Staff Report to the Zoning Administrator

Application Number: 05-0006

Applicant: Suzanne Smith, Alaris/ Metro PCS
Owner: Green Valley Medical Office Condominiums
APN's: 048-321-01,-02,-03; 048-331-01, -02,-03,-04.

Agenda Date: May 20,2005
Agenda Item #: 3

Time: After 10:00 a.m.

Project Description: Proposal to install a wireless communications apparatus on an existing office building.

Location: Property located on the west side of Green Valley Road, south of Thicket Lane, at 2 Green Valley Road in Freedom.

Supervisoral District: Fourth District (District Supervisor: Campos)

Permits Required: Commercial Development Permit

Staff Recommendation:

- Approval of Application 05-0006, based on the attached findings and conditions.
- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

Exhibits

A.	Project plans	G.	Comments & Correspondence
B.	Findings	H.	Visual Simulations
C.	Conditions	I.	Applicant submittal package
D.	Categorical Exemption (CEQA determination)	J.	Radio Frequency Report
E.	Assessor's parcel map, Location map		
F.	Zoning map, General Plan map		Topographic map & aerial maps on file

Parcel Information

Parcel Size:	14,984.6 square feet
Existing Land Use - Parcel:	Medical offices
Existing Land Use - Surrounding:	Offices, residential
Project Access:	Green Valley Road
Planning Area:	Pajaro Valley
Land Use Designation:	C- **O** (Office)
Zone District:	PA (Professional/Administrative)
Coastal Zone:	__ Inside X Outside
Appealable to Calif. Coastal Comm.	__ Yes X No

Environmental Information

Geologic Hazards:	Not mapped/no physical evidence on site
Soils:	Pinto loam
Fire Hazard:	Not a mapped constraint
Slopes:	2 – 9 percent slopes
Env. Sen. Habitat:	Not mapped/no physical evidence on site
Grading:	No grading proposed
Tree Removal:	No trees proposed to be removed
Scenic:	Not a mapped resource
Drainage:	Existing drainage adequate
Traffic:	No significant impact
Roads:	Existing roads adequate
Parks:	Existing park facilities adequate
Archeology:	Not mapped/no physical evidence on site

Services Information

Urban/Rural Services Line:	X Inside __ Outside
Water Supply:	City of Watsonville
Sewage Disposal:	Freedom Sanitation District
Fire District:	Pajaro Valley Fire Protection District
Drainage District:	Zone 7 Flood Control/Water Conservation District

Project **Setting**

The property is developed with a two-story medical office condominium in the vicinity of other office buildings, Corralitos Creek and **higher** density residential development of Paloma Del Mar retirement community in the City of Watsonville.

Zoning & General Plan Consistency

The subject property is a 14,987 square foot lot, located in the **PA** (Professional/Administrative) zone district, a designation which allows commercial uses. The proposed wireless communications apparatus is an allowed use within the zone district and the project is consistent with the site's (C-0) Office General Plan designation.

Design Review

The proposed wireless communications apparatus complies with the requirements of the County Design Review Ordinance, in that the proposed project will incorporate site and architectural design features, utilizing consistent materials and colors of the existing structure to enclose the communications equipment. Although the project is visible from Green Valley Road, stealth techniques are utilized to disguise the equipment as a chimney above the existing two-story office building for an effective height of approximately 39 feet 4 inches (Exhibit **A).** A 10-foot boxed-in, faux chimney above the second story encloses the wireless communication 3-panel directional antennae. The proposed 116 square foot equipment enclosure would be mounted on the roof and concealed behind a parapet wall, thereby reducing the visual impact of the proposed development on surrounding land uses and the natural landscape.

Alternative Sites Analysis

There are no existing facilities in the area, so collocation was not an alternative. The roof top mounting behind a faux chimney and parapet wall will minimize visibility of the project to the public. Fifteen alternative sites were reviewed but eliminated because of proximity to existing residential or educational facilities, **or** the increased visibility of a new monopole (Exhibit I).

Radio Frequency Emissions

A Radio Frequency (RF) report has been prepared for this project (Exhibit J). The Communications facilities on the project site at ground level will not exceed 0.22% of the allowed Federal Communications Commission (FCC) of the applicable public exposure limit. The maximum calculated cumulative level at the second floor elevation of any nearby building, located at least 20 feet away, is 0.44% of the public exposure limit.

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- **APPROVAL** of Application Number **05-0006,** based on the attached findings and conditions.

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

Report **Prepared By:** Joan Van der Hoeven, AICP
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metroPCS

FREEDOM ENDOSCOPY CENTER
SF10330B
243 GREEN VALLEY ROAD
FREEDOM, CA 95019
SANTA CRUZ COUNTY

TYPE OF EQUIPMENT:	CDMA-MODCELL
SITE TYPE:	EQUIPMENT: ROOFTOP
RAD CENTER:	37'-0"
LATITUDE:	N 36° 56.316'
LONGITUDE	W 121° 46.249'

SYMBOLS AND ABBV.

A/C	AIR CONDITIONING	MAX	MAXIMUM
ADJ	ADJUSTABLE	MECH	MECHANICAL
AFF	ABOVE FINISH FLOOR	MET MTL	METAL
APPROX	APPROXIMATELY	MFR	MANUFACTURER
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MGR	MANAGER
AWG	AMERICAN WIRE GAUGE	MIN	MINIMUM
BLDG	BUILDING	MISC	MISCELLANEOUS
BLK	BLOCK		
BMR	BASE MOBILE RADIO	N	NORTH
B/S	BUILDING STANDARD	NA	NOT APPLICABLE
		NIC	NOT IN CONTRACT
C.C.	CEILING	NTS	NOT TO SCALE
CLR	CLEAR		
CND	CONDUIT	OC,o/c	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CONST	CONSTRUCTION	OPNG	OPENING
CONT	CONTRACTOR	OPP	OPPOSITE
DBL	DOUBLE		
DIA	DIAMETER	PLYWD	PLYWOOD
DIAG	DIAGONAL	PR	PAIR
DIM	DIMENSION	PROJ	PROJECT
DN	DOWN	PROP	PROPERTY
DTL/DETL	DETAIL	PT	PRESSURE TREATED
DWG	DRAWING		
		REQ'D	REQUIRED
E	EAST	RM	ROOM
EA	EACH	RO	ROUGH OPENING
EL.ELEV	ELEVATION		
ELECT	ELECTRICAL	S	SOUTH
EQ	EQUAL	SHT	SHEET
EQUIP	EQUIPMENT	SIM	SIMILAR
EW	EACH WAY	SPEC	SPECIFICATION
EXIST	EXISTING	SQ	SQUARE
EXT	EXTERIOR	SS	STAINLESS STEEL
		STL	STEEL
FIN	FINISH	STRUCT	STRUCTURAL
FLUOR	FLUORESCENT	SUSP	SUSPENDED
FL	FLOOR	SV	SHEET VINYL
'	FOOT		
		THRU	THROUGH
GA	GAUGE	TINTD	TINTED
GALV	GALVANIZE(D)	TOC	TOP OF CONCRETE
GC	GENERAL CONTRACTOR	TOM	TOP OF MASONRY
GRND	GROUND	TYP	TYPICAL
GWB	GYPSUM WALL BOARD		
GYP BD	GYPSUM BOARD	UBC	UNIFORM BUILDING CODE
		UNO	UNLESS NOTED OTHERWISE
HARD'WD	HARDWOOD		
HORIZ	HORIZONTAL	VERT	VERTICAL
HR	HOUR	VIF	VERIFY IN FIELD
HT	HEIGHT	VT	VINYL TILE
HVAC	HEATING, VENTING & AIR CONDITIONING	W	WEST
		W/	WITH
ID	INSIDE DIA	WIN	WINDOW
IN	INCH	W/O	WITHOUT
INFO	INFORMATION	WP	WATERPROOF
INSUL	INSULATION	∠	ANGLE
INT	INTERIOR	&	AND
LB(S)	POUND(S)	℄	CENTER LINE
		℘	PROPERTY LINE
		@	AT
		#	NUMBER

1 REVISION
1 KEY NOTE
100 ROOM NUMBER
32 KEYED NOTES
1 / T-1 DETAIL REFERENCES
1 / A-1 ELEVATION REFERENCE
1 / A-1 SECTION REFERENCES

CONSULTANT TEAM

ARCHITECT: L.D. STROBEL CO., INC.
1222 SHARY CIRCLE, SUITE 9
CONCORD, CA 94518
CONTACT: LARRY STROBEL
PHONE: (925) 686-3244
FAX: (925) 686-3350

SURVEYOR: PHIL AUER SURVEYING
39382 SUTTER DRIVE
FREMONT, CA 94538
PHONE: (510) 366-3101
FAX: (510) 894-0744

ELECTRICAL: RANDELL LAMB
208 UTAH STREET, SUITE 201
SAN FRANCISCO, CA 94103
CONTACT: RUDY ZEPEDA
PHONE: (415) 242-0771

POWER:
COMPANY: PG&E PHN: FAX:
CONTACT: - E-MAIL:

TELCO:
COMPANY: SBC PHN: FAX:
CONTACT: E-MAIL:

APPROVALS

LANDLORD/OWNER: _____

CONSTRUCTION MANAGER: _____

LEASING MANAGER: _____

PLANNER: _____

RF ENGINEER: _____
SIGNATURE DATE

PROJECT SUMMARY

APPLICANT/LESSEE:
METRO PCS INC.
10180 MARINA VILLAGE PARKWAY PHONE: (510) 523-7810
4 TH FLOOR FAX: (510) 748-1823
ALAMEDA, CA 94501

CONTACT: EVELYN COMROE, PROJECT MANAGER
PHONE: (510) 747-4610 CELL: (415) 571-9666

CONTACT: JAMES WELLAND, CONSTRUCTION MANAGER
PHONE: (510) 747-4606

CONTACT: RANDALL SCHWARZHOFER, LEASING MANAGER
PHONE: (650) 851-3650

CONTACT: SUZANNE SMITH, ZONING MANAGER
PHONE: (831) 239-1035

PROPERTY INFORMATION:
OWNER: OWNERS OF GREEN VALLEY MEDICAL OFFICE
ADDRESS: 243 GREEN VALLEY ROAD, FREEDOM, CA 95019

CONTACT: KATE CHEN
PHONE: (831) 728-1410
FAX: (831) 728-2078

A.P.N.: 048-321-01

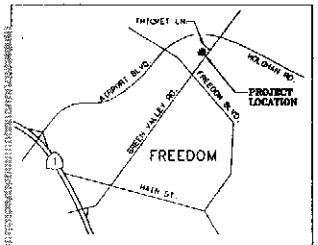
PROJECT INFORMATION:
AREA OF CONSTRUCTION: EQUIP. LEASE AREA = 416 SQ. FT.

OCCUPANCY TYPE: U (COMMUNICATIONS FACILITY)
CONSTRUCTION TYPE: N/A
CURRENT ZONING: PA PROF/ADMIN

ACCESSIBILITY REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, HANDICAPPED ACCESS NOT REQUIRED.

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT FOR THE "METRO PCS" WIRELESS TELECOMMUNICATIONS NETWORK. UP TO A TOTAL OF THREE PANEL ANTENNAS (ONE PER SECTOR WITH THREE SECTORS) MOUNTED IN NEW 10 FOOT HIGH TOWER (FIBERGLASS SCREEN) ON TOP OF BUILDING'S PARAPET. THE EQUIPMENT WILL BE MOUNTED ON THE INSIDE OF TWO PARAPET WALLS (ABOVE ROOF TOP) AND ADJACENT TO NEW TOWER.



FREEDOM
SANTA CRUZ COUNTY
CALIFORNIA

VICINITY MAP

SITE DIRECTIONS

DEPART 080 MARINA VILLAGE PKWY, ALAMEDA, CA 94501
TAKE HWY 880 SOUTH TOWARDS SAN JOSE
TAKE CA-17 SOUTH
TAKE CA-1 SOUTH EXIT TOWARDS WATSONVILLE/MONTEREY
MERGE ONTO CA-1 SOUTH
TAKE THE CA 152 EXIT TOWARDS WATSONVILLE/GILROY
MERGE ONTO MAIN STREET/CA-152
TURN LEFT ONTO SOUTH GREEN VALLEY ROAD

CODE COMPLIANCE

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

1. CALIFORNIA BUILDING CODE, 2001
2. CALIFORNIA ADMINISTRATIVE CODE (PART 1 TITLES 24 & 25) 2001
3. UNIFORM BUILDING CODE 2001
4. ANSI/EIA-222-F LIFE SAFETY CODE TO, CITY AND/OR COUNTY ORDINANCES
5. NFPA 101 1997
6. UNIFORM MECHANICAL CODE 2001
7. UNIFORM PLUMBING CODE 2001
8. NATIONAL ELECTRIC CODE 1996
9. LOCAL BUILDING CODE(S)

GENERAL CONTRACTOR NOTES

DO NOT SCALE DRAWINGS IF NOT FULL SIZE TO 24"X36"

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

SHEET	DESCRIPTION	REV.
T-1	TITLE SHEET	2
T-2	GENERAL NOTES, LEGENDS, ABBREVIATIONS & ANTENNA CABLE SCHEDULE	2
LS-1	SITE SURVEY	1
A-1	OVERALL SITE PLAN	2
A-2	ENLARGED EQUIPMENT LAYOUT	2
A-3	EXTERIOR ELEVATIONS	2
A-4	EXTERIOR ELEVATIONS	2

SHEET INDEX

ISSUED FOR: 100% ZONING
DATE: 11/15/04

metroPCS

L.D. STROBEL CO., INC.
GENERAL CONTRACTORS
P.O. BOX 229 CONCORD, CA. 94522
PHONE: 925-686-3244 FAX: 925-686-3350

L.D. STROBEL JOB # 2931
2931-T1 11/15/04

RELEASE
DATE

REVISIONS

NO.	DATE
1	
2	
3	
4	
5	
6	11/15/04
7	10/28/04

6 ISSUED FOR 100% ZONING
7 ISSUED FOR 90% ZONING

DRAWN BY: I,,
CHECKED BY: JG

SITE NAME
FREEDOMENDOSCOPY CENTER

SITE #
SF10330B

SITE ADDRESS
243 GREEN VALLEY ROAD
FREEDOM, CA 95019
SANTA CRUZ COUNTY

SHEET TITLE
TITLE SHEET

SHEET
T-1

EXHIBIT 5

1 ABBREVIATIONS

A.B.	ANCHOR BOLT
ABV.	ABOVE
ACCA	ANTENNA CABLE COVER ASSEMBLY
ADD'L	ADDITIONAL
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
ALUM.	ALUMINUM
ALT.	ALTERNATE
ANT.	ANTENNA
APPRX.	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
AWG.	AMERICAN WIRE GAUGE
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B.N.	BOUNDARY NAILING
BTCW.	BARE TINNED COPPER WIRE
B.O.F.	BOTTOM OF FOOTING
B/U	BACK-UP CABINET
CAB.	CABINET
CANT.	CANTILEVER(ED)
C.I.P.	CAST IN PLACE
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION(OR)
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
	PENNY (NAILS)
DBL.	DOUBLE
DEPT.	DEPARTMENT
D.F.	DOUGLAS FIR
DIA.	DIAMETER
DIAG.	DIAGONAL
	DIMENSION
	DRAWING(S)
	DOWEL(S)
	EACH
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMT.	ELECTRICAL METALLIC TUBING
E.N.	EDGE NAIL
ENG.	ENGINEER
EQ.	EQUAL
EXP.	EXPANSION
EXST.(E)	EXISTING
EXT.	EXTERIOR
FAB.	FABRICATION(OR)
F.F.	FINISH FLOOR
F.G.	FINISH GRADE
FIN.	FINISH(ED)
FLR.	FLOOR
FDN.	FOUNDATION
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
F.S.	FINISH SURFACE
FT.(')	FOOT(FEET)
FTG.	FOOTING
G.	GROWTH (CABINET)
GA.	GAUGE
G.	GALVANIZE(D)
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER
GLB (GLU-LAM)	GLUE LAMINATED BEAM
GPS	GLOBAL POSITIONING SYSTEM

GRND.	GROUND
HDR.	HEADER
HGR.	HANGER
HT.	HEIGHT
ICGB.	ISOLATED COPPER GROUN
IN.(")	INCH(ES)
INT.	INTERIOR
LB.(#)	POUND(S)
L.B.	LAG BOLTS
L.F.	LINEAR FEET (FOOT)
L.	LONG(ITUDINAL)
MAS.	MASONRY
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
(N)	NEW
NO.(#)	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OPNG.	OPENING
P/C	PRECAST CONCRETE
PCS	PERSONAL COMMUNICATION S
PLY.	PLYWOOD
PPC	POWER PROTECTION C
PRC	PRIMARY RADIO CABIN
P.S.F.	POUNDS PER SQUARE
P.S.I.	POUNDS PER SQUARE
P.T.	PRESSURE TREATED
PWR.	POWER (CABINET)
QTY.	QUANTITY
RAD.(R)	RADIUS
REF.	REFERENCE
REINF.	REINFORCEMENT(ING)
REQ'D.	REQUIRED
RGS.	RIGID GALVANIZED STE
SCH.	SCHEDULE
SHT.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION(S)
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STRUC.	STRUCTURAL
TEMP.	TEMPORARY
THK.	THICK(NESS)
T.N.	TOE NAIL
T.O.A.	TOP OF ANTENNA
T.O.C.	TOP OF CURB
T.O.F.	TOP OF FOUNDATION
T.O.P.	TOP OF PLATE (PARA
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TYP.	TYPICAL
U.G.	UNDER GROUND
U.L.	UNDERWRITERS LABORATORY
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
W	WIDE(WIDTH)
W/	WITH
WD.	WOOD
W.P.	WEATHERPROOF
WT.	WEIGHT
℄	CENTERLINE
ℙ	PLATE

3 LEGEND

SCALE: NONE

NEW ANTENNA	GROUT OR PLASTER
EXISTING ANTENNA	(E) BRICK
GROUND ROD	(E) MASONRY
GROUND BUS BAR	CONCRETE
MECHANICAL GRND. CONN	EARTH
CADWELD	GRAVEL
GROUND ACCESS WELL	PLYWOOD
ELECTRIC BOX	SAND
TELEPHONE BOX	WOOD CONT.
LIGHT POLE	WOOD BLOCKING
FND. MONUMENT	STEEL
SPOT ELEVATION	CENTERLINE
SET POINT	PROPERTY/LEASE LINE
REVISION	MATCH LINE
GRID REFERENCE	WORK POINT
DETAIL REFERENCE	GROUND CONDUCTOR
ELEVATION REFERENCE	TELEPHONE CONDUIT
SECTION REFERENCE	ELECTRICAL CONDUIT
	COAXIAL CABLE
	OVERHEAD SERVICE CONDUCTORS
	CHAIN LINK FENCING

2 ANTENNA & CABLE SCHEDULE

ANTENNA SECTOR	AZIMUTH	RAD CENTER	ANTENNA MAKE/MODEL	COAXIAL CABLE LENGTH	NUMBER OF CABLES (PER ANTENNA)	NUMBER OF ANTENNAS PER SECTOR	CABLE SIZE	ANTENNA MOUNT TYPE	TOP JUMPER LENGTH	BOTTOM JUMPER LENGTH	ELECTRICAL DOWN TILT	MECHANICAL DOWN TILT	COAX COLOR CODE	ANTENNA DIMENSIONS
SECTOR A	40°	37'-0"	RR65-18-00DPL2	18'-0"	2	1 NEW	1/2"	PIPE MOUNT	6'-0"		0°	0°		56" Hx8 Wx2-3/4" DEEP
SECTOR B	160°	37'-0"	RR65-18-00DPL2	18'-0"	2	1 NEW	1/2"	PIPE MOUNT	6'-0"	–	0°	0°		56" Hx8"Wx2-3/4" DEEP
SECTOR C	280°	37'-0"	RR65-18-00DPL2	18'-0"	2	1 NEW	1/2"	PIPE MOUNT	6'-0"		0°	0°		56" Hx8 Wx2-3/4" DEEP
GPS	N/A	N/A	LUCENT GPS	–	1	1	1/2"	N/A	N/A	N/A	N/A	N/A	N/A	–

NOTE:
CONTRACTOR TO FIELD VERIFY CABLE LENGTHS PRIOR TO ORDERING, FABRICATION, OR INSTALLATION OF CABLES.

