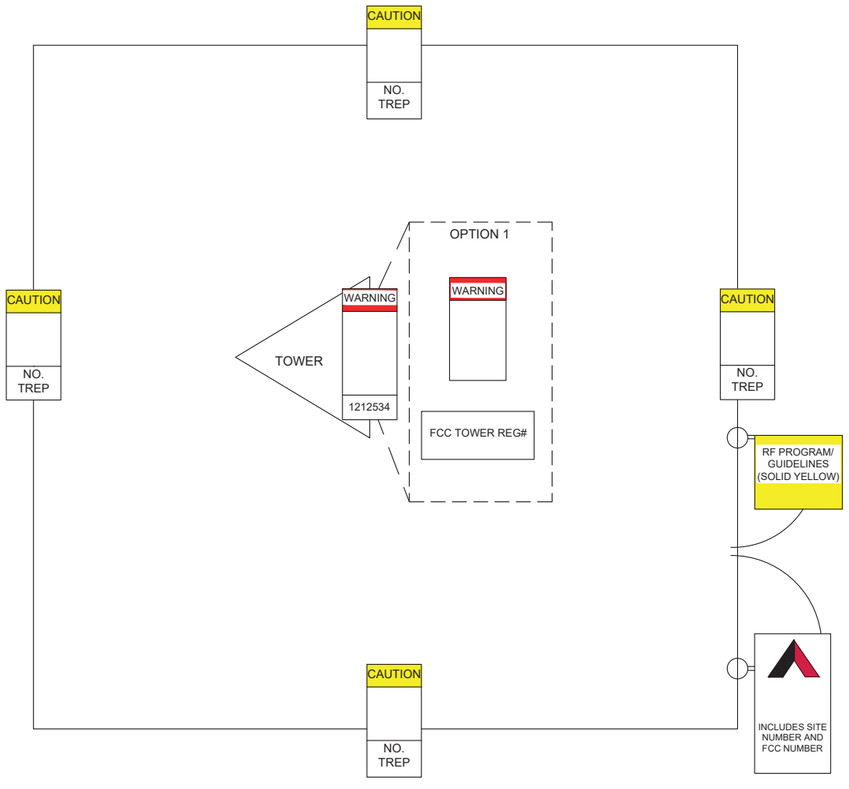
SHEET NUMBER:	REVISION:
C-501	0

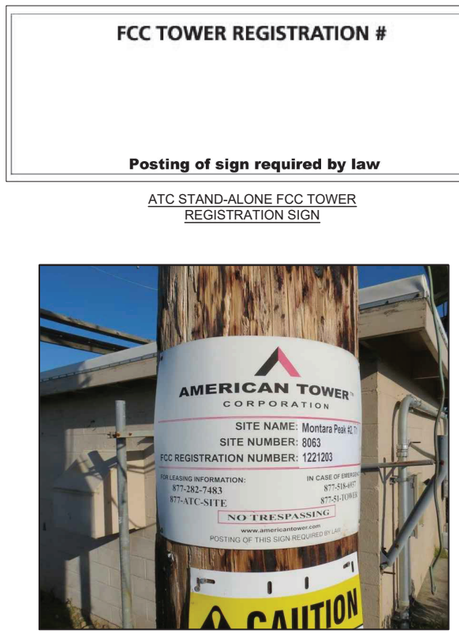
ATC CAUTION AND NO TRESPASSING SIGN



ATC RF WARNING AND FCC NUMBER SIGN

A "NO TRESPASSING" SIGN MUST BE POSTED A MINIMUM OF EVERY 50'.





ATC STAND-ALONE FCC TOWER REGISTRATION SIGN

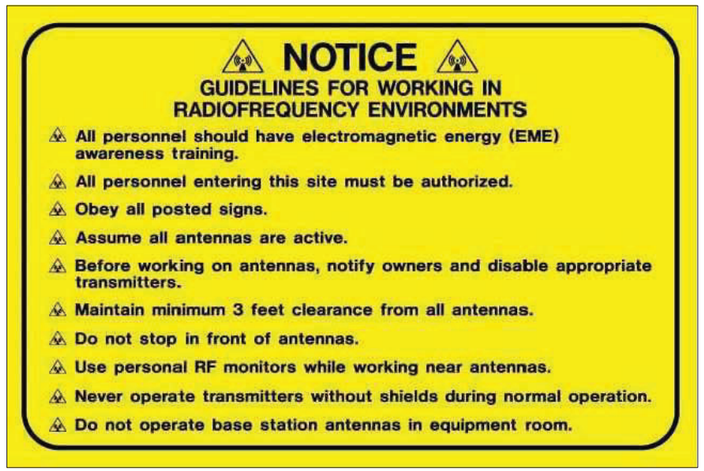
EXISTING SIGNAGE PHOTO

THERE MUST BE AN ATC SIGN WITH SITE INFORMATION AND FCC REGISTRATION NUMBER AT BOTH THE ACCESS ROAD GATE (GATE OFF OF MAIN ROAD, IF APPLICABLE) AND COMPOUND FENCE (IF NO COMPOUND FENCE, THEN IN A CONSPICUOUS PLACE UPON DRIVE UP). IN ADDITION, PLEASE LOOK AT DIAGRAM FOR ALL ADDITIONAL SIGNS REQUIRED.

OPTION 1 MAY BE USED TO POST TOWER REGISTRATION NUMBERS AT THE BASE OF THE TOWER IF A WARNING SIGN DOES NOT HAVE SPACE FOR THE TOWER REGISTRATION NUMBER.

IMPORTANT: FOR ANY ATC SIGN THAT DOES NOT MEET THE ATC SPECIFICATION FOR SIGNAGE (I.E., SHARPIE/PAINT PEN, WORN LABELS, ETC.), BRING IT INTO COMPLIANCE (RE-WRITE IF WORN) AND FLAG FOR REPLACEMENT ASAP WITH THE APPROPRIATE PERMANENT SIGN (YOU CAN ORDER THESE THROUGH THE WAREHOUSE).

ONLY LABELS PRINTED BY A ZEBRA LABEL PRINTER WILL BE ACCEPTED.



ATC RF PROGRAM NOTICE SIGN

ATC SITE SIGN

REPLACEMENT OF SIGNAGE:

AS SIGNAGE BECOMES STOLEN, DAMAGED, BRITTLE OR FADED, IT SHOULD BE REPLACED WITH SIGNAGE PER THIS SPECIFICATION. ANY ACQUIRED SITE SHOULD HAVE NEW SIGNS POSTED WITHIN 60 DAYS UNLESS OTHERWISE SPECIFIED. ANY SITE SOLD SHOULD HAVE THE ATC SIGNS REMOVED WITHIN 30 DAYS UNLESS OTHERWISE SPECIFIED. ALL FCC OR REGULATORY SIGNAGE MUST BE INSTALLED OR REPLACED AS REQUIRED TO MEET OUR STANDARD. SIGNS SHOULD BE REPLACED ON NORMAL, QUARTERLY MAINTENANCE VISITS BY CONTRACTORS OR SITE MANAGERS, UNLESS OTHERWISE REQUIRED ON A CASE-BY-CASE BASIS.

NOTE:

EXTERIOR SIGNS ARE NOT PROPOSED EXCEPT AS REQUIRED BY THE FCC. ALL EXISTING SIGNAGE AND ANY FUTURE SIGNAGE WILL BE COMPLIANT WITH STATUTE 164-43.4 NO HIGH-VOLTAGE SIGNAGE IS NECESSARY. NO HIGH-VOLTAGE EQUIPMENT PRESENT.

AMERICAN TOWER®
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MONTARA, CA 94038

SEAL:

Authorized by "Scott Fletcher"
29 Mar 2021 09:16:38

cosign

DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

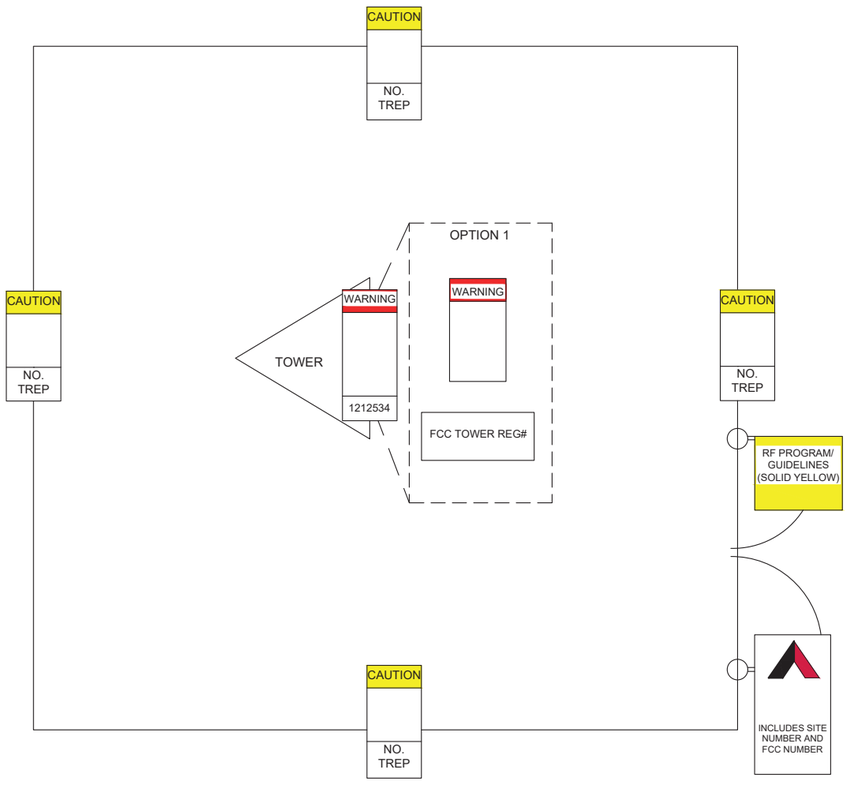
SIGNAGE

SHEET NUMBER:	REVISION:
C-502	0

ATC CAUTION AND NO TRESPASSING SIGN

ATC RF WARNING AND FCC NUMBER SIGN

A "NO TRESPASSING" SIGN MUST BE POSTED A MINIMUM OF EVERY 50'.



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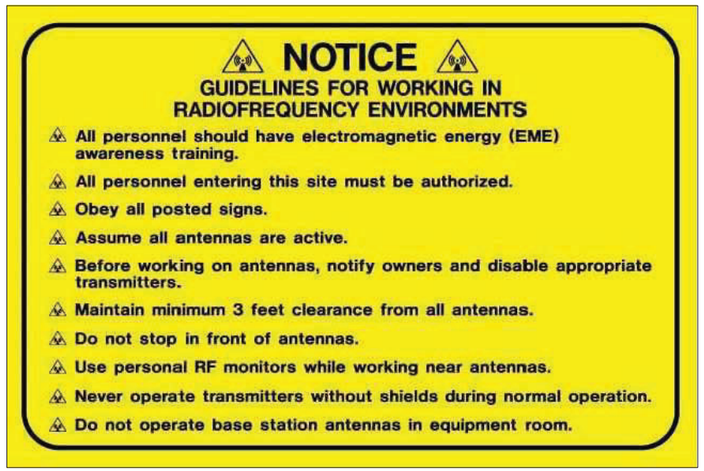

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SIGNAGE

SHEET NUMBER:	REVISION:
C-503	0

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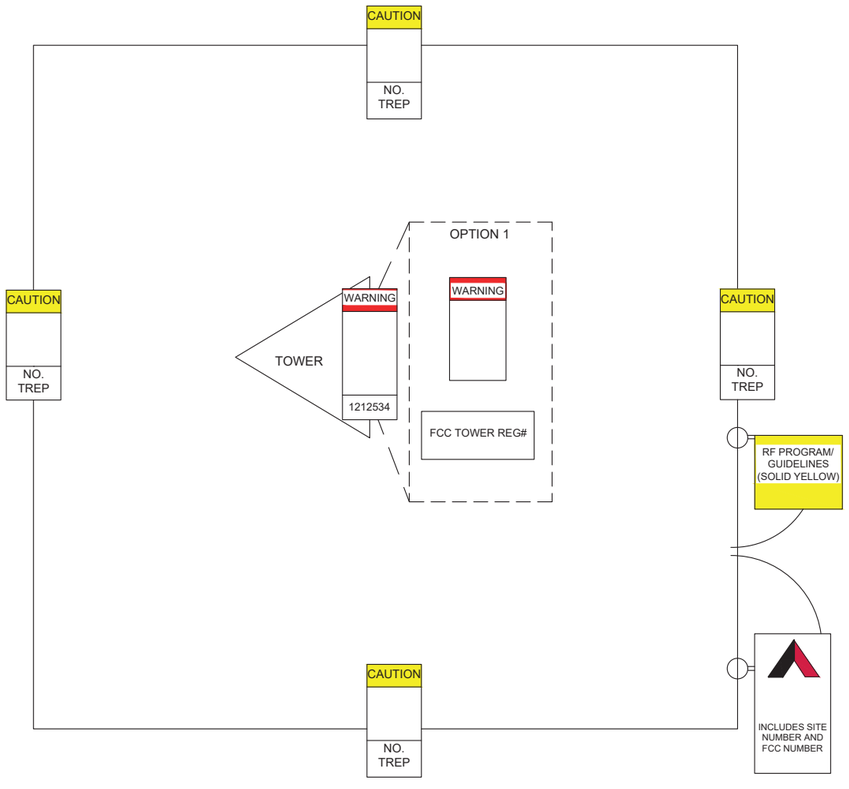
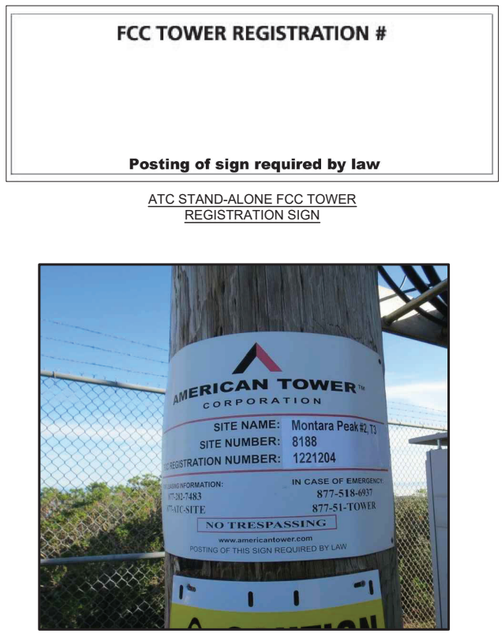
ATC RF WARNING AND FCC NUMBER SIGN

A "NO TRESPASSING" SIGN MUST BE POSTED A MINIMUM OF EVERY 50'.





ATC STAND-ALONE FCC TOWER REGISTRATION SIGN

EXISTING SIGNAGE PHOTO

THERE MUST BE AN ATC SIGN WITH SITE INFORMATION AND FCC REGISTRATION NUMBER AT BOTH THE ACCESS ROAD GATE (GATE OFF OF MAIN ROAD, IF APPLICABLE) AND COMPOUND FENCE (IF NO COMPOUND FENCE, THEN IN A CONSPICUOUS PLACE UPON DRIVE UP). IN ADDITION, PLEASE LOOK AT DIAGRAM FOR ALL ADDITIONAL SIGNS REQUIRED.

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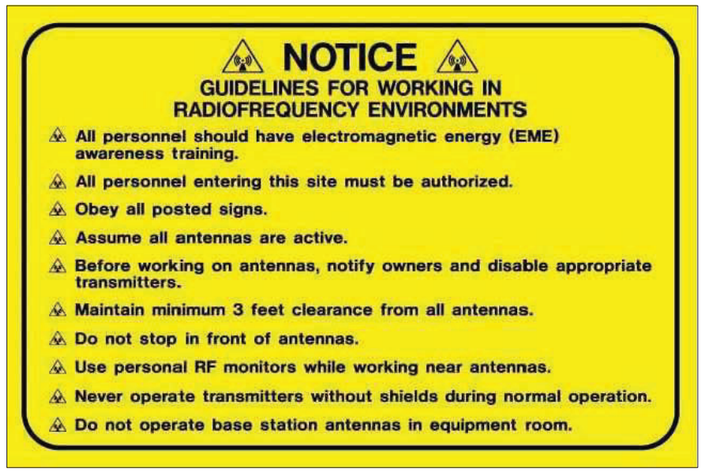
ONLY LABELS PRINTED BY A ZEBRA LABEL PRINTER WILL BE ACCEPTED.



ATC RF PROGRAM NOTICE SIGN

ATC SITE SIGN

REPLACEMENT OF SIGNAGE:

AS SIGNAGE BECOMES STOLEN, DAMAGED, BRITTLE OR FADED, IT SHOULD BE REPLACED WITH SIGNAGE PER THIS SPECIFICATION. ANY ACQUIRED SITE SHOULD HAVE NEW SIGNS POSTED WITHIN 60 DAYS UNLESS OTHERWISE SPECIFIED. ANY SITE SOLD SHOULD HAVE THE ATC SIGNS REMOVED WITHIN 30 DAYS UNLESS OTHERWISE SPECIFIED. ALL FCC OR REGULATORY SIGNAGE MUST BE INSTALLED OR REPLACED AS REQUIRED TO MEET OUR STANDARD. SIGNS SHOULD BE REPLACED ON NORMAL, QUARTERLY MAINTENANCE VISITS BY CONTRACTORS OR SITE MANAGERS, UNLESS OTHERWISE REQUIRED ON A CASE-BY-CASE BASIS.

NOTE:

EXTERIOR SIGNS ARE NOT PROPOSED EXCEPT AS REQUIRED BY THE FCC. ALL EXISTING SIGNAGE AND ANY FUTURE SIGNAGE WILL BE COMPLIANT WITH STATUTE 164-43.4 NO HIGH-VOLTAGE SIGNAGE IS NECESSARY. NO HIGH-VOLTAGE EQUIPMENT PRESENT.

AMERICAN TOWER®
ATC TOWER SERVICES, LLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	AV	03/29/21

ATC SITE NUMBER:
8630, 8063, 8187, 8188, 41241

ATC SITE NAME:
MONTARA PEAK 2 T1 T5

SITE ADDRESS:
3501 WHITING RIDGE ROAD
MONTARA, CA 94038

SEAL:

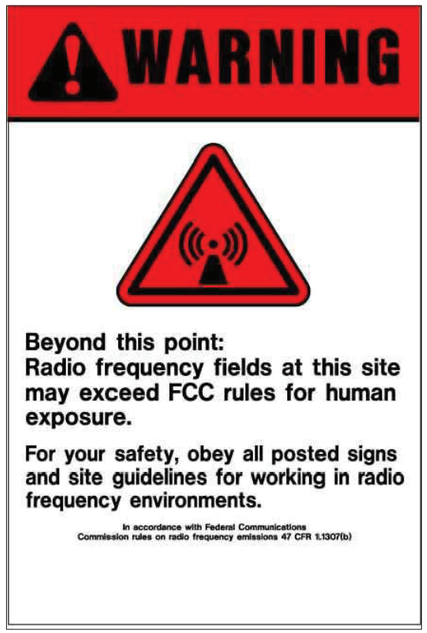
Authorized by "Scott Fletcher"
29 Mar 2021 09:16:41
cosign

DATE DRAWN:	03/29/21
ATC JOB NO:	13626219_E1

SIGNAGE

SHEET NUMBER:	REVISION:
C-504	0

ATC CAUTION AND NO TRESPASSING SIGN



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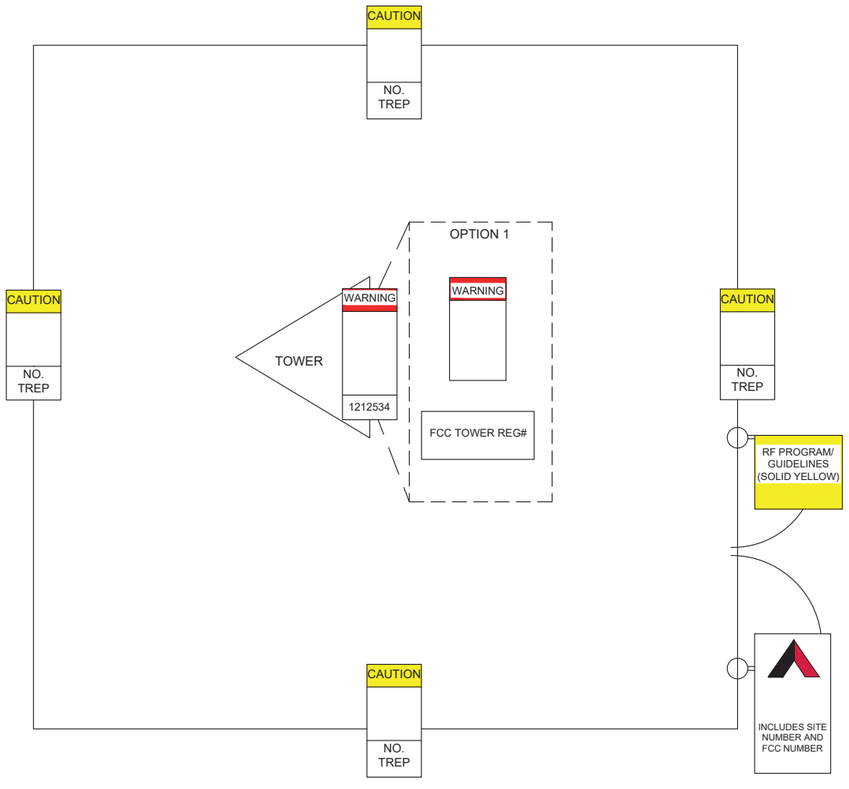

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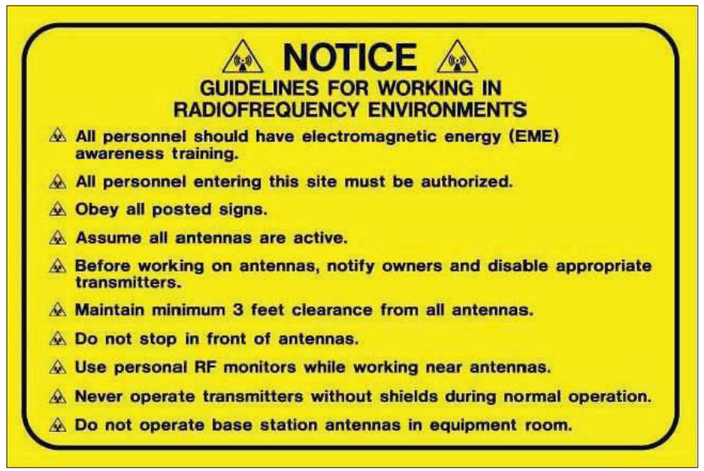

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Authorized by "Scott Fletcher"
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cosign

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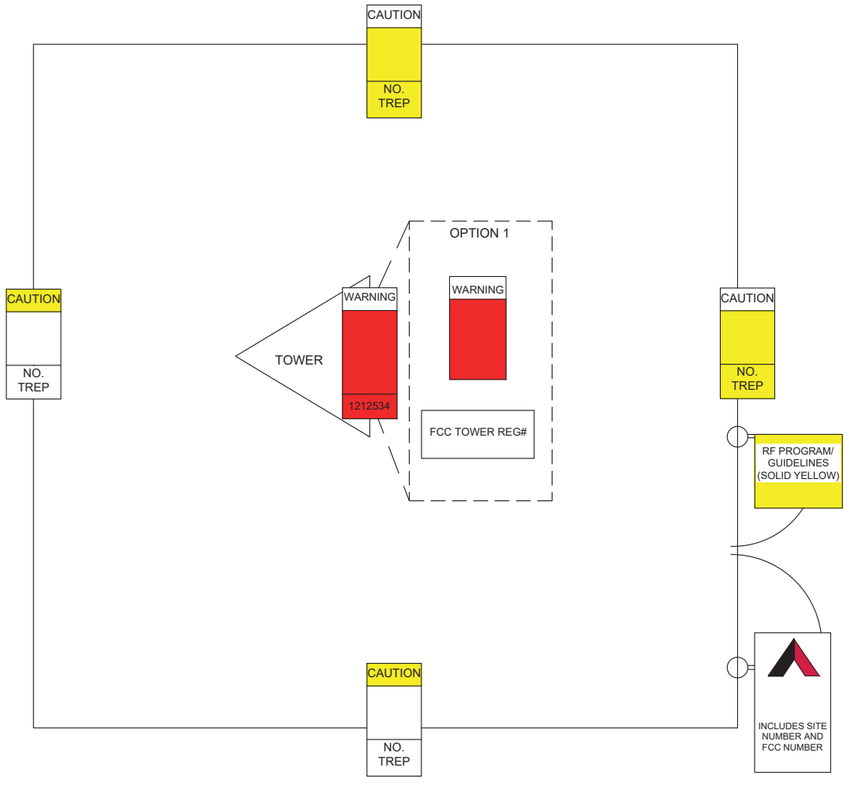

FCC TOWER REGISTRATION #

Posting of sign required by law

ATC STAND-ALONE FCC TOWER REGISTRATION SIGN

EXISTING SIGNAGE PHOTO

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NOTICE

GUIDELINES FOR WORKING IN RADIOFREQUENCY ENVIRONMENTS

- All personnel should have electromagnetic energy (EME) awareness training.
- All personnel entering this site must be authorized.
- Obey all posted signs.
- Assume all antennas are active.
- Before working on antennas, notify owners and disable appropriate transmitters.
- Maintain minimum 3 feet clearance from all antennas.
- Do not stop in front of antennas.
- Use personal RF monitors while working near antennas.
- Never operate transmitters without shields during normal operation.
- Do not operate base station antennas in equipment room.

ATC RF PROGRAM NOTICE SIGN

AMERICAN TOWER

SITE NAME :	MONTARA PEAK #2, T5
SITE NUMBER :	8630
FCC REGISTRATION # :	1056767

FOR LEASING INFORMATION:	FOR EMERGENCIES CALL:
877-282-7483	877-518-6937
877-ATC-SITE	877-51-TOWER

NO TRESPASSING

www.americantower.com

POSTING OF THIS SIGNAGE REQUIRED BY LAW

ATC SITE SIGN

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SIGNAGE

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C-506	0

CAP EX INSPECTION NOTES

THE SPECIAL INSPECTION (SI) PROCEDURE IS INTENDED TO CONFIRM THAT CONSTRUCTION AND INSTALLATION MEETS ENGINEERING DESIGN, ATC PROCEDURES AND ATC STANDARD SPECIFICATIONS FOR WIRELESS TOWER SITES.

TO ENSURE THAT THE REQUIREMENTS OF THE SI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR AND THE INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED FROM AMERICAN TOWER CORPORATION (ATC). IT IS EXPECTED THAT EACH PARTY WILL PROACTIVELY REACH OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR AMERICAN TOWER POINT OF CONTACT.

