PULLMAN & COMLEY, LLC
ATTORNEYS AT LAW

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EM-POCKET-062-081010

October 9, 2008

ORIGINAL

Via Federal Express

S. Derek Phelps, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Notice of Exempt Modification
Crown Castle USA, Inc. Telecommunications Facility
890 Evergreen Avenue, Hamden, Connecticut

Dear Mr. Phelps:

Youghiogheny Communications-Northeast, LLC, doing business as Pocket Communications ("Pocket"), intends to install antennas and appurtenant equipment at the existing 108-foot silo facility owned by Crown Castle USA, Inc. and located at 890 Evergreen Avenue, Hamden, Connecticut ("Facility"). Pocket Communications provides prepaid, flat rate wireless voice and data services to more than a quarter of a million subscribers. Pocket is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation. This installation constitutes an exempt modification pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes Section 16-50g et. seq. (PUESA), and Section 16-50j-72(b)(2) of the Regulations of the Connecticut State Agencies adopted pursuant to PUESA. In accordance with R.C.S.A. Section 16-50j-73, a copy of this notice has been sent to Craig Henrici, Mayor, Town of Hamden.

The existing Facility consists of a 108-foot self-supporting stealth silo tower capable of supporting multiple carriers within a fenced compound. The coordinates for the Facility are **Lat: 41°-24'-24" and Long: 72°–54'-15".** The tower is located on the eastern side of Hamden, approximately 400 feet west of Evergreen Avenue on the Connecticut Agricultural Experiment Station property in Hamden. The Facility is roughly 1,100 feet west of Whitney Avenue (Route 10), roughly 2,000 feet north of it's intersection with the Route 40 connector (see Site Map, attached as Exhibit A). The Facility currently supports Nextel antennas at seventy five foot (75') level centerline AGL ("above ground level"), AT&T antennas at the eighty five foot level (85') AGL, Verizon antennas at the ninety five foot level (95') and T-Mobile antennas at the one hundred four foot level (104') AGL. Pocket proposes to install three Kathrein 742-213 silo internal mount antennas on the tower at the sixty five foot centerline (65') AGL, and a Nortel CDMA Micro BTS 3231 cabinet, mounted to the internal wall of the attached equipment

building contained within a six foot by six foot (6'-0" x 6'-0") lease area. A small GPS antenna will be mounted to the roof of the building. The coax cable lines will run along the roof of the building to the tower. Utilities will be run via a proposed conduit within the building to existing utility sources (See Design Drawings and Equipment Specifications, attached as Exhibits B and C respectively).

For the following reasons, the proposed modifications to the Evergreen Avenue Facility meet the exempt modification criteria set forth in R.C.S.A. Section 16-50j-72(b)(2):

1. The proposed modification will not increase the height of the tower as Pocket's antennas will be installed at a center line height of approximately 65 feet.

2. The installation of Pocket's equipment and shelter will not require an extension of the site boundaries.

3. The proposed modifications will not increase the noise levels at the existing Facility by six decibels or more.

4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. The worst-case RF power density calculations, based on in-field testing, for the proposed Pocket antennas would be 24.19% of the FCC standard (see general power density calculations table, attached as Exhibit D).

Also attached, Exhibit E, is a structural analysis confirming that the tower can support the existing and proposed antennas and associated equipment.

For the foregoing reasons, Pocket respectfully submits that the proposed antenna installation and equipment at the Hamden Facility constitutes an exempt modification under R.C.S.A. Section 16-50j-72(b)(2)

Respectfully Submitted,

Carrie L. Larson

cc: Craig Henrici, Mayor
CT Agricultural Experiment Station Trustee Under Will of William Lockwood (underlying property owner)