GENERAL CONSTRUCTION NOTES:

1. THE FACILITY IS AN UNOCCUPIED DIGITAL TELECOMMUNICATION FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
5. CONTRACTOR SHALL CONTACT USA BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
7. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. MECHANICAL AND ELECTRICAL SYSTEM WIRELESS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION ENGINEER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
9. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS.
10. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE PROJECT AREA DURING CONSTRUCTION.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CHAPTER 23 OF THE UBC REGARDING EARTHQUAKE PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS AND MECHANICAL EQUIPMENT. ALL WORK MUST BE IN ACCORDANCE WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
12. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
13. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, VEGETATION, GALVANIZED SURFACES, ETC., AND UPON COMPLETION OF WORK REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF OWNER.
14. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST OR SMUDGES OF ANY NATURE.
15. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWING (SHEET LS1), SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT/ENGINEER.
16. PENETRATIONS OF ROOF MEMBRANES SHALL BE PATCHED/FLASHED AND MADE WATERTIGHT USING LIKE MATERIALS IN ACCORDANCE WITH NRCA ROOFING STANDARDS AND DETAILS. CONTRACTOR SHALL OBTAIN DETAILING CLARIFICATION FOR SITE-SPECIFIC CONDITIONS FROM ARCHITECT/ENGINEER, IF NECESSARY, BEFORE PROCEEDING.

CONSTRUCTION SCHEDULE:

ALL CONSTRUCTION ACTIVITIES WILL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF ANY WORK, INCLUDING MOVING EQUIPMENT OR SUPPLIES ON TO THE SITE.

ALL CONSTRUCTION ACTIVITIES, WHETHER PREVIOUSLY APPROVED BY SCHEDULE SUBMITTAL OR NOT, SHALL BE CONDUCTED SO AS NOT TO INTERFERE WITH INSTRUCTIONAL OR COLLEGE ACTIVITIES.

SCOPE OF WORK:

THIS PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT FOR THE "METRO PCS" WIRELESS TELECOMMUNICATIONS NETWORK.

A TOTAL OF (3) THREE PANEL ANTENNAS MOUNTED ON NEW 103'-1" HIGH STADIUM LIGHT POLE

THE EQUIPMENT WILL BE MOUNTED ON A NEW CONCRETE SLAB WITHIN A CHAIN-LINK FENCE COMPOUND LOCATED AT GRADE LEVEL.

ADMINISTRATIVE REQUIREMENTS FROM PART 1, TITLE 24, C.C.R.

- ADDENDA AND CHANGES AS PER SECTION 4-338
- INSPECTOR APPROVED BY DSA
- INSPECTOR AND CONTINUOUS INSPECTION OF WORK PER SECTION 4-333(b) AND 4-342
- TESTS AND TESTING LABORATORY PER SECTION 4-335 (OWNER SHALL PAY THE TESTING LABORATORY)
- SPECIAL INSPECTION PER SECTION 4-333 (c)
- ADMINISTRATION OF CONSTRUCTION PER PART 1, TITLE 24, C.C.R.,
  - DUTIES OF ARCHITECT, STRUCTURAL ENGINEER, OR PROFESSIONAL ENGINEER PER SECTION 4-333(a) AND 4-341
  - DUTIES OF CONTRACTOR PER SECTION 4-343
  - VERIFIED REPORTS PER SECTION 4-336
- A COPY OF PART 1 & 2 OF TITLE 24, SHALL BE KEPT AND AVAILABLE IN THE FIELD DURING CONSTRUCTION
- DSA SHALL BE NOTIFIED ON START OF CONSTRUCTION PER SECTION 4-331
- SUPERVISION BY DSA PER SECTION 4-343
- DSA IS NOT SUBJECT TO ARBITRATION

GENERAL STRUCTURAL NOTES:

1. WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK, AND/OR SHALL CONFORM TO STANDARD PRACTICE IN THE TRADE(S) OR DISCIPLINES RELATED TO THE FABRICATION, MANUFACTURE, AND/OR INSTALLATION THEREOF.
2. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES. SEE SHEET S-1.
3. NO PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL BE PLACED IN SLABS, BEAMS, OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTED, NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC. UNLESS OTHERWISE NOTED. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC.
4. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD 'METRO PCS' AND THE ARCHITECT/ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OR WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF METRO PCS OR THE ARCHITECT/ENGINEER.
5. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS AND PEDESTRIANS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK, ETC. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT/ENGINEER SHALL NOT INCLUDE INSPECTION OF SUCH ITEMS.
6. ASTM SPECIFICATIONS NOTED ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.
7. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOOR OR ROOF. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING/BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT IN CONJUNCTION WITH THE PROSECUTION OF THIS WORK.
9. DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS.
10. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
11. ALL ITEMS REMOVED DURING CONSTRUCTION WORK (I.E., DRYWALL, PLYWOOD, CEILING PANELS, ETC.) SHALL BE REPLACED TO MATCH EXISTING.
12. THE FOLLOWING REQUIREMENTS SHALL BE MET FOR SPECIAL INSPECTION: A. THE SPECIAL INSPECTOR SHALL BE UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER. B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE ARCHITECT/ENGINEER, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND THE BUILDING OFFICIAL. C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT SIGNED BY BOTH HE AND HIS SUPERVISOR STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE UNIFORM BUILDING CODE. D. COMPLY WITH ALL CITY SPECIAL INSPECTION REQUIREMENTS

GENERAL CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301-88, ACI 318-85 AND THE SPECIFICATION FOR CAST-IN-PLACE CONCRETE
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS UNLESS NOTED OTHERWISE.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES CLASS "B" AND ALL HOOKS SHALL BE STANDARD UNLESS NOTED OTHERWISE.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS;

   CONCRETE CAST AGAINST EARTH.................3 IN.

   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER.......................................2 IN.
   #5 AND SMALLER & WWF.............................1-1/2 IN.

   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:

   SLAB AND WALL...3/4 IN.
   BEAMS AND COLUMNS.................................1-1/2 IN.
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE U.N.O. IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. HOLES TO RECEIVE EXPANSION/WEDGE ANCHORS SHALL BE 1/8" LARGER IN DIAMETER THAN THE ANCHOR BOLT, DOWEL OR ROD AND SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. LOCATE AND AVOID CUTTING EXISTING REBAR WHEN DRILLING HOLES IN ELEVATED CONCRETE SLABS.
7. USE AND INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER ICBO & MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURES.

STANDARD STRUCTURAL STEEL NOTES:

1. ALL METAL WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATION GALVANIZED ASTM A36 UNLESS NOTES OTHERWISE.
2. STRUCTURAL TUBING MEMBERS SHALL CONFORM TO ASTM A500, GRADE A OR A501.
3. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 8TH EDITION.
4. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A325 BOLTS (3/4" DIA) AND SHALL HAVE A MINIMUM OF TWO BOLTS U.N.O.
5. NON-STRUCTURAL CONNECTIONS FOR HANDRAIL, LADDERS AND STEEL GRATING MAY USE 5/8" DIA GALVANIZED ASTM A307 BOLTS U.N.O.

EXHIBIT A

metroPCS

L.D. STROBEL Co. INC.
P.O. BOX 326 CONCORD, CA 94522
PHONE: 925-686-3241 FAX: 925-686-3350

L.D. STROBEL JOB # 2931
2931-T2 11/15/04

REGISTERED PROFESSIONAL ENGINEER, No. C041145, Exp. 3/31/07, CIVIL, STATE OF CALIFORNIA

RELEASE	
DATE	

REVISIONS		
NO.	DATE	
8		
7		
6		
5		
4		
3		
2	11/15/04	ISSUED FOR 100% ZONING
1	10/28/04	ISSUED FOR 90% ZONING

DRAWN BY: TH
CHECKED BY: JC

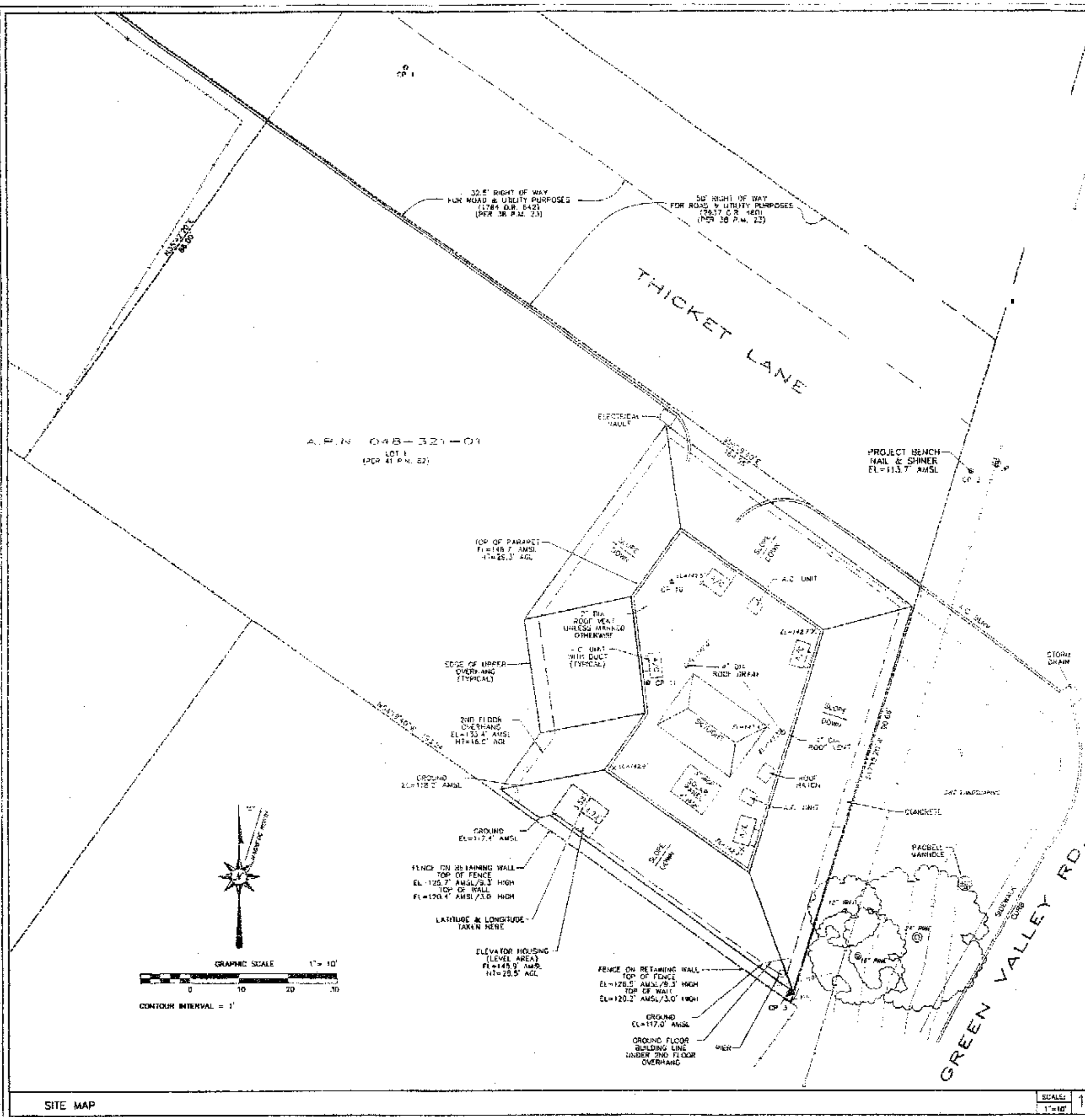
SITE NAME
FREEDOM ENDOSCOPY CENTER

SITE #:
SF10330B

SITE ADDRESS
**243 GREEN VALLEY ROAD
FREEDOM, CA 95019
SANTA CRUZ COUNTY**

SHEET TITLE
GENERAL NOTES, LEGENDS, ABBREVATIONS & ANTENNA CABLE SCHEDULE

SHEET
T-2



SITE MAP

SCALE: 1"=10'

1

LEGEND		
MANHOLE	FIRE HYDRANT	EDGE OF PAVEMENT
LIGHT POLE	MONUMENT	OVERHEAD ELECTRIC LINE
TREE	HANDICAPPED PARKING	FENCE LINE
JOINT POLE	TELEPHONE POLE	PROPERTY LINE
POWER POLE	SPOT ELEVATION	AMSL ... ABOVE MEAN SEA LEVEL
		AGL ... ABOVE GROUND LEVEL
		CP ... FIELD CONTROL POINT

DATE OF SURVEY: 03/28/04

SURVEYED BY/ OR UNDER THE DIRECTION OF: Oliver Philip Auer L.S. 5075 Expires 06/30/07

NOTES:

TITLE REPORT WAS AVAILABLE AT TIME OF FIELD SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC SURVEY MAP, NOT A RECORD OF SURVEY. BOUNDARY LINES AND EASEMENTS SHOWN HEREON ARE BASED UPON A TITLE REPORT PROVIDED BY THE CLIENT AND INFORMATION GATHERED FROM LOCAL AND STATE AGENCIES COMBINED WITH MONUMENTATION LOCATED DURING THE FIELD SURVEY. THE LOCATION OF EXISTING UTILITY FACILITIES HAS NOT BEEN RESEARCHED. THE SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF BURIED OBJECTS WHICH ARE NOT SHOWN ON THIS PLAN.

SUBJECT PROPERTY DESCRIPTION:

IN THE STATE OF CALIFORNIA, COUNTY OF SANTA CRUZ, CITY OF FREEDOM, BEING LOT 1 PER PARCEL MAP RECORDED OCTOBER 25, 1982, IN VOLUME 41 OF PARCEL MAPS AT PAGE 62, SANTA CRUZ COUNTY RECORDS.

LEASE AREA DESCRIPTION (PARCEL A):

NO LEASE SET AT TIME OF FIELD VISIT

TOGETHER WITH AN ACCESS ROUTE FROM THE LEASE AREA TO THE PUBLIC ROAD. LOCATION TO BE DETERMINED AT A LATER DATE.

TOGETHER WITH UTILITY AND POWER ROUTES NECESSARY TO SERVE THE LEASE AREA. LOCATION TO BE DETERMINED AT A LATER DATE.

BASIS OF ELEVATIONS: NGVD 29 DATUM

BASIS OF BEARINGS: CALIFORNIA STATE COORDINATE SYSTEM, ZONE 3, NAD 83

PROJECT BENCH: AS INDICATED HEREON.

OWNER'S INFORMATION: CHEN ENTERPRISES, LTD.
243 GREEN VALLEY RD.
FREEDOM, CA 95019-3113
A.P.N. 048-321-01

NET AREA OF UNDERLYING PARCEL(S): 0.353± AC LEASE AREA: N/A

FLOOD PLAIN ELEVATION OF LEASE AREA IN ZONE X, AS SHOWN ON FEMA FIRM MAP COMMUNITY-PANEL NUMBER 06035C0385B, DATED MAY 1996, PER FEMA CD-ROM

FAA 1A CERTIFICATION:

LATITUDE AND LONGITUDE WAS OBTAINED FROM INFORMATION PROVIDED BY A GPS SURVEY. THE GEODETIC POSITION SHOWN WAS DETERMINED UTILIZING FAST-STATIC GPS OBSERVATIONS FROM USGS MONUMENTS USING TRIMBLE 4600LS RECEIVERS. THE DATA WAS DIFFERENTIALLY CORRECTED WITH TRIMBLE GPS SURVEY SOFTWARE.

LATITUDE AND LONGITUDE DENOTED ON THIS PLAN ARE ACCURATE TO WITHIN 15± FEET HORIZONTALLY AND THE ELEVATIONS SHOWN ON THIS PLAN ARE ACCURATE TO WITHIN 3± FEET VERTICALLY.