SPECIAL INSPECTOR

THE SPECIAL INSPECTOR IS REQUIRED TO CONTACT THE GENERAL CONTRACTOR AS SOON AS RECEIVING A PO FROM ATC. UPON RECEIVING A PO FROM ATC THE SPECIAL INSPECTOR AT A MINIMUM MUST:

- REVIEW THE REQUIREMENTS OF THE SI CHECKLIST.
- WORK WITH THE GENERAL CONTRACTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS.
- ANY CONCERNS WITH THE SCOPE OF WORK OR PROJECT COMMITMENT MUST BE RELAYED TO THE ATC POINT OF CONTACT IMMEDIATELY.

THE SPECIAL INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR INSPECTION AND TEST REPORTS, REVIEWING THESE DOCUMENTS FOR ADHERENCE TO CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE SI REPORT TO AMERICAN TOWER CORPORATION.

GENERAL CONTRACTOR

THE GENERAL CONTRACTOR IS REQUIRED TO CONTACT THE SI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE SI CHECKLIST.
- WORK WITH THE SI TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS.
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS.

THE GENERAL CONTRACTOR SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE SI CHECKLIST.

CAP EX SPECIAL INSPECTION CHECKLIST

INSPECTION ITEM	DESCRIPTION	INSPECTION TESTING REQUIRED	RESPONSIBILITY	SI REVIEW REQUIRED			INSPECTION FREQUENCY	
				PRE CX	DURING CX	POST CX	PERIODIC	CONTINUOUS
SPECIAL INSPECTION FIELD WORK & REPORT	DOCUMENTATION AND SITE VISIT CONDUCTED BY AN ATC APPROVED SPECIAL INSPECTOR AS REQUIRED BY ATC AND OTHER AUTHORITIES HAVING JURISDICTION. INSPECTION PARAMETERS TO FOLLOW ATC'S CONSTRUCTION SPECIFICATIONS FOR WIRELESS TOWER SITES.	N	SI					
ENGINEERING ASSEMBLY DRAWINGS	GC SHALL SUBMIT DRAWINGS TO SI FOR INCLUSION IN SI REPORT	N	GC					
FABRICATED MATERIAL VERIFICATION & INSPECTION	MTR AND OR MILL CERTIFICATIONS FOR SUPPLIED MATERIALS GC SHALL SUPPLY SI WITH REPORTS TO BE INCLUDED IN SI REPORT WHEN REQUIRED BY ATC	N	SI					
ROAD INSPECTION	STONE SHOULD HAVE A MINIMUM DEPTH OF 6". ENTRANCE SHALL HAVE A MINIMUM WIDTH OF 20' FOR A MINIMUM LENGTH OF 30' AND A 30' RADIUS, IF POSSIBLE. TRAVEL LANE SHALL HAVE A MIN. WIDTH OF 12' IN THE TANGENTS AND 15' AT THE CURVES. ROAD HAS NO SIGNS OF RILLS AND EROSION. ROAD IS PROPERLY CROWNED OR SUPER-ELEVATED. ALL DIMENSIONS AND DEPTHS SHALL BE PER THE PLANS OR ABOVE UNLESS UNLESS OTHERWISE SPECIFIED.	Y	GC / SI			✔	✔	
DITCH INSPECTION	A DITCH SHOULD BE INSTALLED PER THE APPROVED PLANS. INSPECT EROSION PROBLEMS, DAMAGE TO VEGETATION, SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN >3 INCHES AT ANY SPOT OR COVERING VEGETATION). INSPECT FOR POOLS OF STANDING WATER. IF REQUIRED, DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE GRADE TO PROVIDE POSITIVE DRAINAGE. VEGETATION ALONG THE SURFACE OF THE DITCH SHOULD BE KEPT IN GOOD CONDITION, AND ANY BARE SPOTS IMMEDIATELY RE-VEGETATED. IF THE DITCH IS RIP-RAP VERIFY IF ADDITIONAL RIP-RAP NEEDS TO BE INSTALLED. THE CHANNEL SHOULD BE CLEANED WHENEVER THE TOTAL DEPTH IS REDUCED BY 25% AT ANY LOCATION OR A MINIMUM 9" DEPTH IS NOT ACHIEVED.	N	SI					
CHECK DAM INSPECTION	INSPECT AND CORRECT CHECK DAMS WHEN SIGNS OF ALTERED WATER FLOW (CHANNELIZATION, OBSTRUCTIONS, EROSION ETC.) ARE IDENTIFIED.CHECK DAMS SHOULD BE HALF OF THE DITCH HEIGHT. A CHECK DAM SHALL BE INSTALLED AT THE CULVERT TO PREVENT BYPASS FLOW.	N	SI					
WATER BAR INSPECTION	IS THE WATER BAR FUNCTIONING PROPERLY AND PREVENT WATER FROM TRAVELING DOWN THE ROADWAY IN STEEP SLOPES OR AT CURVES. SHOULD BE CONSTRUCTED AND MAINTAINED AT A CROSS SLOPE OF 2% AND DISCHARGE TO A DITCH OR WELL VEGETATED AREA.	N	SI					
TURN-OUT INSPECTION	IS THE TURNOUT LOCATED TO TAKE ADVANTAGE OF NATURAL DRAINAGE COURSES OR BUFFER AREAS WHERE POSSIBLE? INSPECT AND VERIFY IF THE TURNOUTS ARE FUNCTIONING PROPERLY AND IF EARTHEN BERMS OR RIP-RAP IS NECESSARY TO MAINTAIN THE DRAINAGE PATTERN.	Y	SI		✔	✔	✔	
CULVERT INSPECTION	INSTALLED THE CORRECT SIZE AND MATERIAL TYPE AND AT THE PROPER LOCATIONS WITH A MINIMUM OF 1' COVER. CULVERTS SHOULD BE KEPT CLEAN AND ENSURE WATER FLOW. UNLESS AT A LOW POINT ALL A DOWNSTREAM EARTHEN OR STONE BERM SHALL BE INSTALLED AT THE CULVERT TO PREVENT BYPASS FLOW.	N	SI					
OUTLET PROTECTION INSPECTION	SHALL BE INSTALLED ON LEVEL GRADE TO PREVENT SCOUR AND EROSION AT PIPE OR CHANNEL OUTFALL.DISPLACED RIP-RAP SHALL BE REPLACED. DEPTH SHALL BE 1.5 TIMES THE STONE SIZE OR MIN OF 9". A MINIMUM LENGTH OF 8' IS REQUIRED. MIN STONE SIZE: AASHTO R-3 RIP RAP (3"-6" CLEAN STONE).	N	SI					
BASIN INSPECTION	UP GRADIENT CULVERTS, CATCH BASINS AND INLETS OF BASIN SHOULD BE INSPECTED AND CLEANED. VEGETATION ALONG THE SURFACE OF THE BASIN SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE. INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SLOPE STABILITY IN THE BERMS AND PONDING OF WATER GREATER THAN 72 HOURS SINCE THE LAST RUNOFF EVENT.	N	SI					
SILT FENCE INSPECTION	ALL SILT FENCE AND STAKES SHOULD BE REMOVED BY THE CONTRACTOR AFTER THE SITES HAS ACHIEVED STABILIZATION. NO LONG TERM MAINTENANCE IS REQUIRED.	N	SI					
SEEDING INSPECTION	SITES SHOULD OBTAIN AND MAINTAIN AT LEAST 70% STABILIZATION. STONE IS CONSIDERED STABILIZED.	N	SI					
COMPACTION VERIFICATION	CONTRACTOR SHALL PROVIDE AN INDEPENDENT THIRD PARTY CERTIFIED INSPECTION WHICH PROVIDES TEST RESULTS FOR COMPACTION TEST OF SOILS IN PLACE TO ASTM STANDARDS.	Y	GC / TA			✔		
COMPOUND INSPECTION	THE COMPOUND SHALL HAVE A MAXIMUM GRADE OF 5% AND A MINIMUM OF 1% IN ANY DIRECTION. A 1' MINIMUM GRAVEL APRON AROUND THE COMPOUND WITH A DITCH INSTALLED PER THE PLANS SURROUNDING THE UP GRADIENT PERIMETER OF THE COMPOUND. THE DITCH SHALL FREELY GRAVITY DRAIN TO AN APPROPRIATE LOCATION WITH NO IMPACT TO DOWN GRADIENT FEATURES SUCH AS THE ACCESS ROAD OR OTHER STRUCTURES.	N	GC / TA					
SLOPE STABILITY INSPECTION	EROSION CONTROL BLANKETS SHALL BE USED ON ALL SLOPES GREATER THAN 2H:1V OR STEEPER OR AS DIRECTED BY LOCAL REGULATING AGENCIES, AND WHERE POTENTIAL EXISTS FOR SEDIMENT POLLUTION TO RECEIVING SURFACE WATERS. SINCE ROCK SLOPES POSE LITTLE, IF ANY, POTENTIAL FOR EROSION, CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILL SLOPES DO NOT NEED TO BE BLANKETED.	N	SI					
POWER AND GROUNDING	POWER PANELS, DISCONNECTS, ATS, TROUGH, H-FRAME, CONDUIT AND GROUNDING SYSTEMS ARE IN CONFORMANCE WITH THE DESIGN DRAWINGS	N	SI					
GC AS-BUILT DRAWINGS WITH CONSTRUCTION RED-LINES	GC SHALL SUBMIT "AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS TO SI FOR APPROVAL/REVIEW AND INCLUSION IN SI REPORT	N	GC					
SI AS-BUILT DRAWINGS WITH INSPECTION RED-LINES (AS REQUIRED)	SI SHALL SUBMIT "AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS WITHIN SI REPORT	N	SI					
PHOTOGRAPHS	PHOTOGRAPHIC EVIDENCE OF SPECIAL INSPECTION, ON SITE REMEDIATION, AND ITEMS FAILING INSPECTION & REQUIRING FOLLOW UP TO BE INCLUDED WITHIN THE SI REPORT. COMPLETE PHOTO LOG IS TO BE SUBMITTED WITHIN SI REPORT.	N	GC / SI					

NOTE: SPECIAL INSPECTIONS ARE INTENDED TO BE A COLLABORATIVE EFFORT BETWEEN GC AND SI. WHENEVER POSSIBLE GC IS TO PROVIDE SI WITH PHOTOGRAPHIC OR OTHER ACCEPTABLE EVIDENCE OF PROPER INSTALLATION IF PERIODIC INSPECTION FREQUENCY IS ACCEPTABLE. THE GC AND SI SHALL WORK TO COMPILE EVIDENCE OF PROPER CONSTRUCTION AND LIMIT THE NUMBER OF SI SITE VISITS REQUIRED.

TABLE KEY:
SI - ATC APPROVED SPECIAL INSPECTOR
GC - GENERAL CONTRACTOR
TA - 3RD PARTY TESTING AGENCY
CX - CONSTRUCTION
CM - CONSTRUCTION MANAGER
ATC - AMERICAN TOWER CORPORATION

COMMENTS: ALL ROADWORK AND MAINTENANCE MUST BE DONE TO SAN MATEO COUNTY STANDARDS AND CERTIFIED BY LICENSED ENGINEER TO INCLUDE ANY AND ALL COMPACTION OF ROADWAY.

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SPECIAL INSPECTIONS WORKSHEET

SHEET NUMBER:	REVISION:
C-602	0

Attachment 2-photos

BIOLOGICAL RESOURCES IMPACT ANALYSIS

"MONTARA PEAK, CA"
McNee State Park Hiking Trail
Moss Beach, CA 94038
CBRE Project No.: TS80820403

Prepared For:

AMERICAN TOWER

www.cbre.com/Assessment

CBRE

Attachment 3-RF report

TABLE OF CONTENTS

LIST OF APPENDICES

SECTION 1:
INTRODUCTION

This report contains the findings of a Biological Resources Impact Analysis conducted by Helix Environmental Planning, Inc. (HELIX) on a proposed American Tower cellular facility, 8630 (Montara Peak CA), near the City of Moss Beach, San Mateo County, California. The project site is generally located north of State Route 92, south of Sharp Park Road, east of State Route 1, and west of Interstate 280, and is depicted on the Montara Mountain, California U.S. Geological Survey (USGS) 7.5-minute topographic map. The proposed project consists of road improvements to an existing access road, specifically the installation of four new 12-foot by 20-foot gravel-covered turnouts.

The project site was surveyed on September 8, 2018 by qualified HELIX biologist Kyle Workman. The biological resources within the site are described in terms of plant communities and jurisdictional drainage features. A literature review provided information regarding sensitive plant and wildlife species potentially occurring within the project site and immediate vicinity. Based on current site conditions and suitable habitat requirements of sensitive species, this report provides an assessment of the sensitive resources found on the site and analyzes the biological significance of the site in view of federal, state, and local laws and policies.

SECTION 2:
METHODOLOGY

2.1 - BIOLOGICAL RESOURCES

Data regarding biological resources on the project site were obtained through a literature review that included data on biological resources in the project vicinity and applicable reference materials provided by American Tower.

Sensitive biological resources present, or potentially present, onsite were identified through a literature review using the following resources: California Department of Fish and Wildlife (CDFW 2018), California Natural Diversity Data Base (CNDDB 2018), and the California Native Plant Society (Tibor 2001 and CNPSEI 2018). For the purpose of this report, "sensitive" or "special status" species are those plant or wildlife species that are federally and/or state listed species, proposed for listing, candidate species and CDFW Species of Special Concern.

An initial review indicated that the project site is located within previously disturbed areas associated with the existing access road and the existing cellular facility. The access road is located within McNee Ranch State Park and is also a popular hiking/biking trail. Kyle Workman conducted the biological resources field survey to document existing conditions and to determine potential impacts to sensitive biological resources based on current site plans. The survey was conducted on foot making note of biological resources, such as plant and wildlife species, on field data sheets. These data sheets are included in Appendix A. Special attention was paid to plant communities to determine the presence or potential occurrence of any sensitive species that may occur on the project site.

SECTION 3:
EXISTING CONDITIONS

3.1 - SITE DESCRIPTION

The biological assessment survey of the project site was conducted on September 8, 2018. Weather conditions included a temperature of approximately 72 degrees Fahrenheit, winds of 1 to 5 miles per hour, and clear skies. The site is specifically located within McNee Ranch State Park, near the City of Moss Beach, San Mateo County, California. Land use adjacent to the site generally consists of undeveloped open space within the State Park.

The proposed project consists of repairs, maintenance and improvements to an existing access road. In addition, four new 12-foot by 20-foot gravel turnouts are proposed at various locations along the access road.

3.2 - VEGETATION

The project site is located within previously disturbed areas associated with the existing cellular facility and access road. The slopes surrounding the existing access road primarily consist of a northern coastal scrub community comprised of native shrubs and scattered herbaceous species. Common species observed include coyote brush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), poison oak (*Toxicodendron diversilobum*), California coffeeberry (*Frangula californica*), and manzanita (*Arctostaphylos* sp.). Vegetation near the access road entrance and lower elevations consists of mixed conifers and planted ornamental trees including eucalyptus tree (*Eucalyptus* sp.), Monterey pine (*Pinus radiata*), Monterey cypress (*Hesperocyparis macrocarpa*), and Ponderosa pine (*Pinus ponderosa*). A complete list of plant species observed on or in the vicinity of the project site can be found in Appendix A: Field Data Sheets.

3.3 - GENERAL WILDLIFE

The project site and surrounding area provide habitat for wildlife species that commonly occur in northern coastal scrub and mixed conifer communities. No amphibian, reptilian, or mammalian species were observed or detected during the field survey. Avian species observed/detected include:

- Western kingbird (*Tyrannus verticalis*)
- Acorn woodpecker (*Melanerpes formicivorus*)
- Common raven (*Corvus corax*)

- Bewick's wren (*Thryomanes bewickii*)
- Turkey vulture (*Cathartes aura*)
- Anna's hummingbird (*Calypte anna*)
- Western scrub jay (*Aphelocoma californica californica*)

Other wildlife species expected to occur onsite include western fence lizard (*Sceloporus occidentalis*), Spotted towhee (*Pipilo maculatus*), and brush rabbit (*Sylvilaagus bachmani*).

3.4 - SENSITIVE BIOLOGICAL RESOURCES

Special Status Species

Special status species are native species that have been accorded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

The U.S. Fish and Wildlife Service (USFWS) administers the federal Endangered Species Act (ESA). The ESA provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The ESA defines as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is a species that is likely to become endangered in the foreseeable future. A "proposed" species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

Section 9 of the ESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species that is in a project area generally imposes severe constraints on development, particularly if development would result in take of the species or its habitat. Under the regulations of the ESA, the USFWS may authorize take when it is incidental to, but not the purpose of, an otherwise lawful act.

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA). The State of California considers an "endangered" species one whose prospects of survival and reproduction are in immediate jeopardy, a "threatened" species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management, and a "rare" species is one present in such small

numbers throughout its range that it may become endangered if its present environment worsens. The term "rare" species applies to California native plants. State threatened and endangered species are fully protected against take, as defined above. "Species of special concern" is an informal designation used by CDFW for some declining wildlife species that are not state candidates. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFW.

The California Native Plant Society (CNPS) has developed an inventory of California's sensitive plant species (Tibor 2001). This inventory summarizes information on the distribution, rarity, and endangerment of California's vascular plants. The inventory is divided into four lists based on the rarity of the species. In addition, the CNPS provides an inventory of plant communities that are considered sensitive by the state and federal resource agencies, academic institutions, and various conservation groups. Determination of the level of sensitivity is based on the number and size of remaining occurrences as well as recognized threats.

Sensitive habitats are natural communities that support concentrations of sensitive plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife (CNDDB 2018). Sensitive habitats are not afforded legal protection unless they support protected species, except for wetland habitats, which cannot be filled without authorization from the U.S. Army Corps of Engineers (USACE) and CDFW.

The following discussion describes the special-status plants, wildlife, and habitats that have been afforded special recognition by federal, state, or local resource agencies or organizations and are known to occur in the region of the project site. Sources used for the classification of sensitive resources are as follows:

- Plants - California Department of Fish and Wildlife (CDFW April 2018), California Natural Diversity Data Base (CNDDB 2018), and California Native Plant Society (Tibor 2001 and CNPSEI 2018)
- Habitats - CNDDB (2018), Holland (1986)
- Wildlife - CDFW (2018), CNDDB (2018)

A review of the CNDDB and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants resulted in a list of 42 sensitive plant species, 35 sensitive wildlife species, and 4 sensitive plant communities that occur within the Montara Mountain, California USGS topographic quadrangle.

The sensitive plant species include:

- Arcuate bush-mallow (*Malacothamnus arcuatus*)
- Blasdale's bent grass (*Agrostis blasdalei*)
- Broad-lobed leptosiphon (*Leptosiphon croceus*)
- California bottle-brush grass (*Elymus californicus*)
- Choris' popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*)
- Clustered lady's slipper (*Cypripedium fasciculatum*)
- Coast iris (*Iris longipetala*0
- Coast mark milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*)
- Coast rockcress (*Arabis biepharophylla*)
- Coast yellow leptosiphon (*Leptosiphon croceus*)
- Coastal triquetrella (*Triquetrella californica*)
- Crystal Springs lessingia (*Lessingia arachnoidea*)
- Fragrant fritillary *(Fritillaria liliacea)*
- Franciscan onion (*Allium peninsulare* var. *franciscanum*)
- Franciscan thistle (*Cirsium andrewsii*)
- Harlequin lotus (*Hosackia gracilis*)
- Hickman's cinquefoil (*Potentilla hickmanii*)
- Hillsborough chocolate lily (*Fritillaria biflora* var. ineziana*)*
- Island tube lichen (*Hypogymnia schizidiata*)
- Johnny-nip (*Castilleja ambigua* var. *ambigua*)
- Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*)
- Kings Mountain manzanita (*Arctostaphylos regismontana*)
- Morro manzanita (*Arctostaphylos morroensis*)
- Ocean bluff milk-vetch (*Astragalus nuttallii* var. *nuttallii*)
- Omduff's meadowfoam (*Limnanthes douglasii* ssp. *ornduffii*)
- Oregon polemonium (*Polemonium carneum*)
- Pappose tarplant (*Centromadia parryi* ssp. *parryi*)
- Perrenial goldfields (*Lasthenia californica* ssp. *macrantha*)
- Point Reyes horkelia (*Horkelia marinensis*)
- Rose leptosiphon (*Leptosiphon rosaceus*)
- Salt-marsh wandering shrew (*Sorex vagrans halicoetes*)
- San Francisco Bay spineflower (*Chorizanthe cuspidata* var. *cuspidata*)
- San Francisco campion (*Silene verecunda* ssp. *verecunda*)
- San Francisco collinsia (*Collinsia multicolor*)
- San Francisco gumplant (*Grindelia hirsutula* var. *maritima*)

- San Francisco owl's-clover (*Triphysaria floribunda*)
- San Francisco wallflower (*Erysimum franciscanum*)
- San Mateo tree lupine (*Lupinus arboreus* var. *eximius*)
- Scouler's catchfly (*Silen scouleri* ssp *scouleri*)
- Western leatherwood (*Dirca occidentalis*)
- White-rayed pentachaeta (*Pentachaeta bellidiflora*)
- Woodland woollythreads (*Monolopia gracilens*)

Proposed development will be contained within previously disturbed areas associated with the existing access road and cellular facility. This disturbance includes excavation, backfilling, and compaction activities resulting from previous construction and maintenance activities. Evidence of surface disturbance on and in the immediate vicinity of the site has greatly reduced the potential for sensitive plant species to occupy the area. Therefore, none of the above-listed sensitive plant species are anticipated to occur onsite, and the proposed project is not anticipated to result in any impacts to sensitive plant species. No further action is recommended with regard to sensitive plant species.

The sensitive wildlife species include:

- Alameda song sparrow (*Melospiza melodia pusillula*)
- American badger (*Taxidea taxus*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Big free-tailed bat (*Nyctinomops macrotis*)
- Bumblebee scarab beetle (*Lichnanthe ursina*)
- California brown pelican (*Pelecanus occidentalis californicus*)
- California giant salamander (*Dicamptodon ensatus*)
- California red-legged frog (*Rana aurora draytonii*)
- California Ridgway's rail (*Rallus obsoletus obsoletus*)
- Cooper's hawk (*Accipiter cooperi*)
- Foothill yellow-legged frog (*Rana boylii*)
- Fringed myotis (*Myotis thysanodes*)
- Hoary bat (*Lasiurus cinereus*)
- Longfin smelt (*Spirinchus thaleichthys*)
- Marbled murrelet (*Brachyramphus marmoratus*)
- Merlin (*Falco columbarius*)
- Mission blue butterfly (*Plebejus icarioides missionensis*)
- Monarch butterfly (*Danaus plexippus*)
- Myrtle's silverspot butterfly (*Speyeria zerene myrtleae*)

- Olive-sided flycatcher (*Contopus cooperi*)
- Orcutt's bird's-beak (*Cordylanthus orcuttianus*)
- Pacific lamprey (*Entosphenus tridentatus*)
- Pallid bat (*Antrozous pallidus*)
- River lamprey (*Entosphenus tridentatus*)
- Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*)
- San Bruno elfin butterfly (*Callophrys mossii bayensis*)
- San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*)
- San Francisco forktail damselfly (*Ischnura gemina*)
- San Francisco garter snake (*Thamnophis sirtalis tetrataenia*)
- Steelhead - south/central California coast ESU (*Oncorhynchus mykiss irideus*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)
- Western bumble bee (*Bombus occidentalis*)
- Western pond turtle (*Actinemys marmorata*)
- Western snowy plover (*Charadrius alexandrius nivosus*)
- White-tailed kite (*Elanus leucurus*)

The project site is located within USFWS designated critical habitat for California red-legged frog. Portions of the proposed access road provide suitable foraging/dispersing habitat for California red-legged frog.

Pacific stonecrop (*Sedum spathulifolium*) was observed on the hillsides immediately adjacent to the existing access road. Stonecrop is the larval host plant of the San Bruno elfin butterfly and this species has a potential to occur onsite.

The sensitive plant communities include:

- Northern coastal salt marsh
- Northern maritime chaparral
- Serpentine bunchgrass
- Valley needlegrass grassland

No sensitive plant communities occur on the project site.

3.5 - JURISDICTIONAL AREAS

The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria. USACE regulatory jurisdiction pursuant to Section 404 of the federal Clean Water Act is founded on a

connection or nexus between the water body in question and interstate commerce. This connection may be direct through a tributary system, linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the USACE regulations.

Waters of the U.S.

USACE jurisdiction over non-tidal waters of the United States extends laterally to the ordinary high water mark (OHWM) or beyond the OHWM to the limit of any adjacent wetlands, if present (33 CFR 328.4). The OHWM is defined as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area" [33 CFR 329.11(a) (1)]. Jurisdiction typically extends upstream to the point where the OHWM is no longer perceptible. Recently, the federal courts have restricted USACE jurisdiction over waters that are not directly connected to traditional navigable waters (isolated waters), thereby increasing the focus on clearly establishing the physical connection between the subject water body(ies) as a tributary to traditional navigable waters or otherwise by directly establishing the nexus with interstate commerce.

During the biological assessment survey, the site was evaluated according to the guidelines provided in the USACE 1987 Manual (i.e. Environmental Laboratory, 1987). Waters of the U.S. were absent from the site; no water bodies having a perceptible OHWM were identified on site or adjacent to the site.

Wetlands

The USACE and EPA define "wetlands" as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions." In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met. Several parameters may be analyzed to determine whether the criteria are satisfied.

The project site and surrounding area contain plant species commonly found in disturbed/developed and ornamental communities. No hydrophytic plant species were observed on the project site; therefore, it was not necessary to examine the other two wetland criteria (hydrology and soils), since

all three criteria must be met where wetlands are present. No jurisdictional wetlands will be impacted by the installation of the proposed facility.

3.6 - NESTING BIRDS

The Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident Wildlife birds such as pheasant, grouse, quail, and wild turkey. Resident Wildlife birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs.

California Fish and Game (CFG) Code 3503 makes it illegal to destroy any birds' nest or any birds' eggs that are protected under the MBTA. CFG Code 3503.5 further protects all birds in the orders *Falconiformes* and *Strigiformes* (birds of prey, such as hawks and owls) and their eggs and nests from any form of take.

The trees and shrubs located on and within the immediate vicinity of the access road provide suitable nest sites for avian species. No nests or nesting activity were observed during the biological assessment survey.

SECTION 4:
SENSITIVE BIOLOGICAL RESOURCES IMPACT ANALYSIS

4.1 - SENSITIVE PLANT AND WILDLIFE SPECIES

- **Sensitive Plant Species:** The project site contains no suitable habitat for any sensitive plant species. Therefore, no sensitive plant species have a moderate or high potential to occur onsite and focused surveys are not recommended.
- **Sensitive Wildlife Species:** The entire access road is located within USFWS designated critical habitat for California red-legged frog, a federally threatened species and a California Species of Special Concern. Suitable foraging and dispersal habitat for California red-legged frog occurs on and within the immediate vicinity of the project site. Therefore, USFWS consultation will be required to gain full project approval.