Exhibit A

Site Map

Pocket Site NHCT0330A

890 Evergreen Avenue

Hamden, Connecticut

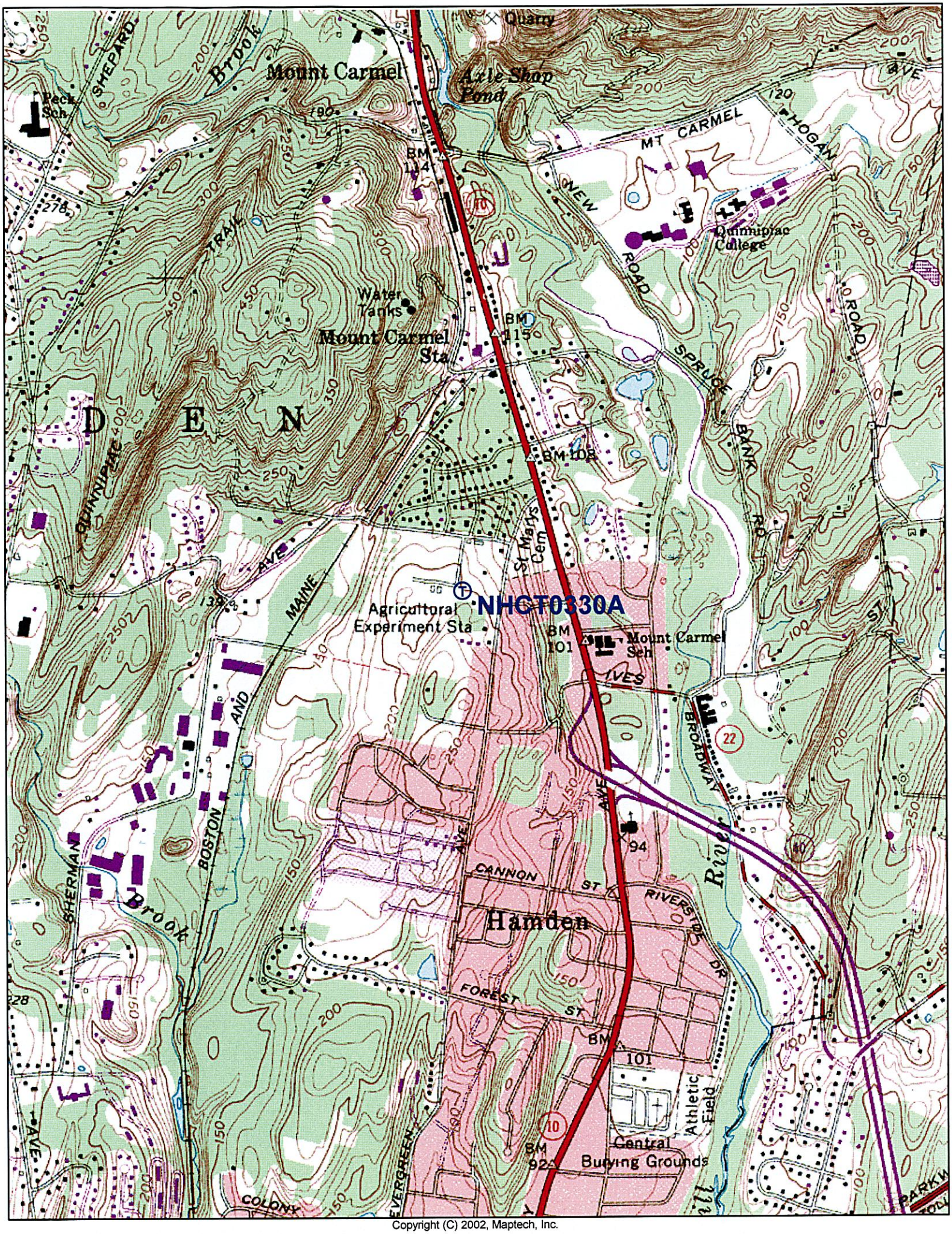


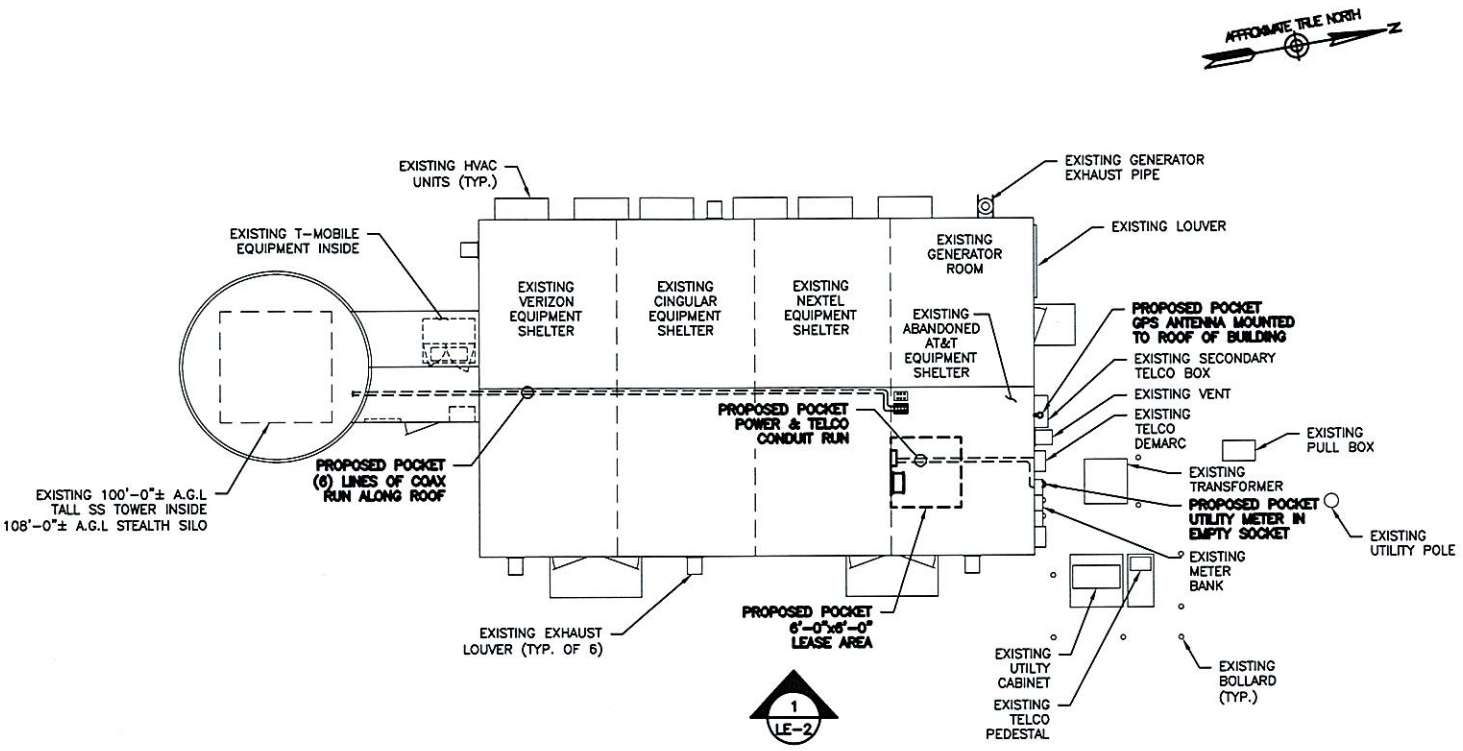
Exhibit B

Design Drawings

Pocket Site NHCT0330A

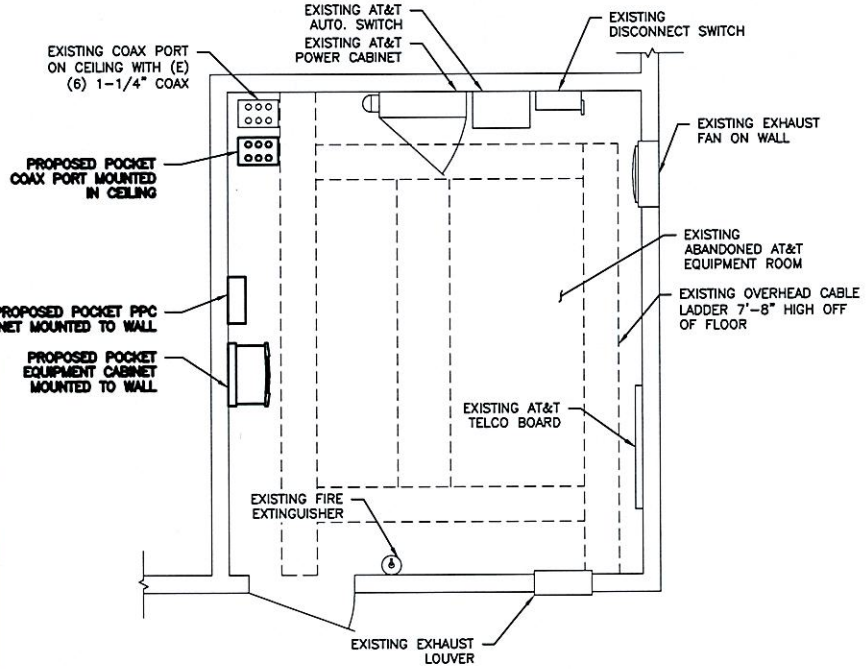
890 Evergreen Avenue

Hamden, Connecticut



COMPOUND PLAN 1

SCALE: N.T.S.



EQUIPMENT LAYOUT 2

SCALE: N.T.S.

APPROX. COAX RUN
145'

APPROVALS

SITE OWNER	DATE
CONSTRUCTION MANAGER	DATE
RF ENGINEER	DATE
SITE ACQUISITION	DATE

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION REFERENCED HEREIN. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LOCAL BUILDING GOVERNMENT AND ANY CHANGES OR MODIFICATIONS MUST BE APPROVED.

MAXTON
50 Eastman St.
South Easton, MA 02375
Phone: (508) 636-6363
Fax: (508) 636-6365

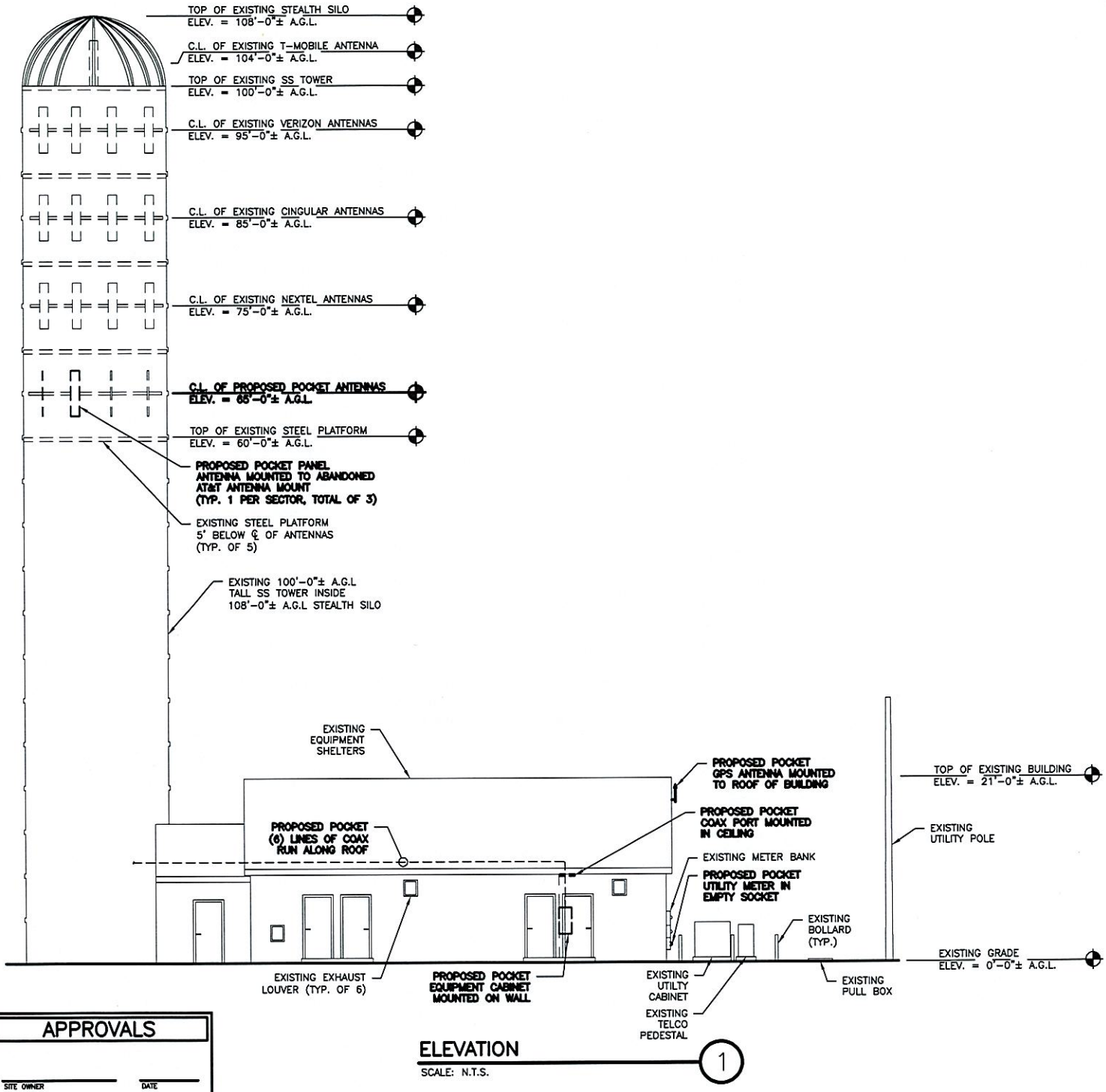
BAY STATE DESIGN
Bay State Design Associates, Inc.
Architects • Engineers
70 Tower Office Park
Woburn, MA 01801
Phone: 781-932-2467
Fax: 781-932-9771

PREPARED FOR:

pocket SMART WIRELESS

Pocket Communications
P.O. Box 5936
San Antonio, TX 78201

SITE NUMBER: NHCT330A		DRAWN BY: JM	PROJECT NUMBER: 2882.055
SITE NAME: NH-330A HAMDEN, CT		CHECKED BY: JP	SHEET: LE-1
SITE ADDRESS: 890 EVERGREEN AVE. HAMDEN, CT 06518		DATE: 09/11/08	



ELEVATION 1

SCALE: N.T.S.

APPROVALS

SITE OWNER _____ DATE _____

CONSTRUCTION MANAGER _____ DATE _____

R.F ENGINEER _____ DATE _____

SITE ACQUISITION _____ DATE _____

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION WORK AS SET FORTH HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES OR MODIFICATIONS MAY BE REQUIRED.

MAXTON
50 Eastman St.
South Easton, MA 02375
Phone: (508) 638-6363
Fax: (508) 638-6365

BAY STATE DESIGN
Bay State Design Associates, Inc.
Architects • Engineers
70 Tower Office Park
Woburn, MA 01801
Phone: 781-932-2467
Fax: 781-932-9771

PREPARED FOR:

pocket SMART WIRELESS

Pocket Communications
P.O. Box 5936
San Antonio, TX 78201

SITE NUMBER: NHCT330A		DRAWN BY: JM	PROJECT NUMBER: 2882.055
SITE NAME: NH-330A HAMDEN, CT		CHECKED BY: JP	SHEET: LE-2
SITE ADDRESS: 890 EVERGREEN AVE. HAMDEN, CT 06518		DATE: 09/11/08	

Exhibit C

Equipment Specifications

Pocket Site NHCT0330A

890 Evergreen Avenue

Hamden, Connecticut

KATHREIN
SCALA DIVISION

742 213

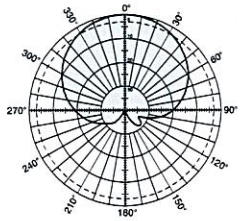
65° Panel Antenna

Kathrein's X-polarized adjustable electrical downtilt antennas offer the wireless carrier the ability to tailor polarization diversity sites for optimum performance. Using variable downtilt, only a few models need be procured to accommodate the needs of widely varying conditions. Remotely controlled downtilt is available as a retrofitable option.

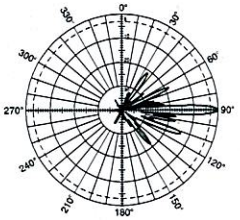
- 0-6° downtilt range.
- UV resistant pulltruded fiberglass radome.
- DC Grounded metallic parts for impulse suppression.
- No moving electrical connections.
- Wideband vector dipole technology.
- Optional remote downtilt Control.
- Will accomodate future 3G / UMTS applications.