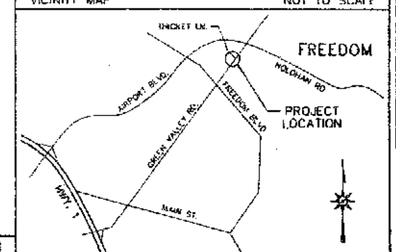
ELEVATION OF GROUND AT GPS POINT: 117.4' AMSL

STRUCTURE HEIGHT: TOP OF PARAPET/EL=146.7' AMSL/HT=29.3' AGL

LATITUDE:	36°56'20.21"	LATITUDE:	36°56'20.04"
LONGITUDE:	121°46'11.59" (NAD 27)	LONGITUDE:	121°46'15.41" (NAD 83)

THE MAP WAS PREPARED FOR METRO PCS FOR THE PURPOSE OF FILING A PERMIT WITH THE CITY OF FREEDOM.

VICINITY MAP — NOT TO SCALE



MetroPCS
1080 MARINA VILLAGE PARKWAY
4TH FLOOR
ALAMEDA, CA 94501
(510) 523-2610

PROJECT INFORMATION:
FREEDOM ENDOSCOPY CENTER
SF10330B
243 GREEN VALLEY RD
FREEDOM, CA 95019
SANTA CRUZ COUNTY

CURRENT ISSUE DATE: 09/29/04

ISSUED FOR: PERMIT

REV.:	DATE:	DESCRIPTION:	BY:
A	09/29/04	ISSUED FOR DRAFT #1	TCN

PLANS PREPARED BY:
Phil Auer Surveying
14437 Corte Lejos, Bakersfield, CA 93314
Phone: (661) 588-2928
Mobile: (510) 714-7424
E-mail: auersurvey@...com

CONSULTANT:

DRAWN BY:	CHK.:	APV.:
TCN	OPA	OPA

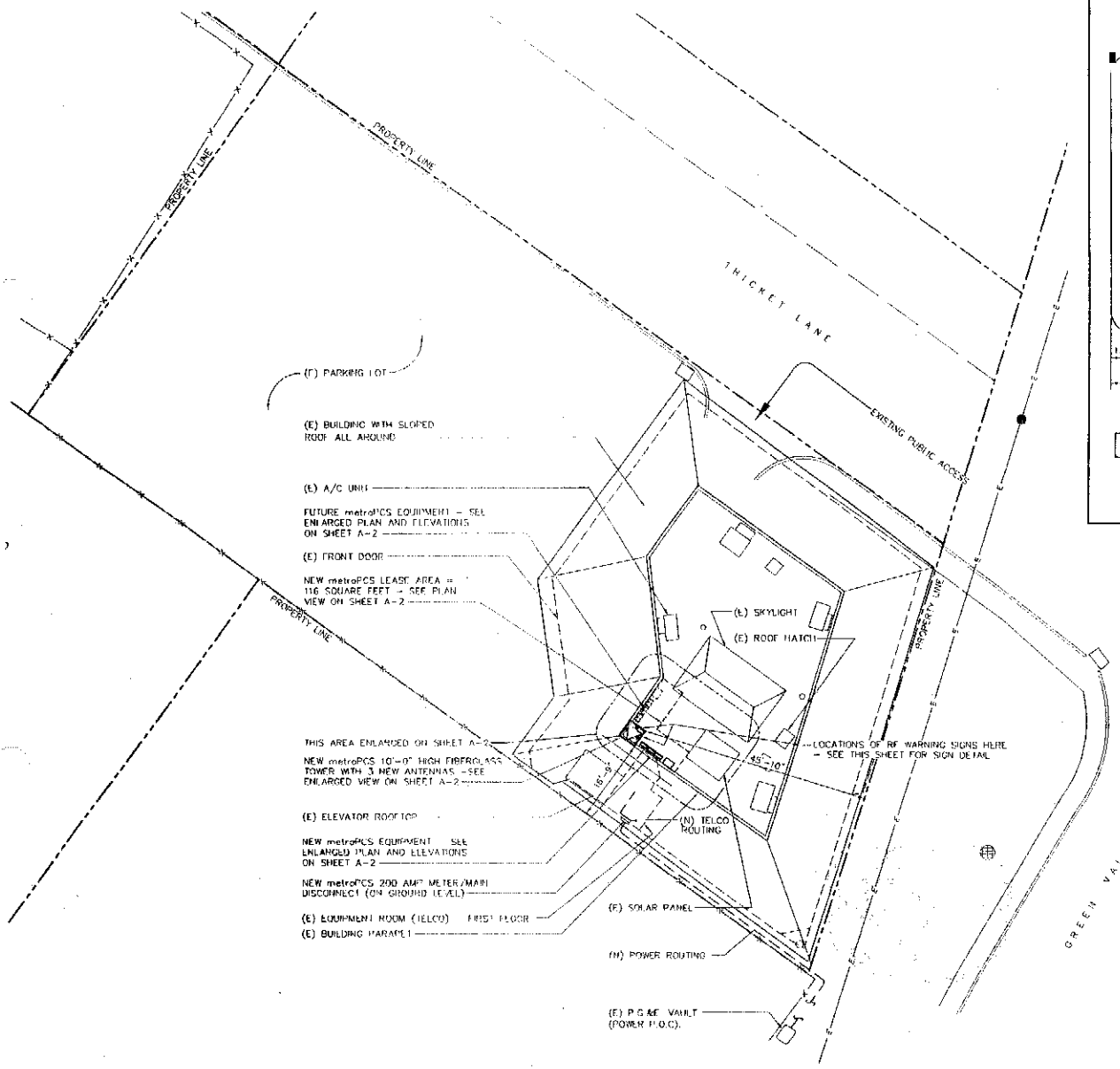
LICENSURE:
PREPARED BY OR UNDER THE DIRECTION OF:
Oliver Philip Auer (Expires 06/30/07) L.S. 5075

SHEET TITLE: SURVEY

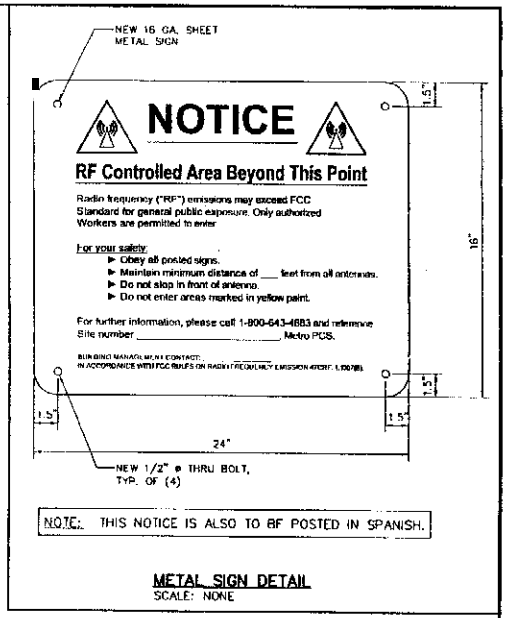
SHEET NUMBER: LS1 — REVISION: A

SF10330B

EXHIBIT A

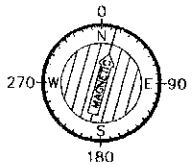


OVERALL SITE PLAN
SCALE: 1"=10'-0"



NOTE: THIS NOTICE IS ALSO TO BE POSTED IN SPANISH.

METAL SIGN DETAIL
SCALE: NONE



01' 5' 10' 20' 30'
SCALE: 1"=10'-0"

metroPCS

L.D. STROBEL JOB # 2931
2931-A1 11/15/04

RELEASE	
DATE	

REVISIONS		
NO	DATE	
6		
5		
4		
3		
2		
1	11/15/04	ISSUED FOR 100% ZONING
0	10/28/04	ISSUED FOR 90% ZONING

DRAWN BY: TH
CHECKED BY: JG

SITE NAME
FREEDOM ENDOSCOPY CENTER

SITE #:
SF10330B

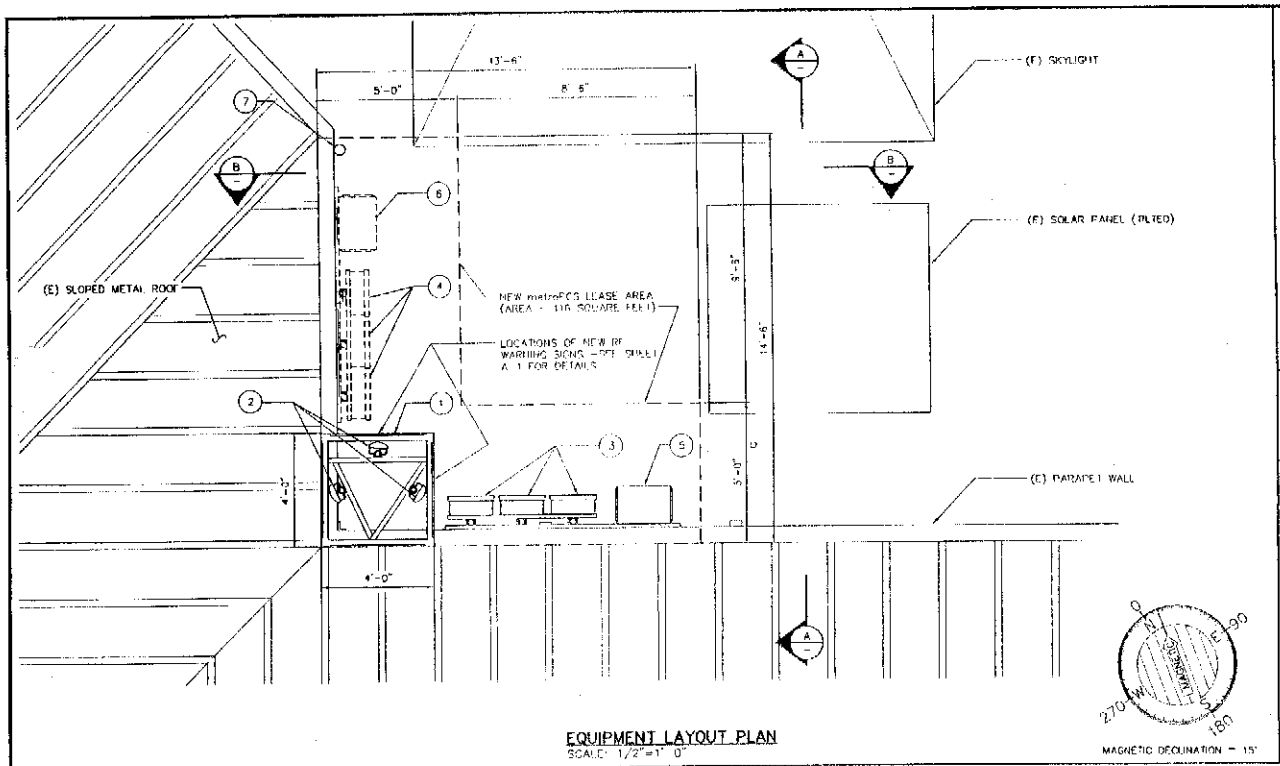
SITE ADDRESS
243 GREEN VALLEY ROAD
FREEDOM, CA 95019
SANTA CRUZ COUNTY

SHEET TITLE
OVERALL SITE PLAN

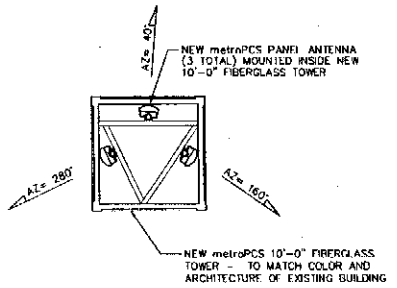
SHEET
A-1

EXHIBIT A
8

EXHIBIT A



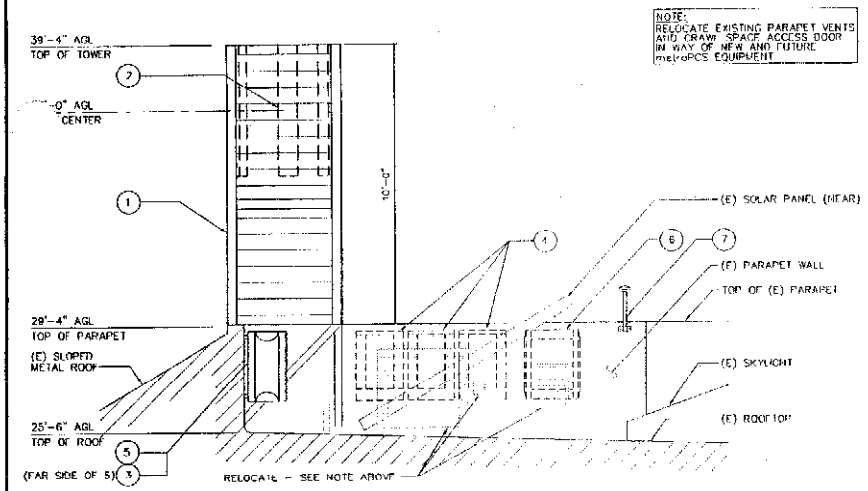
EQUIPMENT LAYOUT PLAN
SCALE: 1/2"=1'-0"



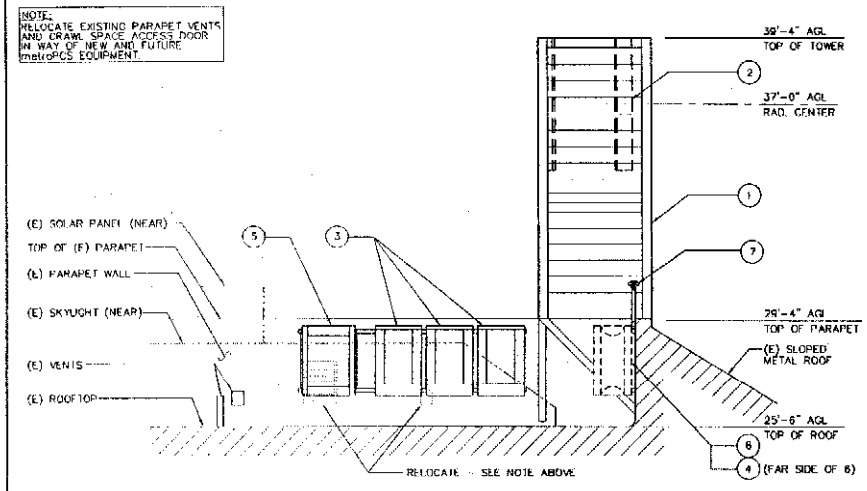
ANTENNA CONFIGURATION
SCALE: 1/2"=1'-0"

NEW/FUTURE metroPCS ROOF MOUNTED EQUIPMENT

1. NEW 10'-0" FIBERGLASS TOWER - COLOR AND ARCHITECHURE TO MATCH EXISTING BUILDING
2. NEW PANEL ANTENNA - 3 TOTAL
3. NEW RADIO FREQUENCY UNIT (RFU) - 3 TOTAL
4. FUTURE RADIO FREQUENCY UNIT (RFU) - 3 TOTAL
5. NEW BASEBAND UNIT CABINET (BBU) - 1 TOTAL
6. FUTURE BASEBAND UNIT CABINET (BBU) - 1 TOTAL
7. GPS ANTENNA - 1 TOTAL



EQUIPMENT LAYOUT ELEVATION A
SCALE: 1/2"=1'-0"



EQUIPMENT LAYOUT ELEVATION B
SCALE: 1/2"=1'-0"

0 6" 1' 2' 4' 8'
SCALE: 1/2"=1'-0"