- Stonecrop, the larval host plant for the San Bruno elfin butterfly was observed within the immediate vicinity of the existing access road. San Bruno elfin butterfly is federally listed as endangered. Although the host plant is not anticipated to be directly impacted, the proposed road repairs could result in impacts to San Bruno elfin butterfly. Therefore, USFWS consultation will be required to gain full project approval.
- **Sensitive Plant Communities:** No sensitive plant communities occur on the project site; none will be impacted by the proposed project.

4.2 - JURISDICTIONAL AREAS

No potentially jurisdictional waters or wetlands are present on the project site. Therefore, installation of the proposed facility will not impact any jurisdictional areas.

4.3 - NESTING BIRDS

The trees and shrubs located on and within the immediate vicinity of the access road provide suitable nest sites for avian species. Therefore, pursuant to the MBTA and CFG Code, installation of the proposed facility should be conducted outside the nesting season. The nesting season generally extends from early February through August, but can vary slightly from year to year based upon seasonal weather conditions.

If facility installation must occur during the nesting season, a qualified biologist should conduct a pre-construction nesting bird survey to identify any potential nesting activity. If active nests are observed, construction activity must be prohibited within a 500-foot (~160-meter) buffer around the

nest until the nestlings have fledged. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor.

SECTION 5:
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Appendix A: Field Data Sheets and Site Photograph

Field Notes – 8630 (Montara Peak)

Date: 09/08/2018

Location: Moss Beach (McNee State Park), San Mateo County, California

Time: 9:15 am to 12:45 pm

Weather Conditions: 1 to 5 mile per hour winds, clear skies with a temperature of 72 degrees

Plant Community/Site description: Site consists of road maintenance and repairs to an existing access road approximately 4-miles in length. The road consists of compacted dirt with a few asphalt areas and with little to no vegetation. Also proposed are 4 new gravel covered turnouts. Several of the turnouts will impact northern coastal scrub habitat. The access road is a popular hiking trail and steep slopes surround the site.

Wildlife Species Observed:

Kingbird	acorn woodpecker	common raven	Bewick's wren
Turkey vulture	Anna's hummingbird	scrub jay	

Plant Species Observed:

Ponderosa pin	Monterey pine	Monterey cypress	poison oak
English ivy	Eucalyptus tree	coyote brush	pampas grass
Gnaphalium	horseweed	sword fern	California sagebrush
Monkeyflower	stonecrop	Manzanita	mustard
Ceanothus	coffeeberry	sow thistle	lady fern
Lupine			

View of lower proposed turnout location facing south.

View of lower proposed turnout location facing south.

View of lower proposed turnout location facing southeast.

View of 2nd proposed turnout location.

View of 2nd proposed turnout location.

View of 3rd proposed turnout location.

View of 2nd proposed turnout location.

View of turnout and existing access road.

View of 3rd proposed turnout location.

View of 3rd proposed turnout location.

View of upper proposed turnout location.

View of stonecrop adjacent to access road.

View of stonecrop adjacent to access road

View of existing access road.

View of existing access road and cellular facility.

View of existing access road near trailhead facing west.

View of existing access road near trailhead facing east.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

In Reply Refer to:
08ESMF00-
2019-I-3192

JAN 13 2020

Daniel Abeyta
Environmental Coordinator
Federal Communications Commission
1445 12th Street Southwest
Washington, D.C. 20554

Subject: Concurrence with a Not Likely to Adversely Affect Determination for the Montara Peak American Tower Telecommunications Facility Project in San Mateo County, California

Dear Mr. Abeyta:

This letter is in response to a January 7, 2019, request from EBI Consulting that the U.S. Fish and Wildlife Service (Service) concur with the determination that the Montara Peak American Tower Telecommunications Facility Project (Project) in San Mateo County, California may affect, but is not likely to adversely affect, the federally threatened California red-legged frog (*Rana draytonii*), its designated critical habitat, the federally endangered San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), the federally endangered Mission blue butterfly (*Plebejus icarioides missionensis*) or the federally endangered San Bruno Elfin butterfly (*Callophrys mossii bayensis*) in accordance with the requirements of the Endangered Species Act of 1973, as amended (Act). Your request was received by email on January 7, 2019. Critical habitat has not been designated for the San Francisco garter snake, the Mission blue butterfly, or the San Bruno Elfin butterfly. The Project is within critical habitat for California red-legged frog (unit SNM-1).

In reviewing the potential effects of the proposed Project, the Service has relied upon: (1) the September 18, 2018 Biological Resources Reports for the Project submitted with your consultation request; and (2) other information available to the Service.

The Project consists of no new infrastructure. It is for the repairs, maintenance and improvements to an existing access road through to the peak of Montara Mountain. In addition, four new 12-foot by 20-foot turnouts are proposed at various locations along the access road.

Minimization Measures

1. Work will stop if any listed species are encountered in the Project area and be allowed to leave on its own volition.

2. A biologist will be present for all ground-disturbing activities, and will flag any host plants for butterflies to be avoided.

Attachment 4

3. Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent possible.

4. No work will be conducted when precipitation is forecast to be greater than 0.1 inches.

The Mission blue butterfly is known to occur on the ridges east of the project action area. However, botanical surveys of the project area found no host plants in the project footprint for this species. The San Bruno elfin butterfly has been documented approximately two miles north of the project location. However, botanical surveys of the project area found no host plants for this species. The project area is more than one mile from any ponds or reservoirs that are potentially capable of supporting breeding or foraging for the San Francisco garter snake. The project area is within designated California red-legged frog critical habitat (unit SNM-1). The project area does not contain the primary constituent elements of their critical habitat: aquatic breeding habitat, non-breeding aquatic habitat and upland habitat. A juvenile California red-legged frog was observed during surveys for another project in 2016. A follow-up survey conducted in May 2016 did not detect any California red-legged frog within the Project area. The frog was in a puddle that ponded following a late-season rain storm and is currently dry. The dirt road within the Action Area will be dry during road maintenance. The entirety of the project is within dispersal distance but due to timing species are not likely to be present.

The Service concurs that the Project, as described here and in Project documents submitted to the Service, may affect, but is not likely to adversely affect the California red-legged frog, the San Francisco garter snake, the Mission blue butterfly, or the San Bruno Elfin butterfly because Project effects are likely to be discountable based on the following: (1) The work is short term; (2) The work is will stabilize the hillside and limit erosion; and (3) the instruction to stop all work if any listed species are encountered. These measures will help ensure that there are no adverse effects to the species.

Therefore, unless new information reveals effects of the project that may affect federally listed species or critical habitat in a manner not identified to date, or if a new species is listed or critical habitat is designated that may be affected by the proposed action, no further action pursuant to the Act is necessary for the Montara Peak American Tower Telecommunications Facility Project.

If you have any questions regarding this letter, please contact Leif Goude, Biologist (leif_goude@fws.gov) or Ryan Olah, Coast Bay Division Chief (ryan_olah@fws.gov) at the letterhead address or telephone (916) 414-6659.

Sincerely,

Ryan Olah
Chief, Coast Bay Division

BIOLOGICAL RESOURCE ASSESSMENT

NORTH PEAK ACCESS ROAD, MCNEE RANCH STATE PARK, MONTARA, SAN MATEO COUNTY, CALIFORNIA

PREPARED FOR:
American Tower Corporation

PREPARED BY:

Coast Ridge Ecology
1410 31st Avenue
San Francisco, CA 94122

June 2022

Attachment 5

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I. SUMMARY

This report provides a biological resource assessment for a roadway improvement project located primarily within McNee Ranch State Park, Montara, California. North Peak Access Road is a publicly accessible hiking trail which also provides vehicle access to the various telecommunication towers present on the North Peak of Montara Mountain. The unpaved road is approximately 3.7 miles in length, beginning at Highway 1 and ending at the summit of North Peak. Near the summit of Montara Mountain, North Peak Access Road briefly crosses through San Pedro County Park and Rancho Corral Del Tierra (Golden Gate National Recreation Area).

The proposed project will improve and repair portions of North Peak Access Road, install four (4) new turnouts along the road, and widen the road to allow vehicle passage where necessary. Impacts to vegetation will be limited to the new turnout locations and potentially trimming or removing vegetation to maintain a roadway width of approximately 12 feet.

Coast Ridge Ecology biologists surveyed the project site and the surrounding areas for biological resources on January 26, February 3, and February 8, 2022; and conducted a rare plant survey of the project area and a survey of two proposed fire break areas for rare plants and endangered species habitat in April 2022 (Appendix C). The California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB) was consulted for known occurrences of sensitive plant, animal, and natural plant communities of concern found within three miles of the project site (CNDDB, 2022).

Eight (8) special-status species were identified as occurring, or highly likely to occur based on habitat types present, within and/or adjacent to the project area. These are: island tube lichen (*Hypogymnia schizidiata*), Montara manzanita (*Arctostaphylos montaraensis*), Kings Mountain manzanita (*Arctostaphylos regismontana*), San Mateo tree lupine (*Lupinus arboreus var. eximius*), Franciscan wallflower (*Erysimum franciscanum*), San Bruno elfin butterfly (*Callophrys mossii bayensis*), California red-legged frog (*Rana draytonii*) and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). In addition, one sensitive plant community was identified within the project area: Montara manzanita chaparral. Host plants for the Mission blue butterfly (*Icaricia icarioides missionensis*) were identified within the project area however this species is not expected to be present. Each of these species and communities, and their potential to be impacted by project activities are discussed in section VII.

The road improvement project will primarily impact the existing graded roadway, with minimal impacts to surrounding natural habitats. However, due to the large number of sensitive species and habitats found directly adjacent to North Peak Access Road, it is recommended that sufficient measures be taken to minimize the risk of impacts to sensitive species.

This Biological Resources Assessment provides adequate information to make recommended CEQA findings regarding potentially significant impacts. The following mitigation measures would reduce potentially significant impacts to less than significant.

Mitigation Measure BIO-1

Prior to working on site, all construction crew members and other on-site workers associated with the project shall receive an Environmental Awareness Training to be conducted by a Qualified Biologist. The training shall instruct workers on how to recognize all special-status plant/wildlife species and their preferred habitat potentially present in the project area, applicable laws and regulations regarding each species, actions to take if a special-status species is observed during construction activities, and the name/contact information of the Qualified Biologist and Qualified Biological Monitor.

Mitigation Measure BIO-2

It is recommended that all road and firebreak work that is located in areas where Pacific stonecrop plants occur, should be conducted outside of the active period (March 1 through June 30) of the San Bruno elfin butterfly to minimize the risk of impacts to this species. All Pacific Stonecrop plants shall be clearly marked with flagging for avoidance prior to vegetation removal and ground disturbance activities. In addition, a Qualified Biological Monitor shall be present on site to monitor any work that is conducted within 50 feet of any Pacific stonecrop plants.

Mitigation Measure BIO-3:

The lower (western) 0.5 mile section of the North Peak Access Road, which runs adjacent to Martini Creek before it rises steeply up Montara Mountain, has potential for presence of California red-legged frog and San Francisco garter snake. Prior to conducting project-related work in this section of roadway, a Qualified Biologist shall conduct a preconstruction survey within 48 hours of any road improvement activities. After work has commenced in this area, a Qualified Biological Monitor shall also inspect this area each morning prior to the beginning of work for presence of California red-legged frogs and San Francisco garter snakes. The Qualified Biological Monitor shall have the authority to stop work, to allow any frogs and/or snakes to move out of harm's way on their own accord.

Mitigation Measure BIO-4:

Approximately 0.58 miles of the North Peak Access Road travels through Montara manzanita (*Arctostaphylos montaraensis*) chaparral and a small number of isolated individuals are also present along the road shortly before this habitat transition. A single individual Kings Mountain manzanita (*Arctostaphylos regismontana*) is also located along North Peak Access Road shortly before the transition into Montara manzanita chaparral. Both of these species are considered special status species (CNPS 1B.2). Extreme care should be taken while working in this section to avoid unnecessary impacts to the Montara manzanita and/or King Mountain Manzanita or its associated

habitat. Minor trimming of manzanita branches that are encroaching into the roadway is unlikely to cause significant negative impacts to the plants, however cutting or removal of entire plants and/or cutting primary trunks shall be avoided. A Qualified Biological Monitor shall monitor all vegetation removal and ground disturbance activities within the Montara manzanita chaparral and transition areas along the North Peak Access Road.

Mitigation Measure BIO-5:

Two San Francisco dusky-footed woodrat (SFDFW) middens are located in the vicinity of proposed turnouts (Turnouts 1 and 3) and two additional middens are located in the Fire Break areas. All SFDFW middens shall be marked for avoidance. If any work is conducted within 50 feet of a SFDFW midden, a Qualified Biological Monitor shall be present on site to monitor this work. If any SFDFW middens cannot be avoided by project activities, the California Department of Fish and Wildlife (CDFW) shall be consulted to determine suitable mitigation measure(s).

Mitigation Measure BIO-6

Additional rare plants/lichens that occur within the project area include a single Island tube lichen (*Hypogymnia schizidiata*), a CNPS 1B.3 species, and numerous patches of Franciscan wallflower (*Erysimum franciscanum*), a CNPS 4.2 plant species, and San Mateo tree lupine (*Lupinus arboreus var. eximius*), a CNPS Rank 3.2 species. The Island tube lichen shall be avoided. Measures to minimize impacts to San Francisco wallflower and San Mateo tree lupine include flagging of the plants and avoidance where possible. A Qualified Biological Monitor shall be present on site to monitor all work within 50 feet of these species.

Mitigation Measure BIO-7

If the project is conducted within the nesting bird season (Feb. 1 – August 31), a survey for nesting birds shall be conducted by a Qualified Biologist within one week prior to any ground disturbance or vegetation removal associated with the project. Due to the length of the project site, it will be necessary to perform multiple surveys as work proceeds along North Peak Access Road. If active bird nests are detected, suitable buffer zones shall be established based on CDFW requirements to ensure nesting birds are not impacted.

II. PROJECT LOCATION

The project area consists of the North Peak Access Road, located primarily within McNee Ranch State Park, Montara, California (**Figure 1**). North Peak Access Road is a publicly accessible hiking trail which also provides vehicle access to the various telecommunication towers present on the North Peak of Montara Mountain. The unpaved road is approximately 3.7 miles in length, beginning at Highway 1 and ending at the summit of North Peak. Near the summit of Montara Mountain, North Peak Access Road briefly crosses through San Pedro County Park and Rancho Corral Del Tierra (Golden Gate National Recreation Area). Proposed fire break areas are located near the summit of North Peak, and are shown in Appendix C (Figure 1).

III. PROJECT DESCRIPTION

The proposed project will improve and repair portions of North Peak Access Road, install four (4) new turnouts along the road, and widen the road to allow vehicle passage where necessary. Impacts to vegetation will be limited to the new turnout locations and potentially trimming or removing vegetation to maintain a roadway width of approximately 12 feet. Proposed fire break areas would be mowed in accordance with defensible space recommendations by Fire Safe San Mateo County (Zone 2)[1].

IV. METHODS

Coast Ridge Ecology biologists surveyed the project site and the surrounding areas for biological resources on January 26, February 3, and February 8, 2022. In addition, a follow up rare plant survey of the project area and a survey of two proposed fire break areas for rare plants and endangered species habitat was conducted in April 2022 (Appendix C). All plant and animal species observed were documented and plant communities and habitats were assessed for their potential to support special status species.

The California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB) was consulted for known occurrences of sensitive plant, animal, and natural plant communities of concern found within three miles of the project site (CNDDB, 2022). Data from CNDDB, California Native Plant Society (CNPS) On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS, 2022), academic research publications, knowledge of regional biota, and observations made during the field surveys were used to evaluate on-site habitat suitability for special status plant and wildlife species within the project site.

[1] https://www.firesafesanmateo.org/preparedness/defensible-space

Figure 1: Project Location Map
North Peak Access Road
McNee Ranch State Park, Montara, CA

Service Layer Credits: USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data. Data Refreshed July, 2017.

V. EXISTING SETTING

The project area consists of the unpaved North Peak Access Road, located within McNee Ranch State Park in Montara, California. The road travels approximately 3.7 miles between Highway 1 and the North Peak of Montara Mountain. Topography along the road is highly variable, ranging from nearly flat near the bottom to extremely steep, rocky sections near the summit of North Peak. The elevation of the project site is approximately 82 feet at the beginning of the road (Highway 1), increasing to approximately 1,850 feet at the summit of North Peak.

Soils

Three soil units were mapped as occurring within the project site by the National Resources Conservation Service (NRCS). The three soil types mapped within the project site, in order of prevalence, are:

- Scarper-Miramar complex, 30 to 75 percent slopes
- Typic Argiustolls, loamy-Urban land association, 5 to 15 percent slopes
- Barnabe-Candlestick complex, 30 to 75 percent slopes

Scarper-Miramar complex soils are granitic soils generally consisting of gravelly coarse sandy loam derived from quartz-diorite parent material (NRCS, 2022). These soils are generally found on mountain slopes, where they form a relatively thin (approximately 25 inches thick) layer over weathered bedrock. This is the dominant soil type present within the project area, encompassing the mid and high elevation portions of North Peak Access Trail.

Typic Arguistolls, loamy-Urban land association soils consist of sandy clay loam derived from sedimentary rock (NRCS, 2022). Within the project area, these soils are only found near the base of North Peak Access Road in the vicinity of Martini Creek.

Candlestick-Barnabe complex soils consist of gravelly sandy loam to sandy clay loam soils with sandstone bedrock parent material (NRCS, 2022). Within the project site, this soil type is only found in small areas along the northernmost portion of the road.

The project area does not contain serpentine, calcareous, or ultramafic soils that could support any special status plant species that predominately utilize these soil types (NRCS, 2022).

Hydrology

Numerous minor drainages are present in the vicinity of the project site, most of which flow into Martini Creek, south of the project area. In addition, the first approximately 0.34 miles of North Peak Access Road runs alongside Martini Creek before it enters the Pacific Ocean. However, none of these hydrologic features are present within the graded roadway that makes up the project site, and no drainage features were detected at proposed turnout locations.

Jurisdictional Waters and Wetlands

To meet the US Army Corps of Engineers (USACE) definition of wetland, an area must demonstrate three critical characteristics: wetland vegetation, wetland hydrology, and wetland soils (Federal Interagency Committee for Wetland Delineation, 1989). Additionally, to fall under jurisdiction of the USACE, a wetland must have some evident hydrological connection to other wetlands and/or waters of the United States. The US Fish and Wildlife Service definition of wetland is similar: at least periodically, the land must support predominantly hydrophytes; the substrate must be predominantly undrained hydric soil; or the substrate is non-soil that is saturated with water or covered by shallow water at some time during the growing season of the year (Cowardin, et al., 1979).

The State defines wetlands more broadly than the federal wetlands program by recognizing that wetlands may have evidence of only one of the three federal parameters: (1) at least periodically, the land supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year" (Cowardin, 1979).

US jurisdictional waters are essentially defined as “all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters.[2] The (State) Water Code defines “waters of the state” broadly to include “any surface water or groundwater, including saline waters, within the boundaries of the state.” “Waters of the state” includes all “waters of the U.S.” [3]

No potential wetlands or waters of the US features were identified within the roadway and turnout areas and no impacts to wetlands, waters of the State, or waters of the US are expected.

[2] https://www.epa.gov/nwpr/about-waters-united-states

[3] (Procedures for Discharges of Dredged or Fill Material to Waters of the State, 2019) https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/procedures_conformed.pdf

VI. PLANT COMMUNITIES AND HABITAT TYPES

Vegetation Communities

Plant communities along North Peak Access Road and in the vicinity of proposed turnout locations and proposed fire breaks can be broadly divided into three (3) distinct alliances, based on the classification system used in the California Native Plant Society (CNPS) Manual of California Vegetation (CNPS 2022a). Primary impacts to plant communities would be limited to the creation of turnouts, trimming back vegetation encroaching into the roadway, and mowing of fire break areas. Descriptions of these general plant communities documented within the project site are provided below. A list of all plant species documented within the project site is provided in **Table 1.**

Monterey Cypress – Monterey Pine Stand

Monterey cypress (*Hesperocyperis macrocarpa*) and Monterey pine (*Pinus radiata*) trees are not native to the San Francisco Bay Area, but were widely planted and form semi-natural stands throughout California. This plant community is dominant in lower elevation areas of the project site, beginning at the start of the road and ending approximately ½ mile before the first proposed turnout location. The canopy is dominated by Monterey cypress and Monterey pine, with occasional stands of blue gum (*Eucalyptus globulus*). The shrub layer (where present) is dominated by the same species associated with coyote brush scrub (see below), which was likely the dominant plant community in this area prior to the establishment of non-native trees.

Coyote Brush Scrub

This plant community is primarily dominated by coyote brush (*Baccharis pilularis*), with other woody shrubs such as blue blossom (*Ceanothus thyrsiflorus),* California coffeeberry (*Frangula californica*), poison oak (*Toxicodendron diversilobum*) and California sagebrush (*Artemisia californica*) being co-dominant in places. Most of this plant community is composed of dense shrub cover with little understory vegetation, however some herbaceous plants such as California beeplant (*Scrophularia californica*) and wild strawberry (*Fragaria vesca*) are present in some abundance. The endemic San Mateo tree lupine (*Lupinus arboreus var. eximius*), a CNPS Rank 3.2 species, can also be found in patches throughout this plant community. Most of the mid-elevation portion of the North Peak Access Road is composed of this scrub habitat, which is also present near the peak of the mountain. Much of the vegetation encroaching into the roadway is made up of the shrub species listed above, which will likely be trimmed back as part of the roadway improvement efforts. In addition, minor impacts to this plant community will occur during construction of roadway turnouts, particularly Turnout 2 (**Figure 7**) and within the 2 proposed fire break areas.

Montara Manzanita – Golden Chinquapin Chaparral

This sensitive plant community, endemic to the upper slopes of Montara Mountain, is heavily dominated by Montara manzanita (*Arctostaphylos montaraensis*) and golden chinquapin (*Chrysolepis chrysophylla*). Due to the extremely limited distribution of this habitat, it is considered a sensitive plant community by the California Department of Fish and Wildlife. The Montara manzanita is a CNPS Rank 1B.2 plant species only known from Montara Mountain and San Bruno Mountain, where it occasionally grows at a sufficient density to form this characteristic plant community. Montara manzanita makes up a large portion of the vegetative cover within this plant community, approaching 100 percent of the vegetative cover in some areas. Golden chinquapin is also characteristic of this plant community, being abundant in the shrub layer and occasionally forming a canopy over the manzanita. Areas not completely dominated by Montara manzanita and golden chinquapin generally have a mix of other native shrubs such as blue blossom, coyote brush, and California coffeeberry. The herbaceous layer is very sparse, with little to no herbaceous growth beneath the dense manzanita foliage. Numerous outcrops of bare rock are also found within this plant community, which can host other rare plant species such as broadleaf stonecrop (*Sedum spathulifolium*), host plant for the endangered San Bruno elfin butterfly (*Callophrys mossii bayensis*). North Peak Access Road passes directly through a sizeable patch of this habitat (**Figures 4-5**), where additional care should be taken to limit impacts from road improvement work.