General specifications:

Frequency range	1710–2170 MHz
VSWR	< 1.5:1
Impedance	50 ohms
Intermodulation (2x20w)	IM3: <-150 dBc
Polarization	+45° and -45°
Front-to-back ratio (180°±30°)	>30 dB (co-polar) >25 dB (total power)
Maximum input power	300 watts per input (at 50°C)
Electrical downtilt continuously adjustable	0–6 degrees
Connector	2 x 7/16 DIN female
Isolation	>30 dB
Cross polar ratio Main direction 0° Sector ±60°	 25 dB (typical) >10 dB
Weight	22 lb (10 kg)
Dimensions	76.5 x 6.1 x 2.7 inches (1942 x 155 x 69 mm)
Equivalent flat plate area	4.62 ft² (0.429 m²)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	87.2 x 6.8 x 3.6 inches (2214 x 172 x 92 mm)
Shipping weight	24.3 lb (11 kg)
Mounting	Fixed and tilt mount options are available for 2 to 4.6 inch (50 to 115 mm) OD masts.
See reverse for order information.	



Horizontal pattern
±45°- polarization



Vertical pattern
±45°- polarization

Specifications:	1710–1880 MHz	1850–1990 MHz	1920–2170 MHz
Gain	19 dBi	19.2 dBi	19.5 dBi
+45° and -45° polarization horizontal beamwidth	67° (half-power)	65° (half-power)	63° (half-power)
+45° and -45° polarization vertical beamwidth	4.7° (half-power)	4.5° (half-power)	4.3° (half-power)
Vertical Pattern–sidelobe suppression for first side-lobe above main beam	0° 2° 4° 6° T 18 17 15 15 dB	0° 2° 4° 6° T 18 18 17 15 dB	0° 2° 4° 6° T 18 18 17 15 dB

RoHS Lead-Free

*Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

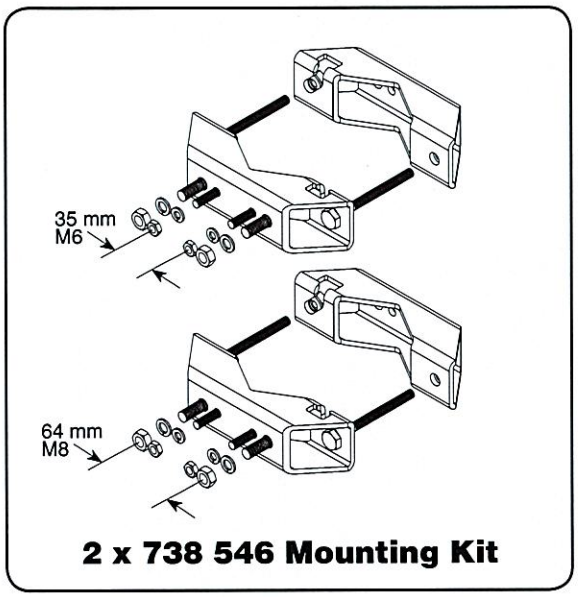
10642-H
936.2074/h

Kathrein Inc., Scala Division Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-3991
Email: communications@kathrein.com Internet: www.kathrein-scala.com

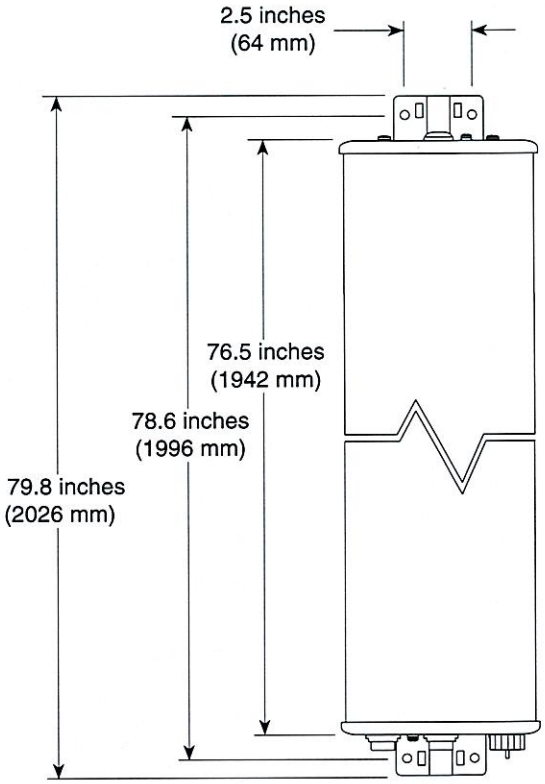
KATHREIN
SCALA DIVISION

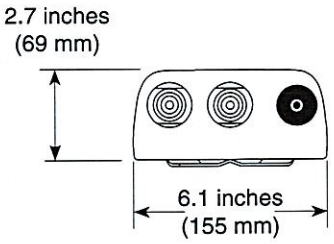
742 213

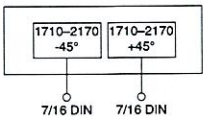
65° Panel Antenna



2 x 738 546 Mounting Kit







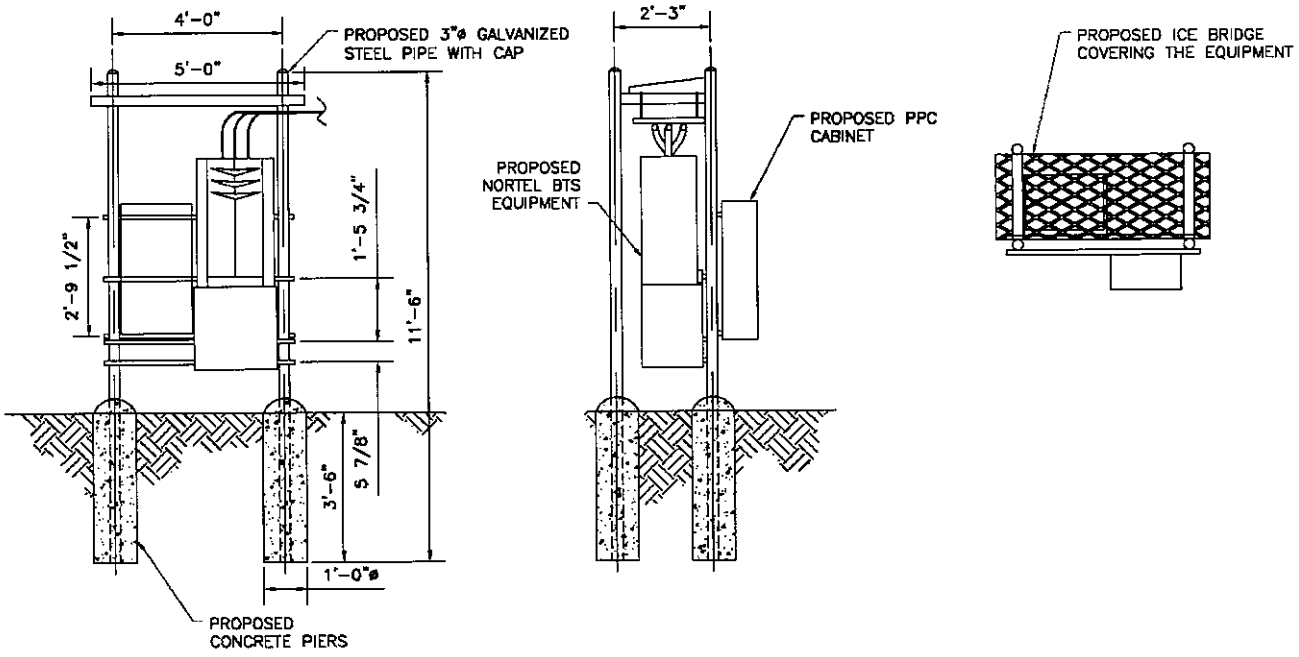
Mounting Options:

Model	Description
2 x 738 546	Mounting Kit for 2 to 4.6 inch (50 to 115 mm) OD mast.
737 978	Tilt Kit for use with the above mounting kit, 0–11 degrees downtilt angle. (requires 2 x 738 546 Mounting Kit)
742 263	Three-panel Sector Mounting Kit (120 deg. ea.) for 3.5 inch (89 mm) OD mast.

Order Information:

Model	Description
742 213	Antenna with 7/16 DIN connectors 0°–6° adjustable electrical downtilt

Kathrein Inc., Scala Division Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-3991
Email: communications@kathrein.com Internet: www.kathrein-scala.com



Pocket/Youghiogheny Communications – Northeast, LLC
Rack Detail

>BUSINESS MADE **SIMPLE**

NORTEL

CDMA BTS 3231 AWS 1.7/2.1 GHz (Outdoor/Indoor)

CDMA BTS 3231

Industry's Highest Capacity AWS Micro BTS

The CDMA BTS 3231 is the latest extension to Nortel Networks BTS (Base Transceiver Station) portfolio providing the ideal solution for urban, sub-urban and rural deployments. The CDMA BTS 3231 is a 3-carrier, 3-sector outdoor/indoor BTS operating at the AWS band of 1.7/2.1 GHz supporting IS-95, 1XRTT and 1xEV-DO simultaneously. BTS 3231 provides flexible deployments solutions including floor, rack, and wall mount options. The power consumption of BTS3231 is industry leading consuming only 630W for 3C3S. The BTS 3231 is also very light at 240lbs making it easy to transport to hard to reach locations such as the top of a high rise building.

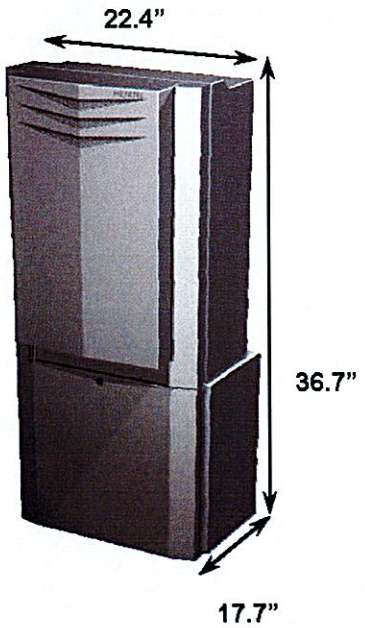


Exhibit D

Power Density Calculations

Pocket Site NHCT0330A

890 Evergreen Avenue

Hamden, Connecticut

Radio Frequency Field Survey

NHCT 0330A

890 Evergreen Ave
Hamden, CT

C² Systems

920 Candia Road
Manchester, NH 03109
(603) 657-9702
support@csquaredsystems.com

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Introduction

At the request of Pocket Wireless, radio frequency measurements were made in the vicinity of the wireless tower located on 890 Evergreen Avenue, Hamden, CT on September 23, 2008. The coordinates of the tower according to GPS are N 41° 24' 24.36", W 72° 54' 16.92". The results of the measurements as well as the calculated values for the proposed Pocket Wireless antennas are presented in this report.