metroPCS

L.D. STROBEL CO. INC.
GENERAL CONTRACTORS
P.O. BOX 328 CONCORD, CA. 94522
PHONE: 925-686-3241 FAX: 925-686-3350

L.D. STROBEL JOB # 2931
2931-A2 11/15/04

RELEASE	
DATE	

REVISIONS		
NO.	DATE	
1		
2		
3		
4		
5		
6		
7	11/15/04	ISSUED FOR 100% ZONING
8	10/29/04	ISSUED FOR 50% ZONING

DRAWN BY: TH
CHECKED BY: JG

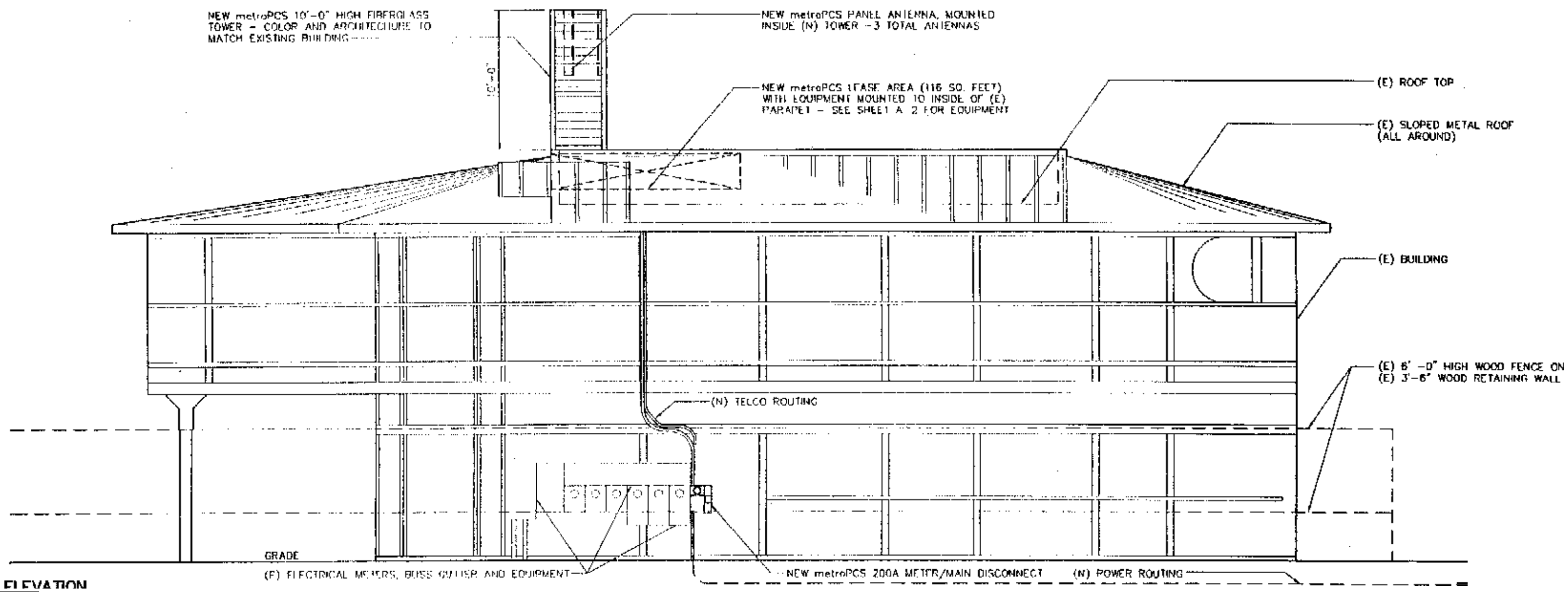
SITE NAME
FREEDOM ENDOSCOPY CENTER

SITE #:
SF10330B

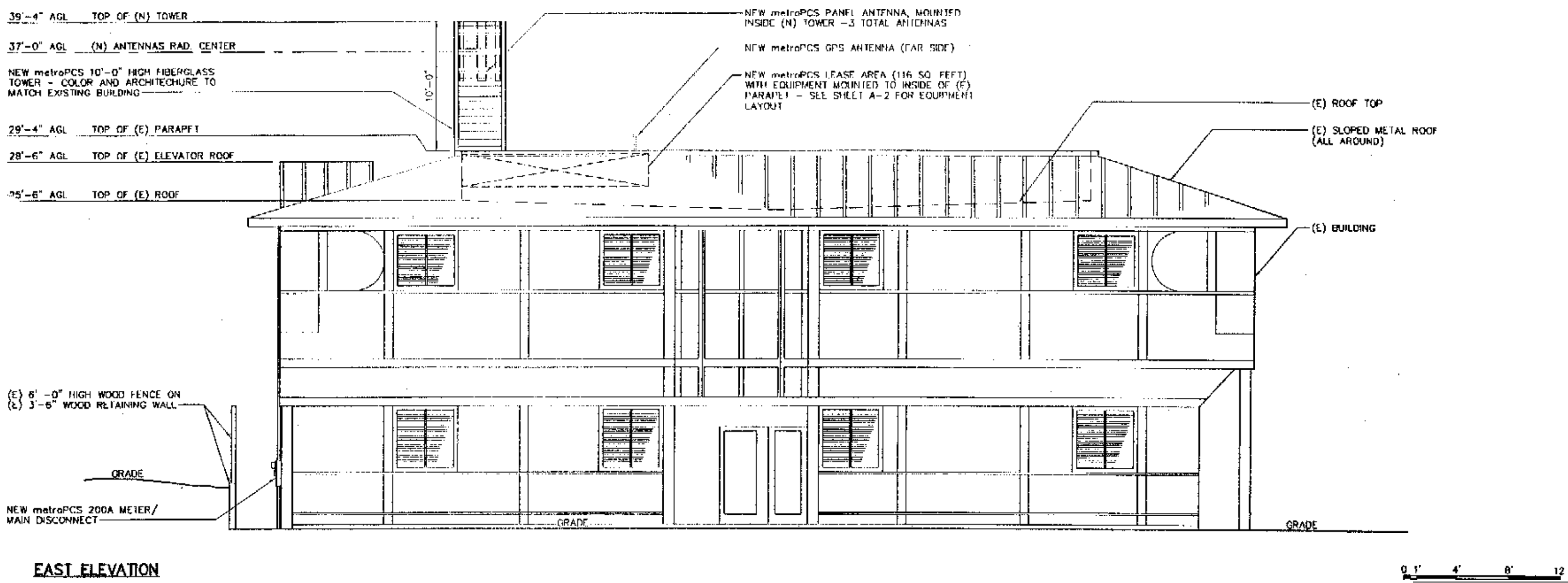
SITE ADDRESS
243 GREEN VALLEY ROAD
FREEDOM, CA 95019
SANTA CRUZ COUNTY

SHEET TITLE
EQUIPMENT LAYOUT

SHEET
A-2



SOUTH ELEVATION



EAST ELEVATION

metroPCS

EXHIBIT A

L.D. STROBEL Co. Inc.

P.O. BOX 279, CONCORD, CA 94522

L.D. STROBEL JOB # 2931
2931-A3 11/15/04

RELEASE
DATE

REVISIONS

NO.	DATE	
	11/15/04	ISSUED FOR 100% ZONING
	10/28/04	ISSUED FOR 90% ZONING

DRAWN BY: IH
CHECKED BY: JG

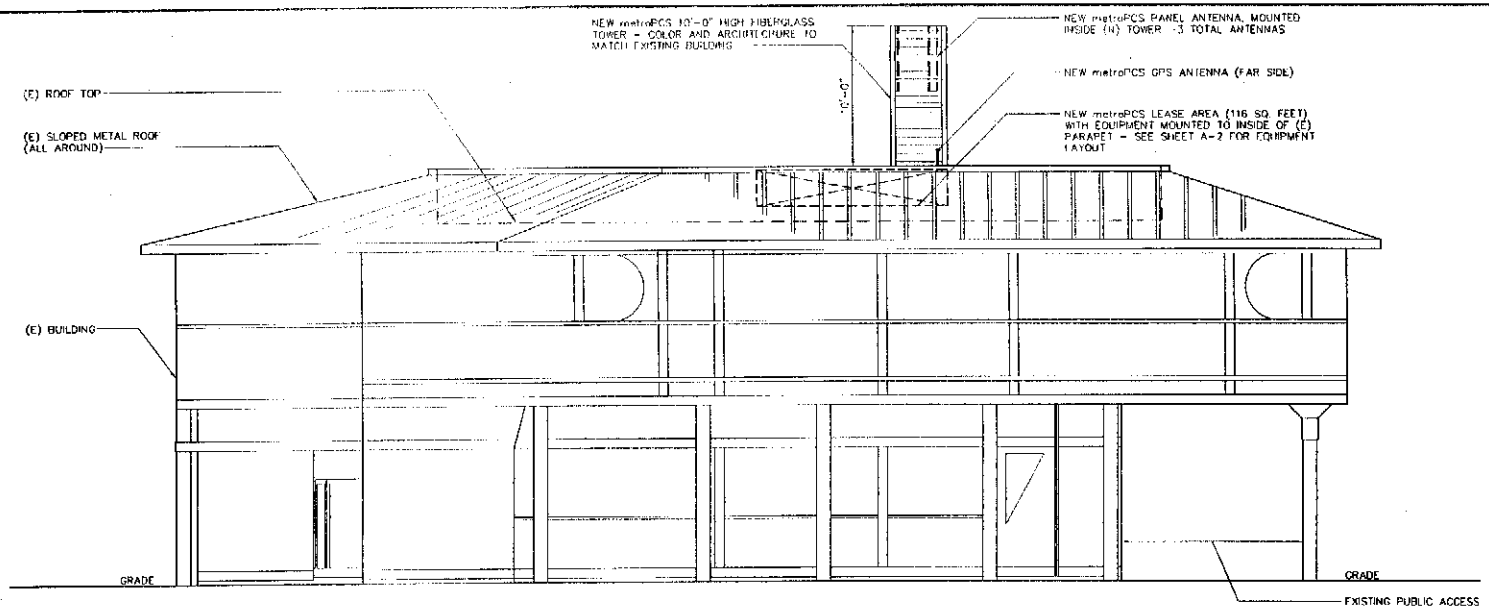
SITE NAME
FREEDOM ENDOSCOPY CENTER

SITE #
SF10330B

SITE ADDRESS
**243 GREEN VALLEY ROAD
FREEDOM, CA 95019
SANTA CRUZ COUNTY**

SHEET TITLE
ELEVATIONS

SHEET
A-3



NORTH ELEVATION
SCALE: 1/4"=1'-0"

SCALE: 1/4"=1'-0"

SCALE: 1/4"=1'-0"

EXHIBIT A

metroPCS

L.D. STROBEL JOB # 2931
2931-AA 11/15/04

RELEASE
DATE

REVISIONS
NO. DATE
1 11/15/04 ISSUED FOR 100% ZONING
2 10/28/04 ISSUED FOR 90% ZONING

DRAWN BY: TH
CHECKED BY: JG

SITE NAME
FREEDOM ENDOSCOPY CENTER

SITE #
SF10330B

SITE ADDRESS
243 GREEN VALLEY ROAD
FREEDOM, CA 95019
SANTA CRUZ COUNTY

SHEET TITLE
ELEVATIONS

SHEET
A-4

Wireless Communication Facility Use Permit Findings

1. The development of the proposed wireless communications facility as conditioned will not significantly affect any designated visual resources, environmentally sensitive habitat resources (as defined in the Santa Cruz County General Plan/LCP Sections 5.1, 5.10, and 8.6.6.), and/or other significant County resources, including agricultural, open space, and community character resources; or there are no other environmentally equivalent and/or superior and technically feasible alternatives to the proposed wireless communications facility as conditioned (including alternative locations and/or designs) with less visual and/or other resource impacts and the proposed facility has been modified by condition and/or project design to minimize and mitigate its visual and other resource impacts.

This finding can be made, in that the proposed project has been designed to be camouflaged as a chimney, 10 feet in height on the second story of an existing building with the equipment located behind a parapet wall, out of sight from any designated scenic road. With the proposed antennas and ancillary equipment cabinet screened fiom adjacent properties, the project is designed and conditioned to mitigate potential significant visual impacts. The proposed facility will be located on an existing building and is designed to appear as part of the existing development. The proposed painting scheme, matching the new chimney on the existing office building, will result in minimal visual impact to the surrounding properties.

The proposed project complies with General Plan Policy 5.10.3 (Protection of Public Vistas), in that the project, by locating on the roof top of existing 2 story building, will result in minimal disruption of landform and aesthetic character.

An alternative site analysis was completed for this project (Exhibit I). The proposed project site is the environmentally superior site, in that the existing topography allows a height of just **39** feet 4 inches to be sufficiently tall to meet wireless communication transmission goals and to be located distant from both residential and educational sites. No existing wireless communications facility exists in the immediate area to allow for collocation.

2. The site is adequate for the development of the proposed wireless communications facility and, for sites located in one of the prohibited and/or restricted areas set forth in Sections 13.10.661(b) and 13.10.661(c), that the applicant has demonstrated that there are not environmentally equivalent or superior and technically feasible: (1) alternative sites outside the prohibited and restricted areas; and/or (2) alternative designs for the proposed facility as conditioned.

As discussed in Wireless Communication Finding #1, the finding that the proposed project site is the environmentally superior site can be made, in that the proposed location on an existing second story roof top avoids any site disturbance that might be required for a monopole design. The project avoids the erection of a new monopole that would be visible to adjacent properties, therefore proposing the least visually intrusive alternative and minimizing adverse visual impacts.

3. The subject property upon which the wireless communications facility is to be built is in compliance with all rules and regulations pertaining to zoning **uses,** subdivisions and any other applicable provisions of this Title and that all zoning violation abatement costs, if any, have been paid.

This finding can be made, in that the proposed location of the wireless communication facility and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the PF (Public and Community Facilities) zone district in that the primary use of the property will continue to be a public administrative/office center that meets all current site standards for the zone district.

No zoning violation abatement fees are applicable to the subject property.

4. The proposed wireless communication facility as conditioned will not create a hazard for aircraft in flight.

This finding can be made, in that the proposed wireless communications facility will be located at about **39** feet 4 inches in height on an existing building, which is too low to interfere with an aircraft in flight.

5. The proposed wireless communication facility as conditioned is in compliance with all FCC and California PUC standards and requirements.

This finding can be made, in that the maximum ambient RF levels at ground level due to the existing wireless communications facilities and the proposed operation are calculated to be 0.44 percent at the second floor level and 0.22 percent at ground level of the most restrictive applicable limit.

The applicant is required to obtain all necessary approvals from the California Public Utilities Commission and the Federal Communications Commission prior to construction.

Development Permit Findings

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, in that the project is located in an area designated for commercial uses and is not encumbered by physical constraints to development. Construction will comply with prevailing building technology, the Uniform Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources. The proposed wireless communications apparatus will not deprive adjacent properties or the neighborhood of

light, air, or open space, in that the structure meets all current setbacks that ensure access to light, air, and open space in the neighborhood.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the proposed location of the wireless communications equipment and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the PA (Professional/Administrative) zone district in that the primary use of the property remains professional offices with the wireless communications facility as an accessory use that meets all current site standards for the zone district.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made, in that the proposed commercial use is consistent with the use and density requirements specified for the Office (C-0) land use designation in the County General Plan.

The proposed wireless communications equipment will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties, and meets all current site and development standards for the zone district as specified in Policy 8.1.3 (Residential Site and Development Standards Ordinance), in that the wireless communications facility will not adversely shade adjacent properties, and will meet current setbacks for the zone district that ensure access to light, air, and open space in the neighborhood.

The proposed wireless communications apparatus will not be improperly proportioned to the parcel size or the character of the neighborhood as specified in General Plan Policy 8.6.1 (Maintaining a Relationship Between Structure and Parcel Sizes), in that the proposed wireless communications apparatus will comply with the site standards for the PA zone district (including setbacks, lot coverage, floor area ratio, height, and number of stories) and will result in a structure consistent with a design that could be approved on any similarly sized lot in the vicinity.

A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed wireless communications facility will not require the use of public services such as water or sewer, but will require electric power and telephone connections, which are already available on site. The facility will require inspection by maintenance personnel at least once per month, and this level of traffic will not adversely impact existing roads and intersections in the surrounding area of Green Valley Road.

EXHIBIT B

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This **finding** can be made, in that the proposed camouflaged chimney and parapet wall on the existing two-story office structure is located in a mixed neighborhood containing a variety of architectural styles. The proposed wireless communications equipment is adequately screened to be consistent with the land use intensity and density of the neighborhood.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed wireless communications equipment shall be screened and will be of an appropriate scale and type of design that will enhance the aesthetic qualities of the surrounding properties and will not reduce or visually impact available open space in the surrounding area.

Conditions of Approval

Exhibit **A:** Project Plans, ***5*** Sheets by L.B. Strobel Co. Inc. dated 10/28/04 revised 11/15/04

I. This permit authorizes the installation of 3 wireless communications antennas at a height of **39** feet **4** inches and an ancillary equipment lease area of 116 square feet for equipment and cabinets on an existing two-story office building rooftop. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:

A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with **the** conditions thereof.

B. Obtain a Building Permit from the Santa Cruz County Building Official.

C. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder) within 30 days of the approval date on this permit.

II. Applicant shall obtain approval from the California Public Utilities Commission and the Federal Communications Commission.

III. Prior to issuance of a Building Permit the applicant/owner shall:

A. Submit Final Architectural Plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit **"A"** on file with the Planning Department. The final plans shall include the following additional information:

1. Identify finish and color of exterior materials for Planning Department approval. Any color boards must be in 8.5" x 11" format. Exterior materials and colors shall be consistent with the existing exterior of the **office** building.

2. Indicate on the building plans that anyproposed lighting shall have a manual on/off switch or have an automatic timer, and that no continuous lighting will be used.

3. Provide fencing and warning sign details in both English and Spanish languages. Include sign location, fence location, height, and materials for review and approval by the County.

B. Meet all requirements of and pay any required Zone **7** drainage fees to the County Department of Public Works, Drainage.

C. Meet all requirements and pay any applicable plan check fee of the Pajaro Valley Fire Protection District.

IV. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:

A. All site improvements shown on the final approved Building Permit plans shall be installed.

B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.

V. Operational Conditions for the wireless antennas, monopole and equipment shelter

A. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

B. The applicant shall agree in writing that where future technological advances would allow for reduced visual impacts resulting from the proposed telecommunication facility, the applicant agrees to make those modifications which would allow for reduced visual impact as part of the normal replacement schedule. If, in the future, the facility is no longer needed, the applicant agrees to abandon the facility and be responsible for the removal of all permanent structures and the restoration of the site as needed to reestablish the area consistent with the character of the surrounding landscaping.

C. Any modification in the type of equipment shall be reviewed by Planning Department staff. The County may deny or modify conditions at this time, or the Planning Director may refer it for public hearing before the Zoning Administrator

D. Outdoor noise producing construction activities shall only take place on non-holiday weekdays between the hours of 8 a.m. and 6 p.m.

E. All noise created by the new development shall be contained on the property. A maximum exterior noise level at the property line is 60 dB L_{dn} (day/night average noise level).

F. Backup generators shall only be operated during power outages and for testing and maintenance purposes. Noise attenuation measures shall be included to reduce noise levels at the facility to a maximum exterior noise level of 60 Ldn at the property line and a maximum interior noise level of 45 Ldn within nearby

habitable structures.

G. The applicant shall meet all requirements of County Code 13.10.664 pertaining to initial post-construction non-ionizing electromagnetic radiation (NIER) monitoring requirements. A report documenting the measurements and findings with respect to compliance with the established FCC NIER exposure standard shall be submitted to the Planning Director within ninety (90) days of commencement of operation.

H. The antennas and ancillary equipment cabinet screening must be repainted and maintained as necessary to ensure the continued mitigation of the visual impact of the facility as integrated with the existing structure.

I. All exterior lighting shall be manually operated and used only during night maintenance checks or in emergencies. The lighting shall be directed onto the lease site and away from adjacent properties. Building and security lighting shall be integrated into the building design.

J. Transfer of ownership. In the event that the original permittee sells its interest in a wireless communication facility, the succeeding carrier shall assume all responsibility concerning the project and shall be held responsible to the County for maintaining consistency with all project conditions of approval, including proof of liability insurance. A new contact name for the project shall be provided by the succeeding carrier to the Planning Department within thirty (30) days of transfer of interest of the facility.

VI. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which **is** requested by the Development Approval Holder.

A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate **was** significantly prejudicial to the Development Approval Holder.

B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:

1. COUNTY bears its own attorney's fees and costs; and
2. COUNTY defends the action in good faith.

C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the COUNTY, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the COUNTY.