Table 1: Plant Species Observed During Site Surveys

Common Name	Scientific Name	Status
Yarrow	*Achillea millefolium*	N
Deerweed	*Acmispon glaber*	N
Creeping bentgrass	*Agrostis stolonifera*	NNI
Henderson's angelica	*Angelica hendersonii*	N
Montara manzanita	*Arctostaphylos montaraensis*	R (CNPS 1B.2)
Kings Mountain manzanita	*Arctostaphylos regismontana*	R (CNPS 1B.2)
California sagebrush	*Artemisia californica*	N
California mugwort	*Artemisia douglasiana*	N
Wild oats	*Avena barbata*	NNI
Coyote brush	*Baccharis pilularis*	N
California barberry	*Berberis pinnata*	N
Black mustard	*Brassica nigra*	NNI
Rattlesnake grass	*Briza maxima*	NNI
Ripgut brome	*Bromus diandrus*	NNI
California brome	*Bromus sitchensis var. carinatus*	N
Redmaids	*Calandrinia menziesii*	N
Morning glory	*Calystegia sp.*	N

Common Name	Scientific Name	Status
Hairy bitter cress	*Cardamine hirsuta*	NN
Coast indian paintbrush	*Castilleja affinis ssp. affinis*	N
Dense flower owl's clover	*Castilleja densiflora*	N
Wight's paintbrush	*Castilleja wightii*	N
Blue blossom	*Ceanothus thyrsiflorus*	N
Chasmanthe	*Chasmanthe floribunda*	NNI
Soap plant	*Chlorogalum pomeridianum*	N
Golden chinquapin	*Chrysolepis chrysophylla*	N
Western thistle	*Cirsium occidentale*	N
Bull thistle	*Cirsium vulgare*	NNI
Yerba buena	*Clinopodium douglasii*	N
Poison hemlock	*Conium maculatum*	NNI
Pampas grass	*Cortaderia sp.*	NNI
Beaked hazelnut	*Corylus cornuta*	N
Wooly Cotoneaster	*Cotoneaster pannosus*	NNI
Dogtail grass	*Cynosurus echinatus*	NNI
Wild carrot	*Daucus pusillus*	N
Cape ivy	*Delairea odorata*	NNI
Coast larkspur	*Delphinium californicum*	N
Sticky monkeyflower	*Diplacus aurantiacus*	N
Teasel	*Dipsacus sp.*	NNI
Blue dicks	*Dipterostemon capitatus*	N
Sticky cinquefoil	*Drymocallis glandulosa*	N
Sea lettuce	*Dudleya farinosa*	N
Upright Veldt Grass	*Ehrharta erecta*	NNI
Willowherb	*Epilobium sp.*	N
Horseweed	*Erigeron sp.*	NN
Yerba santa	*Eriodictyon californicum*	N
Coast buckwheat	*Eriogonum latifolium*	N
Golden yarrow	*Eriophyllum confertiflorum*	N
Lizard tail	*Eriophyllum staechadifolium*	N
Redstem filaree	*Erodium cicutarium*	NNI
Franciscan wallflower	*Erysimum franciscanum*	R (CNPS 4.2)
California poppy	*Eschscholzia californica*	N
Blue gum	*Eucalyptus globulus*	NNI
Red fescue	*Festuca rubra*	N
Wild strawberry	*Fragaria vesca*	N
California coffeeberry	*Frangula californica*	N
Common bedstraw	*Galium aparine*	N
Coast silk tassel	*Garrya elliptica*	N

Common Name	Scientific Name	Status
Geranium	*Geranium sp.*	NN
English ivy	*Hedera helix*	NNI
Common cow parsnip	*Heracleum maximum*	N
Monterey cypress	*Hesperocyparis macrocarpa*	NN
Toyon	*Heteromeles arbutifolia*	N
Crevice alumroot	*Heuchera micrantha*	N
Short pod mustard	*Hirschfeldia incana*	NNI
Velvet grass	*Holcus lanatus*	NNI
Oceanspray	*Holodiscus discolor*	N
Foxtail barley	*Hordeum murinum*	NNI
California horkelia	*Horkelia californica var. californica*	N
Smooth cat's ear	*Hypochaeris glabra*	NNI
Hairy cat's ear	*Hypochaeris radicata*	NNI
Douglas iris	*Iris douglasiana*	N
Spreading rush	*Juncus patens*	N
California goldfields	*Lasthenia californica*	N
Common pacific pea	*Lathyrus vestitus*	N
Sweet alyssum	*Lobularia maritima*	NNI
Bird's foot trefoil	*Lotus corniculatus*	NN
San Mateo tree lupine	*Lupinus arboreus var. eximius*	R (CNPS 3.2)
Miniature lupine	*Lupinus bicolor*	N
Varied lupine	*Lupinus littoralis var. variicolor*	N*
Sky lupine	*Lupinus nanus*	N
Common wood rush	*Luzula comosa*	N
California man-root	*Marah fabacea*	N
Bur clover	*Medicago polymorpha*	NNI
Torrey's melica	*Melica torreyana*	N
Oso berry	*Oemleria cerasiformis*	N
Bermuda buttercup	*Oxalis pes-caprae*	NNI
Hairy wood sorrel	*Oxalis pilosa*	N
Gold back fern	*Pentagramma triangularis*	N
California phacelia	*Phacelia californica*	N
Stinging phacelia	*Phacelia malvifolia*	N
Harding grass	*Phalaris aquatica*	NNI
Monterey pine	*Pinus radiata*	NN
California plantain	*Plantago erecta*	N
English plantain	*Plantago lanceolata*	NNI
California polypody	*Polypodium californicum*	N
Western sword fern	*Polystichum munitum*	N
Shooting star	*Primula sp.*	N

Common Name	Scientific Name	Status
Ladies' tobacco	*Psuedognaphalium californicum*	N
Western brackenfern	*Pteridium aquilinum*	N
Flowering currant	*Ribes sanguineum*	N
Thimbleberry	*Rubus parviflorus*	N
California blackberry	*Rubus ursinus*	N
Sheep sorrel	*Rumex acetosella*	NNI
Curly dock	*Rumex crispus*	NNI
Arroyo willow	*Salix lasiolepis*	N
Red elderberry	*Sambucus racemosa*	N
Pacific sanicle	*Sanicula crassicaulis*	N
California beeplant	*Scrophularia californica*	N
Broadleaf stonecrop	*Sedum spathulifolium*	N*
Common groundsel	*Senecio vulgaris*	NN
Checker mallow	*Sidalcea sp.*	N
Greenspot nightshade	*Solanum douglasii*	N
Blue witch nightshade	*Solanum umbelliferum*	N
South American soliva	*Soliva sosillis*	NN
Sow thistle	*Sonchus oleraceus*	NN
Southern hedgenettle	*Stachys bullata*	N
Foothill needle grass	*Stipa lepida*	N
Creeping snowberry	*Symphoricarpos mollis*	N
Pacific aster	*Symphyotrichum chilense*	N
Common dandelion	*Taraxacum officinale*	NN
Poison oak	*Toxicodendron diversilobum*	N
Evergreen huckleberry	*Vaccinium ovatum*	N

Status Codes: Native (N), Non-Native (NN), Non-Native Invasive (NNI), Rare/ Sensitive (R). *Host plant for endangered butterfly species. Additional common species observed (April 2022) include *Bromus hordeaceus (NNI), Elymus glaucus (N), Gamochaeta ustulata (N), Monardella villosa (N), Ranunculus californicus var. californicus (N) and Trifolium campestre (NN).*

Wildlife

Table 2: Wildlife Species Observed During Site Surveys

Common Name	Scientific Name
Birds	
American robin	*Turdus migratorius*
Anna's hummingbird	*Calypte anna*
Bewick's wren	*Thryomanes bewickii*
California scrub-jay	*Aphelocoma californica*
California thrasher	*Toxostoma redivivum*
California towhee	*Melozone crissalis*

Chestnut-backed chickadee	*Poecile rufescens*
Common raven	*Corvus corax*
European starling	*Sturnus vulgaris*
Hermit thrush	*Catharus guttatus*
Northern flicker	*Colaptes auratus*
Song sparrow	*Melospiza melodia*
Turkey vulture	*Cathartes aura*
White-crowned sparrow	*Zonotrichia leucophrys*
Wrentit	*Chamaea fasciata*
Mammals	
Mule deer (scat)	*Odocoileus hemionus*
San Francisco dusky-footed woodrat (middens)	*Neotoma fuscipes annectens*
Reptiles	
Western fence lizard	*Sceloporus occidentalis*

While the open space surrounding the project area provides excellent habitat for a variety of wildlife species, the roadway itself does not provide habitat beyond its use as a movement corridor. However, several species of birds were observed during site surveys foraging within the scrub and it is likely that some species use the dense vegetation as nesting sites during the breeding season.

Middens (nests) of the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), a California Species of Special Concern, were recorded at several locations along the road (**Figures 4-5)**. These middens were generally located far enough from the roadway that they should not be impacted by project activities. However, two San Francisco dusky-footed woodrat middens are located in the vicinity of proposed turnouts (Turnouts 1 and 3, **Figures 6, 8**) and two additional middens are located in the Fire Break areas. These middens should be marked for avoidance.

Wildlife Movement Corridors

Wildlife corridors are important for conservation of wildlife in the region. Linkages between habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement between populations located in discrete areas and populations located within larger habitat areas. Even where patches of pristine habitat are fragmented, as commonly occurs with riparian vegetation, wildlife movement between populations is facilitated through habitat linkages, migration corridors and movement corridors. Wildlife movement includes migration (i.e., usually one direction per season), inter-population movement (i.e., long-term genetic exchange) and small travel pathways (i.e., daily movement within an animal's home range).

Species utilize movement corridors in several ways. "Passage species" are those species that use corridors as thru-ways between outlying habitats. The habitat requirements for passage species are generally less than those for corridor dwellers.

Passage species use corridors for brief durations, such as for seasonal migrations or movement within a home range. As such, movement corridors do not necessarily have to meet any of the habitat requirements necessary for a passage species' everyday survival. Large herbivores, such as deer and elk, and medium-to-large carnivores, such as coyotes, bobcats and mountain lions, are typically passage species. "Corridor dwellers" are those species that have limited dispersal capabilities – a category that includes most plants, insects, reptiles, amphibians, small mammals, and birds – and use corridors for a greater length of time. As such, wildlife movement corridors must fulfill key habitat components specific to a species' life history requirements in order for them to survive. In general, however, the suitability and/or utility of the landscape – specifically, of the landscape as corridor habitat – is best evaluated on a species-specific level.

The North Peak Access Road provides the easiest path through the dense scrub and chaparral of Montara Mountain, and is likely used as a primary movement corridor by local wildlife. However, as the project is focused on maintaining this roadway and will not be creating any new barriers, it is unlikely to negatively impact the movement of wildlife through the area.

VII. SPECIAL STATUS PLANTS, ANIMALS, AND NATURAL COMMUNITIES

The California Department of Fish and Wildlife (CDFW) Natural Diversity Data Base (CNDDB) maintains records of reported occurrences of sensitive plant, animal and natural plant communities of concern. CNDDB records provide useful information about what species have been found in a given project area, and what species may be expected in similar habitat types. An area that has not been surveyed or visited may support sensitive species that have not been discovered and reported and in addition, may require site-specific surveys to rule out special status species occurrences. The U. S. Fish and Wildlife Service (USFWS), Sacramento, also maintains lists of listed species and other species of concern that may occur in or be affected by projects in a given USGS topographic quadrangle. Information on special status plant species was obtained from the CNPS On-line Inventory of Rare, Threatened, and Endangered Plants of California.

The CNDDB records within a three mile radius of the project site were reviewed for sensitive element occurrences (CNDDB, 2022). The potential for the presence of these special status species based on proximity to the site, or similar habitat utilization is provided in **Appendix A**.

Reported occurrences of special-status species within three (3) miles of the project site are shown in **Figures 2 & 3**. Eight (8) special-status species were identified as occurring, or highly likely to occur based on habitat types present, within and/or adjacent to the project area. These are: island tube lichen (*Hypogymnia schizidiata*), Montara manzanita (*Arctostaphylos montaraensis*), Kings Mountain manzanita (*Arctostaphylos regismontana*), San Mateo tree lupine (*Lupinus arboreus var. eximius*), Franciscan wallflower (*Erysimum franciscanum*), San Bruno elfin butterfly (*Callophrys*

mossii bayensis), California red-legged frog (*Rana draytonii*) and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). In addition, one sensitive plant community was identified within the project area: Montara manzanita chaparral. Host plants for the Mission blue butterfly (*Icaricia icarioides missionensis*) were identified within the project area however this species is not expected to be present. Special-status species with potential to occur within the project area and their associated potential to be impacted by project activities are summarized in **Table 3** and discussed in greater detail below.

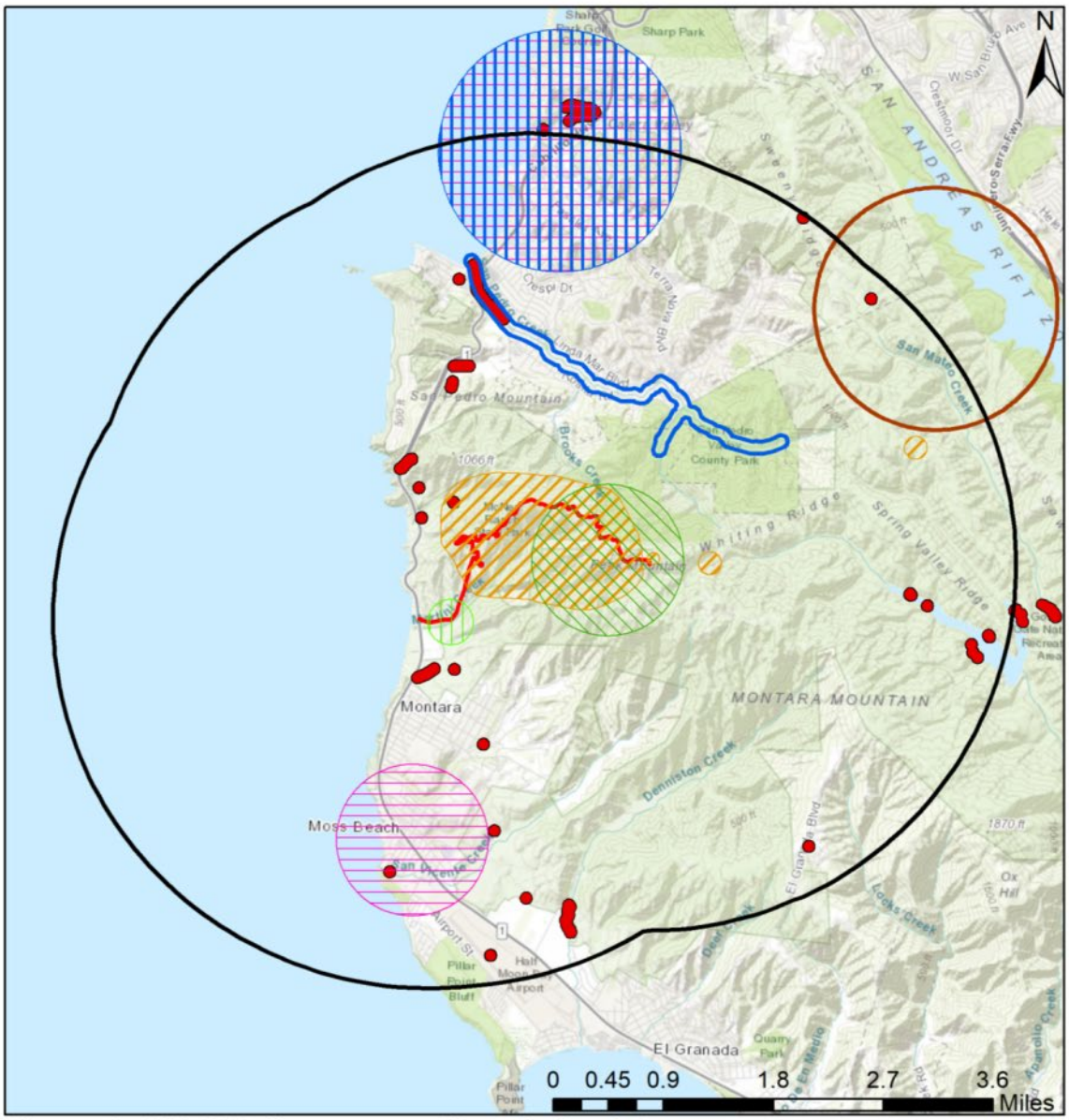

Figure 2: CNDDB Occurrence Map (Animals)

North Peak Access Road, McNee Ranch State Park, Montara, CA

Source: CNDDB 2/22

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Legend

- Project Location
- 3 mile buffer

Special-status species occurrences

- American badger
- California red-legged frog
- Myrtle's silverspot butterfly
- San Bruno elfin butterfly
- San Francisco gartersnake*
- big free-tailed bat
- foothill yellow-legged frog
- monarch - California overwintering population
- obscure bumble bee
- steelhead - central California coast DPS
- western bumble bee

*Species with protected occurrence records not shown

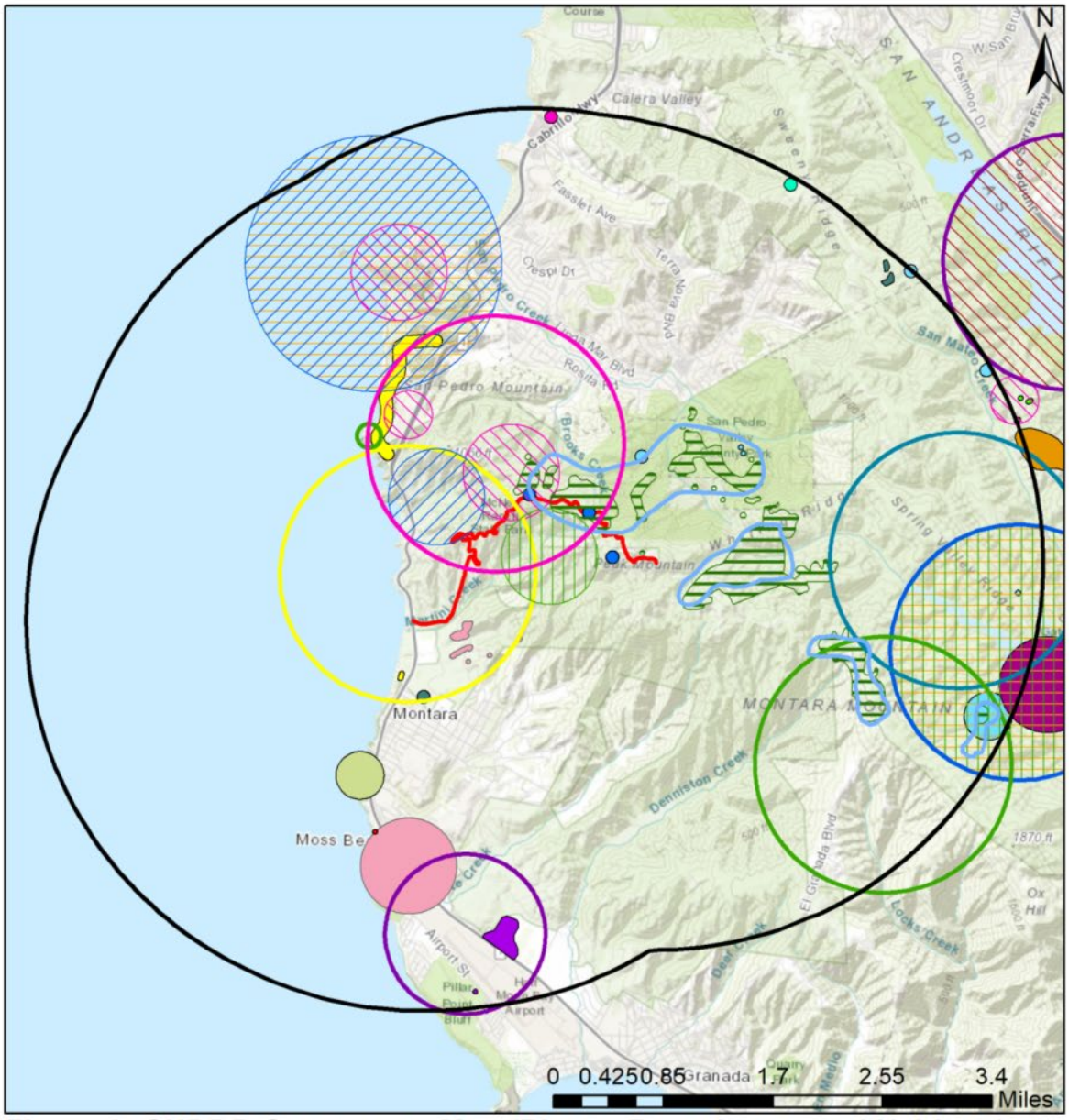

Figure 3: CNDDB Occurrence Map (Plants, Bryophytes, and Habitats)
North Peak Access Road, McNee Ranch State Park, Montara, CA
Source: CNDDB 2/22

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Legend

- Project Location
- 3 mile buffer

Species Occurrence Records

- Blasdale's bent grass
- Choris' popcornflower
- Franciscan thistle
- Hickman's cinquefoil
- Kellogg's horkelia
- Kings Mountain manzanita
- Montara manzanita
- Northern Maritime Chaparral
- Oregon polemonium
- Ornduff's meadowfoam
- San Francisco campion
- San Francisco collinsia
- San Francisco gumplant
- San Francisco owl's-clover
- San Mateo woolly sunflower
- Scouler's catchfly
- Valley Needlegrass Grassland
- arcuate bush-mallow
- coast yellow leptosiphon
- coastal triquetrella
- fragrant fritillary
- island tube lichen
- pappose tarplant
- perennial goldfields
- rose leptosiphon
- western leatherwood
- white-rayed pentachaeta
- woodland woollythreads

Table 3: Special-status Species with Occurrence and Impact Potential

Common Name	Scientific Name	Status	Potential for Occurrence	Potential for Impacts
Mammals				
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	SSC	Present	High
Amphibians and Reptiles				
California red-legged frog	*Rana draytonii*	FT, SSC	Moderate	Low
San Francisco gartersnake	*Thamnophis sirtalis tetrataenia*	FE, CE, CFP	Low	Low
Invertebrates				
San Bruno elfin butterfly	*Callophrys mossii bayensis*	FE	High	High
Mission blue butterfly	*Icaricia icarioides missionensis*	FE	Low	Low
Obscure bumblebee	*Bombus caliginosus*	ICP	Moderate	Low
Plants				
Montara manzanita	*Arctostaphylos montaraensis*	CNPS 1B.2	Present	High
Kings Mountain manzanita	*Actostaphylos regismontana*	CNPS 1B.2	Present	High
San Mateo tree lupine	*Lupinus arboreus var. eximius*	CNPS 3.2	Present	High
Coast rockcress	*Arabis blepharophylla*	CNPS 4.3	Low	Not observed
Franciscan wallflower	*Erysimum franciscanum*	CNPS 4.2	Present	High
Kellogg's Horkelia	*Horkelia cuneata ssp. sericea*	CNPS 1B.1	Low	Not observed
Choris' popcornflower	*Plagiobothrys chorisianus var. chorisianus*	CNPS 1B.2	Low	Not observed
Mosses and Lichens				
Island tube lichen	*Hypogymnia schizidiata*	CNPS 1B.3	Present	Moderate

*Impacts unable to be assessed due to species not being visible at time of site surveys. Additional surveys needed to determine location(s) if present.
Status Key: Federally Endangered (FE), Federally Threatened (FT), California Endangered (CE), California Fully Protected (CFP), California Species of Special Concern (SSC), California Invertebrate of Conservation Priority (ICP), California Native Plant Society Rank (CNPS)

A. San Bruno Elfin Butterfly (Callophrys mossii bayensis)

Listed as an endangered species in 1976, the San Bruno elfin butterfly is restricted to small, isolated populations in San Mateo County. Populations are known from San Bruno Mountain, Milagra Ridge, the Crystal Springs Watershed, Montara Mountain, and Pacifica. The larvae of the San Bruno elfin butterfly feed exclusively on broadleaf stonecrop (*Sedum spathulifolium*), which is found on rocky outcrops in coastal scrub and coastal prairie habitats within San Mateo County. Populations of the San Bruno

elfin butterfly are generally small, even in good reproductive years, and thus this species is highly sensitive to disturbance. On Montara Mountain, the flight period for this species generally occurs between mid-March and early April, while larvae are active in mid-May to mid-June. Exact timing of emergence is tied to local weather conditions, and can fluctuate between years. Once feeding is complete, larvae of this species pupate beneath their host plants and enter an extended period of inactivity (diapause) until the next spring when they emerge as adults.

Broadleaf stonecrop was observed along two stretches of North Peak Access Road (**Figures 4-5**). Due to the timing of surveys, presence of San Bruno elfin butterflies could not be confirmed at these sites, however this species is assumed to be present. The stonecrop is growing on steep, rocky cuts along the road and is not present within the roadway or project impact area. However, due to the close proximity of these host plants to the roadway and high potential for San Bruno elfin butterflies to be present in the area, there is a high chance of negative impacts to this species unless proper conservation and avoidance measures are implemented.

B. Mission Blue Butterfly (Icaricia icarioides missionensis)

The federally endangered Mission blue butterfly is a small blue butterfly limited to coastal habitats in Marin, San Francisco, and San Mateo counties. Larvae of this species feed exclusively on three species of perennial lupines: *Lupinus formosus, L. albifrons var. collinus,* and *L. littoralis* var*. variicolor*[4]*.* Mission blues have a complex lifecycle in which they will spend most of their lives in diapause as larvae during the summer, fall and winter. Mission blue larvae awake from diapause in the early spring and begin feeding on the foliage of their host plant. After feeding for a few weeks they pupate and then emerge as an adult. After eggs are laid during the adult phase, new larvae hatch from the eggs and begin feeding in the late spring prior to going into diapause. The flight period for this species typically occurs from late March to early July, while post-diapausal larvae emerge in early March and pre-diapausal larvae are active into July.

While several different species of lupines were observed during site surveys, most of these species (such as the annual lupines found in the vicinity of Turnout 4 and the San Mateo tree lupine) do not serve as host plants for the Mission blue butterfly. However, several varied lupine (*Lupinus littoralis var. variicolor*) plants are present along North Peak Access Road at the summit of Montara Mountain (**Figure 4**). Most of these plants are growing outside of the roadway and should not be impacted by project activities, however two small plants are growing in the center of the roadway where it has been cut from base rock (**Photo B-8**), and the species is present within one of the fire break areas (Appendix C). These plants are likely to be impacted by project activities, just as current use of the road impacts any plants that grow in the road. It is highly unlikely though that the Mission blue butterfly would utilize these plants, due to the Mission blue

[4] Previously recognized as *Lupinus variicolor.* Updated nomenclature reflects December 2020 revision to Jepson eFlora (Jepson Flora Project, 2022)

butterflies' preference for *L. albifrons* and *L. formosus*, and the lack of observations of Mission blues utilizing *L. littoralis* when the plants are small and isolated from populations of *L. albifrons* and *L.formosus*. *L. littoralis* is common within coastal prairie habitats and rocky outcrops in the region, and most of these areas do not support the Mission blue butterfly due to the lack of other host plant species. It is therefore highly unlikely that the Mission blue butterfly is present within the project area including the proposed fire breaks.

C. San Francisco gartersnake (Thamnophis sirtalis tetrataenia)

The San Francisco gartersnake is a rare species of snake endemic to the northern San Francisco Peninsula. It is a federally and California state endangered species, and is also a Fully Protected species in California. These snakes are highly aquatic, inhabiting wetlands and adjacent grasslands where they spend much of their time in the water hunting prey, primarily frogs. There are records of this species occurring at several points along the coast of San Mateo County, however all observations are associated with freshwater emergent wetland habitats. No significant wetland habitats that could potentially support San Francisco gartersnakes were observed during the site survey, and much of the project area is far too dry and rocky to provide habitat for this species. However, there is limited potential for the snakes to occur near the base of North Peak Access Road, adjacent to Martini Creek. The coastal grasslands and moist swales present just to the south of the project area here could provide suitable habitat for gartersnakes. However, this section of the road is very short, and quickly gives way to habitat dominated by non-native conifers. Due to these factors, the San Francisco gartersnake has been assessed as having a low potential for occurrence within the project area, and a low potential for project-related impacts.

D. California Red-legged Frog (Rana draytonii)

The California red-legged frog is a federally Threatened species and California State Species of Special Concern. Habitat for this species consists of ponds, slow moving streams, with emergent wetland and/or riparian vegetation for cover and adjacent upland habitats for dispersion. Most of North Peak Access Road is located within designated Critical Habitat for this species (USFWS 2022). While no suitable breeding habitat is located in the vicinity of the road, suitable foraging habitat may be present within the riverine drainages of Montara Mountain. It is possible that California red-legged frogs utilize or cross the road during their movements to and from breeding locations and/or between these drainages during the non-breeding season. Outside of these occasional crossing events, California red-legged frogs are unlikely to spend any extended period of time within the project area. Nonetheless, individual movements are somewhat unpredictable and proper precautions should be taken in the event that a frog is encountered, particularly in the lower elevation portions of the trail. Due to these factors, the California red-legged frog was assessed as having a moderate potential for occurrence within the project area, but only a low chance of project-related impacts.