Survey measurements are expressed as a percentage of the Maximum Permissible Exposure (MPE) limits as listed in the FCC OET Bulletin 65. OET Bulletin 65 was prepared to provide assistance in determining whether proposed or existing transmitting facilities, operations or devices comply with limits for human exposure to radio frequency fields adopted by the Federal Communications Commission. Measurement results expressed in this report are for uncontrolled public access. The FCC's guidelines establish separate exposure limits for "general population/uncontrolled exposure," and for "occupational/controlled exposure."

FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include limits for Maximum Permissible Exposure (MPE) for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limit for the cellular band is 579 $\mu W/cm^2$, and the general population exposure limit for the PCS band is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population / uncontrolled exposure and for occupational / controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

Measurement Procedures

Frequencies from 300 KHz to 50 GHz were measured using the Narda A8722D probe in conjunction with the 8718B survey meter. The A8722D probe is "shaped" such that in a mixed signal environment (i.e.: more than one frequency band is used in a particular location) it accurately measures the percent of MPE.

From FCC OET Bulletin No. 65 - Edition 97-01 – "A useful characteristic of broadband probes used in multiple-frequency RF environments is a frequency-dependent response that corresponds to the variation in MPE limits with frequency. Broadband probes having such a "shaped" response permit direct assessment of compliance at sites where RF fields result from antennas transmitting over a wide range of frequencies. Such probes can express the composite RF field as a percentage of the applicable MPEs".

Probe Description – As suggested in FCC OET Bulletin No. 65 - Edition 97-01, the response of the measurement instrument should be essentially isotropic, (i.e., independent of orientation or rotation angle of the probe). For this reason, the Narda A8722 Isotropic probe was used for these measurements.

Sampling Description: At each measurement location, a spatially averaged measurement is collected over the height of an average human body. The 8718B survey meter performs a time average measurement while the user slowly moves the probe over a distance range of 0 cm to 200 cm (about 6 feet) above ground level. The results recorded at each measurement location include both average and peak values over the spatial distance.

Instrumentation Information: A summary of specifications for the equipment used is provided in the table below.

Manufacturer	Narda Microwave			
Probe	A8722D, Serial Number 07030			
Calibration Date	11/26/2007			
Calibration Interval	12 Months			
Meter	8718B, Serial Number 06028			
Calibration Date	11/26/2007			
Calibration Interval	24 Months			
Probe Specifications	**Freq Range**	**Field Measured**	**Standard**	**Measurement Range**
	300 KHz-50 GHz	E	FCC 1997	0.3 – 300 % of Controlled

Table 1: Instrumentation Information

Instrument Measurement Uncertainty: The total measurement uncertainty of the NARDA measurement probe and meter is no greater than ±3 dB. The factors which contribute to this include the probe's frequency response deviation, calibration uncertainty, ellipse ratio, and isotropic response. Every effort is taken to reduce the overall uncertainty during measurement collection including rotating the probe about the axis of the handle and pointing the probe directly at the likely highest source of emissions.

Calculations

All calculations were based on the following information supplied by Pocket Wireless.

Power Assumptions				
Pocket AWS	2130-2133.75 MHz	3 Channels	631W ERP	1893W Total ERP

Table 2: Proposed Pocket Antenna Information

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{EIRP}{\pi \times R^2}\right) \times \text{Off Beam Loss}$$

Where:
EIRP = Effective Isotropic Radiated Power
R = Radial Distance = $\sqrt{(H^2 + V^2)}$
H = Horizontal Distance from antenna
V = Vertical Distance to rad center of antenna
Off Beam Loss is determined by the selected antenna patterns

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the finished installation.

Results

Results, both measured and predicted, and a description of each survey location are detailed in the table presented below. Measurements were performed on September 23, 2008 between the hours of 1:00 PM and 3:00 PM.

Measurement locations are portrayed in the photos below. An aerial view, with measurement points, of the surrounding area is shown in Figure 1.

Predicted results were estimated by calculating the %MPE of the proposed Pocket Wireless antennas given the mounting height of the antennas, the number of transmitters, and the max ERP for each sector. This predicted %MPE value was then added to each measured value to estimate a total %MPE value at the given distance from the base of the tower. An analysis of the antenna patterns was conducted to determine whether each individual measurement point would fall within the main beam of the transmitting antenna given the mounting heights of the antennas, antenna pattern and the distance between tower and measurement point. The results are detailed in Table 3 below.

Measurement Point	Latitude	Longitude	Distance from Tower (ft)	Measured %MPE	Predicted %MPE	Total %MPE
1	N 41°24' 23.69	W 72° 54' 16.33	16	0.45%	23.74%	24.19%
2	N 41°24' 23.86	W 72° 54' 16.1	17	0.20%	23.56%	23.76%
3	N 41°24' 24.72	W 72° 54' 16.09	91	0.05%	8.51%	8.56%
4	N 41°24' 23.87	W 72° 54' 16.74	33	0.00%	20.02%	20.02%
5	N 41°24' 24.88	W 72° 54' 14.55	171	0.00%	3.18%	3.18%
6	N 41°24' 25.82	W 72° 54' 14.27	254	0.00%	1.55%	1.55%
7	N 41°24' 26.73	W 72° 54' 14.09	339	0.00%	0.89%	0.89%
8	N 41°24' 27.58	W 72° 54' 13.8	425	0.00%	0.58%	0.58%
9	N 41°24' 28.65	W 72° 54' 13.64	529	0.00%	0.37%	0.37%
10	N 41°24' 30.14	W 72° 54' 13.26	680	0.00%	0.23%	0.23%
11	N 41°24' 23.84	W 72° 54' 14.79	116	0.00%	6.02%	6.02%
12	N 41°24' 22.42	W 72° 54' 15.16	169	0.00%	3.24%	3.24%
13	N 41°24' 22.77	W 72° 54' 16.05	111	0.00%	6.43%	6.43%
14	N 41°24' 20.38	W 72° 54' 17.31	360	0.40%	1.64%	2.04%
15	N 41°24' 19.33	W 72° 54' 18.8	496	0.55%	0.43%	0.98%
16	N 41°24' 20.65	W 72° 54' 20.12	435	0.95%	0.22%	1.17%
17	N 41°24' 20.98	W 72° 54' 22.25	538	1.45%	0.31%	1.76%
18	N 41°24' 24.6	W 72° 54' 13.23	247	0.00%	1.63%	1.63%
19	N 41°24' 24.33	W 72° 54' 11.05	404	0.00%	0.64%	0.64%
20	N 41°24' 22.48	W 72° 54' 9.92	506	0.00%	0.41%	0.41%
21	N 41°24' 25.18	W 72° 54' 18.49	215	0.20%	2.11%	2.31%
22	N 41°24' 25.4	W 72° 54' 20.62	365	1.15%	0.77%	1.92%
23	N 41°24' 25.73	W 72° 54' 23.43	575	0.00%	0.32%	0.32%
24	N 41°24' 31.1	W 72° 54' 19.29	771	0.15%	0.18%	0.33%
25	N 41°24' 31.65	W 72° 54' 23.85	979	0.00%	0.11%	0.11%
26	N 41°24' 29.7	W 72° 54' 6.15	976	0.00%	0.11%	0.11%
27	N 41°24' 24.23	W 72° 54' 7.33	685	0.10%	0.22%	0.32%
28	N 41°24' 18.67	W 72° 54' 8.36	801	0.00%	0.16%	0.16%