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

Please note: This permit expires two years from the effective date unless you obtain the required permits and commence construction.

Approval Date: 5/20/05

Effective Date: 6/03/05

Expiration Date: 6/03/07

Don Bussey
Deputy Zoning Administrator

Joan Van der Hoeven, AICP
Project Planner

Appeals: Any properly owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 05-0006
Assessor Parcel Number: 048-321-01
Project Location: 243 Green Valley Road, Freedom CA 95019

Project Description: Proposal to install wireless communications apparatus on an existing office **building**

Person or Agency Proposing Project: Suzanne Smith, **Alaris** for Metro **PCS**

Contact Phone Number: **(831) 239-1035**

A. ____ The proposed activity is not a project under CEQA Guidelines Section 15378.

B. ____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).

C. ____ Ministerial Project involving only the use of fixed standards or objective measurements without personal judgment.

D. ____ Statutory Exemption other than a Ministerial Project (CEQA Guidelines Section 15260 *to* 15285).

Specify type:

E. __X__ Categorical Exemption

Specify type: Class 3 - New Construction or Conversion of Small Structures (Section 15303)

F. Reasons why the project is exempt:

Construction of a small structure

In addition, none of the conditions described in Section 15300.2 apply to this project.

Joan Van der Hoeven

Joan Van der Hoeven, AICP, Project Planner

Date: May 20, 2005

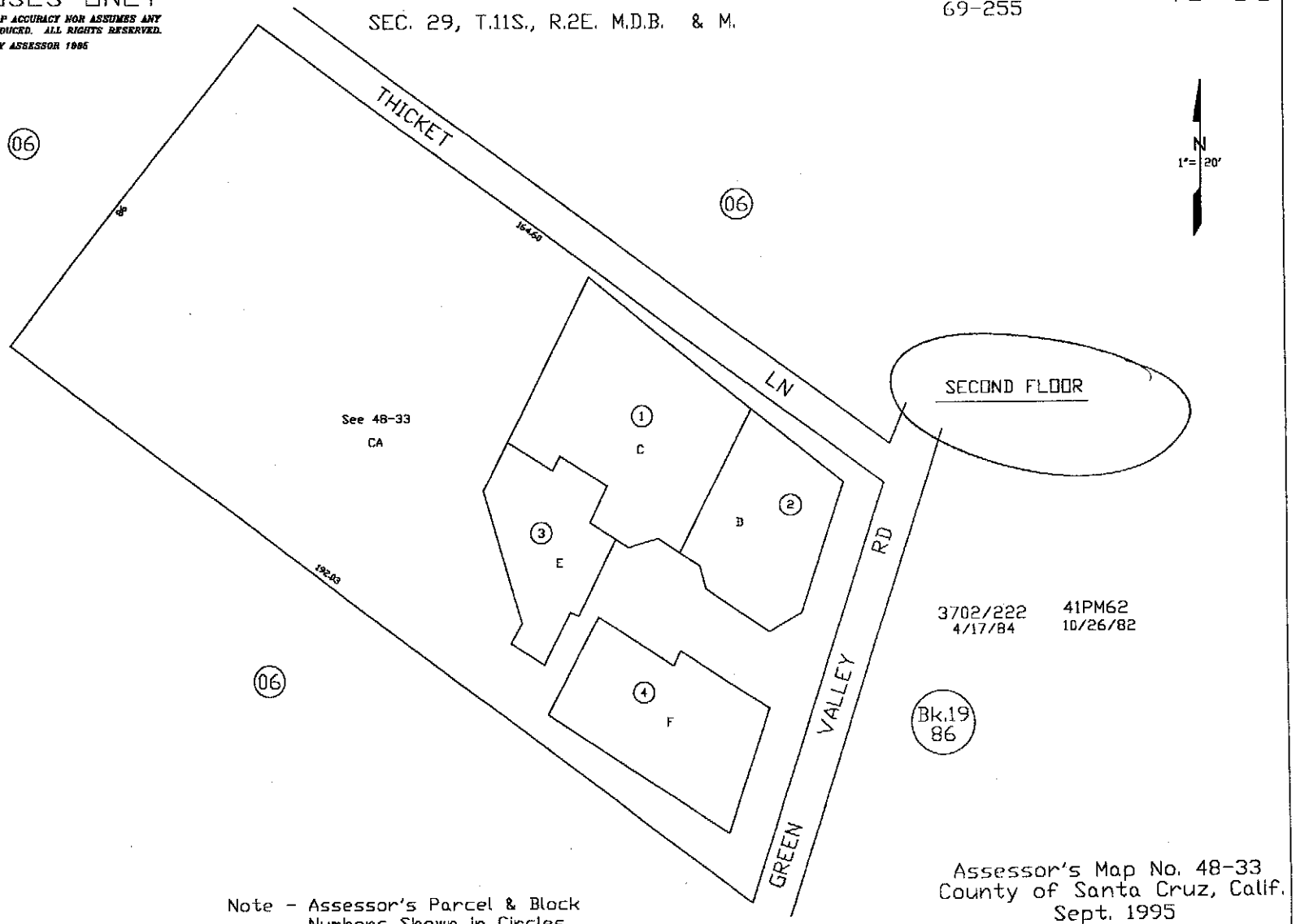
EXHIBIT D

FOR TAX PURPOSES ONLY

POR. RANCHO DEL LOS CORRALITOS
SEC. 29, T.11S., R.2E. M.D.B. & M.

Tax Area Code
69-255

48-33



Note - Assessor's Parcel & Block Numbers Shown in Circles.

Assessor's Map No. 48-33
County of Santa Cruz, Calif.
Sept. 1995

Electronically drawn 9/15/95 KSA
Rev. 5/27/98 (TCA CONSOLIDATION) rw
Rev. 6/25/01 mvh (changed page refs)

EXHIBIT E

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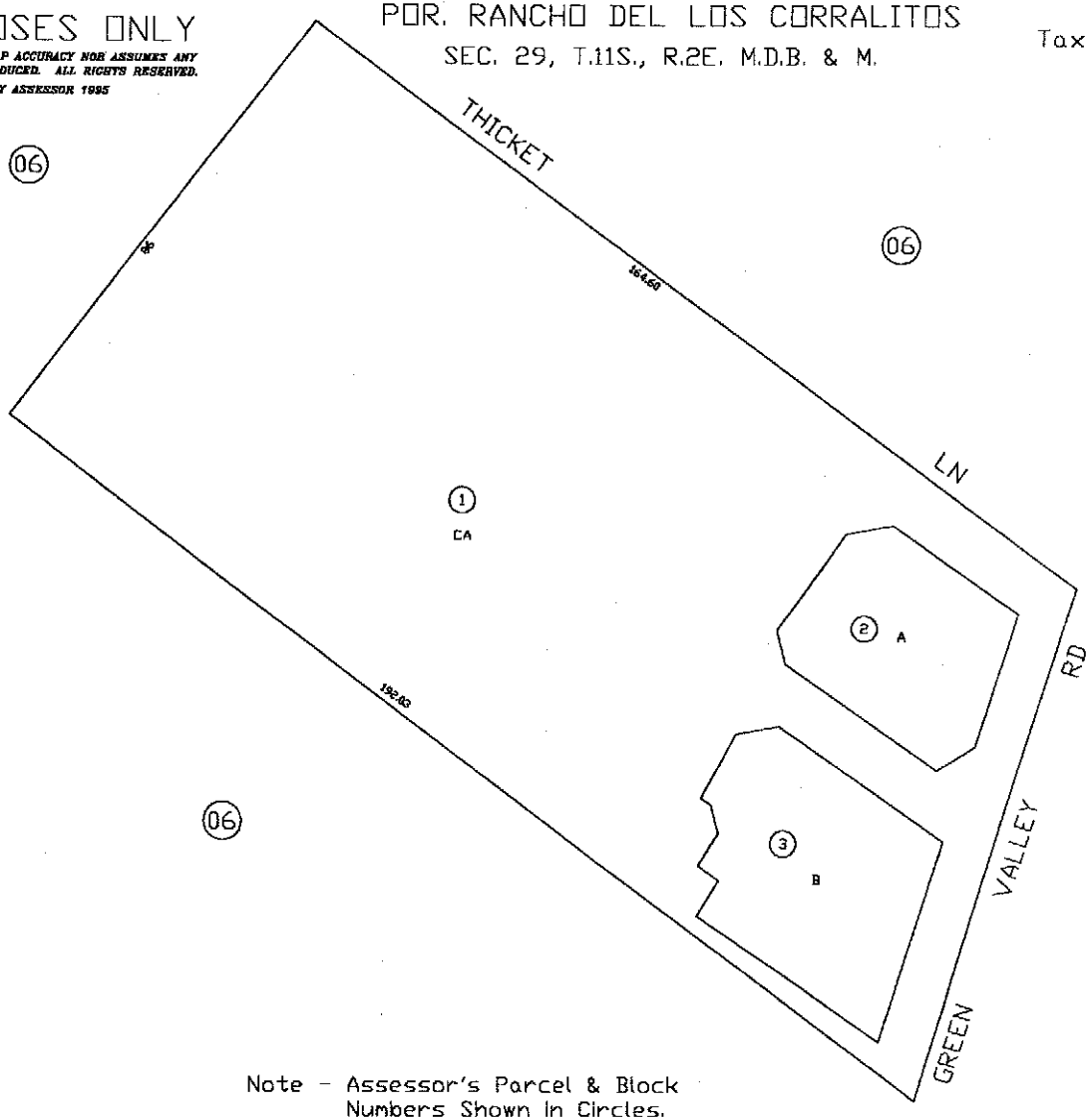
FOR TAX PURPOSES ONLY

THE ASSESSOR MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER USES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.

POR. RANCHO DEL LOS CORRALITOS

SEC. 29, T.11S., R.2E. M.D.B. & M.

Tax Area Code
69-255



Note - Assessor's Parcel & Block Numbers Shown In Circles.

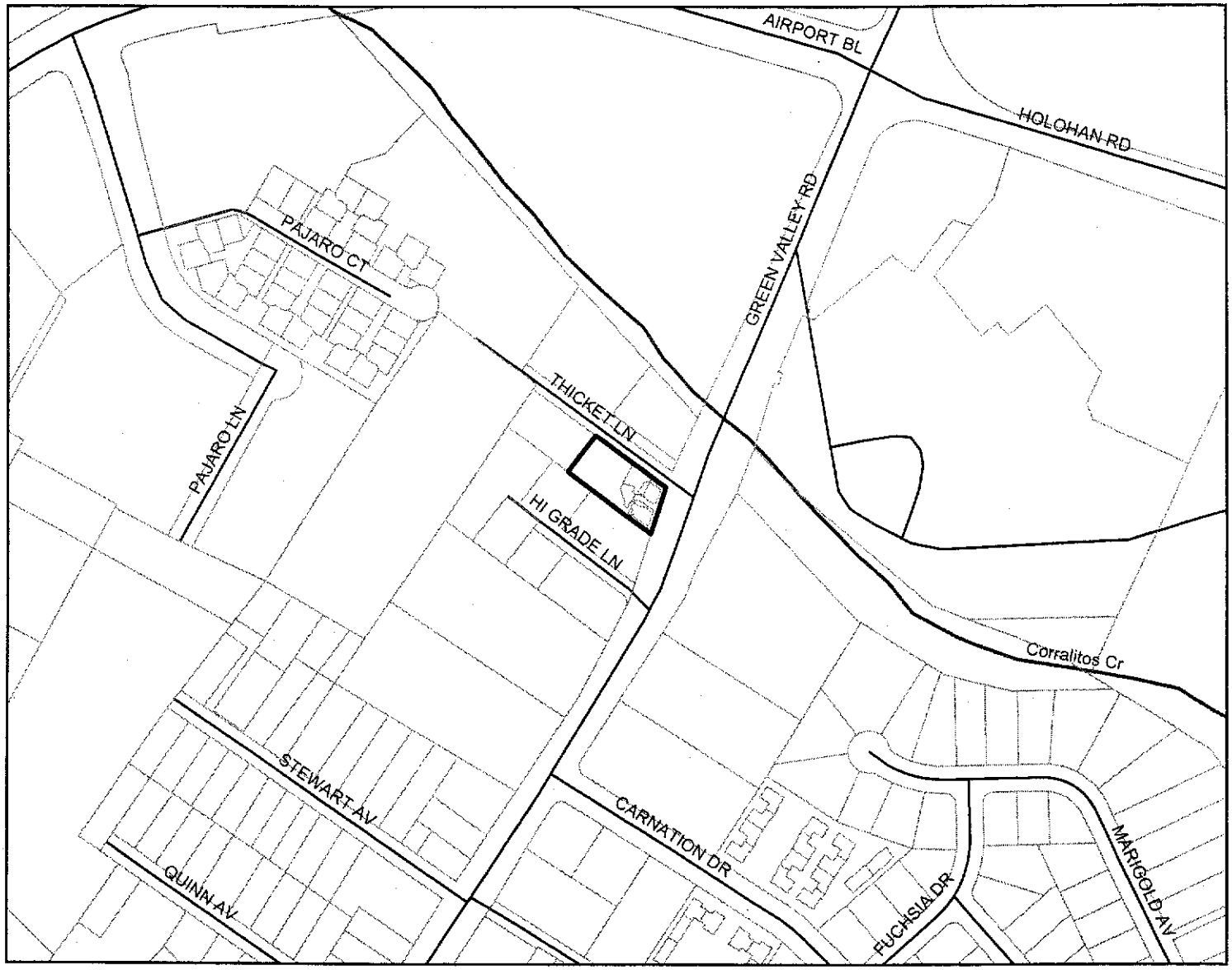
Assessor's Map No. 48-32
County of Santa Cruz, Calif.
Sept. 1995

22

EXHIBIT 1

electronically drawn 5/15/95 KSA
ev. 5/27/98 GIS CONSOLIDATION rw
ev. 6/25/01 ann (change page refs.)

Location Map



Legend

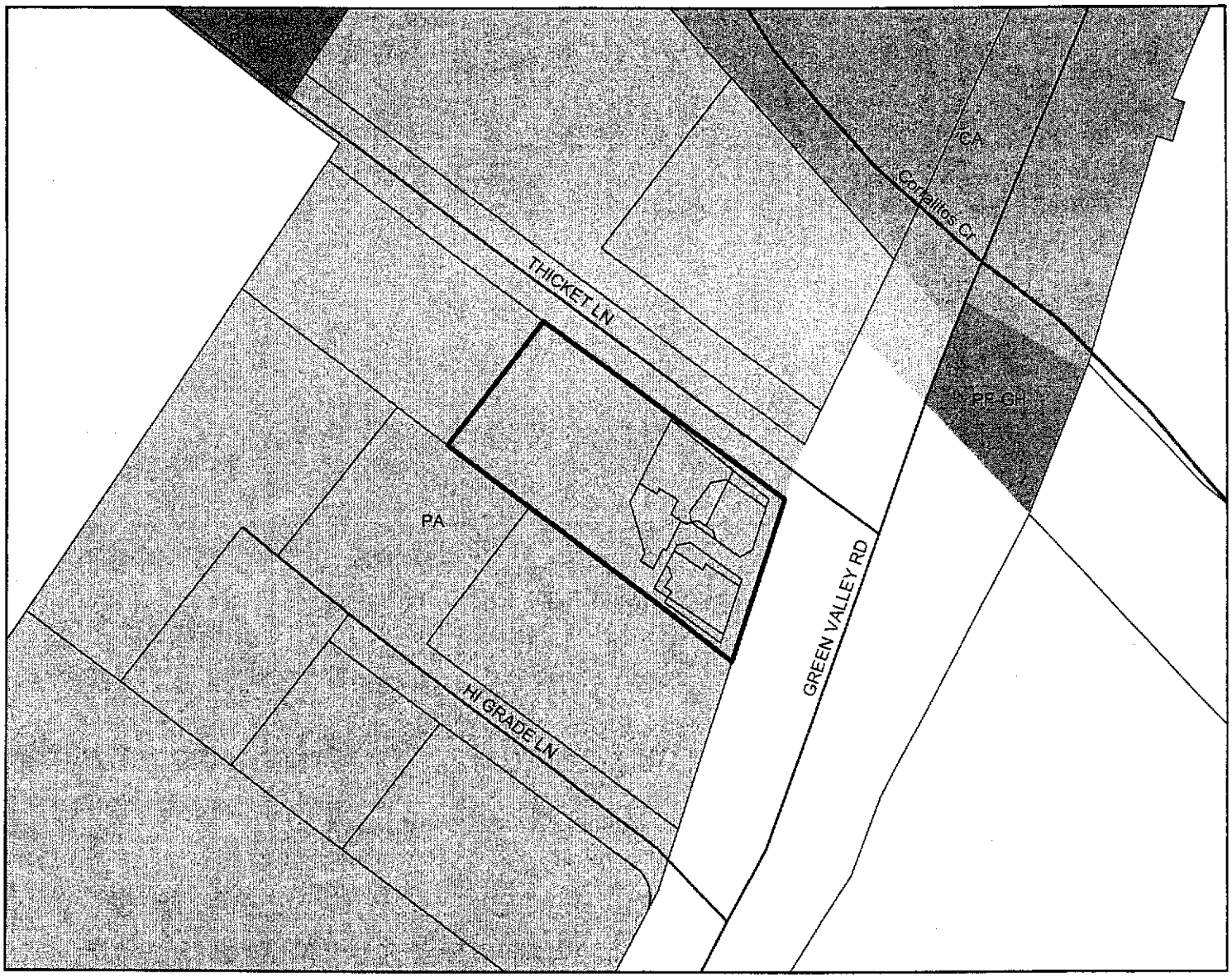
- APN 048-321-01
- Assessors Parcels
- Streets
- INTERMITTENT STREAM
- PERENNIAL STREAM

+E S

Map Created by
County of Santa Cruz
Planning Department
January 2005

EXHIBIT

Zoning Designation Map



0 65 130 260 390 520 Feet

Legend

- APN 048-321-01
- Assessors Parcels
- Streets
- PERENNIAL STREAM
- AGRICULTURE COMMERCIAL (CA)
- COMMERCIAL-PROF OFFICE (PA)
- PUBLIC FACILITY **(PF)**
- RESIDENTIAL-MULTI FAMILY (RM)
- **CITY** PROPERTY