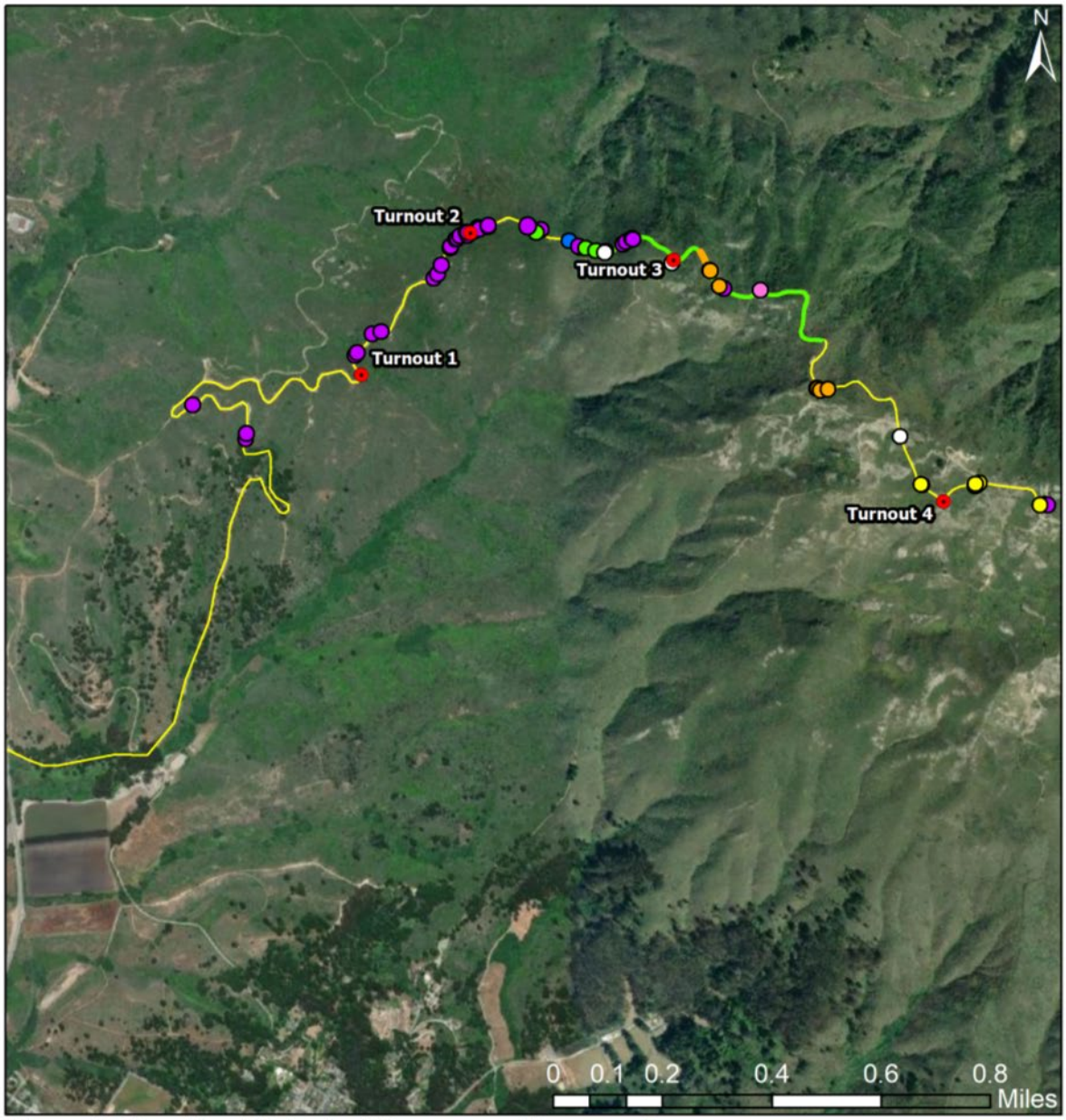

Figure 4: Sensitive Biological Resources Map

North Peak Access Road, McNee Ranch State Park
Montara, CA

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- North Peak Access Road
- Proposed Turnout

Sensitive Resources

- Manzanita Chaparral
- Stonecrop (patch)
- Island tube lichen
- Kings Mountain manzanita
- San Mateo tree lupine
- Varied lupine*
- Montara manzanita (individual)
- San Francisco dusky-footed woodrat midden
- Stonecrop*

*Host plant for endangered butterfly species

E. San Francisco Dusky-footed Woodrat (Neotoma fuscipes annectens)

The San Francisco dusky-footed woodrat is a California Species of Special Concern. This large rodent is found in woodland and scrub habitats throughout the San Francisco Peninsula, where it builds large nest structures composed of sticks and woody debris (middens). Several of these middens were observed within dense scrub adjacent to the road during site surveys (**Figure 4**). Most of the observed middens are located several feet from the roadway and are unlikely to be disturbed by vegetation trimming and road grading activities. However, one midden located at the beginning of the Montara manzanita chaparral habitat (**Figures 4-5**) is extremely close to the proposed roadway edge, and may be impacted. Middens were also documented near the proposed locations of Turnouts 2 and 3 (**Figures 7-8)** but will not be impacted by turnout construction.

F. Obscure bumblebee (Bombus caliginosus)

Bumble bees have experienced dramatic population declines in recent decades. The obscure bumblebee (*Bombus caliginosus*) is a species found only in coastal grassland habitats, and is considered an Invertebrate of Conservation Priority in California. Like other native bumblebees, the obscure bumblebee nests underground in rodent burrows. The obscure bumblebee nectars on a variety of native and non-native flowering plant species, and could potentially forage within the project area. However, due to the absence of appropriate nesting habitat within the roadway and turnout locations, the obscure bumblebee is unlikely to be impacted by project activities.

G. Special Status Plants, Communities & Bryophytes

Three special-status plant species, one sensitive plant community, and one special-status lichen species were detected during site surveys, and an additional five (5) special-status plant species were assessed as having a moderate to high potential for occurrence within the project area.

Montara manzanita (*Arctostaphylos montaraensis*) and Montara manzanita chaparral

The Montara manzanita is a rare shrub species found only on the exposed granitic outcrops of Montara Mountain and San Bruno Mountain. Due to its extremely limited distribution, the Montara manzanita has a CNPS rank of 1B.2 (fairly endangered in California). Areas where the Montara manzanita forms a dominant component of the plant community are classified as Montara manzanita chaparral (listed in CNDDB as Northern Maritime Chaparral), which is also listed as a sensitive plant community by CDFW.

Approximately 0.58 miles of the North Peak Access Road travels through Montara manzanita chaparral (**Figures 4-5**). Several Montara manzanita shrubs are present along the road in this section, in some cases making up 100 percent of the shrub

canopy. A small number of isolated individuals are also present along the road shortly before the habitat transition and within the proposed fire break areas (Appendix C). Extreme care should be taken while working in this section to avoid unnecessary impacts to the Montara manzanita or its associated habitat. Minor trimming of manzanita branches that are encroaching into the roadway is unlikely to cause significant negative impacts to the plants, however cutting or removal of entire plants and/or cutting primary trunks should be avoided. Turnout 3 is also located adjacent to this sensitive habitat, however turnout construction should not impact any manzanita (**Figure 8**).

Kings Mountain Manzanita (*Arctostaphylos regismontana*)

The Kings Mountain manzanita is another rare manzanita species endemic to the Santa Cruz Mountains of San Mateo and Santa Cruz Counties. It is ranked 1B.2 (fairly endangered in California) by the California Native Plant Society. Like the Montara manzanita, it is also found on granitic outcrops within chaparral and coastal scrub habitats.

A single individual Kings Mountain manzanita was located during site surveys using a detailed observation record in CalFlora and observations from previous biologists (CalFlora, 2022). This single plant is located along North Peak Access Road shortly before the transition into Montara manzanita chaparral (**Figures 4-5, Photo B-4**). This individual plant is fairly large, and should be easy to avoid as it does not significant encroach into the roadway.

San Mateo tree lupine (*Lupinus arboreus var. eximius*)

The San Mateo tree lupine is flowering shrub endemic to coastal San Mateo County. This species is ranked 3.2 by CNPS (more information needed), and is included on California state special plant lists. This designation means that while the species does not have the level of protection afforded to plant species with rank 1 or 2, it should still be addressed until a more clear understanding of the plant's distribution and population status is reached. In the case of the San Mateo tree lupine, the taxonomic position (whether it is a full species, subspecies, variety, or color morph of the more common *Lupinus arboreus*) appears to be currently unresolved (Scholars & Riggins, 2020). What is known is that *Lupinus arboreus var. eximius* exhibits blue and purple flower coloration, as opposed to the pure yellow flowers of *Lupinus arboreus* proper, and appears limited to coastal areas of San Mateo County. It is also not known to be a host plant for any endangered butterfly species. This species was observed along the road (Figure 4), within turnout #2 (Figure 7) and within one of the proposed fire break areas (Appendix C).

Island tube lichen (*Hypogymnia schizidiata*)

This rare lichen species was only known from the Channel Islands until 2017, when additional observations were verified in coastal San Mateo County, specifically on the slopes of Montara Mountain. Due to its extremely limited distribution and habitat

requirements, it is ranked as 1B.3 (rare or endangered in California, but not heavily threatened). As with other species of lichens, the island tube lichen is a composite organism made up of fungi and algae living in a symbiotic relationship. It is only known to be found in extremely coastal locations within California, where it is usually encountered growing on the wood of living and dead trees and shrubs.

A detailed, verified record from CNDDB was used to locate one specimen of the island tube lichen along North Peak Access Road (**Figure 5, Photo B-9**). The specimen is growing on a dead manzanita on the north side of the road, which in this location is not graded and composed of bare bedrock. As the host manzanita is off of the main roadway and located in a section of road that is not part of the proposed improvement activities, it should not be impacted by the project. Regardless, care should be taken to ensure that the host manzanita is not accidentally removed. Additional records of this species along North Peak Access Road are present in CNDDB, however these areas were surveyed and the lichen was not observed within the potential impact footprint of the project.

Other plant species

The four remaining plant species assessed as having some potential to occur within the project area would not have been visible at the time of the initial site surveys, and a follow up rare plant survey was conducted in April 2022 during their bloom period (Appendix C). Coast rockcress (*Arabis blepharophylla*) and Franciscan wallflower (*Erysimum franciscanum*), are CNPS Rank 4 plants associated with granitic outcrops and have been observed along North Peak Access Road. Choris' popcornflower (*Plagiobothrys chorisianus var. chorisianus*) is a rare (CNPS 1B.2) annual herb found in a variety of habitats, including coastal scrub, woodland, and wet meadows in the vicinity of the project area. Kellogg's Horkelia (*Horkelia cuneata ssp. sericea*) is a CNPS rank 1B.1 plant species found in sandy or gravelly soils among scrub, forest, and chaparral habitats. All of these species bloom between approximately March and June. While these species are unlikely to occur within the roadway, there was a moderate to high potential that they could be present in the surrounding habitat, including some of the proposed turnout locations and proposed fire break areas. A survey for these four species was conducted as part of a follow up rare plant survey of the project area and proposed fire break areas in April 2022. Only one species, Franciscan wallflower, was identified as being present (Appendix C).

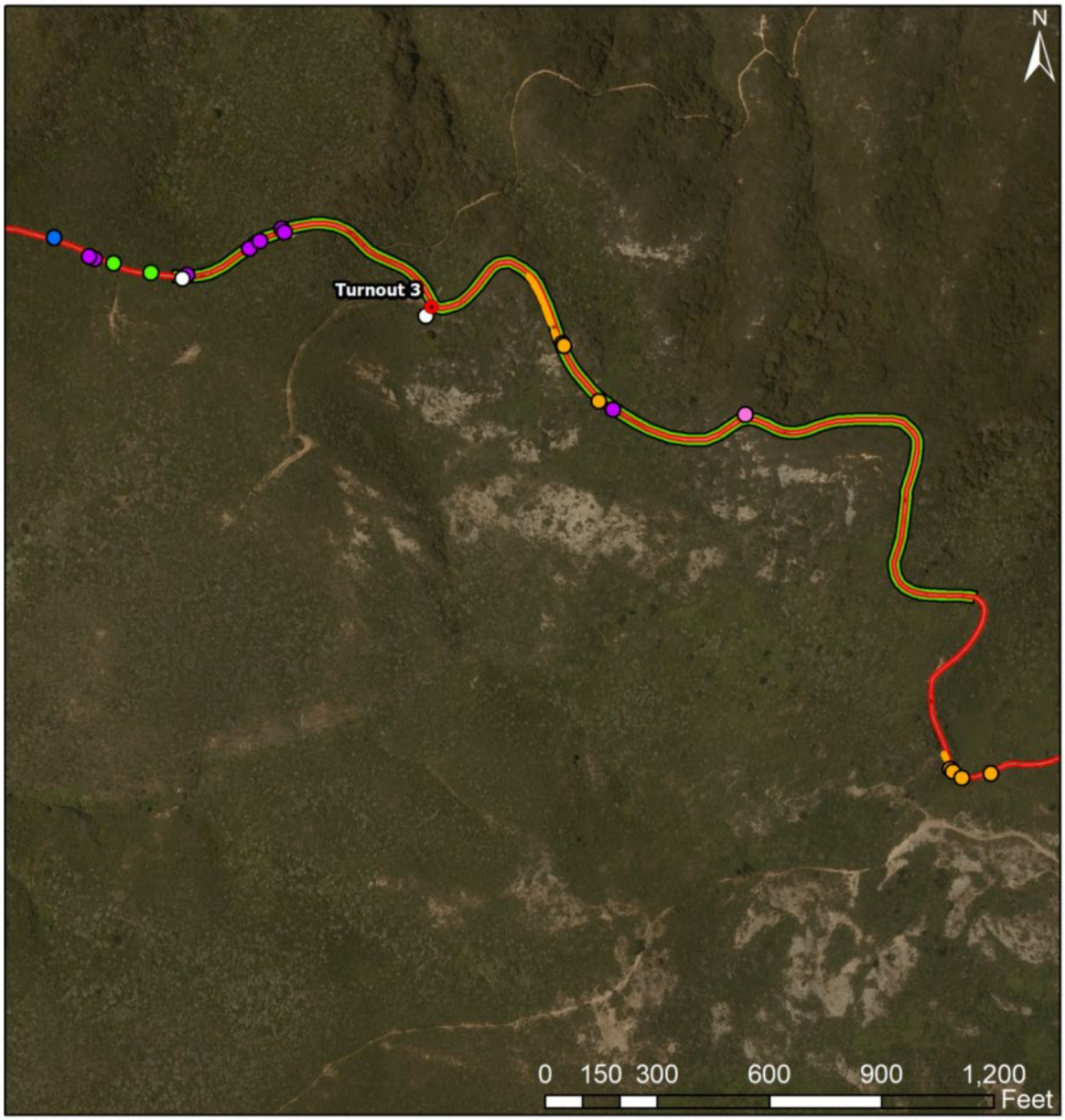

Figure 5: Sensitive Biological Resources Map (Detail)
North Peak Access Road, McNee Ranch State Park
Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County

Legend
- Project Impact Area
- Proposed Turnout

Sensitive Species and Habitats
- Island tube lichen
- Kings Mountain manzanita
- San Mateo tree lupine
- Montara manzanita (individual)
- San Francisco dusky-footed woodrat midden
- Stonecrop*
- Stonecrop (patch)
- Montara manzanita chaparral

*Host plant for endangered butterfly species

H. Special Status Bats

Large conifer trees (Monterey cypress and Monterey pine) found along the lower elevation portions of North Peak Access Road could potentially provide habitat for tree roosting bats such as the hoary bat (*Lasiurus cinereus*), a Western Bat Working Group medium conservation priority species. However, no trees are currently proposed for removal by the project and the project is not expected to impact any bat species.

I. Nesting birds

Significant nesting habitat is present along the entire length of North Peak Access Road. It is likely that a variety of bird species nest within the trees and shrubs surrounding the roadway, which will necessitate nesting bird surveys to avoid disturbance if work is performed during the bird nesting season (approximately February 1 to- August 31).

Figure 6: Turnout 1 Impact Detail Map

North Peak Access Road, McNee Ranch State Park
Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County 2018

Figure 7: Turnout 2 Impact Detail Map

North Peak Access Road, McNee Ranch State Park
Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County 2018

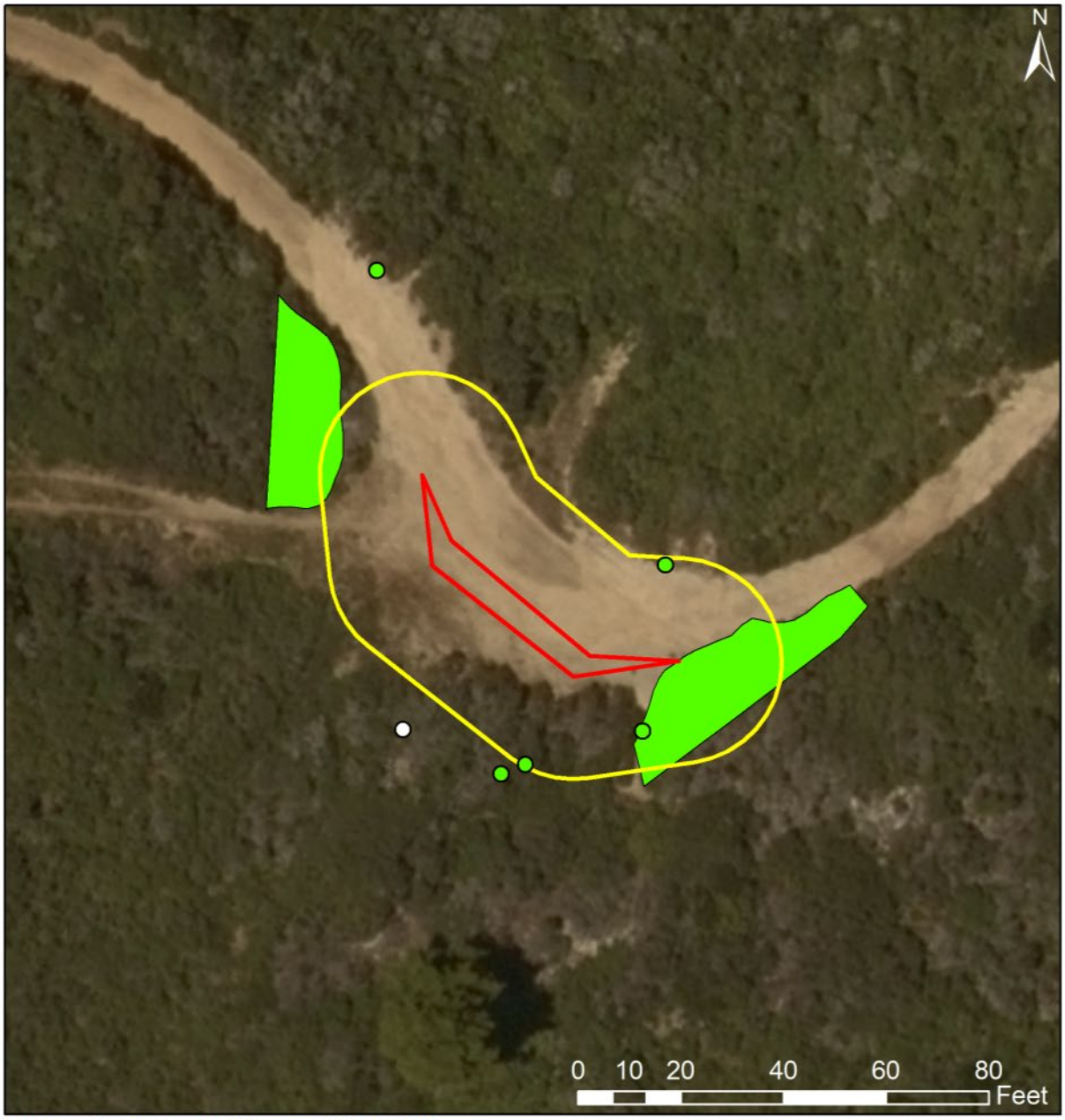

Figure 8: Turnout 3 Impact Detail Map

North Peak Access Road, McNee Ranch State Park
Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County 2018

Legend

- Turnout Location (approximate)
- Survey Area
- Montara manzanita (individual)
- San Francisco dusky-footed woodrat midden
- Montara Manzanita (stand)

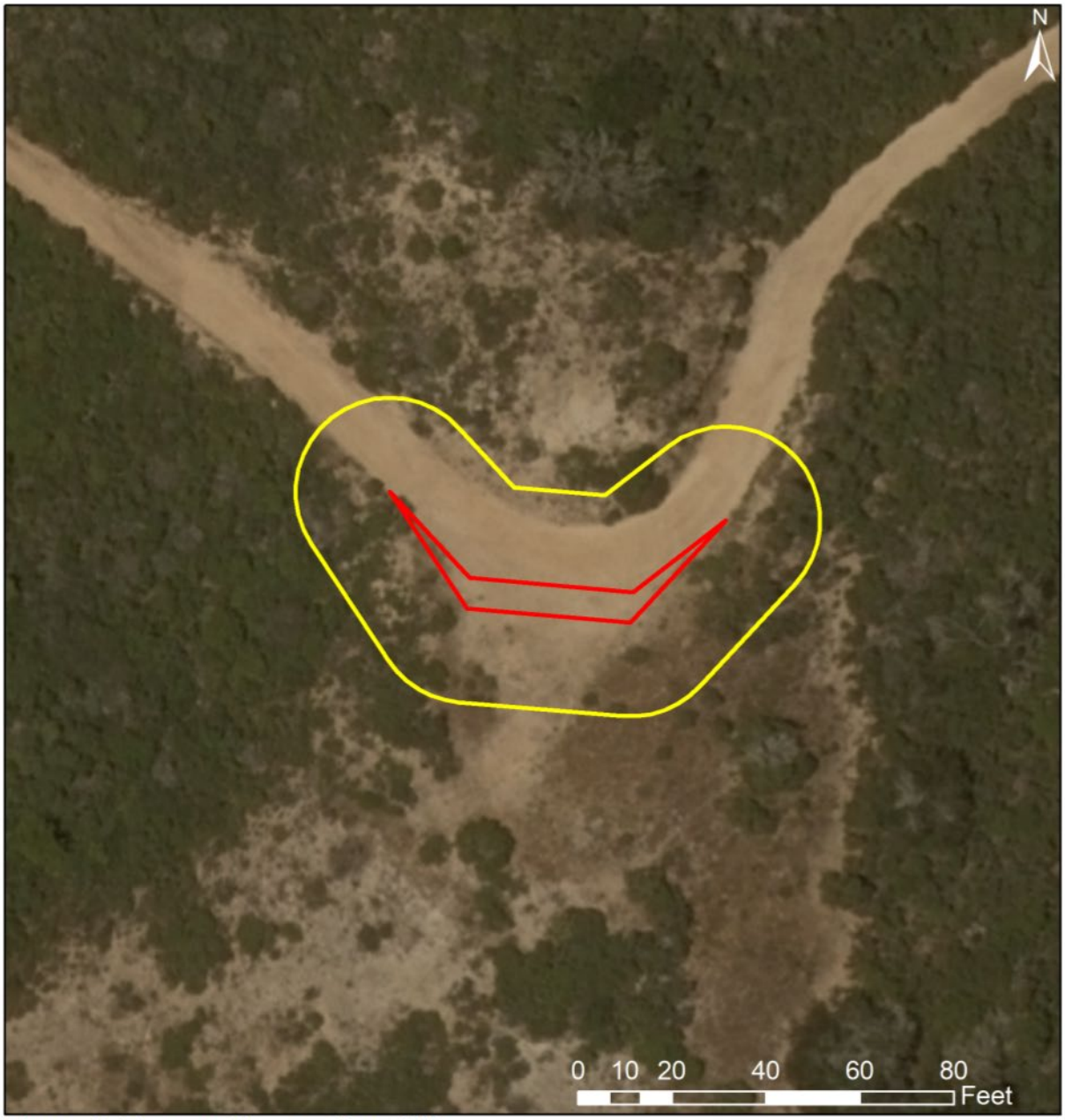

Figure 9: Turnout 4 Impact Detail Map

North Peak Access Road, McNee Ranch State Park
Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County 2018

VIII. REGULATORY CONSIDERATIONS

Federal and state-listed species (endangered, threatened, and CA fully-protected) receive various levels of legal protection under the federal and state endangered species acts and the California Fish and Wildlife Code. The federal Migratory Bird Treaty Act of 1918 and Section 3500 of the California Fish and Wildlife Code protect active nests of migratory and other birds, and provide criminal penalties for take of hawks, owls, and take or disturbance of all bird nests or eggs. Potential impacts to other special status or otherwise sensitive species must be disclosed and evaluated pursuant to the California Environmental Quality Act (CEQA). Additional protections for species and habitats that are applicable to the project site are designated in the Coastal Commission under the Local Coastal Program and stormwater control requirements through the EPA.

A. Federal and State Endangered Species Acts

The United States Endangered Species Act (ESA) is administered by the United States Fish and Wildlife Service (USFWS). The California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), and CEQA afford protection to species of concern included on State-maintained lists. The California Department of Fish and Wildlife (CDFW) has statutory responsibility for the protection of State listed species and is a trustee agency under CEQA.

Both the Federal and State endangered species acts provide protection for listed species. In particular, the Federal act prohibits “take.” “Take” is defined by the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a federally listed, endangered species of wildlife, or to attempt to engage in any such conduct." Take not specifically allowed by Federal permit under Section 10(a)(1)(B) of the ESA is subject to enforcement through civil or criminal proceedings under Section 9 of the ESA.

While "take" is easily understood in the sense of deliberately capturing or killing individual animals, Federal regulations also define take to include the incidental destruction of animals in the course of an otherwise lawful activity, such as habitat loss due to development. Under those rules the definition of take includes significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR Section 17.3).

Section 10(a) of the ESA permits the incidental take of an endangered or threatened species. Similarly, Section 2081 of the CDFW Code or use of the CESA allows the Department to enter into management agreements that make lawful activities which may otherwise result in habitat loss or take of individuals of a state listed species.

B. California Fully Protected Species

Under California Fish and Game Code Sections 3511, 4700, 5050 and 5515, 37 wildlife species are designated as fully protected in California. This provides additional protections for species that are rare or at risk of extinction. Most of the species are also listed as threatened or endangered under CESA. Fully protected species may not be taken at any time and no permits any be issued for their take.

C. Species of Special Concern

The California Department of Fish and Wildlife has designated certain animal species as "Species of Special Concern" due to concerns about declining population levels, limited ranges, and continuing threats that have made these species vulnerable to extinction. The goal of this designation is to bring attention to these species in the hope that their population decline will be halted through mitigation or project redesign to avoid impact. Species of special concern are protected only through environmental review of projects under CEQA. The California Department of Fish and Wildlife is a trustee agency and is solicited for its comments during the CEQA process.

D. Nesting Birds

Nesting birds, including raptors, are protected by the California Department of Fish and Wildlife Code 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Passerines and non-passerine landbirds are further protected under the Federal Migratory Bird Treaty Act. 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. As such, the CDFW typically recommends pre-construction surveys for potentially suitable nesting habitat that will be directly (actual removal of trees/ vegetation) or indirectly (noise disturbance) impacted by construction-related activities.

E. California Native Plant Society and CEQA

The California Native Plant Society (CNPS) has developed a rating system for the state's rare, threatened and endangered plants. Plants rated by CNPS are subject to protection under CEQA and may also be protected by state and federal endangered species laws if they are listed by the state or federal government.

IX. CONCLUSIONS

The project will primarily impact the existing graded roadway, with minimal impacts to surrounding natural habitats. However, due to the presence of sensitive species and habitats found directly adjacent to North Peak Access Road, it is recommended that sufficient measures be taken to minimize the risk of impacts to sensitive species.

Biological Study Checklist

This Biological Resources Assessment provides adequate information to make recommended CEQA findings regarding potentially significant impacts.

	Project Impact Degree of Effect				**Cumulative Impact Degree of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
Biological Resources								
Species			X		X			
Ecological Communities	X				X			
Habitat Connectivity	X				X			

N: No impact
LS: Less than significant impact
PS-M: Potentially significant unless mitigation incorporated.
PS: Potentially significant

The following mitigation measures would reduce potentially significant impacts to less than significant.