Table 3: Measured and Calculated Results

Figure 1: Aerial View with Measurement Locations

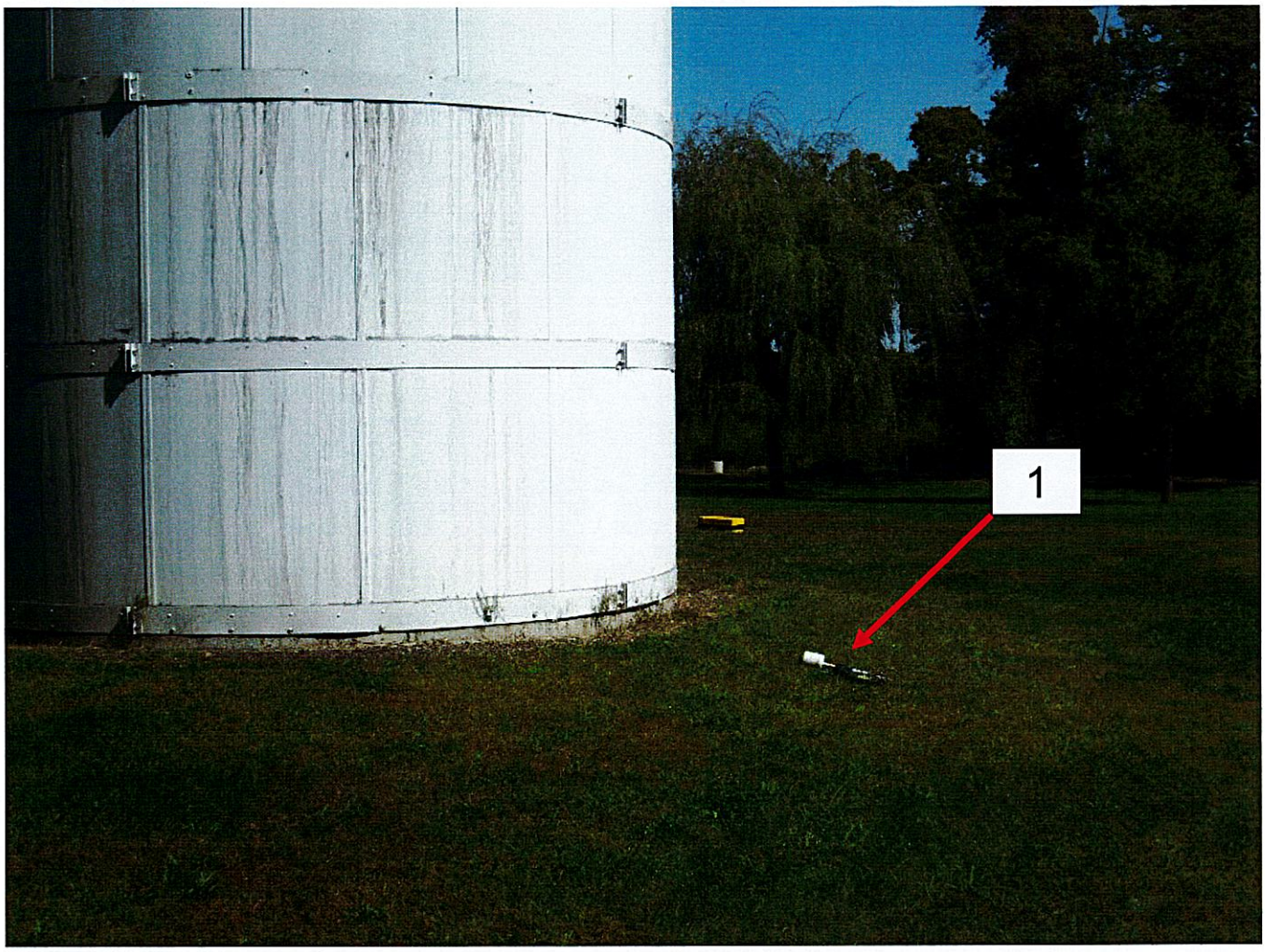


Figure 2: Measurement Location 1

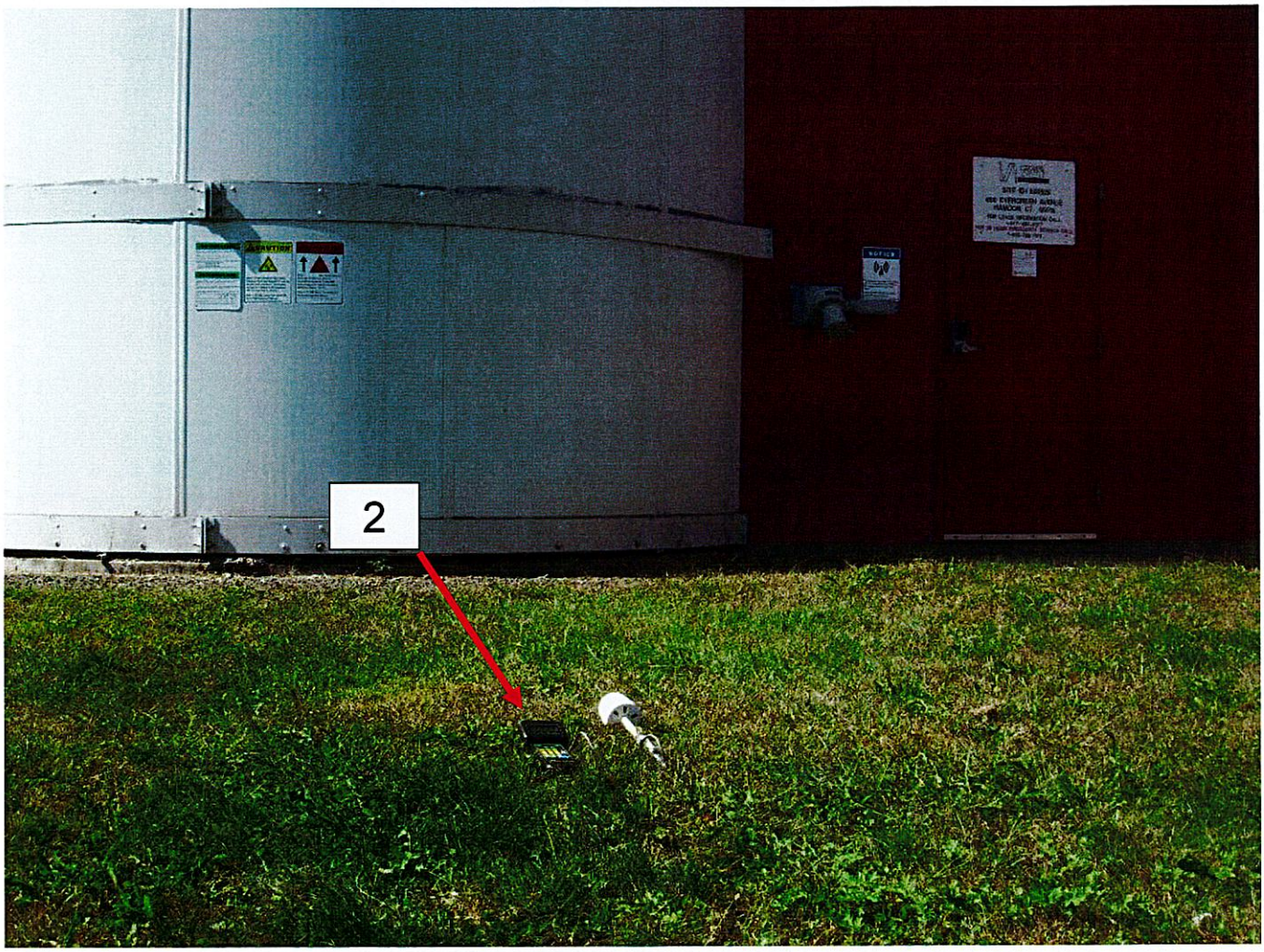
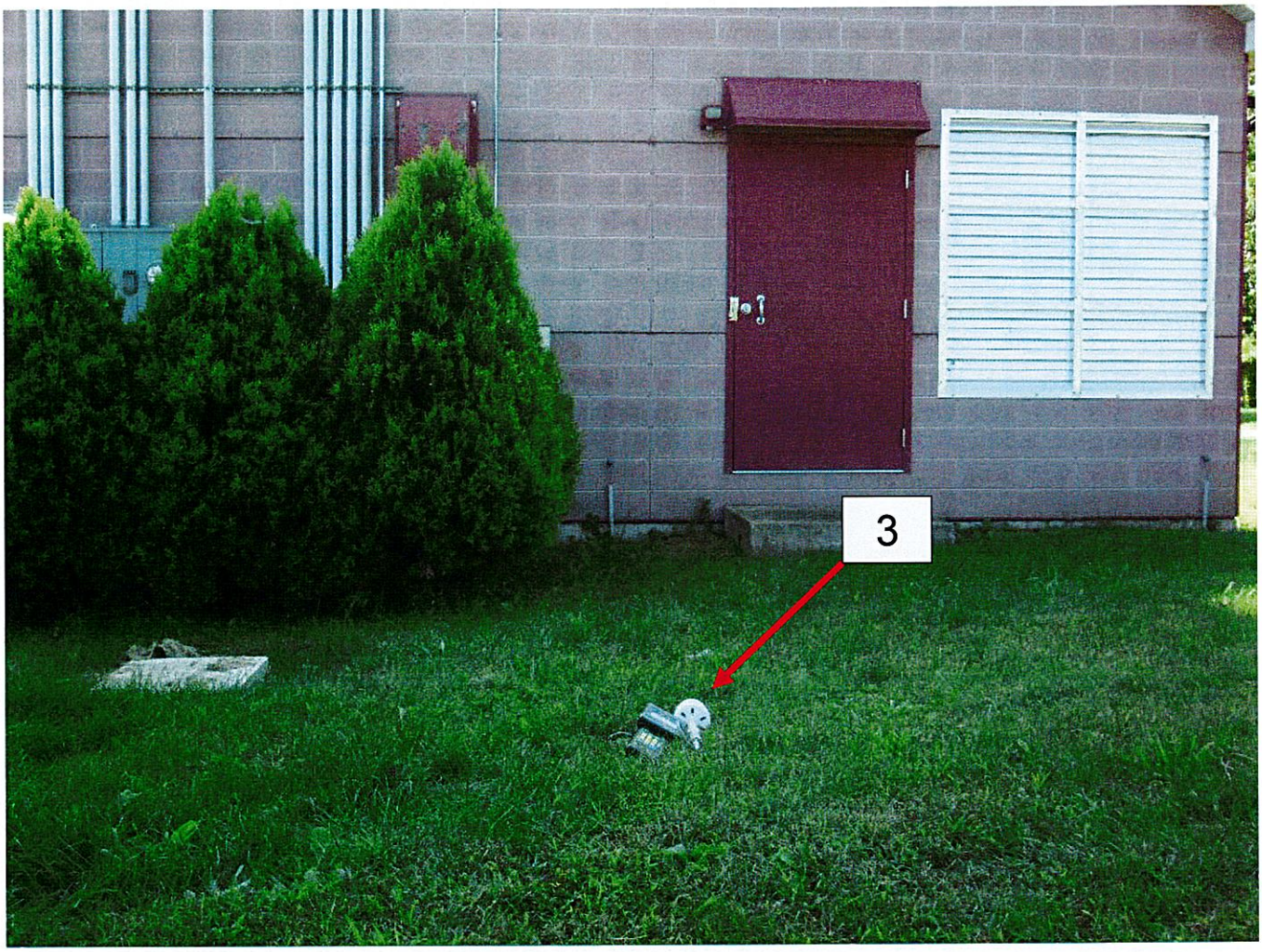