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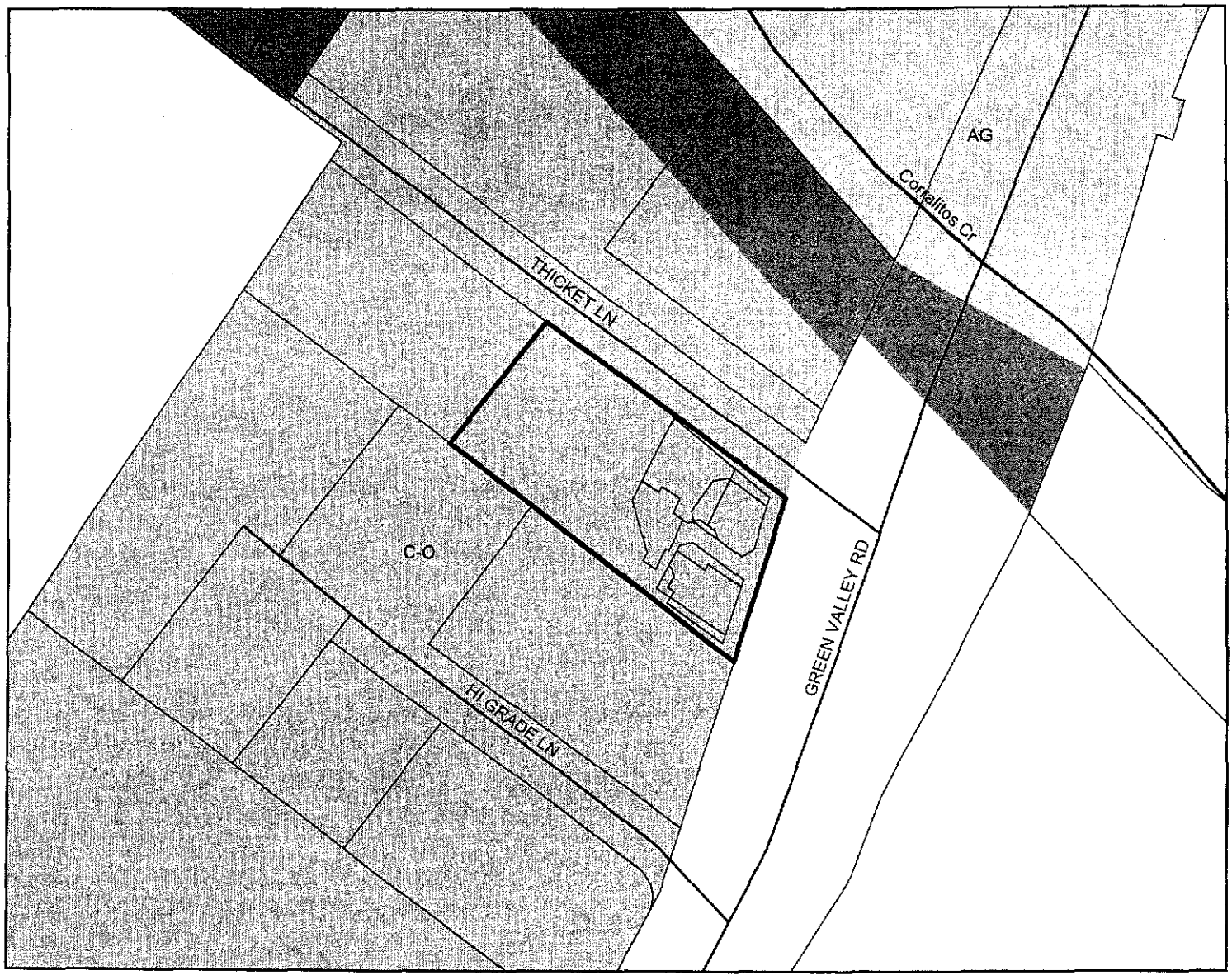
Map Created **by**
County of Santa Cruz
Planning Department
January 2005

EXHIBIT F

General Plan Designation Map



0 65 130 260 390 520 Feet

Legend

- APN 048-321-01
- Assessors Parcels
- Streets
- PERENNIAL STREAM
- Agriculture (AG)
- Commercial-Office (C-0)
- Residential - Urban Medium Density (R-UM)
- Urban Open Space (0-U)

N
W E
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Map Created by
County of Santa Cruz
Planning Department
January 2005

EXHIBIT F

COUNTY OF SANTA CRUZ
DISCRETIONARY APPLICATION COMMENTS

Project Planner: Joan Van Der Hoeven
Application No.: 05-0006
APN: 048-321-01

Date: March 31. 2005
Time: 07:46:06
Page: 1

Environmental Planning Completeness Comments

========== REVIEW ON JANUARY 24, 2005 BY ROBERT S LOVELAND =========
NO COMMENT

Environmental Planning Miscellaneous Comments

========== REVIEW ON JANUARY 24, 2005 BY ROBERT S LOVELAND =========
NO COMMENT

Project Review Completeness Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========== REVIEW ON FEBRUARY 4, 2005 BY JOAN VAN DER HOEVEN =========
Provide evidence of project notification to all tenants in the building.

Project Review Miscellaneous Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========== REVIEW ON FEBRUARY 4, 2005 BY JOAN VAN DER HOEVEN =========
NO COMMENT

Pajaro Valley Fire District Completeness Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========== REVIEW ON JANUARY 21, 2005 BY COLLEEN L BAXTER ========== ========== UPDATED ON JANUARY 21, 2005 BY COLLEEN L BAXTER ========== DEPARTMENT NAME:CDF/PAJARO VALLEY FIRE Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT. with an annotated copy of this letter: Building numbers shall be provided. Numbers shall be a minimum of 4 inches in height on a contrasting background and visible from the street, additional numbers shall be installed on a directional sign at the property driveway and street. NOTE on the plans that a 100 foot clearance will be maintained with non-combustible vegetation around all structures or to the property line (whichever is a shorter distance). Single specimens of trees. ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure are exempt.
All bridges, culverts and crossings shall be certified by a registered engineer. Minimum capacity of 25 tons. Cal-Trans H-20 loading standard. SHOW on the plans, DETAILS *of* compliance with the driveway requirements. The driveway shall be 12 feet minimum width and maximum twenty percent slope. The driveway shall be in place to the following standards prior to any framing construction, or construction will be stopped: - The driveway surface shall be "all weather", a minimum 6" of compacted aggregate base rock. Class 2 or equivalent certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be a minimum of 6" of compacted Class II base rock for grades up to and including 5%, oil and screened for grades up to and including 15%and asphaltic concrete for grades exceeding 15%.

EXHIBIT G

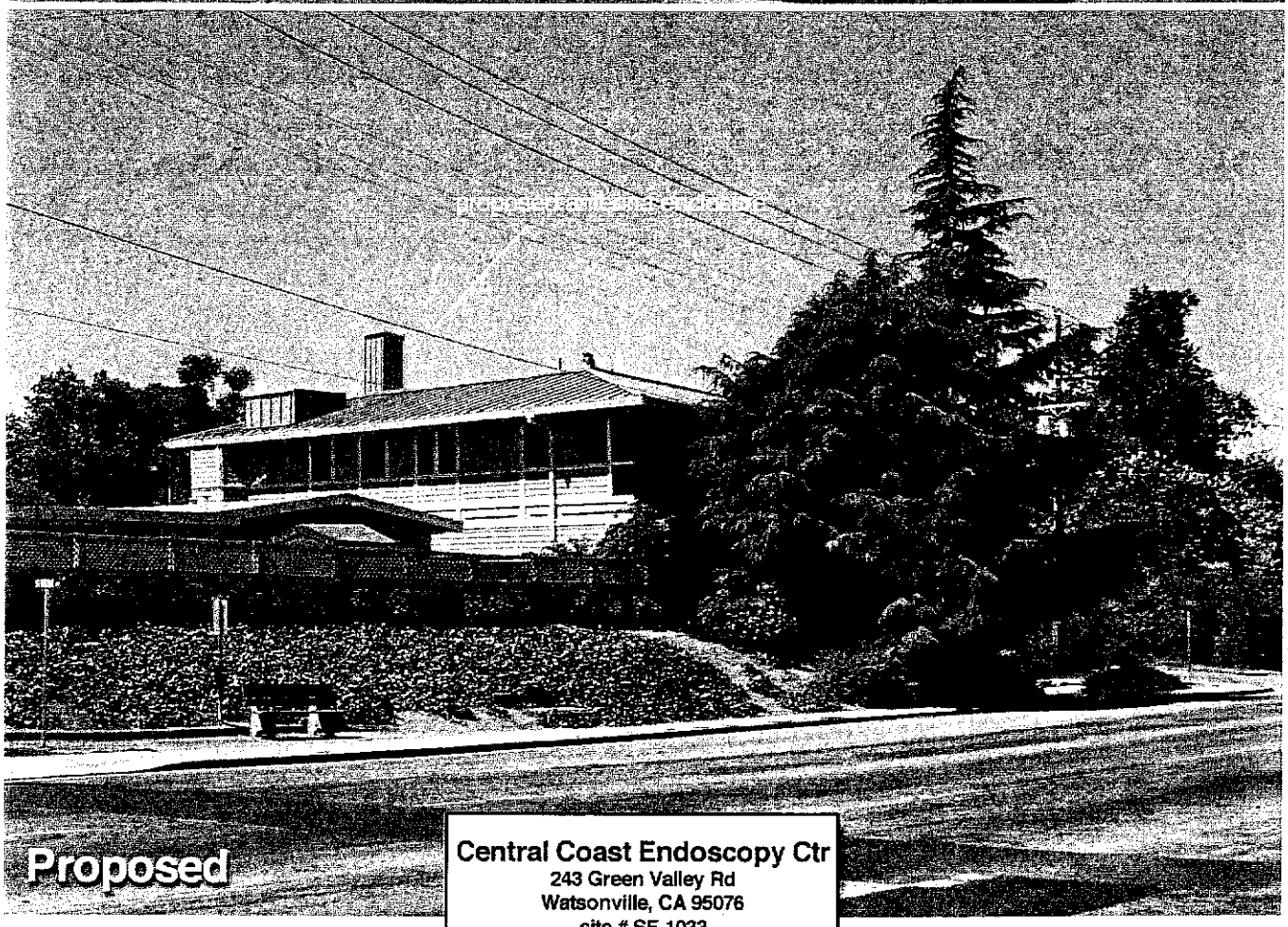
but in no case exceeding 20%. - The maximum grade of the driveway shall not exceed 20%, with grades of 15%not permitted for distances of more than 200 feet at a time. - The driveway shall have an overhead clearance of 14 feet vertical distance for its entire width. - A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. - Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. - All private access roads. driveways. turn-arounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times. - The driveway shall be thereafter maintained to these standards at all times. A11 Fire Department building requirements and fees wi11 be addressed in the Building Permit phase. Plan check is based upon plans submitted to this office. Any changes or alterations shall be re-submitted for review prior to construction. 72 hour minimum notice is required prior to any inspection and/or test. Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with the applicable Specifications. Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source. and, to hold harmless and without prejudice, the reviewing agency.

Pajaro Valley Fire District Miscellaneous Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========== REVIEW ON JANUARY 21, 2005 BY COLLEEN L BAXTER ==========

EXHIBIT G

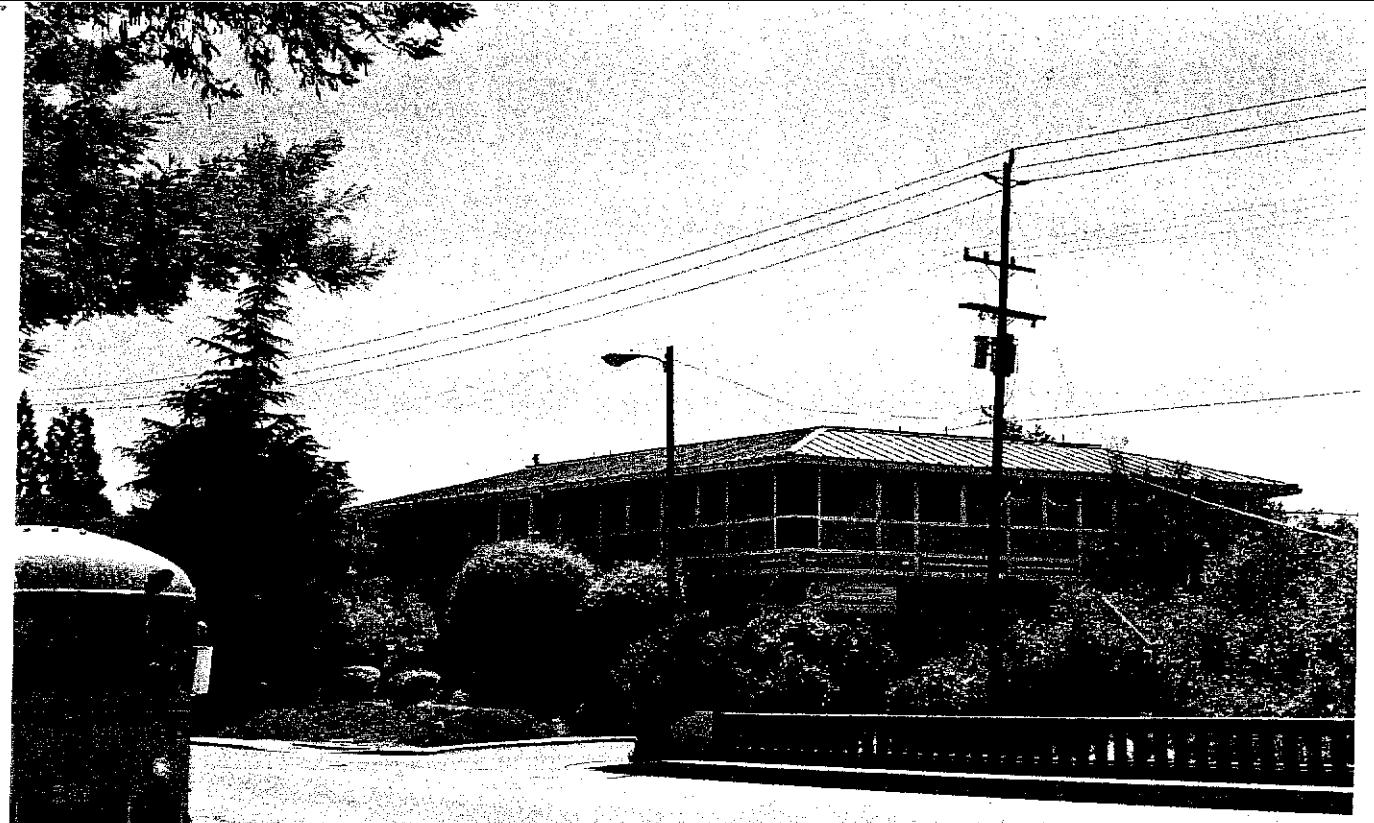


Central Coast Endoscopy Ctr
243 Green Valley Rd
Watsonville, CA 95076
site # SF-1033

MetroPCS 10/18/04

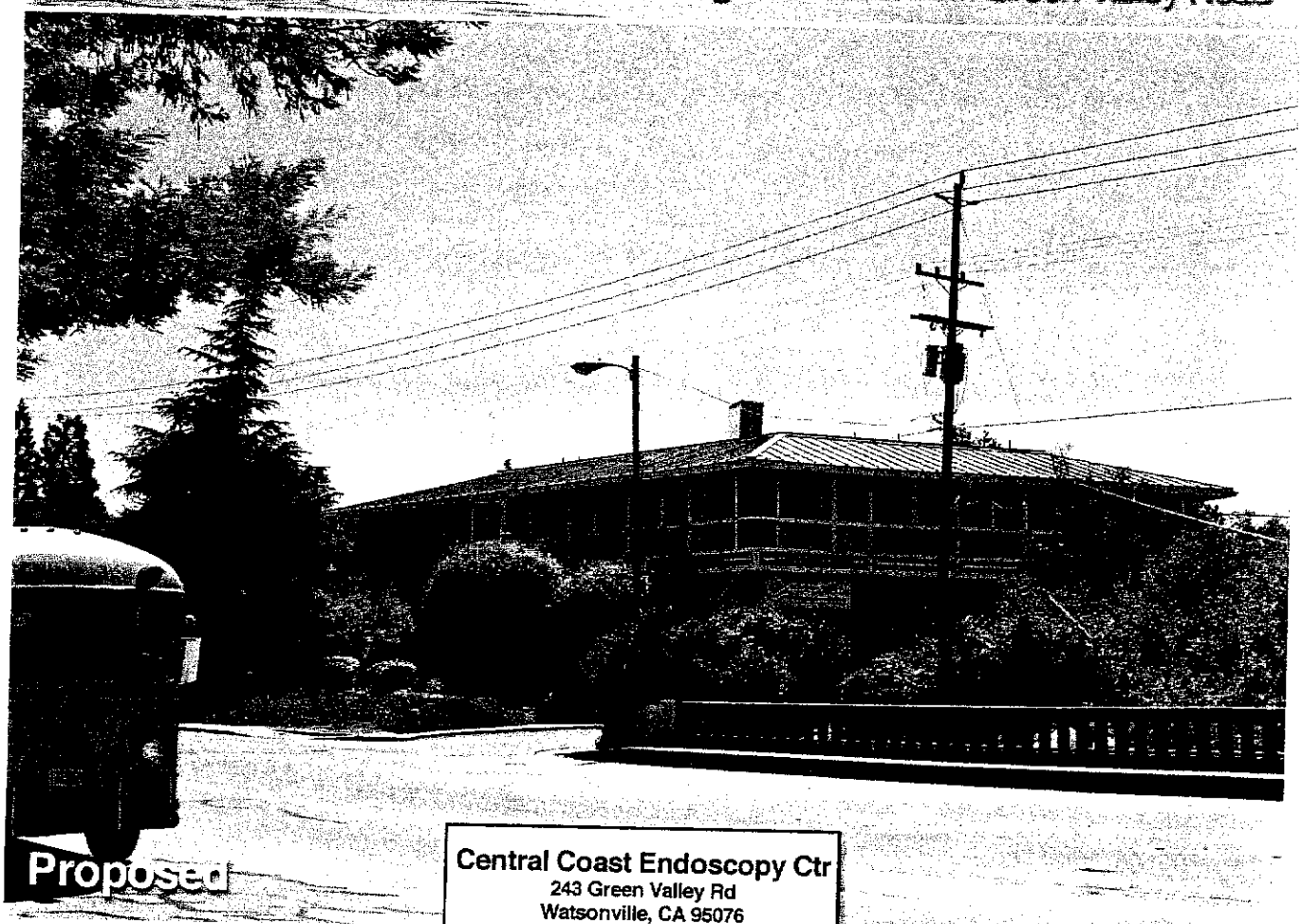
Photosimulation by Applied Imagination 510 914-0500

EXHIBIT H



Existing

Looking Southwest from Green Valley Road



Proposed

Central Coast Endoscopy Ctr
243 Green Valley Rd
Watsonville, CA 95076
site # SF-1033

MetroPCS 10/18/04

Photosimulation by Applied Imagination 510 914-0500

EXHIBIT H

13.10.662 Application Requirements for Wireless Communication Facilities

A. Pre-Application Meeting.

Conducted 10/5/04.