Mitigation Measure BIO-1:

Prior to working on site, all construction crew members and other on-site workers associated with the project shall receive an Environmental Awareness Training to be conducted by a Qualified Biologist. The training shall instruct workers on how to recognize all special-status plant/wildlife species and their preferred habitat potentially present in the project area, applicable laws and regulations regarding each species, actions to take if a special-status species is observed during construction activities, and the name/contact information of the Qualified Biologist and Qualified Biological Monitor.

Mitigation Measure BIO-2:

It is recommended that all road and firebreak work that is located in areas where Pacific stonecrop plants occur, should be conducted outside of the active period (March 1 through June 30) of the San Bruno elfin butterfly to minimize the risk of impacts to this species. All Pacific Stonecrop plants shall be clearly marked with flagging for avoidance prior to vegetation removal and ground disturbance activities. In addition, a Qualified Biological Monitor shall be present on site to monitor any work that is conducted within 50 feet of any Pacific stonecrop plants.

Mitigation Measure BIO-3:

The lower (western) 0.5 mile section of the North Peak Access Road, which runs adjacent to Martini Creek before it rises steeply up Montara Mountain, has potential for presence of California red-legged frog and San Francisco garter snake. Prior to conducting project-related work in this section of roadway, a Qualified Biologist shall conduct a preconstruction survey within 48 hours of any road improvement activities. After work has commenced in this area, a Qualified Biological Monitor shall also inspect this area each morning prior to the beginning of work for presence of California red-legged frogs and San Francisco garter snakes. The Qualified Biological Monitor shall have the authority to stop work, to allow any frogs and/or snakes to move out of harm's way on their own accord.

Mitigation Measure BIO-4:

Approximately 0.58 miles of the North Peak Access Road travels through Montara manzanita (*Arctostaphylos montaraensis*) chaparral and a small number of isolated individuals are also present along the road shortly before this habitat transition. A single individual Kings Mountain manzanita (*Arctostaphylos regismontana*) is also located along North Peak Access Road shortly before the transition into Montara manzanita chaparral. Both of these species are considered special status species (CNPS 1B.2). Extreme care should be taken while working in this section to avoid unnecessary impacts to the Montara manzanita and/or King Mountain Manzanita or its associated habitat. Minor trimming of manzanita branches that are encroaching into the roadway is unlikely to cause significant negative impacts to the plants, however cutting or removal of entire plants and/or cutting primary trunks shall be avoided. A Qualified Biological Monitor shall monitor all vegetation removal and ground disturbance activities within the Montara manzanita chaparral and transition areas along the North Peak Access Road.

Mitigation Measure BIO-5:

Two San Francisco dusky-footed woodrat (SFDFW) middens are located in the vicinity of proposed turnouts (Turnouts 1 and 3) and two additional middens are located in the Fire Break areas. All SFDFW middens shall be marked for avoidance. If any work is conducted within 50 feet of a SFDFW midden, a Qualified Biological Monitor shall be present on site to monitor this work. If any SFDFW middens cannot be avoided by

project activities, the California Department of Fish and Wildlife (CDFW) shall be consulted to determine suitable mitigation measure(s).
Mitigation Measure BIO-6:

Additional rare plants/lichens that occur within the project area include a single Island tube lichen (*Hypogymnia schizidiata*), a CNPS 1B.3 species, and numerous patches of Franciscan wallflower (*Erysimum franciscanum*), a CNPS 4.2 plant species, and San Mateo tree lupine (*Lupinus arboreus var. eximius*), a CNPS Rank 3.2 species. The Island tube lichen shall be avoided. Measures to minimize impacts to San Francisco wallflower and San Mateo tree lupine include flagging of the plants and avoidance where possible. A Qualified Biological Monitor shall be present on site to monitor all work within 50 feet of these species.

Mitigation Measure BIO-7:

If the project is conducted within the nesting bird season (Feb. 1 – August 31), a survey for nesting birds shall be conducted by a Qualified Biologist within one week prior to any ground disturbance or vegetation removal associated with the project. Due to the length of the project site, it will be necessary to perform multiple surveys as work proceeds along North Peak Access Road. If active bird nests are detected, suitable buffer zones shall be established based on CDFW requirements to ensure nesting birds are not impacted.

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APPENDIX A: Special Status Species Comprehensive Table

Table A-1: Special status plant and animal species recorded within five miles of the project site and their potential for occurrence.

Species Name	Status	Habitat[5]	Potential to Occur Onsite
MAMMALS			
American badger *Taxidea taxus*	**SSC** G5 S3	Most abundant in drier open stages of shrub, forest, and herbaceous habitats, with friable soils.	**No potential** Suitable habitat not present, no burrows observed
Big free-tailed bat *Nyctinomops macrotis*	**SSC** WBWG:MH G5 S3	Low-lying arid areas; roosts in high cliffs and rocky outcrops.	**No potential** No suitable roosting habitat (i.e. rock crevices, caves) present
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	**SSC** G5T2T3 S2S3	Forests with moderate canopies and moderate to dense understory.	**Present** Middens observed during site survey
BIRDS			
American peregrine falcon *Falco peregrinus anatum*	**FD, CD, CFP** G4T4 S3S4	Hunts on beaches, mudflats and near water features including wetlands, lakes and rivers. Nests on ledges in cliffs or buildings.	**No potential** Marginal foraging habitat present, but no nesting habitat present.
AMPHIBIANS AND REPTILES			
California red-legged frog *Rana draytonii*	**FT, SSC** G2G3 S2S3	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	**Low potential**. No suitable breeding habitat on site, but could use road during upland migratory movements or dispersal events. Several occurrences within 3 miles of project site.

[5] Habitat requirements summarized from species accounts and descriptions of reported localities (Zeiner, et al., 1990; Jennings and Hayes, 1994; CNDDB, 2018; CNPS, 2018).

Species Name	Status	Habitat[5]	Potential to Occur Onsite
Foothill yellow-legged frog (West/Central Coast Clade) *Rana boylii*	**CE, SSC** G3 S3	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	**No potential** Suitable habitat not present.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	**FE, CE, CFP** G5T2Q S2	Near freshwater marshes, ponds, and slow moving streams. Prefers dense cover and water depths of at least one foot. Also found in upland habitats adjacent to water sources. Prefers south or west facing slopes with open habitats with occasional shrubs for cover.	**Low potential** Suitable aquatic foraging habitat not present. Some potential for species to utilize site when traveling between upland/ foraging habitats.
FISH			
Steelhead- central California coast DPS *Oncorhynchus mykiss irideus*	**FT** G5T2T3 S2S3	Well oxygenated, moderate to fast flowing streams with woody debris, deep pools, riffles, and gravels.	**No potential** Suitable aquatic habitat not present.
INVERTEBRATES			
Mission blue butterfly *Plebejus icarioides missionensis*	**FE** G5T1 S1	Occurs in grasslands within the coastal fogbelt in southern Marin, San Francisco, and San Mateo counties; requires one or all three of its larvae foodplants (*Lupinus albifrons, L. formosus, and L. littoralis var. variicolor*).	**Low potential** Potential host plants (*Lupinus littoralis var. variicolor*) present in and along roadway near summit. However, butterflies appear to greatly prefer the other two host plant species in this area (particularly *L. formosus*)
Monarch Butterfly (overwintering) *Danaus plexippus*	**FC** G4T2T3 S2S3	Roosts located in wind protected tree groves (eucalyptus, Monterey pine, Monterey cypress) with nectar sources and water nearby.	**Low potential** Potential winter roosting habitat (large pine/cypress trees near base of road) present. However, site has not been used since the 1980's by Monarchs, and the project would not remove any trees.

Species Name	Status	Habitat[5]	Potential to Occur Onsite
Myrtle's silverspot *Speyeria zerene myrtleae*	**FE** G5T1 S1	Coastal habitats with *Viola adunca.* Restricted to foggy dunes and hills of the Point Reyes peninsula.	**No potential** Suitable habitat and host plants not present. Local population(s) extirpated.
Obscure bumble bee *Bombus caliginosus*	ICP G4? S1S2	Coastal areas from Santa Barbara county to north to Washington state. Grassy coastal prairies and meadows. Nectar and pollen plants include: *Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Rubus, Trifolium,* and *Vaccinium*	**Moderate potential** Nectar plants and suitable nesting habitat located around the road. However, unlikely to be disturbed by project activities.
San Bruno elfin butterfly *Callophrys mossii bayensis*	**FE** G4T1 S3	Coastal mountains with grassy ground cover, mainly near San Bruno mountain. Host plant is *Sedum spathulifolium*.	**High potential** Host plants present at several locations along the road close to summit.
Western bumble bee *Bombus occidentalis*	ICP G2G3 S1	Open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. Nests underground. Once common and widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	**Low potential** Potential foraging and nesting habitat present. Not recorded in vicinity since 1996.
PLANTS			
Arcuate bush-mallow *Malacothamnus arcuatus*	CNPS 1B.2 G2Q S2	Gravelly alluvium in chaparral, cismontane woodland. Elevation: 15 - 355 meters. Perennial shrub.	**No potential** Not observed during site survey.
Blasdale's bent grass *Agrostis blasdalei*	CNPS 1B.2 G2 S2	Coastal bluff scrub, coastal dunes, and coastal prairie. Sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation. 0-150 meters. Bloom period: May-July. Perennial.	**Low potential** Generally found immediately adjacent to the coast in sandy habitats. However, Due to timing of site surveys, species may not have been detected.

Species Name	Status	Habitat[5]	Potential to Occur Onsite
Choris popcornflower *Plagiobothrys chorisianus* var. *chorisianus*	CNPS 1B.2 G3T1Q S1	Mesic sites in chaparral, coastal prairie, and coastal scrub. Elevation: 5 - 705 meters. Blooming period: Mar-June. Annual.	**Low Potential** Not observed in project area.
Coast rockcress *Arabis blepharophylla*	CNPS 4.3 G4 S4	Rocky sites in broadleafed upland forest, coastal prairie, coastal scrub, and coastal bluff scrub. Elevation: 3-1100 meters. Bloom Period: Feb-May. Perennial	**Low Potential** Species is present in surrounding area, but not observed in project area.
Coast yellow leptosiphon *Leptosiphon croceus*	**CE** CNPS 1B.1 G1 S1	Coastal bluff scrub, coastal prairie. Elevation: 10 - 150 meters. Blooming period: Apr.-May. Annual	**No potential** Suitable habitat not present.
Fragrant fritillary *Fritillaria liliacea*	CNPS 1B.2 G2 S2	On clay or serpentine soils in coastal scrub, cismontane woodland, coastal prairie, or valley and foothill grassland. Elevation: 3 - 410 meters. Blooming period: Feb.-Apr. Perennial (bulb).	**No Potential** No suitable soils present.
Franciscan thistle *Cirsium andrewsii*	CNPS 1B.2 G3 S3	Ultramafic soils and serpentine seeps in coastal scrub, broadleafed upland forest, coastal bluff scrub, coastal prairie. Elevation: 0-295 meters. Blooming period: Mar. - July. Perennial.	**No Potential** No suitable soils present. Not observed during site survey.
Franciscan wallflower *Erysimum franciscanum*	CNPS 4.2 G3 S3	Serpentinic or granitic soils and outcrops, and grassy, rocky slopes in coastal dunes, coastal scrub, chaparral, and grassland. Elev: 0-550m. Bloom period: Mar-June. Perennial	**Present** Present along road an within fire break.
Hickman's cinquefoil *Potentilla hickmanii*	**FE, CE** CNPS 1B.1 G1 S1	Freshwater marshes, seeps, and small streams in open or forested areas along the coast. 5-125 m. Blooming period: Apr.-Aug. Perennial.	**No Potential** Suitable habitat not present. Not observed during site survey.

Species Name	Status	Habitat[5]	Potential to Occur Onsite
Kellogg's horkelia *Horkelia cuneata ssp. sericea*	CNPS 1B.1 G4T1? S1?	Old dunes, coastal sandhills. Openings with sandy or gravelly soils in closed-cone coniferous forest, coastal scrub, chaparral. 5-430m. Blooming period: Apr. – Sept. Perennial.	**Low Potential** Not observed in project area.
Kings Mountain manzanita *Arctostaphylos regismontana*	CNPS 1B.2 G2 S2	Granitic or sandstone outcrops in broadleaved upland forest, chaparral, and north coast coniferous forest. Elevation: 240 - 705 meters. Bloom period Jan-Apr. Shrub.	**Present** One mature plant observed along road
Montara manzanita *Arctostaphylos montaraensis*	CNPS 1B.2 G1 S1	Slopes and ridges. Chaparral and coastal scrub. 270-460m. Bloom period Jan-Mar. Shrub.	**Present** Many individuals observed along edges of road approaching summit.
Oregon polemonium *Polemonium carneum*	CNPS 2B.2 G3G4 S2	Coastal prairie, coastal scrub, lower montane coniferous forest. Elevation: 15 - 1525 meters. Blooming period: Apr. – Sept. Perennial.	**Low Potential** Suitable habitat potentially present, but not observed during site survey.
Ornduff's meadowfoam *Limnanthes douglasii ssp. ornduffii*	CNPS 1B.1 G4T1 S1	Meadows and seeps, agricultural fields. Elevation: 5 - 15 meters. Blooming period: Nov-May. Annual.	**No Potential** No suitable habitat present.
Pappose tarplant *Centromadia parryi ssp. parryi*	CNPS 1B.2 G3T2 S2	Vernally mesic alkaline sites in chaparral, coastal prairie, and grassland. Alkaline marshes, swamps, meadows, and seeps. Elevation: 1 - 500 meters. Blooming period: May- Nov. Annual.	**No Potential** No suitable habitat present.
Perennial goldfields *Lasthenia californica ssp. macrantha*	CNPS 1B.2 G3T2 S2	Coastal bluff scrub, coastal dunes, coastal scrub. Elevation: 5 - 520 meters. Blooming period: Jan.- Nov. Perennial.	**No Potential** Not observed during site survey.
Rose leptosiphon *Leptosiphon rosaceus*	CNPS 1B.1 G1 S1	Coastal bluff scrub. Elevation: 10 - 140 meters. Blooming period: Apr.-July. Annual.	**No Potential** No suitable habitat present.

Species Name	Status	Habitat[5]	Potential to Occur Onsite
San Mateo tree lupine *Lupinus arboreus var. eximius*	CNPS 3.2 G2Q S2	Sandy soils and rocky hills in coastal scrub and chaparral. Elev: 90-550m. Bloom period: Apr.-June. Perennial	**Present** Numerous individuals observed along roadway.
San Francisco campion *Silene verecunda ssp. verecunda*	CNPS 1B.2 G5T1 S1	Mudstone, shale, or serpentine soils in chaparral, coastal bluff scrub, coastal prairie, coastal scrub, and grassland. Elevation: 30 - 645 meters. Blooming period: Mar. - Aug. Perennial.	**No Potential** No suitable soils present. Not observed during site survey.
San Francisco collinsia *Collinsia multicolor*	CNPS 1B.2 G2 S2	On decomposed shale (mudstone) mixed with humus in closed cone coniferous forest and coastal scrub. Sometimes on serpentine. 10-275 m Blooming period: Mar.-May. Annual.	**No Potential** No suitable soils present.
San Francisco gumplant *Grindelia hirsutula* var. *maritima*	CNPS 3.2 G5T1Q S1	Sandy or serpentine slopes and sea bluffs. Coastal bluff, coastal scrub, grasslands. Elevation: 15 - 400 meters. Blooming period: June- Sept. Perennial.	**Low Potential** Suitable habitat present but not observed during site survey.
San Francisco's owls'-clover *Triphysaria floribunda*	CNPS 1B.2 G2? S2?	Coastal prairie, coastal scrub, valley and foothill grassland. Often on serpentine. Elevation: 10 - 160 meters. Blooming period: Apr.-June. Annual.	**No Potential** No suitable soils present.
San Mateo woolly sunflower *Eriophyllum latilobum*	**FE, CE** CNPS 1B.1 G1 S1	Cismontane woodland, coastal scrub, lower montane coniferous forest. Tolerates serpentine. Often on roadcuts. Elevation: 45 - 150 meters. Blooming period: May- June. Perennial.	**No Potential** No suitable soils present. Not observed during site survey.
Scouler's catchfly *Silene scouleri ssp. scouleri*	CNPS 2B.2 G5T4T5 S2S3	Coastal bluff scrub, coastal prairie, and grassland. 5-315m. Perennial.	**Low Potential** Marginal habitat present. Not observed during site survey.

Species Name	Status	Habitat[5]	Potential to Occur Onsite
Western leatherwood *Dirca occidentalis*	CNPS 1B.2 G2 S2	Moist ravines, riparian thickets on slopes, Broad leafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, North Coast coniferous forest. Elevation: 25 - 425 meters. Bloom period Jan-Mar. Perennial shrub.	**No Potential**. Likely present in surrounding area, but not observed in immediate vicinity of road during site surveys. Most of site too dry
White-rayed pentachaeta *Pentachaeta bellidiflora*	**FE, CE** CNPS 1B.1 G1 S1	Ultramafic grassland. Open dry rocky slopes and grassy areas. Often on soils derived from serpentine bedrock. Elevation: 35 - 620 meters. Blooming period: Mar-May. Annual.	**No Potential** No suitable soils present
Woodland woollythreads *Monolopia gracilens*	CNPS 1B.2 G3 S3	Grasslands or openings in chaparral, cismontane woodland, broadleafed upland forest, and north coast coniferous forest; sandy to rocky soils. Often seen on serpentine after burns. 120-975 m. Blooming period: Mar.-July. Annual.	**Low Potential** Suitable habitat potentially present, but no serpentine soils present. Due to timing of site surveys, species may not have been detected.
MOSSES AND LICHENS			
Coastal triquetrella *Triquetrella californica*	CNPS 1B.2 G2 S2	Grows within 30m from the coast in coastal scrub, grasslands and in open gravels on roadsides, hillsides, rocky slopes, and fields. On gravel or thin soil over outcrops. 20-1175 m.	**Low Potential** Potentially present on and around rocky outcrops. However, unlikely to be impacted by project activities.
Island tube lichen *Hypogymnia schizidiata*	CNPS 1B.3 G2G3 S2	Chaparral, closed-cone coniferous forest. On bark and wood of hardwoods and conifers. 255-545 m.	**Present** Observed at one location along roadway.

State and Federal Listing Codes
(FE) Endangered = Federally listed as Endangered.
(FT) Threatened = Federal list, likely to become endangered in the foreseeable future.
(FP) Proposed = Species or Critical Habitat proposed for official Federal listing.
(FC) Candidate = Federal candidate to become a Proposed species.
(FD) Delisted from Federal List. Status to be monitored for 5 years.
(FSC) Federal Species of Concern = May be endangered or threatened, but not enough biological information to list.
(CE, CT, CR, SCT) State Listed = Listed as endangered, threatened, rare or candidate by California.

(CSC) California Species of Concern = CDFW concern for population trends.
(CFP) California Fully Protected = Fish and Wildlife Code prohibits take of individuals.
(CFGC) = California Department of Fish and Wildlife Code: §3503 prohibits the taking, possession or needless destruction of the nest or eggs of any bird; §3503.5 prohibits the taking, possession or destruction of any bird in the order Falconiformes or Strigiformes (birds-of-prey) or the taking, possession or destruction of the nest or eggs of any such bird; §3511 outlines protection for fully protected birds; and §3513 prohibits the taking or possession of any migratory non-game bird as designated in the Migratory Bird Treaty Act.

(AFS) = American Fisheries Society identifies marine, estuarine and diadromous fish species that are at risk of extinction in North America. The AFS has designated the following four classifications in order of conservation importance E – Endangered, T – Threatened, V – Vulnerable, and CD – Conservation Dependent.
(BCC) U.S. Fish and Wildlife Service Birds of Conservation Concern.

(CNPS 1B) = California Native Plant Society: rare or endangered in CA or elsewhere.
0.1: Seriously endangered in California
0.2: Fairly endangered in California
(CNPS 2) = California Native Plant Society: rare or endangered in CA but more common elsewhere.
(CNPS 3) = California Native Plant Society: more information is needed to determine degree of sensitivity.
(CNPS 4) = California Native Plant Society: plant of limited distribution.
CNPS Threat Ranks
0.1 = Seriously threatened in California
0.2 = Fairly threatened in California
0.3 = Not very threatened in California
(MBTA) = Migratory Bird Treaty Act. Species of migratory birds protected by the Migratory Bird Treaty Act (16 U.S.C. 703-711) and subject to the regulations on migratory birds contained in this subchapter B of title 50 CFR.
(Sensitive) = CA Dept. of Forestry classification; deserves special consideration during timber harvest operations.
(WBWG:M) = Western Bat Working Group: Medium Priority
(WBWG:H) = Western Bat Working Group: High Priority
(WL) Watch List California Department of Fish and Wildlife
(Xerces) = Xerces Society for Invertebrate Conservation. Red List identifies endangered, threatened or at-risk pollinator species. PE – Possibly Extinct indicates species only known from historical occurrences; CI – Critically Imperiled indicates species at very high risk of extinction; I – Imperiled indicates species at high risk of extinction; V – Vulnerable indicates species at moderate risk of extinction; DD – Data Deficient indicates lack of information to sufficiently assess status.

<u>NatureServe Conservation Status Rankings</u>
(G1) = Globally Critically Imperiled. At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
(G2) = Globally Imperiled. At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
(G3) = Globally Vulnerable. At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
(G4) = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
(G5) = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.
(S1) = State Critically Imperiled. At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
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(G4) = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
(G5) = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.
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(S3) = State Vulnerable. At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

APPENDIX B: Representative Photos of Project Site

Photo B-1. Example of coyote brush scrub, the dominant vegetation community along North Peak Access Road (2/8/2022)

Photo B-2. Coyote brush scrub encroaching into the roadway (2/8/2022)

Photo B-3. Representative photo of Montara manzanita chaparral. The sensitive Montara manzanita (*Arctostaphylos* montaraensis) comprises 100 percent of the vegetative cover in this particular section (1/26/2022)

Photo B-4. The single Kings mountain manzanita observed during site surveys. Extremely similar to the Montara manzanita. Both species of manzanita are considered special-status species (2/8/2022)

Photo B-5. San Mateo tree lupine (*Lupinus arboreus var. eximius*) growing on roadside (2/3/2022)

Photo B-6. Flowering San Mateo tree lupine showing characteristic coloration (2/3/2022)

Photo B-7. Broadleaf stonecrop (*Sedum spathulifolium*) growing on rocky outcrop adjacent to road. Host plant for the endangered San Bruno elfin butterfly (*Callophrys mossii bayensis*) (1/26/2022)

Photo B-8. Varied lupine (*Lupinus littoralis var. variicolor*) growing in middle of roadway where it is cut from bedrock. Potential host plant for the endangered Mission blue butterfly (*Icaricia icarioides missionensis*). (2/8/2022).

Photo B-9. Island tube lichen (*Hypogymnia schizidiata*) specimen located on a dead manzanita (2/8/2022)

Photo B-10. San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) midden near proposed location for Turnout 2 (2/8/2022)

Photo B-11. Proposed location for Turnout 1 (2/8/2022)

Photo B-12. Proposed location of Turnout 2 (2/8/2022)

Photo B-13. Proposed location of Turnout 3. Montara manzanita visible on left side of photo (2/8/2022)

Photo B-14. Closer view of Montara manzanita and associated habitat near boundary of Turnout 3 (2/8/2022)

Photo B-15. Proposed location of Turnout 4 (2/8/2022)

Appendix C:
Rare Plant Survey Report
April 2022

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COAST RIDGE ECOLOGY LLC
BIOLOGICAL SURVEYS • MONITORING • PERMITTING • RESEARCH

April 24, 2022

Ben Salter
Environmental Corporation of America (ECA)
1340 Patton Avenue, Suite K
Asheville, NC 28806
ben.salter@eca-usa.com

Subject: *Results of Follow-up Rare Plant Survey and Fire Break Biological Resources Survey for North Peak Access Road, Montara, CA*

Dear Mr. Salter:

The following letter report documents the results of follow-up rare plant surveys along North Peak Access Road, in addition to biological resources surveys of proposed fire breaks on the North Peak of Montara Mountain. This report serves as an addendum to a more detailed Biological Resources Assessment (BRA) compiled for the project in February 2022 (CRE, 2022).

I. PROJECT LOCATION

North Peak Access Road is a publicly accessible hiking trail which also provides vehicle access to the various telecommunication towers present on the North Peak of Montara Mountain. The unpaved road is approximately 3.7 miles in length, beginning at Highway 1 and ending at the summit of North Peak. Near the summit of Montara Mountain, North Peak Access Road briefly crosses through San Pedro County Park and Rancho Corral Del Tierra (Golden Gate National Recreation Area).

Proposed fire breaks are located at the summit of North Peak, and are planned to extend 100 feet from all existing telecommunication structures. Portions of the proposed eastern firebreak extending into property owned by the San Francisco Public Utilities Commission were not surveyed for this report.

II. METHODS

Coast Ridge Ecology biologists Greg Pfau and Alyssa Olenberg-Meltzer conducted surveys of North Peak Access Road, associated proposed turnouts, and all proposed firebreaks on April 12, 2022. Surveys focused on locating rare plants not visible during previous surveys, in addition to all sensitive species potentially present within proposed fire breaks. A submeter accuracy GPS unit (Trimble Geoexplorer 6000 series) was used to map any sensitive species or habitat features found within the survey areas. Detailed discussion of special-status species likely to occur within the project area can be found in the previous report (CRE, 2022).

Rare plant surveys were performed in accordance with the following recommendation provided in the previous BRA:

1) *An additional survey for rare plants should be performed along the upper section of North Peak Access Road in approximately April-May, timed based on the seasonal phenology of local reference populations. This survey should focus on potentially locating the three plant species… (coast rockcress, Franciscan wallflower, Choris' popcornflower) that may not have been detected during original site surveys*. (CRE, 2022)

Survey timing was appropriate for the detection of these three species within the survey area.

III. RESULTS

North Peak Access Road Rare Plant Survey

All plant species observed along North Peak Access Road during previous surveys, in addition to newly observed or verified plant species from the most recent survey are shown in **Table 1**. Newly observed plant species were generally not visible or could not be conclusively identified due to the timing of initial surveys in January and February 2022.