Figure 3: Measurement Location 2



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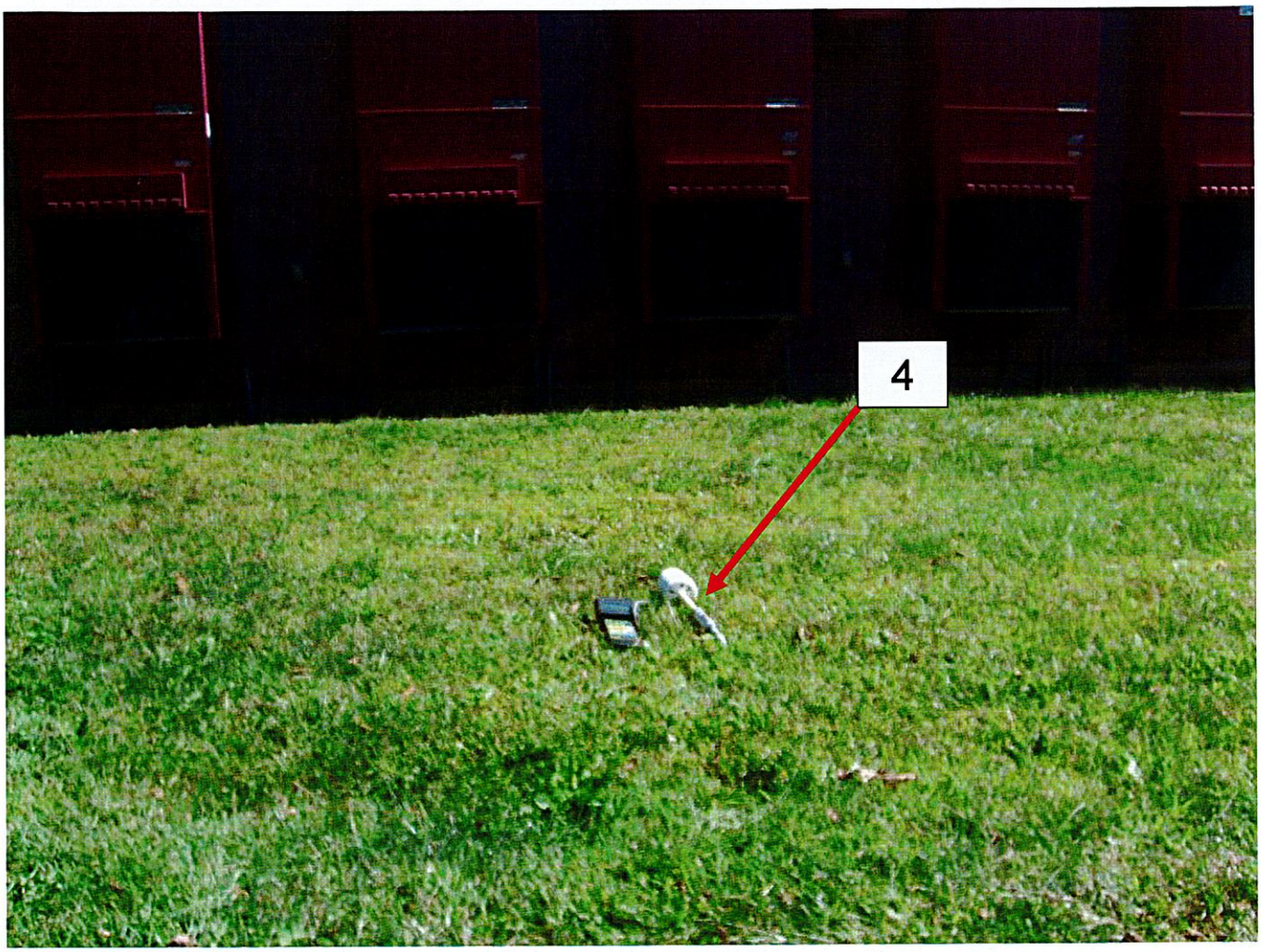