B. **Submittal Information**

1. **Applicant:**

MetroPCS – attn. Evelyn Conroy
1080 Marina Village Parkway
Alameda, CA 94501
(415) 571-9666

2. **Applicant's Agent:**

Suzanne Smith
The Alaris Group
3645 Gatewood Court
Santa Cruz, CA 95065
(831) 239-1035

3. **Owner:**

Frederick and Kate Chen
Chen Enterprises Ltd.
243 Green Valley Road
Freedom, CA 95019
(831) 728-1410

4. **Address/APN/Lat/Long of proposed site:**

243 Green Valley Road
Freedom, CA 95019
APN: 048-321-02
Latitude: N 36 56.316'
Longitude: N 121 46.249'

5. **Description of applicant service provider's existing network, proposed/anticipated facilities, etc.:**
Currently, MetroPCS has no sites in the incorporated and unincorporated areas of Watsonville. MetroPCS has two (2) proposed sites for the Watsonville area. One is the subject project which includes a roof-mounted facility at 243 Green Valley Road. The latitude/longitude of this proposed site is listed above. The other proposed site is a free-

EXHIBIT 1

standing structure to be located at 1080 W. Beach Road in Watsonville. The 1080 W. Beach proposal falls within the jurisdiction of the City of Watsonville. The latitude/longitude of the 1080 W. Beach Road site are as follows: Latitude N 36 54' 08" / Longitude W 121 46' 19.4". RF mapping is included in this package. showing these two (2) proposed site locations. Currently. MetroPCS has no other sites proposed in the county. However, additional sites may be proposed later in 2005.

6. Description of services that the applicant intends to offer, etc.:
MetroPCS plans to provide wireless telecommunications services in the incorporated and unincorporated areas of Watsonville with the two (2) proposed sites mentioned. Please see attached MetroPCS brochure for further details about MetroPCS' service features.

7. Information sufficient to determine applicant has applied for and/or received certificate of authority required by CPUC:
Please see attached documenration.

8. Information sufficient to determine that the applicant has applied for and/or received approvals required by FCC:
Please see attached documentation.

9. Compliance with FCC's non-ionizing electromagnetic radiation (NIER) standards, etc.:
Please see attached Hammett & Edison report.

10. A plan for safety/security considerations, with regard to electromagnetic radiation, etc.:
Please see attached Hammett & Edison report.

11. Visual Analysis:
Please see attached photo simulations

12. Detailed maps, topographic/area map and proximity/aerial map:
Please see attached mapping.

13. Detailed plans:
Please see attached plans.

14. Colocation:
There are no existing facilities in *the* area. Therefore, collocation on an existing monopole was not an option. However, collocation of the roof of the existing building proved to be the best location in the area. The facility will not be visible to the public because the antennas will be placed within a stealth screen. The proposed site will allow for future/additional carriers to collocate on the roof.

15. For any application that involves a major modification:
N/A – site does not involve major modification.

EXHIBIT 1

(c) (1). Alternative analysis/non-collocated facilities.
Please see attached list of fifteen (15) alternative sites reviewed by MetroPCS as possible locations for a facility. All listed sites proved to be not feasible for the reasons listed.

(c) (2). Evaluate potential for collocation with existing wireless communications facilities as a means to eliminate or substantially reduce the significant gaps in the applicant carrier's network intended to be eliminated or substantially reduced by the proposed facility.
There were no existing facilities in the area to utilize for collocation. Please see alternative analysis listings. The proposed roof facility will allow for future carrier collocation.

(c) (3). Compare, across the same set of evaluation criteria and to similar levels of description and detail, the relative merits of the proposed site with those of each of the identified technically feasible alternative locations and facility designs.
The proposed facility proved to be the best option in the area to locate a facility. The site could be built as a roof-mount facility, eliminating the need for a new free-standing structure (monopole). The site will not be visible to the public because the antennas will be placed within a stealth screen.

(c) (4). Include photo sims of each technicially feasible alternatives.
N/A. There were no other options than the proposed location.

(c) (5). Document good faith and diligent attempts to rent, lease, purchase or otherwise obtain the use of at least two (2) of the viable, technically feasible alternative sites.
Please see attached alternative analysis.

(d). Onsite visual demonstration structures (mock-ups).
MetroPCS shall comply if this requirement is deemed necessary.

(e). Amendment. Each applicant/registrant shall inform the County, within thirty (30) days of any change of the information required pursuant to Sections **13.10.660** through **13.10.668** inclusive.
MetroPCS shall comply.

(f). Technical Review.
MetroPCS shall comply.

(g). Technical Feasibility.
MetroPCS shall comply.

(h). **Fees.**
MetroPCS shall comply.

EXHIBIT I

United States of America
Federal Communications Commission

RADIO STATION AUTHORIZATION

Commercial Mobile Radio Services

Personal Communications Service - Broadband

GWI PCS1, INC
8144 WALNUT HILL LANE
SUITE 600
DALLAS, TX 75231

Call Sign: KNLF566
Market: B404
SAN FRANCISCO-OAKLAND-
Channel Block: C
File Number: 00447-CW-L-96

The licensee hereof is authorized, for the period indicated, to construct and operate radio transmitting facilities in accordance with the terms and conditions hereinafter described. This authorization is subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts of Congress, international treaties and agreements to which the United States is a signatory, and all pertinent rules and regulations of the Federal Communications Commission, contained in the Title 47 of the U.S. Code of Federal Regulations.

Initial Grant Date	January 27,1997
Five-year Build Out Date	January 27,2002
Expiration Date.	January 27,2007

CONDITIONS :

Pursuant to Section 309(h) of the Communications Act of 1934, as amended, (47 U.S.C. § 309(h)), this license is subject to the following conditions: This license does not vest in the licensee any right to operate a station nor any right in the use of frequencies beyond the term thereof nor in any other manner than authorized herein. Neither this license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended (47 U.S.C. § 151, et seq.). This license is subject in terns to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended (47 U.S.C. § 606).

Conditions continued on Page 2.

WAIVERS :

No waivers associated with this authorization.

EXHIBIT 1

CONDITIONS:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjecent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is conditioned upon the full and timely payment of all monies due pursuant tc Sections 1.2110 and 24.711 of the Commission's Rules and the terms of thc Commission's installment plan as set forth in the Note and Security Agreement executed by the licensee. Failure to comply with this condition will result in the automatic cancellation cf this authorization.

EXHIBIT 1

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MetroPCS, Inc.
Corporate Structure
28-Aug-02

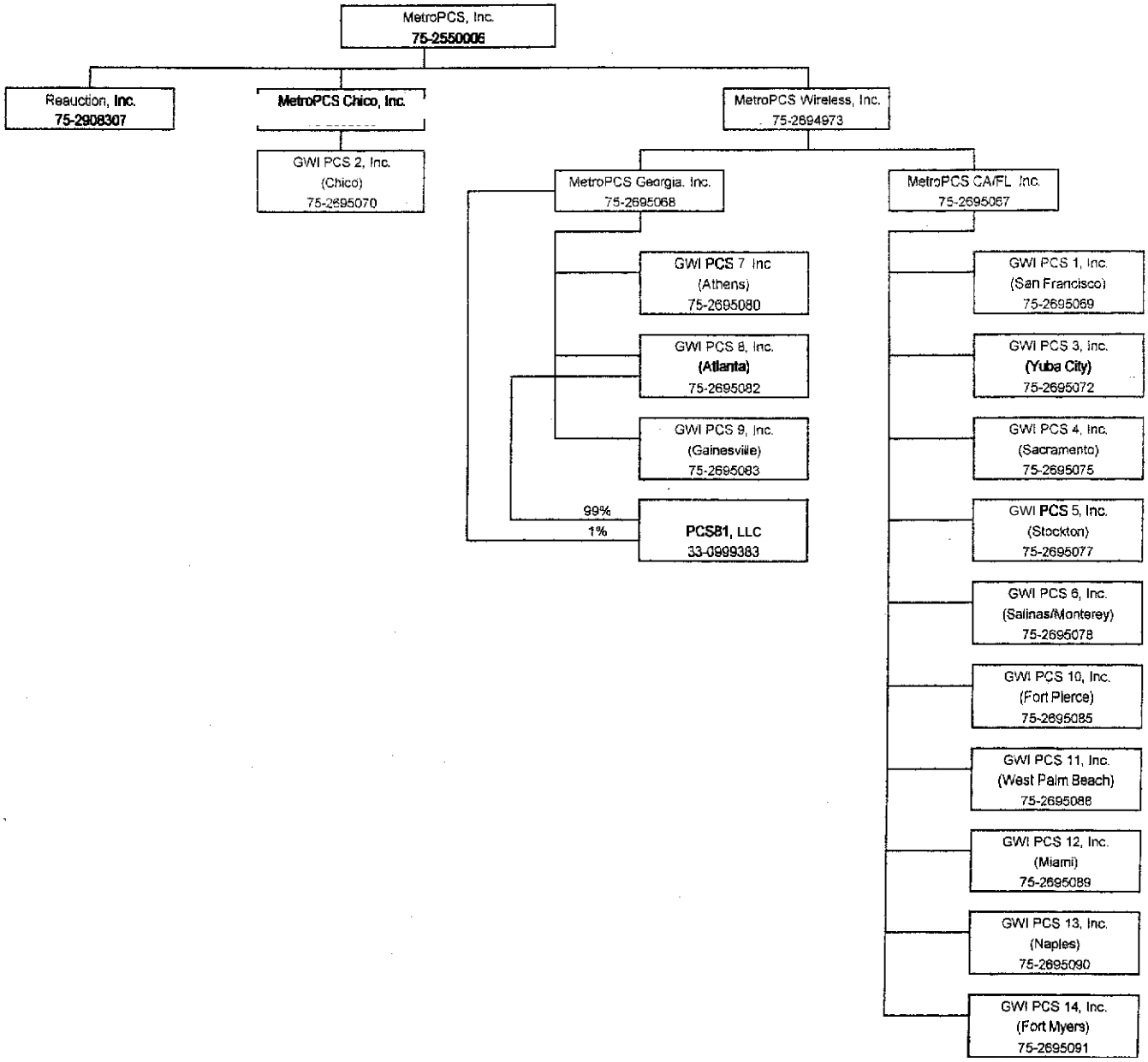


EXHIBIT 1

Filing to CPUC
ATTACHMENT A

1. Project Location: NEW BUILD- Roof Mount

Site # and Name: SF10330B / Freedom Endoscopy Center

Site Address: 243 Green Valley Road

City, ZIP Gode: Freedom, CA 95019

County: Santa Cruz

Assessor Parcel Number: 048-321-02

Latitude: N 36° 56.316' (NAD 83)

Longitude: W 121" 46.249' (NAD 83)

2. Project Description:

Number of Antennae to be installed: Three antennas

Building Design: Roof mounted, concealed inside screen

Building Appearance: commercial

Building Height: Approximately 40 feet to top of screen addition

Building Size(s): Equipment will be mounted on the inside of *two* parapet walls, adjacent to new screen addition.

3. Business addresses of all Local Government Agencies:

County of Santa Cruz
Planning Dept.
701 Ocean Street
Santa Cruz, CA 95060

4. Land Use Approval:

_____, MetroPCS obtained zoning approval from the County of Santa Cruz for the construction of a PCS Wireless Facility.

EXHIBIT I

Current MetroPCS Coverage in incorporated and unincorporated area of Watsonville.

Map shows that MetroPCS currently has no sites, and therefore, no coverage in this area.

EXHIBIT 1

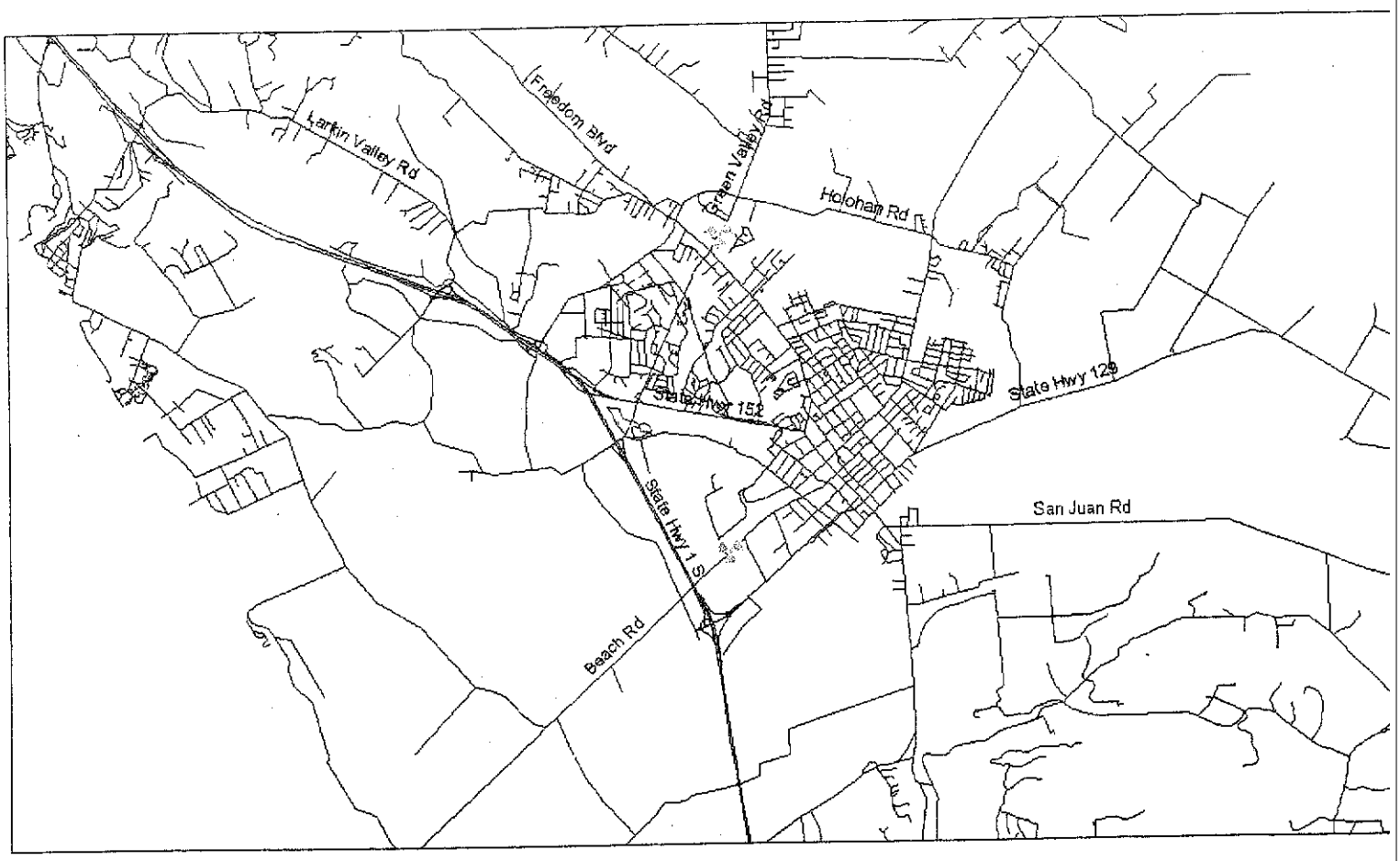

Larkin Valley Rd
Freedom Blvd
Green Valley Rd
Holohan Rd
State Hwy 152
State Hwy 129
San Juan Rd
State Hwy 1 S
Beach Rd

EXHIBIT 1

Projected coverage for Watsonville/Freedom area with proposed site.