Table 1: Plant Species Observed During Site Surveys

Common Name	Scientific Name	Status
Yarrow	*Achillea millefolium*	N
Deerweed	*Acmispon glaber*	N
Creeping bentgrass	*Agrostis stolonifera*	NNI
Henderson's angelica	*Angelica hendersonii*	N
Montara manzanita	*Arctostaphylos montaraensis*	R (CNPS 1B.2)
Kings Mountain manzanita	*Arctostaphylos regismontana*	R (CNPS 1B.2)
California sagebrush	*Artemisia californica*	N
California mugwort	*Artemisia douglasiana*	N
Wild oats	*Avena barbata*	NNI
Coyote brush	*Baccharis pilularis*	N
California barberry**	*Berberis pinnata*	N
Black mustard	*Brassica nigra*	NNI
Rattlesnake grass	*Briza maxima*	NNI
Ripgut brome	*Bromus diandrus*	NNI
Soft chess**	*Bromus hordeaceus*	NNI
California brome	*Bromus sitchensis var. carinatus*	N
Redmaids	*Calandrinia menziesii*	N
Morning glory**	*Calystegia sp.*	N
Hairy bitter cress	*Cardamine hirsuta*	NN

Common Name	Scientific Name	Status
Coast indian paintbrush	*Castilleja affinis ssp. affinis*	N
Dense flower owl's clover**	*Castilleja densiflora*	N
Wight's paintbrush**	*Castilleja wightii*	N
Blueblossom	*Ceanothus thyrsiflorus*	N
Chasmanthe	*Chasmanthe floribunda*	NNI
Soap plant	*Chlorogalum pomeridianum*	N
Golden chinquapin	*Chrysolepis chrysophylla*	N
Western thistle	*Cirsium occidentale*	N
Bull thistle	*Cirsium vulgare*	NNI
Yerba buena	*Clinopodium douglasii*	N
Poison hemlock	*Conium maculatum*	NNI
Pampas grass	*Cortaderia sp.*	NNI
Beaked hazelnut	*Corylus cornuta*	N
Wooly Cotoneaster	*Cotoneaster pannosus*	NNI
Dogtail grass	*Cynosurus echinatus*	NNI
Wild carrot	*Daucus pusillus*	N
Cape ivy	*Delairea odorata*	NNI
Coast larkspur	*Delphinium californicum*	N
Sticky monkeyflower	*Diplacus aurantiacus*	N
Teasel	*Dipsacus sp.*	NNI
Blue dicks**	*Dipterostemon capitatus*	N
Sticky cinquefoil	*Drymocallis glandulosa*	N
Sea lettuce	*Dudleya farinosa*	N
Upright veldt grass**	*Ehrharta erecta*	NNI
Blue wildrye**	*Elymus glaucus*	N
Willowherb	*Epilobium sp.*	N
Horseweed	*Erigeron sp.*	NN
Yerba santa	*Eriodictyon californicum*	N
Coast buckwheat	*Eriogonum latifolium*	N
Golden yarrow	*Eriophyllum confertiflorum*	N
Lizard tail	*Eriophyllum staechadifolium*	N
Redstem filaree	*Erodium cicutarium*	NNI
Franciscan wallflower**	*Erysimum franciscanum*	R (CNPS 4.2)
California poppy	*Eschscholzia californica*	N
Blue gum	*Eucalyptus globulus*	NNI
Red fescue	*Festuca rubra*	N
Wild strawberry	*Fragaria vesca*	N
California coffeeberry	*Frangula californica*	N
Common bedstraw**	*Galium aparine*	N
Featherweed**	*Gamochaeta ustulata*	N

Common Name	Scientific Name	Status
Coast silk tassel	*Garrya elliptica*	N
Geranium	*Geranium sp.*	NN
English ivy	*Hedera helix*	NNI
Common cowparsnip	*Heracleum maximum*	N
Monterey cypress	*Hesperocyparis macrocarpa*	NN
Toyon	*Heteromeles arbutifolia*	N
Crevice alumroot	*Heuchera micrantha*	N
Short pod mustard	*Hirschfeldia incana*	NNI
Velvet grass	*Holcus lanatus*	NNI
Oceanspray	*Holodiscus discolor*	N
Foxtail barley	*Hordeum murinum*	NNI
California horkelia	*Horkelia californica var. californica*	N
Smooth cat's ear	*Hypochaeris glabra*	NNI
Hairy cat's ear	*Hypochaeris radicata*	NNI
Douglas iris	*Iris douglasiana*	N
Spreading rush	*Juncus patens*	N
California goldfields**	*Lasthenia californica*	N
Common pacific pea	*Lathyrus vestitus*	N
Sweet alyssum	*Lobularia maritima*	NNI
Bird's foot trefoil	*Lotus corniculatus*	NN
San Mateo tree lupine	*Lupinus arboreus var. eximius*	R (CNPS 3.2)
Miniature lupine**	*Lupinus bicolor*	N
Varied lupine	*Lupinus littoralis var. variicolor*	N*
Sky lupine**	*Lupinus nanus*	N
Common wood rush**	*Luzula comosa*	N
Starry false lily of the valley**	*Maianthemum stellatum*	N
California man-root	*Marah fabacea*	N
Bur clover	*Medicago polymorpha*	NNI
Torrey's melica**	*Melica torreyana*	N
Coyote mint**	*Monardella villosa*	N
Oso berry	*Oemleria cerasiformis*	N
Bermuda buttercup	*Oxalis pes-caprae*	NNI
Hairy wood sorrel	*Oxalis pilosa*	N
Gold back fern	*Pentagramma triangularis*	N
California phacelia	*Phacelia californica*	N
Stinging phacelia	*Phacelia malvifolia*	N
Harding grass	*Phalaris aquatica*	NNI
Monterey pine	*Pinus radiata*	NN
California plantain**	*Plantago erecta*	N

Common Name	Scientific Name	Status
English plantain	*Plantago lanceolata*	NNI
California polypody	*Polypodium californicum*	N
Western sword fern	*Polystichum munitum*	N
Shooting star**	*Primula sp.*	N
Ladies' tobacco	*Psuedognaphalium californicum*	N
Western brackenfern	*Pteridium aquilinum*	N
Common buttercup**	*Ranunculus californicus var. californicus*	N
Flowering currant	*Ribes sanguineum*	N
Thimbleberry	*Rubus parviflorus*	N
California blackberry	*Rubus ursinus*	N
Sheep sorrel	*Rumex acetosella*	NNI
Curly dock	*Rumex crispus*	NNI
Arroyo willow	*Salix lasiolepis*	N
Red elderberry	*Sambucus racemosa*	N
Pacific sanicle	*Sanicula crassicaulis*	N
California beeplant	*Scrophularia californica*	N
Broadleaf stonecrop	*Sedum spathulifolium*	N*
Common groundsel	*Senecio vulgaris*	NN
Checker mallow**	*Sidalcea sp.*	N
Greenspot nightshade	*Solanum douglasii*	N
Blue witch nightshade	*Solanum umbelliferum*	N
South American soliva	*Soliva sosillis*	NN
Sow thistle	*Sonchus oleraceus*	NN
Southern hedgenettle**	*Stachys bullata*	N
Foothill needle grass	*Stipa lepida*	N
Creeping snowberry**	*Symphoricarpos mollis*	N
Pacific aster	*Symphyotrichum chilense*	N
Common dandelion	*Taraxacum officinale*	NN
Poison oak	*Toxicodendron diversilobum*	N
Hop trefoil**	*Trifolium campestre*	NN
Evergreen huckleberry	*Vaccinium ovatum*	N

Status Codes: Native (N), Non-Native (NN), Non-Native Invasive (NNI), Rare/Sensitive (R).
*Host plant for endangered butterfly species
**Plant species first observed or conclusively identified during April 12 Survey

Numerous patches of Franciscan wallflower (*Erysimum franciscanum*), a California Native Plant Society (CNPS) Rank 4.2 plant species, were observed along the upper portion of North Peak Access Road (**Figure 1**). The majority of these plants are located directly adjacent to the roadway and are likely to be impacted by road widening activities in those areas if precautions are not taken (**Photo 1**). Measures to protect the plants could include avoidance of occupied areas or limiting activities in occupied areas to cutting/clearing of woody shrubs without ground disturbance activities (i.e. grading of roadside). Additional patches of Franciscan wallflower were observed in the vicinity of Proposed Turnout 3, however these plants are unlikely to be impacted by construction activities (**Figure 2**).

Figure 1: Follow-up Rare Plant and Fire Buffer Survey Map

North Peak Access Road, McNee Ranch State Park
Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County

Legend

- North Peak Access Road
- Proposed Turnout
- Proposed Fire Buffer (100 feet)

Sensitive Resources

- Franciscan Wallflower
- San Francisco Dusky-footed Woodrat Midden
- San Mateo Tree Lupine
- Varied Lupine*
- Montara Manzanita
- Stonecrop*

*Host plant for endangered butterfly species

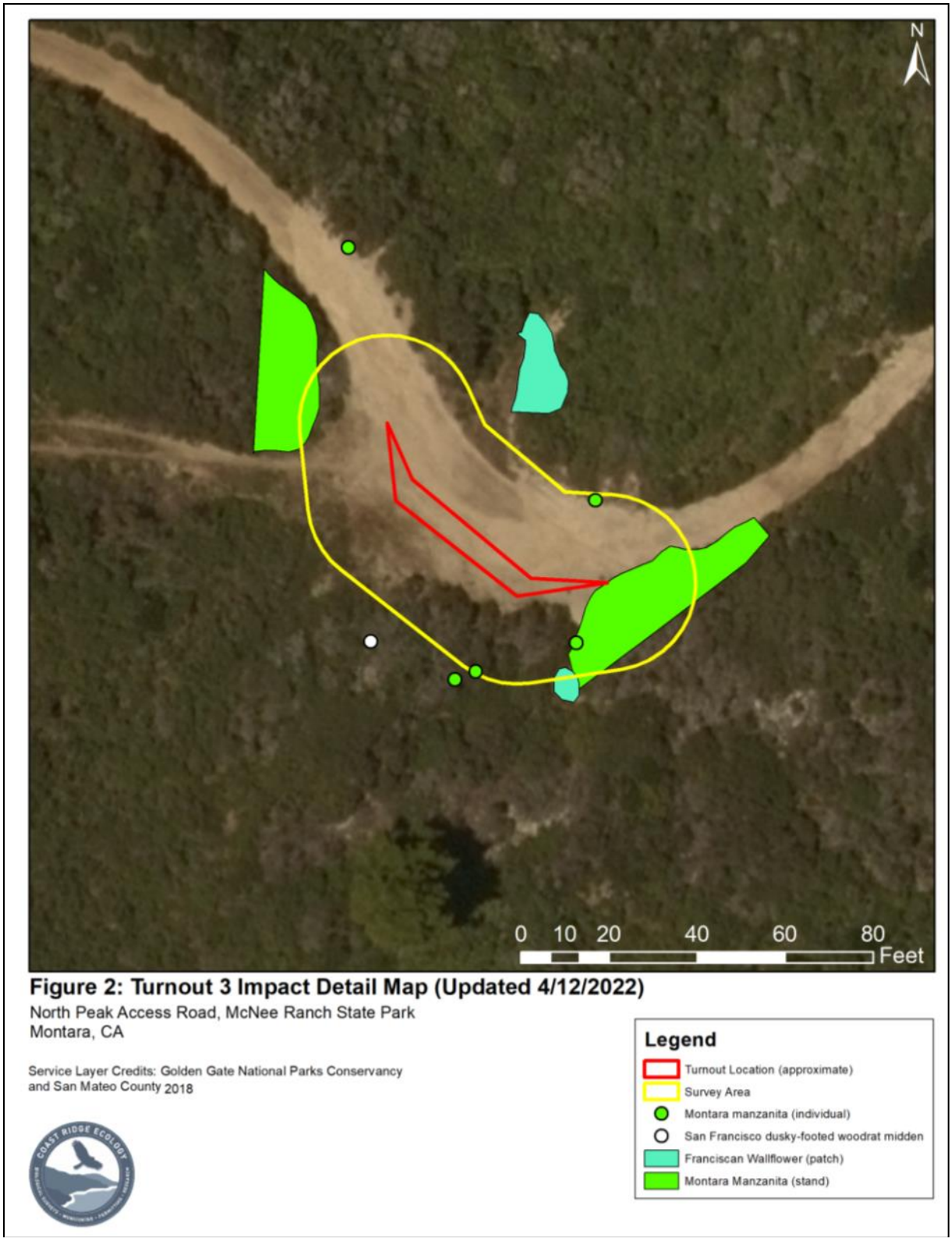


Figure 2: Turnout 3 Impact Detail Map (Updated 4/12/2022)

North Peak Access Road, McNee Ranch State Park
Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County 2018

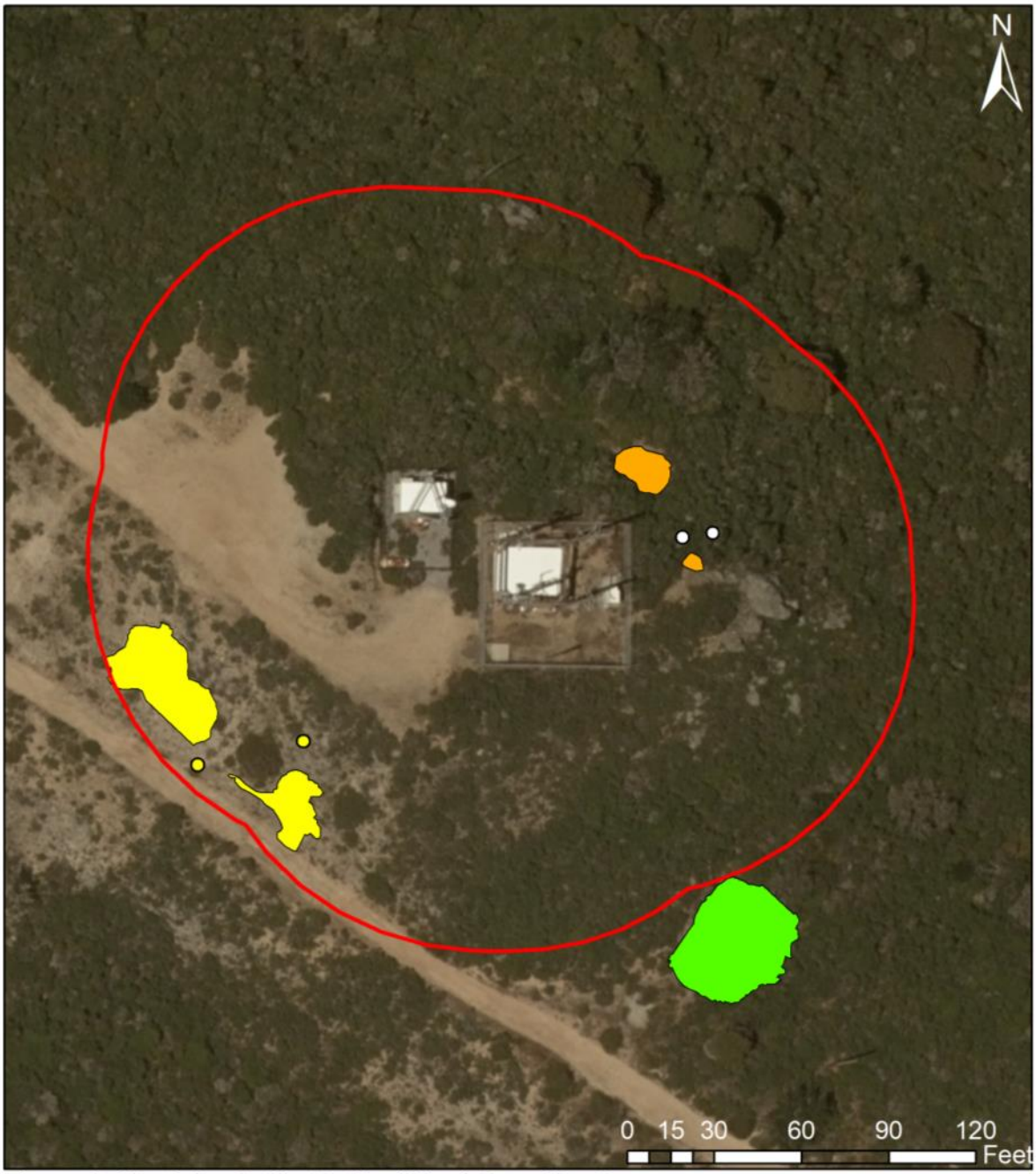


Figure 3: North Peak Fire Buffer (West) Sensitive Resources
Montara Mountain, Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County

Legend

Survey Area/Proposed Fire Buffer (100 feet)

Sensitive Resources

- San Francisco Dusky-footed Woodrat Midden
- Varied Lupine*
- Montara Manzanita
- Stonecrop* (patch)
- Varied Lupine* (patch)

*Host plant for Endangered butterfly species

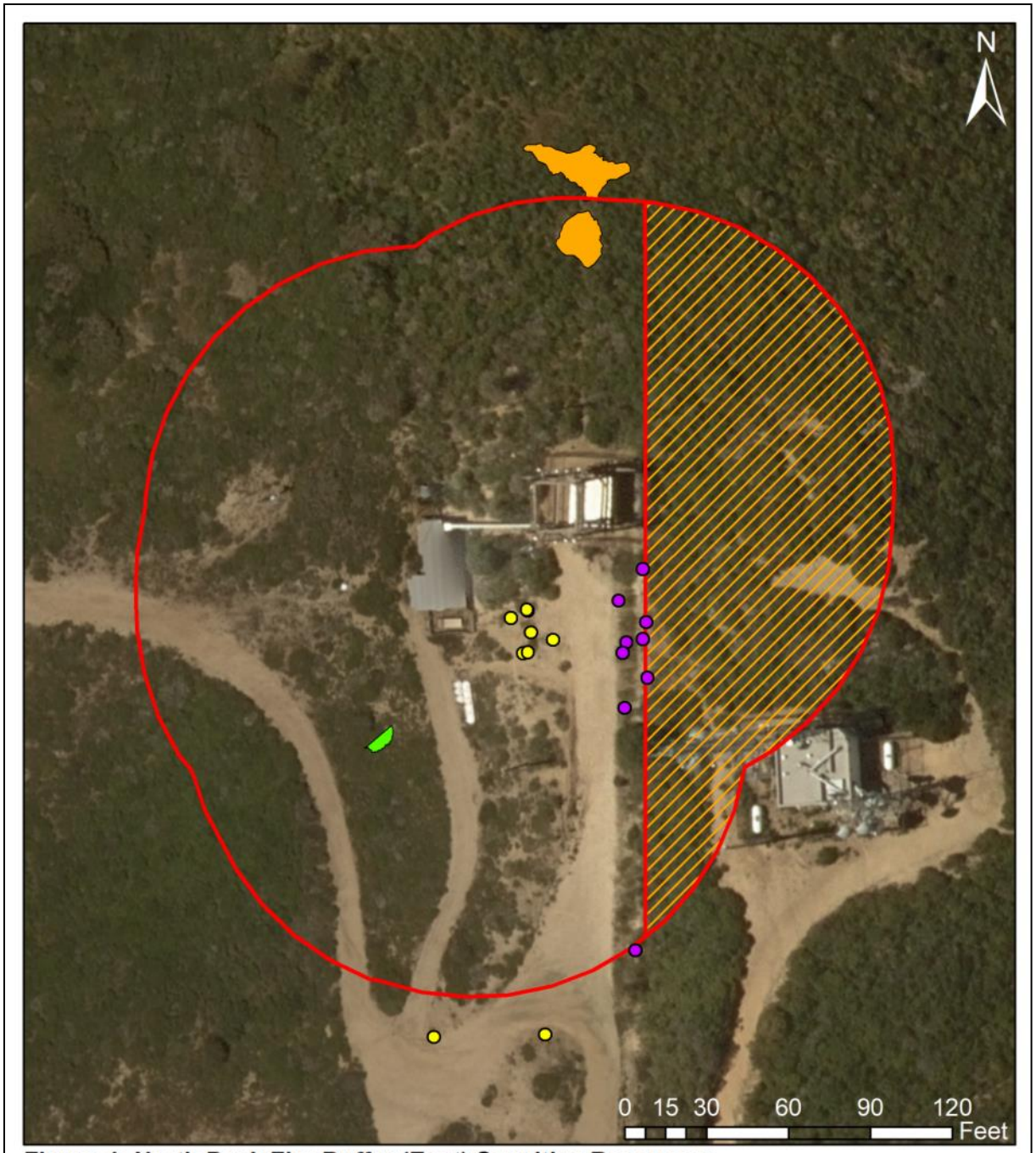


Figure 4: North Peak Fire Buffer (East) Sensitive Resources

Montara Mountain, Montara, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County

Proposed Fire Break Biological Resources Survey

All sensitive biological resources observed within the proposed fire breaks are shown in **Figures 3 & 4** above**.**

Significant patches of broadleaf stonecrop (*Sedum spathulifolium*), and varied lupine *(Lupinus littoralis var. variicolor*), host plants for two federally Endangered butterfly species, (San Bruno elfin bufferfly (*Callophrys mossii bayensis*) and Mission blue butterfly (*Icaricia icarioides missionensis*)) were observed within both of the proposed fire breaks. The presence of either butterfly species could not be confirmed, however due to the proximity of these mapped patches to an occupied patch of stonecrop on the adjacent SFPUC property (*pers. observation* G. Pfau) it should be assumed that San Bruno elfin butterflies are present within the survey area.

Stands of the rare endemic Montara manzanita (*Arctostaphylos montaraensis*) were observed within or in close proximity to both proposed fire break areas. Several San Mateo tree lupines (*Lupinus arboreus var. eximius*), a CNPS rank 3.2 species, were observed within the eastern firebreak but not in the western fire break.

Two middens of the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), (SFDFW), a California Species of Special Concern, were observed within the western firebreak. Both middens appeared to be active due to the presence of fresh vegetation and SFDFW scat, and were flagged with pink flagging for future reference.

Most of these sensitive species should be relatively easy to avoid during the creation of proposed fire breaks, however significant impacts to the butterfly host plant patches (stonecrop and varied lupine) would likely occur unless sufficient avoidance measures (such as buffer zones) are implemented.

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

Gregory Pfau
Associate Biologist III

References

Coast Ridge Ecology, 2022. *Biological Resource Assessment: North Peak Access Road, McNee Ranch State Park, Montara, San Mateo County, California*. Prepared for American Tower Corporation.

Representative Photos

Photo 1: Example of Franciscan wallflower (*Erysimum franciscanum*, yellow flower) growing directly adjacent to roadway along North Peak Access Road (4/12/2022)

Photo 2: Example of Stonecrop patch (*Sedum spathulifolium*), found in western firebreak (4/12/20

Lawrence Behr Associates INC
www.lbagroup.com

NIER Study Report

SITE NAME:

Montara Peak #2

LOCATION:

Montara, California

COMPANY:

American Tower, Inc

April 24th, 2019

3400 Tupper Drive | Greenville, NC 27834
252-317-2123 | 800-522-4464 | lbagrp@lbagroup.com

Attachment 6

NIER Study:

Montara Peak #2

American Tower
Montara, California

INTRODUCTION

Lawrence Behr Associates, Inc. (LBA) has been retained American Tower Inc. (ATC) of Woburn, MA to evaluate the RF emissions of four existing poles at this location. The calculations in this report represent a "worst case" scenario.

SITE AND FACILITY CONSIDERATIONS

Site Montara Peak #1 is located at 3501 Whiting Ridge Rd. in Montara, CA. There are four poles at this location as shown in the chart below.

Montara Peak #2					
Tower Locations & Descriptions					
Site #	Tower #	Coordinates		Type	Height
8063	T1	37.562164	-122.480497	Wooden Pole	56'
8187	T2	37.562169	-122.480550	Wooden Pole	55'
8188	T3	37.562222	-122.480544	Wooden Pole	56'
41214	T4	37.562217	-122.480492	Wooden Pole	55'

Since all four poles are closely located, all four were modeled as one structure. All data used in this study was provided by one or more of the following sources:

1. ATC furnished data
2. Compiled from carrier and manufacturer standard configurations
3. Empirical data collected by LBA

A topographic map of the study area is located in Appendix 1. A satellite view of the study area is located in Appendix 2.

POWER DENSITY CALCULATIONS

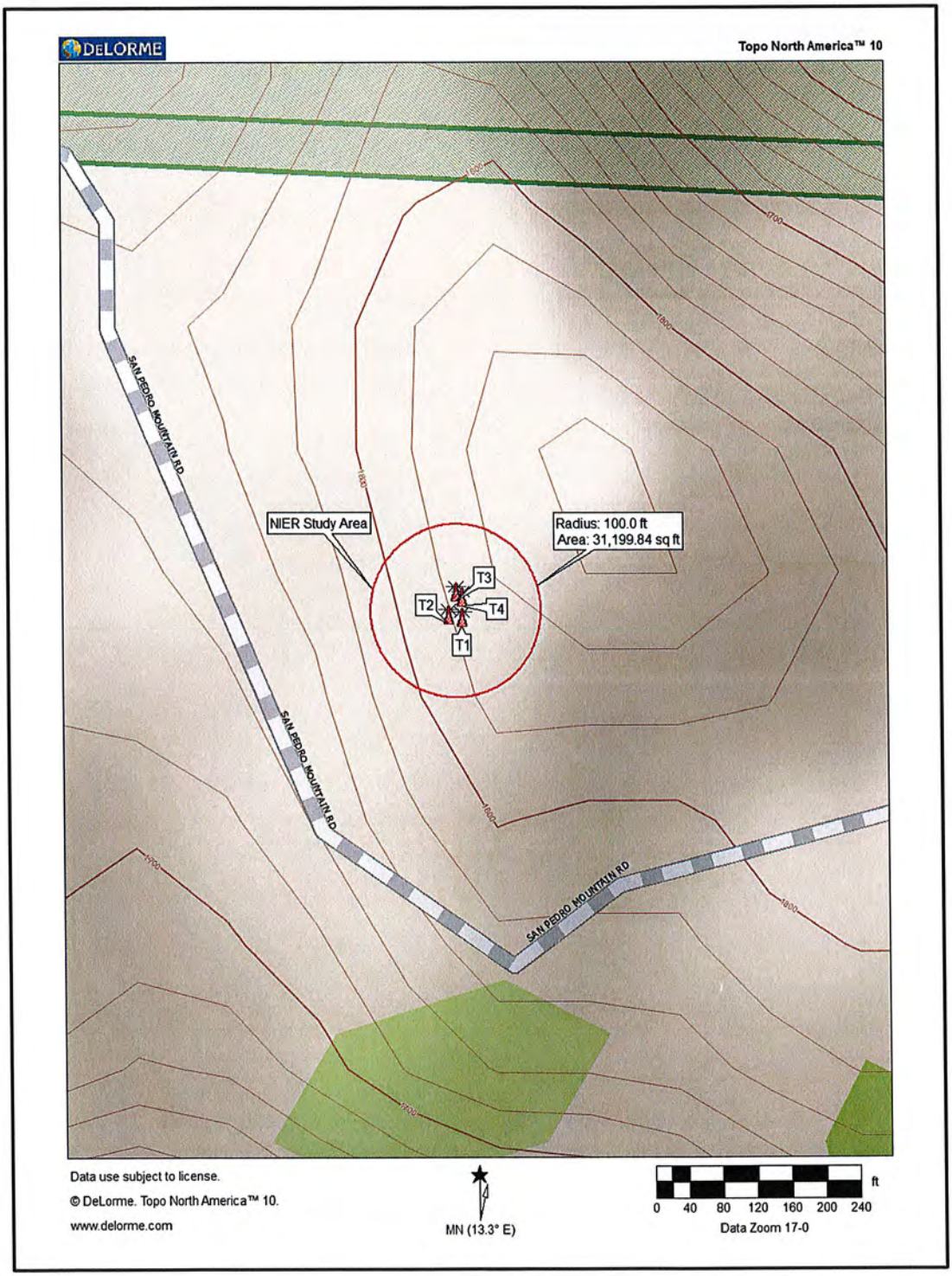
Graphs of the power density at different distances from the transmitter, compared to FCC MPE general population and occupational limits, may be seen in Appendix 3. These are based upon the Information Relating to MPE Standards found in Appendix 4. Study methodology may be seen in Appendix 5, which describes the Non-Ionizing Radiation Prediction Models. This site ***IS*** in compliance with FCC OET-65 MPE limits.