Figure 5: Measurement Location 4

Figure 6: Measurement Location 5

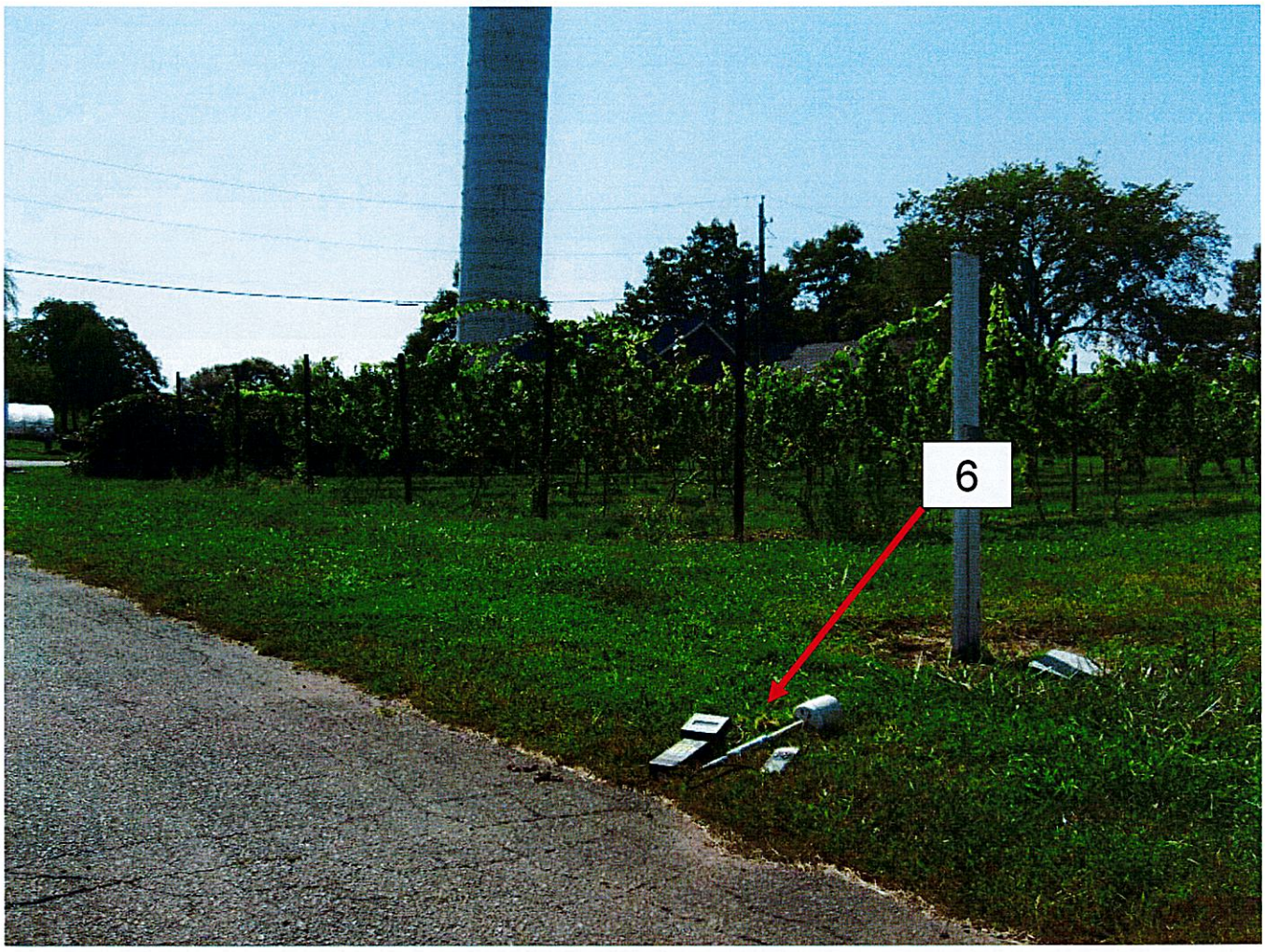


Figure 7: Measurement Location 6

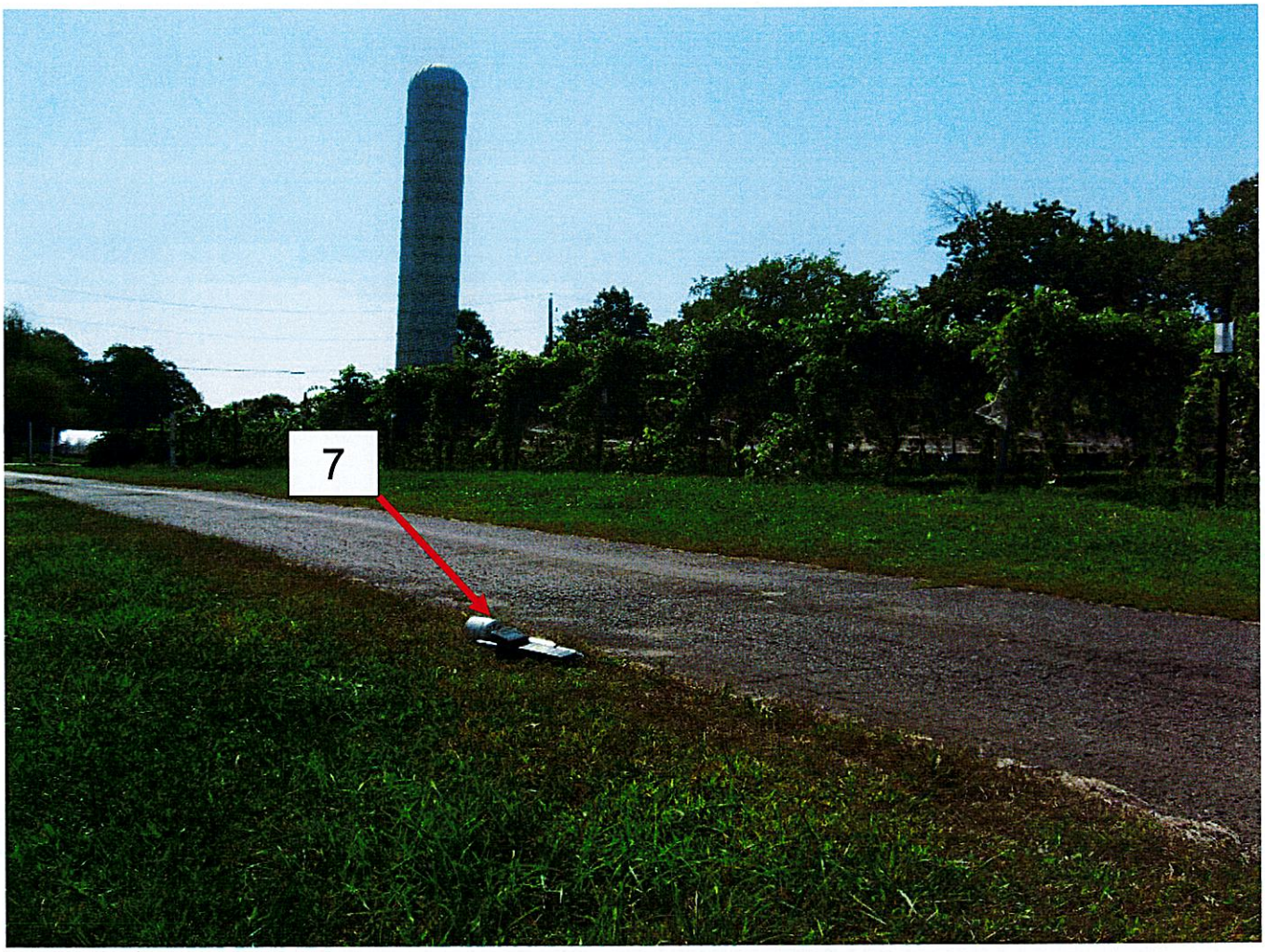


Figure 8: Measurement Location 7

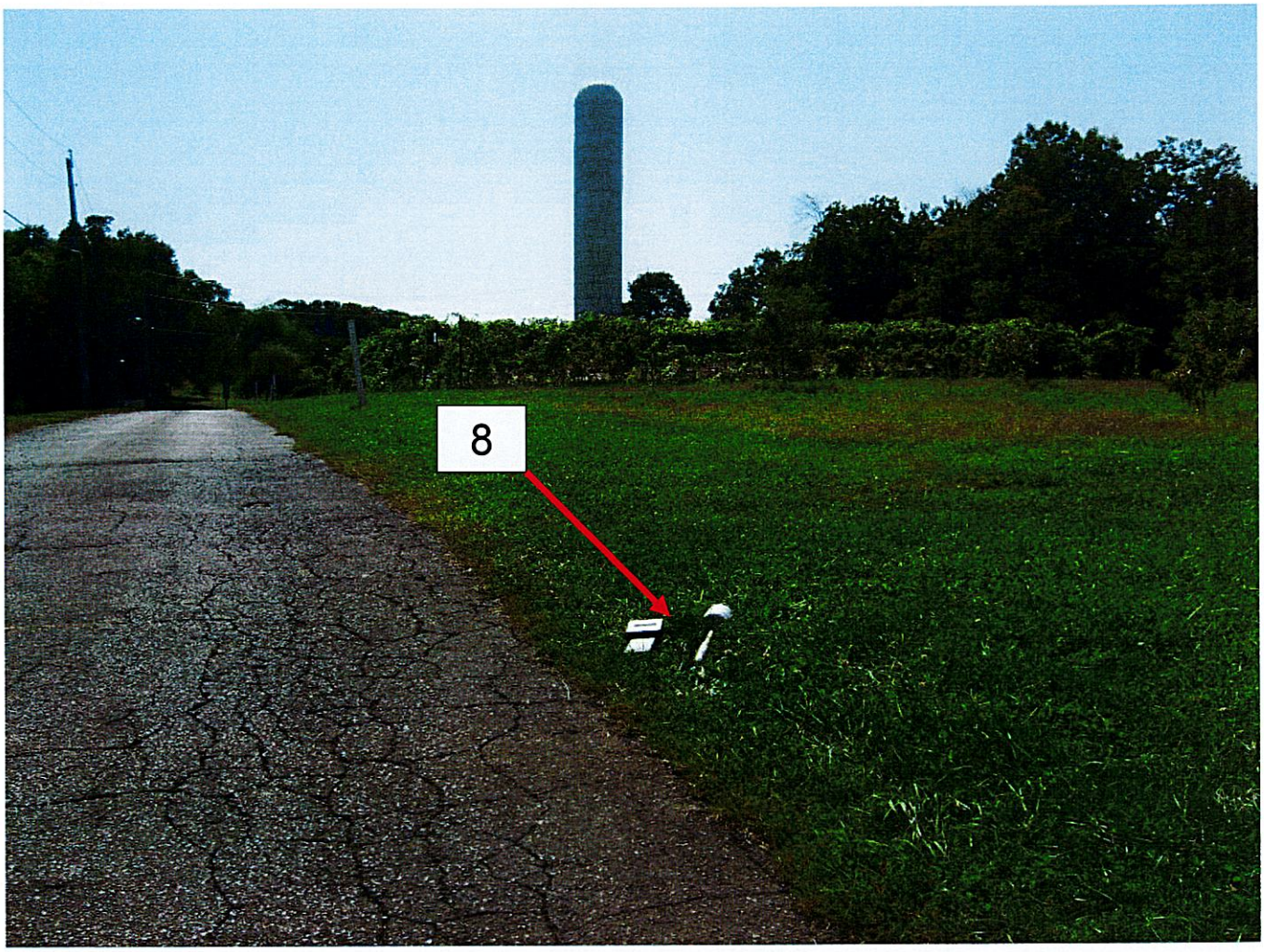


Figure 9: Measurement Location 8

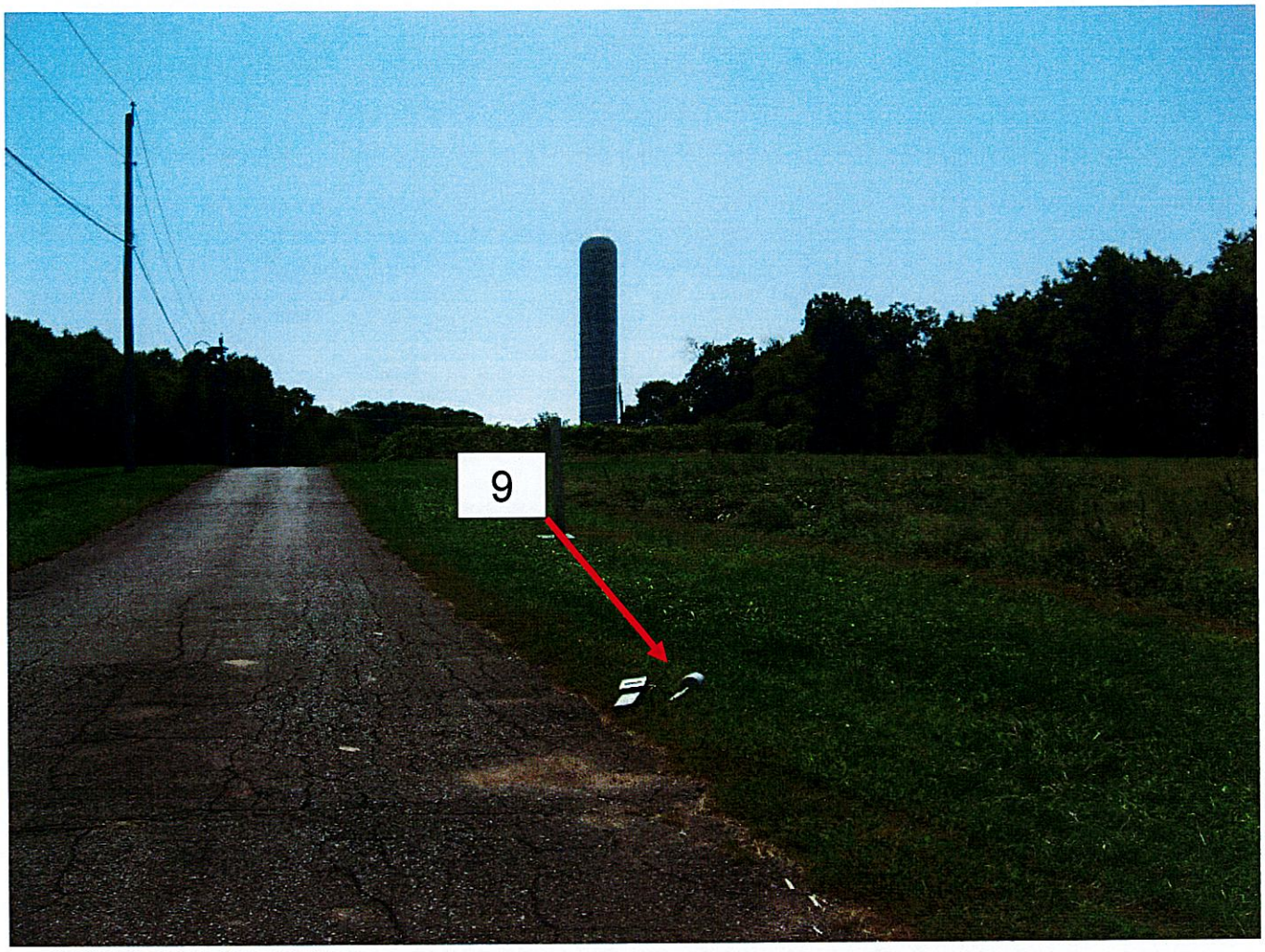