***Other site shown on map falls within City of Watsonville jurisdiction and is located at 1080 W. Beach Rd., Watsonville.**

EXHIBIT I

LEGEND

MetroPCS Coverage Maps

- Coverage Prediction Color Code Key
  - o Green — Good indoor & in-vehicle coverage
  - o — Good in-vehicle / marginal indoor coverage
  - o Red — Out door only coverage
  - o — No usable coverage

EXHIBIT

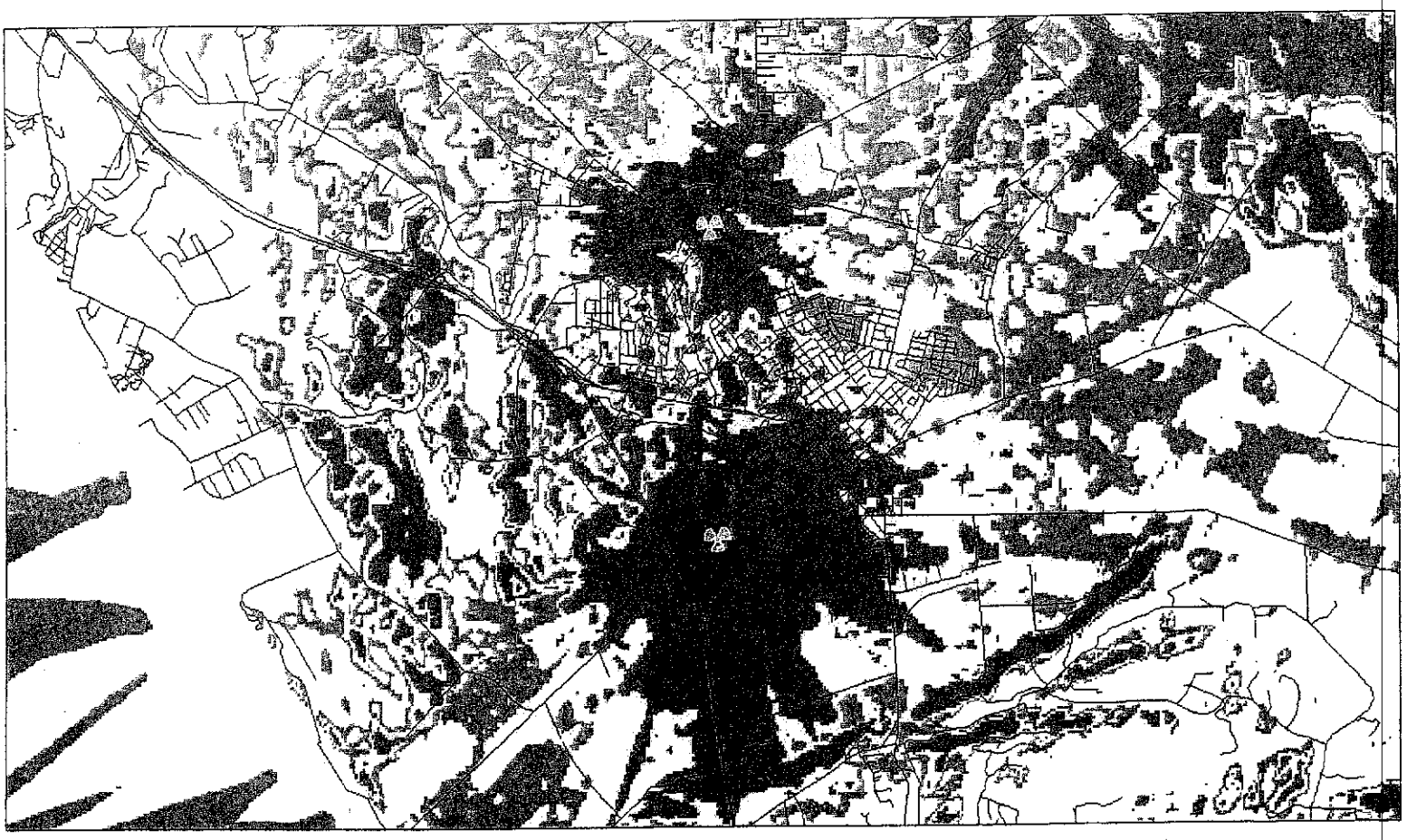


EXHIBIT 1

Alternatives Analysis:

Witin City of Watsonville iurisdiction:

1. Carl's Jr.
1901 Freedom Blvd. 014-081-09
Replace flagpole with new stealth flagpole or replace light standard. Too close to residential and schools per Watsonville ordinance.

2. Water Reservoir – City of Watsonville
1509 Freedom Blvd. 016-501-17
New slimline monopole in a group of redwoods or a new treepole. Too close to residential and schools per Watsonville ordinance.

3. Veteran's of Foreign Wars Building
1960 Freedom Blvd, 014-131-07 and 014-131-03
Replace flagpole with new stealth flagpole. Too close to residential and schools per Watsonville ordinance.

4. Jennings Industrial Park/Freedom Associates
120 Manfre Road 015-211-02
Setbacks from airport runways limited height of new pole. Would not work for MetroPCS RF.

5. Watsonville Airport/City of Watsonvilie
45 Pviation Way 015-221-01
Existing telecom towers. Towers too close to schoois per Watsonville ordinance.

Within Santa Cruz County iurisdiction:

6. Assembly of God/Monterey Team Challenge
109 Green Valley Road 048-052-32
New pole would not meet ordinance setbacks. Structurally the building would not support a new steeple/cross or tall addition.

7. GFI Properties
229 Green Valley Road 048-061-06
With setback restriction from residential per ordinance, a new monopole would be *too* far within middle *of* the empty lot and would restrict future development.

8. Centro Portugues de Nossa Senh
217 Green Valley 048-061-05
With setback restriction from residential per ordinance, not possible to place new pole on property

9. Green Valley Medical Group
231 Green Valley Road 048-061-37
Building too low for MetroPCS RF.

10. Medical/Dental Building
122 Thicket Lane 048-061-44
Building too low for MetroPCS RF.

11. Medical Office Building
110 Thicket Lane 048-061-34
Building too low *for* MetroPCS **RF;** surrounding trees tc all

EXHIBIT I

12. Duplexes
110-122 Hi-Grade Lane 048-061-28
Residential use; *too* low for MetroPCS RF.

13. Freedom Meat Locker/Howard & Debra Walker
160 Hi Grade Lane 048-061-35
Location/placement of new pole sensitive to existing business. Best location(s) would be too close to residential.

14. Parking Lot' Howard & Debra Walker
End of Thicket Lane 048-061-43
New monopoie placed in rear of property is within residential setback restriction and front of parking lot has no trees or structures io screen a new monopole. Owner sensitive to visibility of new monopole on Meat Locker business.

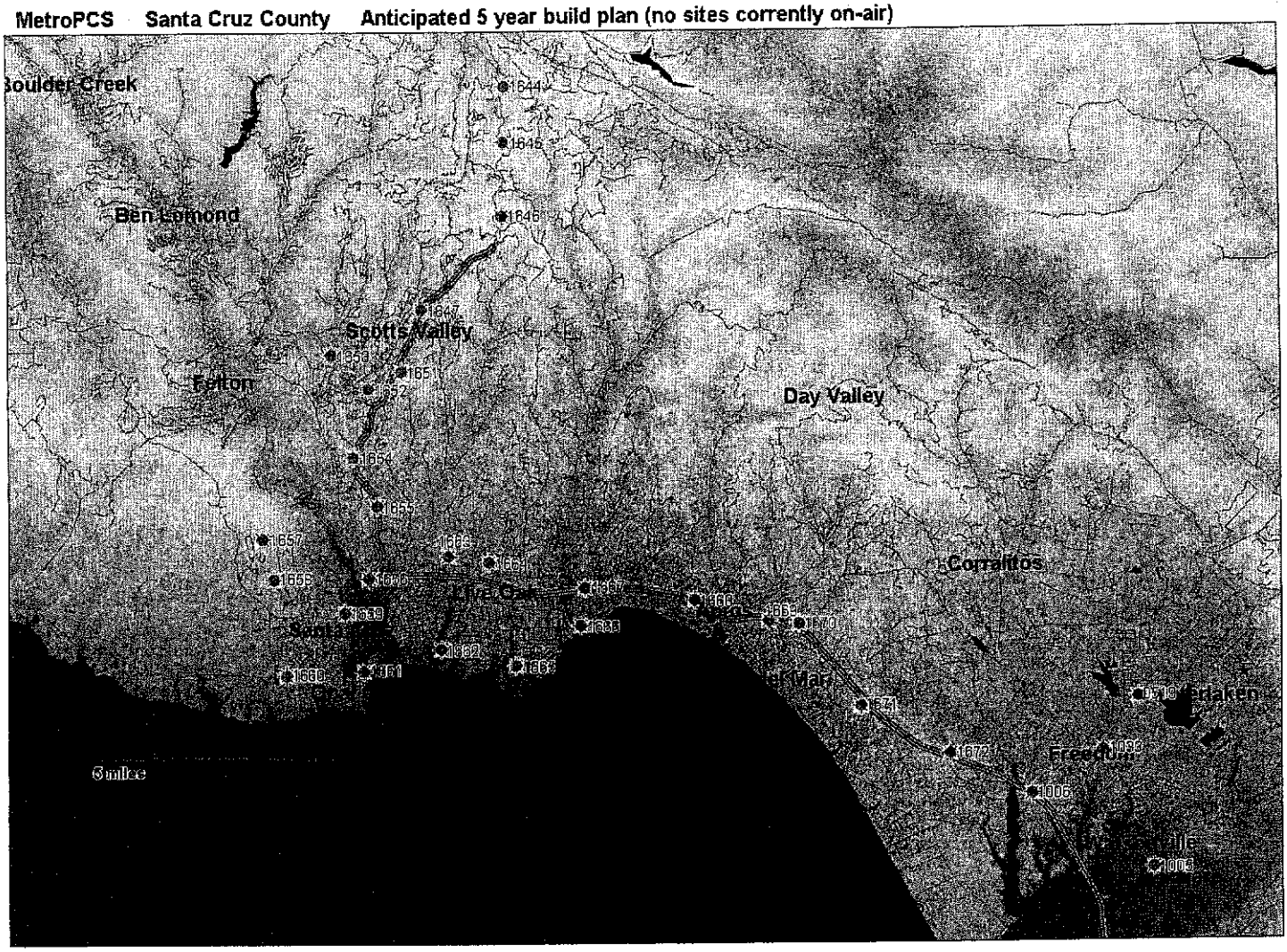
15. Residential/House
135 Hi Grade Lane 048-061-27
Existing house. Would require a new monopole thar would be highly visible

16. Residential/House
145 Hi Grade Lane 048-061-39
Existing house. Would require a new monopole that would be highly visible.

17. Residential/House
140 Hi Grade Lane 048-061-38
Existing house. Would require a new monopole that would be highly visible.

EXHIBIT

MetroPCS Santa Cruz County Anticipated 5 year build plan (no sites corrently on-air)



February 22nd 2005

EXHIBIT 1

Site_Id	Longitude	Latitude	Address	Colocation	Pole-Tower / Roof	On-Air or Proposed
519	-121.743	36.9371		yes	pole-tower	PROPOSED
1005	-121.772	36.9022		yes	pole-tower	PROPOSED
1006	-121.797	36.9271			roof	PROPOSED
1033	-121.772	36.937			roof	PROPOSED
1644	-121.975	37.1236			pole-tower	PROPOSED
1645	-121.975	37.108			pole-tower	PROPOSED
1646	-121.976	37.0875			pole-tower	PROPOSED
1647	-122.005	37.0623			pole-tower	PROPOSED
1651	-122.012	37.0452			pole-tower	PROPOSED
1652	-122.023	37.0405			pole-tower	PROPOSED
1653	-122.036	37.05			pole-tower	PROPOSED
1654	-122.026	37.0178			pole-tower	PROPOSED
1655	-122.022	37.0044			pole-tower	PROPOSED
1656	-122.019	36.9902			pole-tower	PROPOSED
1657	-122.061	36.9988	N/A		N/A	PROPOSED
1658	-122.057	36.9878	N/A		N/A	PROPOSED
1659	-122.032	36.9783			roof	PROPOSED
1660	-122.053	36.9614			roof	PROPOSED
1661	-122.026	36.9623			roof	PROPOSED
1662	-121.999	36.968			roof	PROPOSED
1663	-121.999	36.9884			pole-tower	PROPOSED
1664	-121.975	36.9835			pole-tower	PROPOSED
1665	-121.974	36.9632			roof	PROPOSED
1666	-121.951	36.9739			roof	PROPOSED
1667	-121.95	36.9841			pole-tower	PROPOSED
1668	-121.916	36.9815			pole-tower	PROPOSED
1669	-121.89	36.9782			roof	PROPOSED
1670	-121.867	36.9673			pole-tower	PROPOSED
1671	-121.85	36.9466			pole-tower	PROPOSED
1672	-121.825	36.9368			pole-tower	PROPOSED

EXHIBIT 1

MetroPCS • Proposed Base Station (Site No. SF10330B)
243 Green Valley Road • Freedom, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of MetroPCS, a personal wireless telecommunications carrier, to evaluate the base station (Site No. SF10330B) proposed to be located at 243 Green Valley Road in Freedom, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. In Docket 93-62, effective October 15, 1997, the FCC adopted the human exposure limits for field strength and power density recommended in Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent Institute of Electrical and Electronics Engineers ("IEEE") Standard C95.1-1999, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes nearly identical exposure limits. A *summary* of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

The most restrictive limit for exposures of unlimited duration to radio frequency energy far several personal wireless services are as follows:

Personal Wireless Service	Approx. Frequency	Occupational Limit	Public Limit
Personal Communication ("PCS")	1,950 MHz	5.00 mW/cm^2	1.00 mW/cm^2
Cellular Telephone	870	2.90	0.58
Specialized Mobile Radio	855	2.85	0.57
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "cabinets") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables about 1 inch thick. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward

the horizon, with very little energy wasted toward the sky or the ground. Along with the low power of such facilities, this means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. *65*, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 attached describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Metro, including zoning drawings by L.D. Strobel Company, Inc., dated October 28, 2004, it is proposed to mount three EMS Model RR6518-000DPL directional panel PCS antennas within a new 10-foot architectural tower to be installed above the roof of the two-story Freedom Endoscopy Center, located at 243 Green Valley Road in Freedom. The antennas would be mounted at an effective height of about 37 feet above ground and would be oriented at 120° spacing, to provide service in all directions. The maximum effective radiated power in any direction would be 1,890 watts, representing six channels operating simultaneously at 315 watts each. There are reported no other telecommunications carriers located at this site.

Study Results

For a person anywhere at ground, the maximum ambient RF exposure level due to the proposed Metro operation by itself is calculated to be 0.0022 mW/cm^2, which is 0.22% of the applicable public exposure limit. The maximum calculated cumulative level at the second floor elevation of any nearby building* is 0.44% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels.

Recommended Mitigation Measures

Since they are to be mounted above the roof of the building, the Metro antennas are not accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, no access

* Located at least 20 feet away, based on the drawings

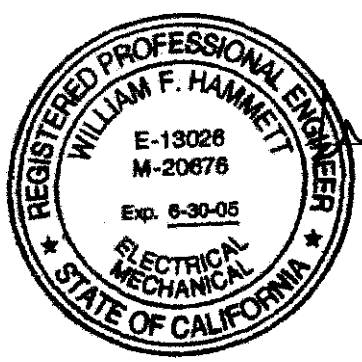
within 5 feet directly in front of the Metro antennas themselves, such as might occur during building maintenance activities, should be allowed while the site is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. Posting explanatory warning signs' on the enclosure housing the antennas, such that the signs would be readily visible from any angle of approach to persons who might need to work within that distance, would be sufficient to meet FCC-adopted guidelines.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that the base station proposed by MetroPCS at 243 Green Valley Road in Freedom, California, can comply with the prevailing standards for limiting human exposure to radio frequency energy and, therefore, need not for this reason cause a significant impact on the environment. **The** highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30,2005. This work has been carried out by him or under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



William F. Hammett, P.E.

November 12,2004

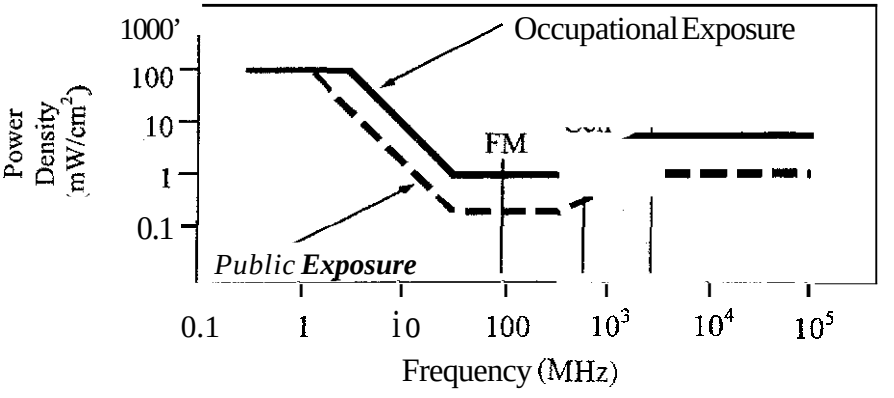
Warning signs should comply with **ANSI C95.2** color, symbol, and content conventions. In addition, contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord. local zoning or health authority, or appropriate professionals may be required.

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The **FCC** adopted the limits from Report No. ***86,*** "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements, which are nearly identical to the more recent Institute of Electrical and Electronics Engineers Standard C95.1-1999, "*Safety* Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz." These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or heaith.

As shown in the table and chart below, separate limits apply €or occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) **up** to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (Vim)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – **1.34**	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/f*	1.63	*2.19/f*	100	*180/f^2*
3.0 – 30	1842/f	*823.8/f*	4.89/f	*2.19/f*	900/f^2	*180/f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	0.2
300 – 1,500	3.54$\sqrt{f}$	*1.59$\sqrt{f}$*	$\sqrt{f}$/106	*$\sqrt{f}$/238*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods ***of*** time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, **the total** expected power density *from* any number of individual radio sources. The program allows for the description ***of*** buildings and uneven terrain, if required to obtain more accurate projections.

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see **Figure** 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over *six* or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications cell sites. The near field zone is defined by the distance, D, from an antenna beyond which the manufacturer's published, far field antenna patterns will be fully formed; the near field may exist for increasing D until some or all of three conditions have been met:

$$1)\ D > \frac{2h^2}{\lambda} \qquad 2)\ D > 5h \qquad 3)\ D > 1.6\lambda$$

where h = aperture height of the antenna, in meters, and
λ = wavelength of the transmitted signal, in meters.

The FCC Office of Engineering and Technology Bulletin No. **65** (August **1997)** gives this formula for calculating power density in the near field zone about an individual RF source:

$$\text{power density}\quad S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}, \quad \text{in mW/cm}^2,$$

where θ_{BW} = half-power beamwidth of antenna, in degrees, and
P_{net} = net power input to the antenna, in watts.

The factor of 0.1 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates distances to FCC public and occupational limits.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

$$\text{power density}\quad S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}, \quad \text{in mW/cm}^2,$$

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the point of calculation, in meters

The factor of **2.56** accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of **1.6 (1.6**x 1.6 = **2.56).** The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on **an** arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.