April 24th, 2019

Michael W. Hayden NCE CPBE CBNT AMD
Vice President, Lawrence Behr Associates, Inc.

Appendix 1

Survey Area Topographic Map



Appendix 2

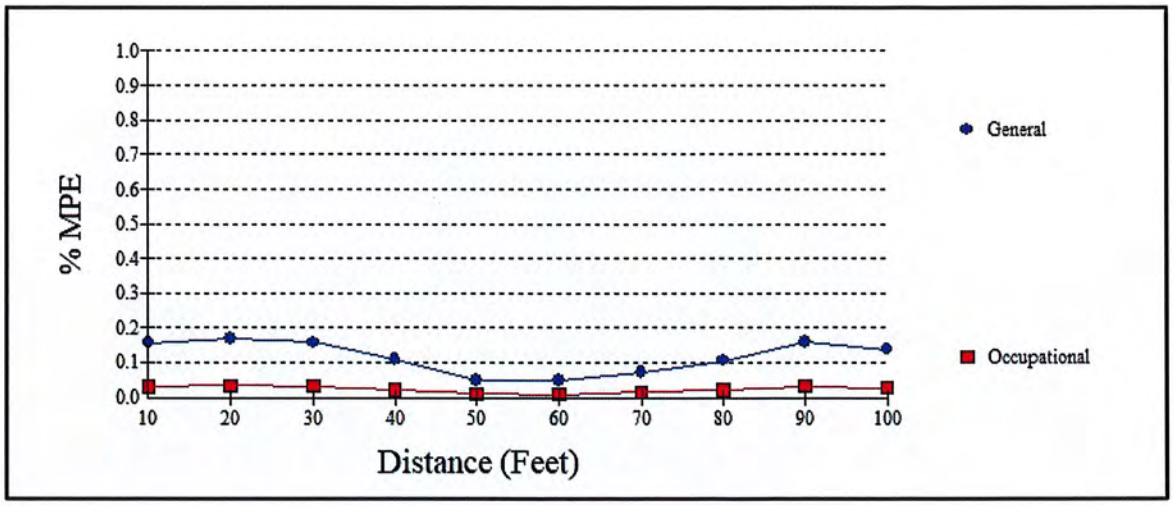
Study Area Satellite Photo

Lawrence Behr Associates INC

www.lbagroup.com | 3400 Tupper Dr. | Greenville, NC 27834
252-317-2123 | 800-522-4464 | lbagrp@lbagroup.com

Appendix 3

FCC OET-65 MPE Limit Study



Maximum Power Density (@20'):	0.0016 mW/cm²
General Population MPE (@20'):	0.17%
Occupational MPE (@20'):	0.03%

Appendix 4

Information Pertaining to MPE Standards

In 1985, the FCC first adopted guidelines to be used for evaluating human exposure to RF emissions. The FCC revised and updated these guidelines on August 1, 1996, as a result of a rule-making proceeding initiated in 1993. The new guidelines incorporate limits for Maximum Permissible Exposure (MPE) in terms of electric and magnetic field strength and power density for transmitters operating at frequencies between 300 kHz and 100 GHz.

The FCC's MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits were developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC's limits, and the NCRP and ANSI/IEEE limits on which they are based, are derived from exposure criteria quantified in terms of specific absorption rate (SAR). The basis for these limits is a whole-body averaged SAR threshold level of 4 watts per kilogram (4 W/kg), as averaged over the entire mass of the body, above which expert organizations have determined that potentially hazardous exposures may occur. The MPE limits are derived by incorporating safety factors that lead, in some cases, to limits that are more conservative than the limits originally adopted by the FCC in 1985. Where more conservative limits exist, they do not arise from a fundamental change in the RF safety criteria for whole-body averaged SAR, but from a precautionary desire to protect subgroups of the general population who, potentially, may be more at risk.

The FCC exposure limits are also based on data showing that the human body absorbs RF energy at some frequencies more efficiently than at others. The most restrictive limits occur in the frequency range of 30-300 MHz where whole-body absorption of RF energy by human beings is most efficient. At other frequencies, whole-body absorption is less efficient, and consequently, the MPE limits are less restrictive.

MPE limits are defined in terms of power density (units of milliwatts per centimeter squared: mW/cm^2), electric field strength (units of volts per meter: V/m) and magnetic field strength (units of amperes per meter: A/m). The far-field of a transmitting antenna is where the electric field vector (E), the magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions).

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area. Additional details can be found in FCC OET 65.

Appendix 5

MPE Standards Methodology

This study predicts RF field strength and power density levels that emanate from communications system antennae. It considers all transmitter power levels (less filter and line losses) delivered to each active transmitting antenna at the communications site. Calculations are performed to determine power density and MPE levels for each antenna as well as composite levels from all antennas. The calculated levels are based on where a human (Observer) would be standing at various locations at the site. The point of interest where the MPE level is predicted is based on the height of the Observer.

Compliance with the FCC limits on RF emissions are determined by spatially averaging a person's exposure over the projected area of an adult human body, that is approximately six-feet or two-meters, as defined in the ANSI/IEEE C95.1 standard. The MPE limits are specified as time-averaged exposure limits. This means that exposure is averaged over an identifiable time interval. It is 30 minutes for the general population/uncontrolled RF environment and 6 minutes for the occupational/controlled RF environment. However, in the case of the general public, time averaging should not be applied because the general public is typically not aware of RF exposure and they do not have control of their exposure time. Therefore, it should be assumed that any RF exposure to the general public will be continuous.

The FCC's limits for exposure at different frequencies are shown in the following Tables.

Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/cm^2)**	**Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)**
0.3 - 3.0	614	1.63	100*	6
3.0 - 30	1842/f	4.89/f	$900/F^2$	6
30 - 300	61.4	0.163	1.0	6
300 - 1500	--	--	f/300	6
1500 - 100,000	--	--	5	6

f = frequency

* = Plane-wave equivalent power density

Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/cm^2)**	**Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)**
0.3 - 1.34	614	1.63	100*	30
1.34 - 30	824/f	2.19/f	$180/F^2$	30
30 -300	27.5	0.073	0.2	30
300 -1500	--	--	f/1500	30
1500 -100,000	--	--	1.0	30

f = frequency
* = Plane-wave equivalent power density

General population/uncontrolled exposures apply in situations in which the general public may be exposed or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

It is important to understand that these limits apply cumulatively to all sources of RF emissions affecting a given area. For example, if several different communications system antennas occupy a shared facility such as a tower or rooftop, then the total exposure from all systems at the facility must be within compliance of the FCC guidelines.

The field strength emanating from an antenna can be estimated based on the characteristics of an antenna radiating in free space. There are basically two field areas associated with a radiating antenna. When close to the antenna, the region is known as the Near Field. Within this region, the characteristics of the RF fields are very complex and the wave front is extremely curved. As you move further from the antenna, the wave front has less curvature and becomes planar. The wave front still has a curvature but it appears to occupy a flat plane in space (plane-wave radiation). This region is known as the Far Field.

Two models are utilized to predict Near and Far field power densities. They are based on the formulae in FCC OET 65. As this study is concerned only with Near Field calculations, we will only describe the model used for this study. For additional details, refer to FCC OET Bulletin 65.

Cylindrical Model (Near Field Predictions)

Spatially averaged plane-wave equivalent power densities parallel to the antenna may be estimated by dividing the antenna input power by the surface area of an imaginary cylinder surrounding the length of the radiating antenna. While the actual power density will vary along the height of the antenna, the average value along its length will closely follow the relation given by the following equation:

$$S = P \div 2\pi RL$$

Where:
S = Power Density
P = Total Power into antenna
R = Distance from the antenna
L = Antenna aperture length

For directional-type antennas, power densities can be estimated by dividing the input power by that portion of a cylindrical surface area corresponding to the angular beam width of the antenna. For example, for the case of a 120-degree azimuthal beam width, the surface area should correspond to 1/3 that of a full cylinder. This would increase the power density near the antenna by a factor of three over that for a purely omni-directional antenna. Mathematically, this can be represented by the following formula:

$$S = (180 / \theta_{BW})\, P \div \pi RL$$

Where:
S = Power Density
θ_{BW} = Beam width of antenna in degrees (3 dB half-power point)
P = Total Power into antenna
R = Distance from the antenna
L = Antenna aperture length

If the antenna is a 360-degree omni-directional antenna, this formula would be equivalent to the previous formula.

Spherical Model (Far Field Predictions)

Spatially averaged plane-wave power densities in the Far Field of an antenna may be estimated by considering the additional factors of antenna gain and reflective waves that would contribute to exposure.

The radiation pattern of an antenna has developed in the Far Field region and the power gain needs to be considered in exposure predictions. Also, if the vertical radiation pattern of the antenna is considered, the exposure predictions would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential four-fold increase in power density.

These additional factors are considered and the Far Field prediction model is determined by the following equation:

$$S = EIRP \times Rc \div 4\pi R^2$$

Where:
S = Power Density
EIRP = Effective Radiated Power from antenna
Rc = Reflection Coefficient (2.56)
R = Distance from the antenna

The EIRP includes the antenna gain. If the antenna pattern is considered, the antenna gain is relative based on the horizontal and vertical pattern gain values at that particular location in space, on a rooftop or on the ground. However, it is recommended that the antenna radiation pattern characteristics not be considered to provide a conservative "worst case" prediction. This is the equation is utilized for the Far Field exposure predictions herein.

SITESAFE
RF COMPLIANCE EXPERTS
A BUSINESS OF FDH VELOCITEL

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info@sitesafe.com • www.sitesafe.com

The Derna Group on behalf of AT&T Mobility, LLC
Site FA – 10095973
Site ID – CNU0022
USID – 12707
Site Name – Montara Park CA
Site Compliance Report

Mcnee State Park Hiking Trail 4 Miles From Highway 92
Moss Beach, CA 94038

Latitude: N37-33-41.42
Longitude: W122-28-40.75
Structure Type: Self-Support

Report generated date: July 12, 2016
Report by: Kevin Bernstetter
Customer Contact: Tanner Young

AT&T Mobility, LLC will be compliant when the remediation recommended in section 5.2 or other appropriate remediation is implemented.

LICENSED PROFESSIONAL ENGINEER
KLAUS BENDER
E 18131
ELECTRICAL
STATE OF CALIFORNIA

Klaus Bender
Klaus Bender
Registered Professional Engineer (Electrical)
State of California, 18131, Expires 2017-June-30
Date Signed: 2016-July-12

Attachment 7

Table of Contents

1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Access to Antennas Locked?	Yes
RF Sign(s) @ access point(s)	None
RF Sign(s) @ antennas	None
Barrier(s) @ sectors	None
Max cumulative simulated RFE level on the Ground	<1% of General Public Limit at Ground Level
FCC & AT&T Compliant?	Will Be Compliant

The following documents were provided by the client and were utilized to create this report:

SA: ATCColloPrj_669803_PELetter_2016-06-06 16_12_02.64

CD's: AT&T - CNU0022 - 8630 - 100CDs

RF Configuration Datasheet: ATT ERP Calculator - Montara Park CA

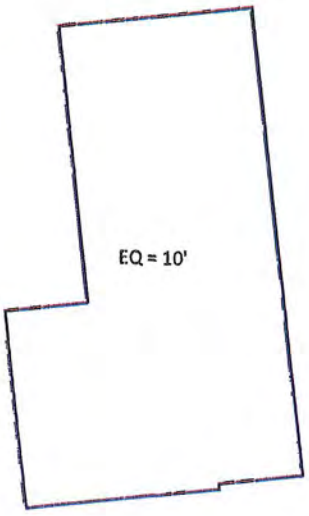
2 Scale Maps of Site

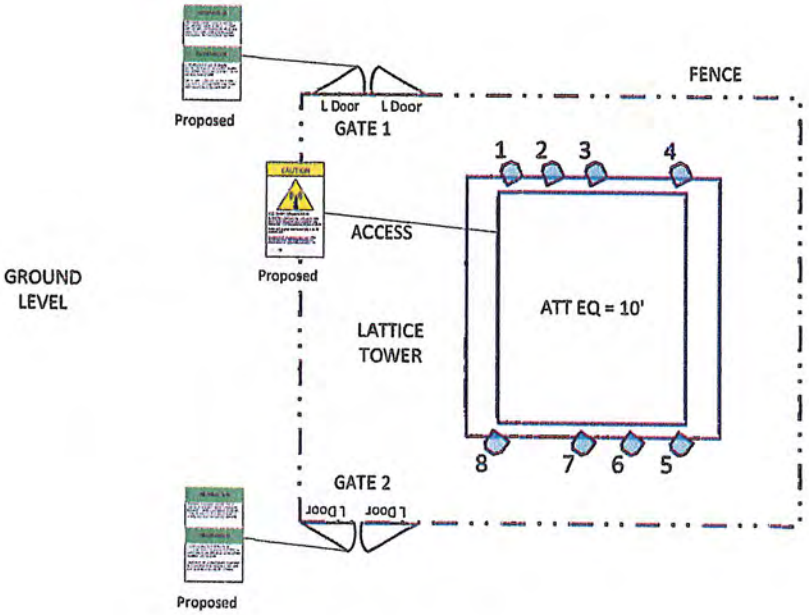
The following diagrams are included:

- Site Scale Map
- RF Exposure Diagram
- Elevation View

Scale Map Key		
 Existing Sign	Proposed Barrier	GPS Reading
 Proposed Sign PROPOSED	Existing Barrier	 Anchor Point

Site Scale Map For: Montara Park CA





(Feet)

0 6.8 13.6

www.sitesafe.com
Site Name:Montara Park CA
7/12/2016 7:54:52 AM

AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	METROPCS	CRICKET COMMUNICATIONS	CLEARWIRE	SPRINT

3 Antenna Inventory

The following antenna inventory on this and the following page, were obtained by the customer and were utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBd)	2G GSM Radio(s)	3G UMTS Radio(s)	4G Radio(s)	Total ERP (Watts)	X	Y	Z
1	AT&T MOBILITY LLC	Kathrein-Scala 800-10765	Panel	737	335	68	6.3	12.56	0	0	1	859	84.6'	107.9'	31.9'
1	AT&T MOBILITY LLC	Kathrein-Scala 800-10765	Panel	1900	335	62	6.3	16.26	0	0	1	2014	84.6'	107.9'	31.9'
2	AT&T MOBILITY LLC (Proposed)	Andrew SBNHH-1D65B	Panel	850	335	66	6.5	12.58	1	0	0	576	87.6'	107.9'	31.8'
2	AT&T MOBILITY LLC (Proposed)	Andrew SBNHH-1D65B	Panel	2100	335	63	6.5	16.34	0	0	1	2052	87.6'	107.9'	31.8'
3	AT&T MOBILITY LLC (Proposed)	Andrew SBNHH-1D65B	Panel	737	335	68	6.5	12.32	0	0	1	859	90.9'	107.9'	31.8'
3	AT&T MOBILITY LLC (Proposed)	Andrew SBNHH-1D65B	Panel	2300	335	58	6.5	15.92	0	0	1	1863	90.9'	107.9'	31.8'
4	AT&T MOBILITY LLC	Kathrein-Scala 742-265	Panel	850	335	68.6	6.3	13.68	0	1	0	741	97.2'	107.9'	31.9'
4	AT&T MOBILITY LLC	Kathrein-Scala 742-265	Panel	1900	335	59.5	6.3	16.52	0	1	0	1426	97.2'	107.9'	31.9'
5	AT&T MOBILITY LLC	Kathrein-Scala 800-10765	Panel	737	215	68	6.3	12.56	0	0	1	859	97.3'	88.3'	30.9'
5	AT&T MOBILITY LLC	Kathrein-Scala 800-10765	Panel	1900	215	62	6.3	16.26	0	0	1	2014	97.3'	88.3'	30.9'
6	AT&T MOBILITY LLC (Proposed)	Andrew SBNHH-1D65B	Panel	850	215	66	6.5	12.58	1	0	0	576	93.6'	88.3'	30.8'
6	AT&T MOBILITY LLC (Proposed)	Andrew SBNHH-1D65B	Panel	2100	215	63	6.5	16.34	0	0	1	2052	93.6'	88.3'	30.8'
7	AT&T MOBILITY LLC (Proposed)	Andrew SBNHH-1D65B	Panel	737	215	68	6.5	12.32	0	0	1	859	90'	88.3'	30.8'
7	AT&T MOBILITY LLC (Proposed)	Andrew SBNHH-1D65B	Panel	2300	215	58	6.5	15.92	0	0	1	1863	90'	88.3'	30.8'
8	AT&T MOBILITY LLC	Kathrein-Scala 742-265	Panel	850	215	68.6	6.3	13.68	0	1	0	741	83.6'	88.3'	30.9'
8	AT&T MOBILITY LLC	Kathrein-Scala 742-265	Panel	1900	215	59.5	6.3	16.52	0	1	0	1426	83.6'	88.3'	30.9'

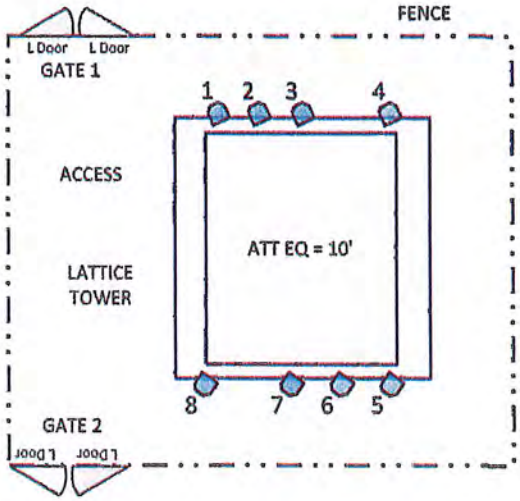
NOTE: X, Y and Z indicate relative position of the bottom of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna height above the main site level unless otherwise indicated. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed. For other operators at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to operator, their FCC license and/or antenna information was not available nor could it be secured while on site. Other operator's equipment, antenna models and powers used for modeling are based on obtained information or Sitesafe experience.

4 Emission Predictions

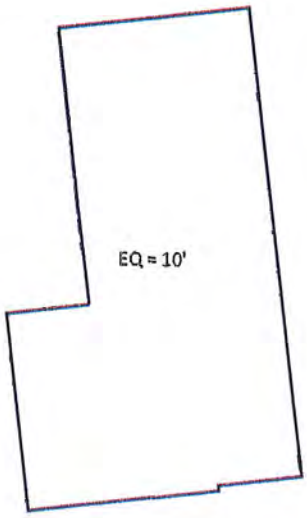
In the RF Exposure Simulations below all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas.

The Antenna Inventory heights are referenced to the same level.

RF Exposure Simulation For: Montara Park CA



GROUND
LEVEL



% of FCC Public Exposure Limit
Spatial average 0' - 6'

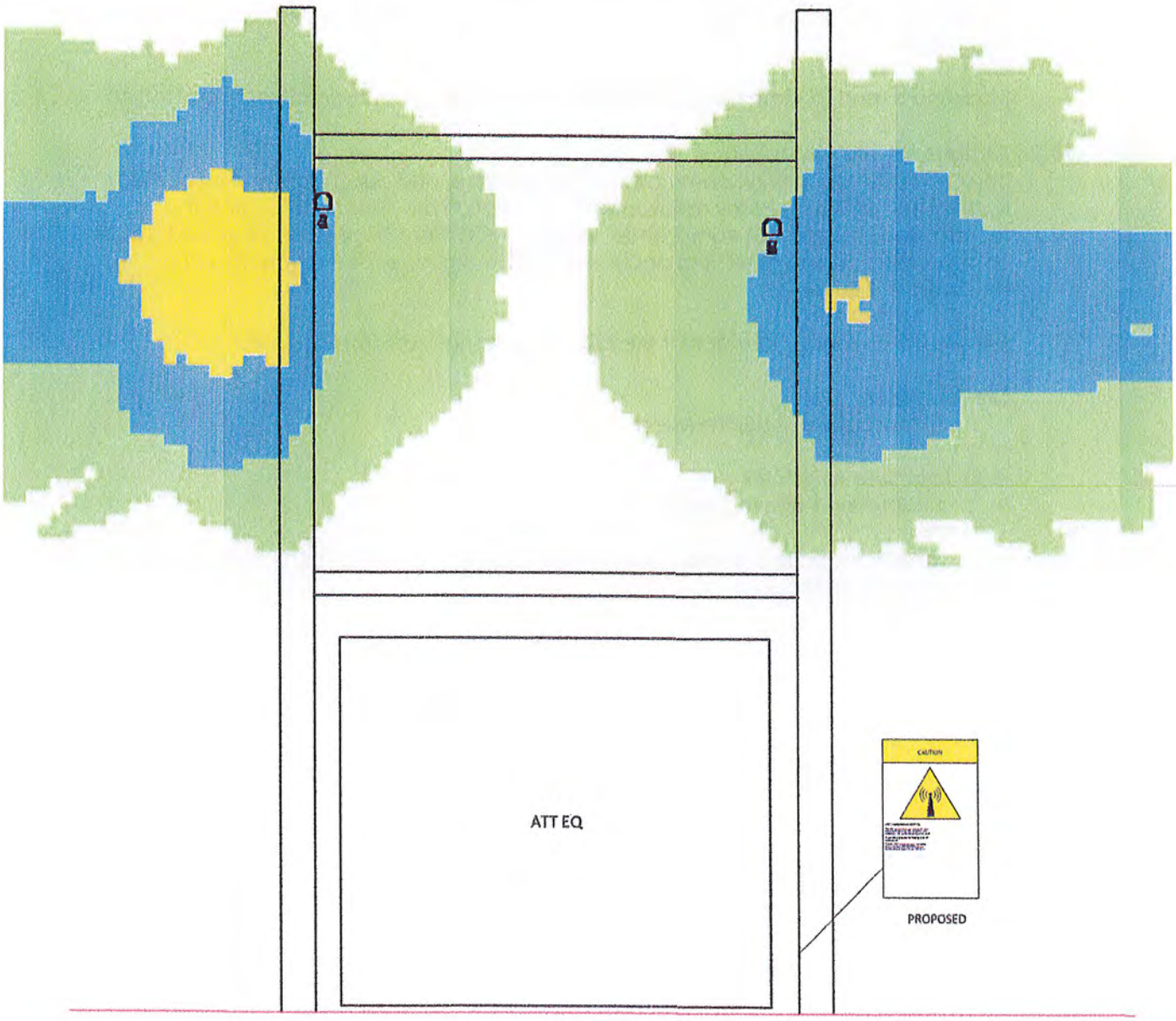
(Feet)
0 6.8 13.6
www.sitesafe.com
Site Name:Montara Park CA
7/12/2016 7:53:36 AM

>= 5000 >= 500 >= 100 >= 5 < 5

AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	METROPCS	CRICKET COMMUNICATIONS	CLEARWIRE	SPRINT

SitesafeTC Version:1.0.0.0 - 0.0.0.248
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: Montara Park CA
Elevation View



% of FCC Public Exposure Limit
Spatial average 0' - 6'

(Feet)

0 3.4 6.9

www.sitesafe.com
Site Name:Montara Park CA
7/12/2016 7:58:07 AM

>= 5000	>= 500	>= 100	>= 5	< 5

AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	METROPCS	CRICKET COMMUNICATIONS	CLEARWIRE	SPRINT

SitesafeTC Version:1.0.0.0 - 0.0.0.248
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

5 Site Compliance

5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

AT&T Mobility, LLC will be compliant when the remediation recommended in section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the AT&T Mobility, LLC's proposed deployment plan could result in the site being rendered non-compliant.

Modeling is used for determining compliance and the percentage of MPE contribution.

5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

The site will be made compliant if the following changes are implemented:

Site Access Location

Yellow caution 2 sign required.

Gate Locations #1 and #2

Information 1 sign required.

Note: Signage may already exist on site. SiteSafe is recommending as a worst case scenario.

6 Engineer Certification

The professional engineer whose seal appears on the cover of this document hereby certifies and affirms that:

I am registered as a Professional Engineer in the jurisdiction indicated in the professional engineering stamp on the cover of this document; and

That I am an employee of Sitesafe, Inc., in Arlington, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Kevin Bernstetter.

July 12, 2016

Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

Appendix B – Regulatory Background Information

FCC Rules and Regulations

In 1996, the Federal Communication Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

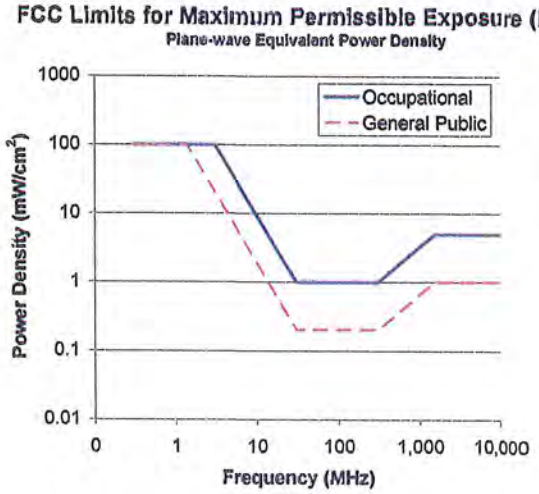
FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Areas indicated as Gray are predicted to be below 5% of the MPE limits. **Gray represents areas more than 20 times below the most conservative exposure limit.**
- Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone.**
- Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers.**
- Yellow represents areas predicted to exceed Occupational MPE limits. **Yellow areas should be accessible only to RF trained workers able to assess current exposure levels.**
- Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

Appendix E – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

Gain (of an antenna) – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

General Population/Uncontrolled Environment – Defined by the FCC, as an area where exposure to RF energy may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The maximum levels of RF exposure a person may be exposed to without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are aware of the

potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency (RF) – The frequencies of electromagnetic waves which are used for radio communications. Approximately 3 kHz to 300 GHz.

Radio Frequency Exposure (RFE) – The amount of RF power density that a person is or might be exposed to.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average power density an average sized human will be exposed to at a location.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.