Figure 10: Measurement Location 9

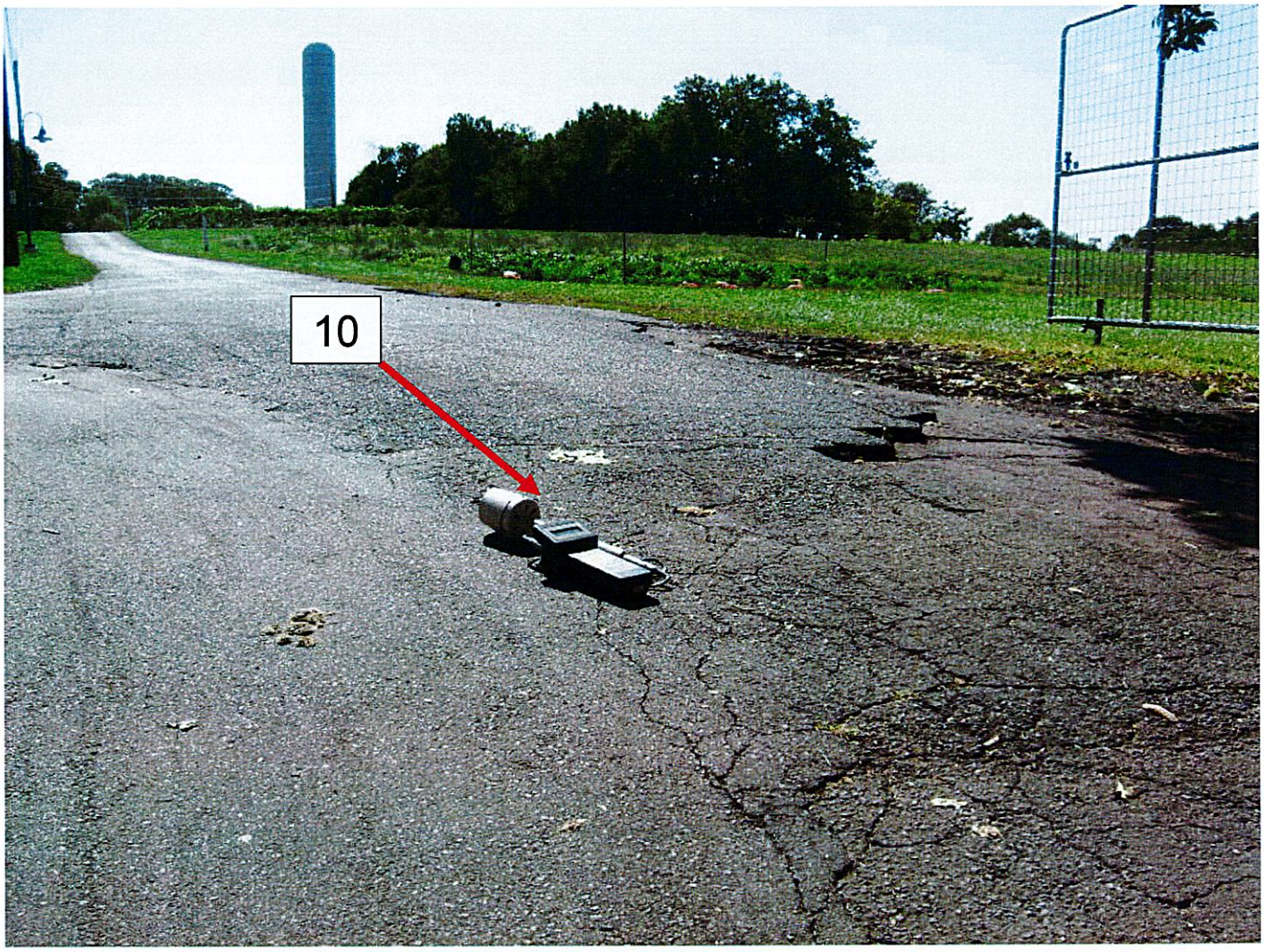


Figure 11: Measurement Location 10

Figure 12: Measurement Location 11

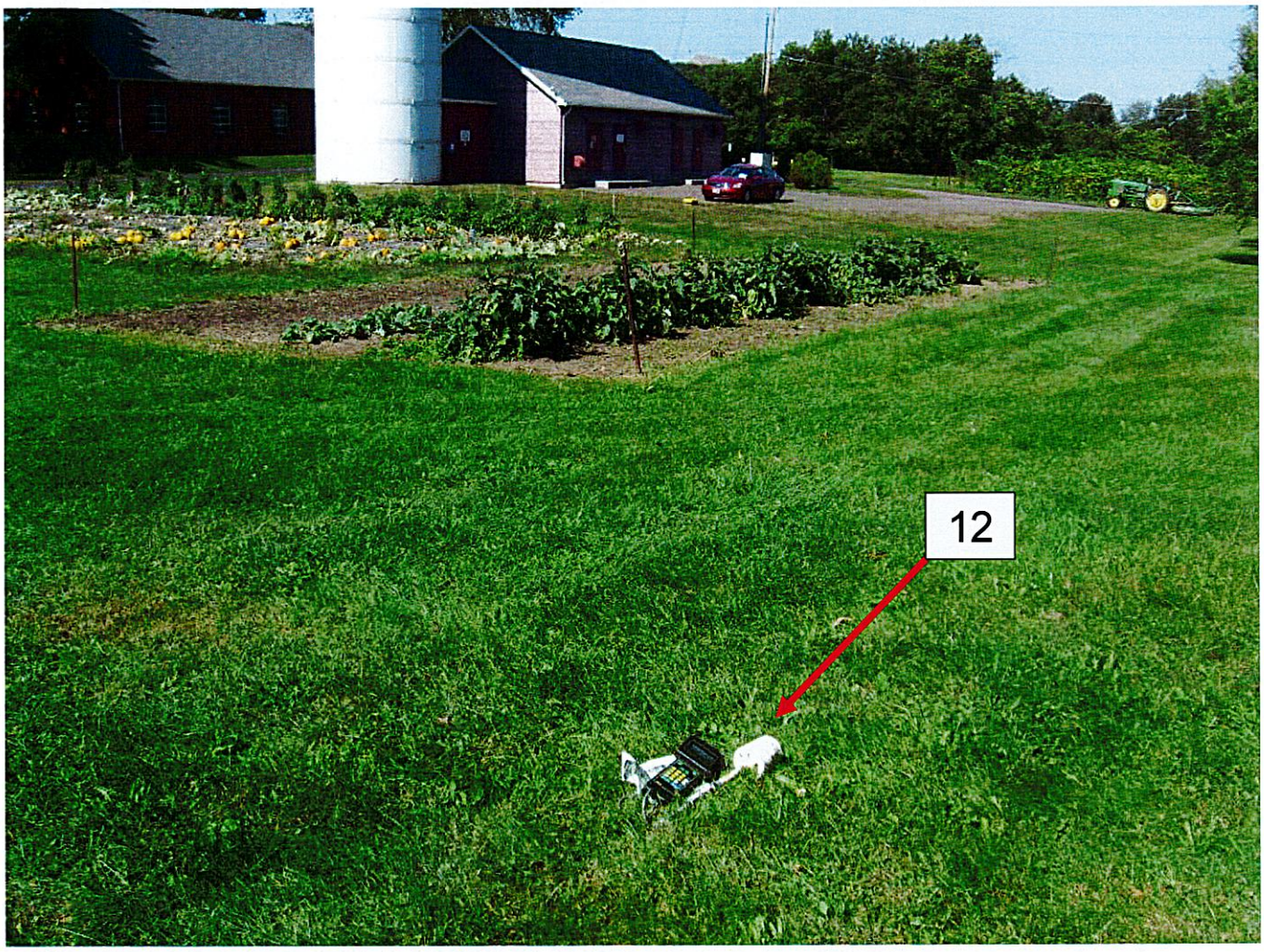


Figure 13: Measurement Location 12

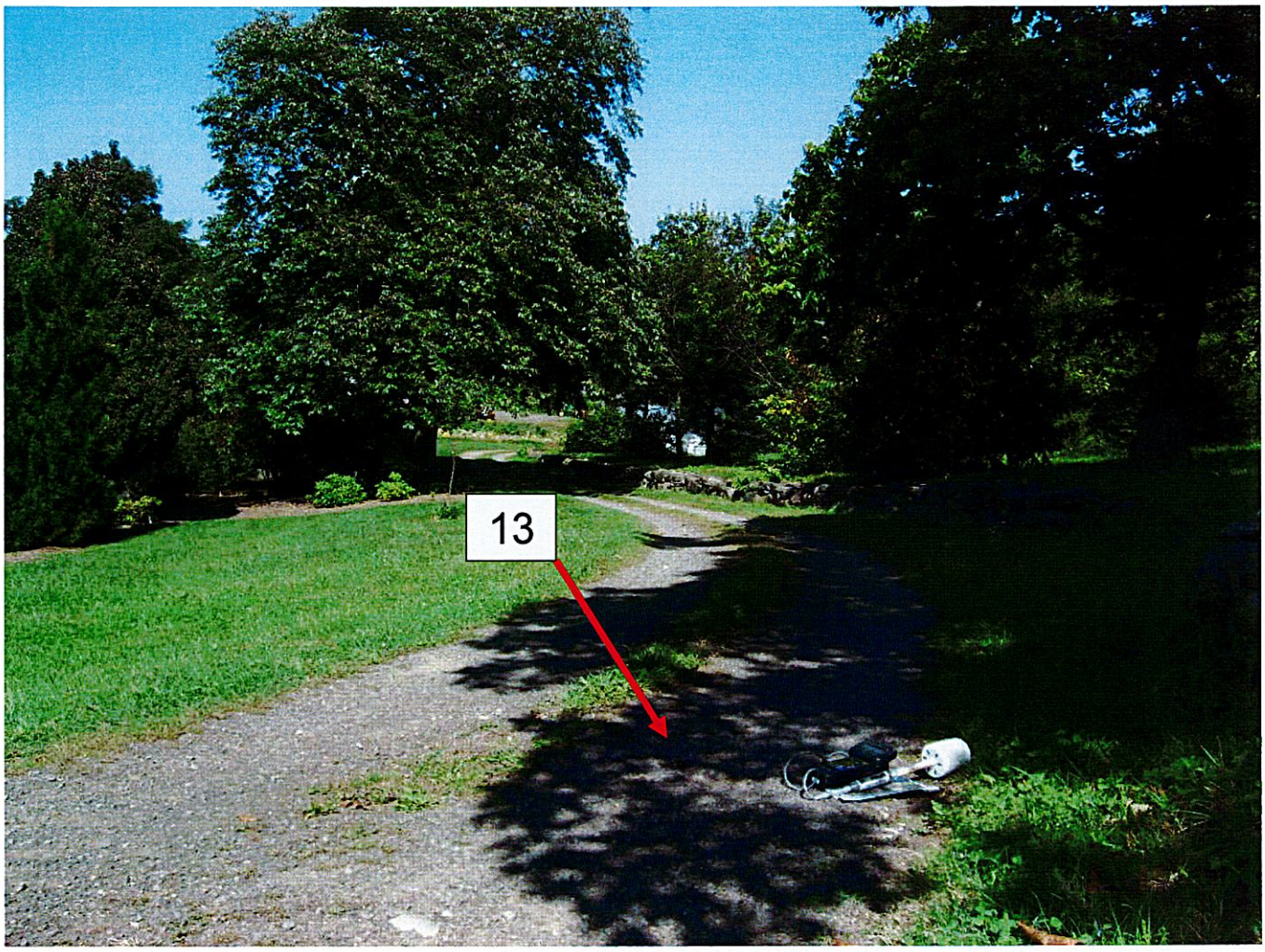


Figure 14: Measurement Location 13

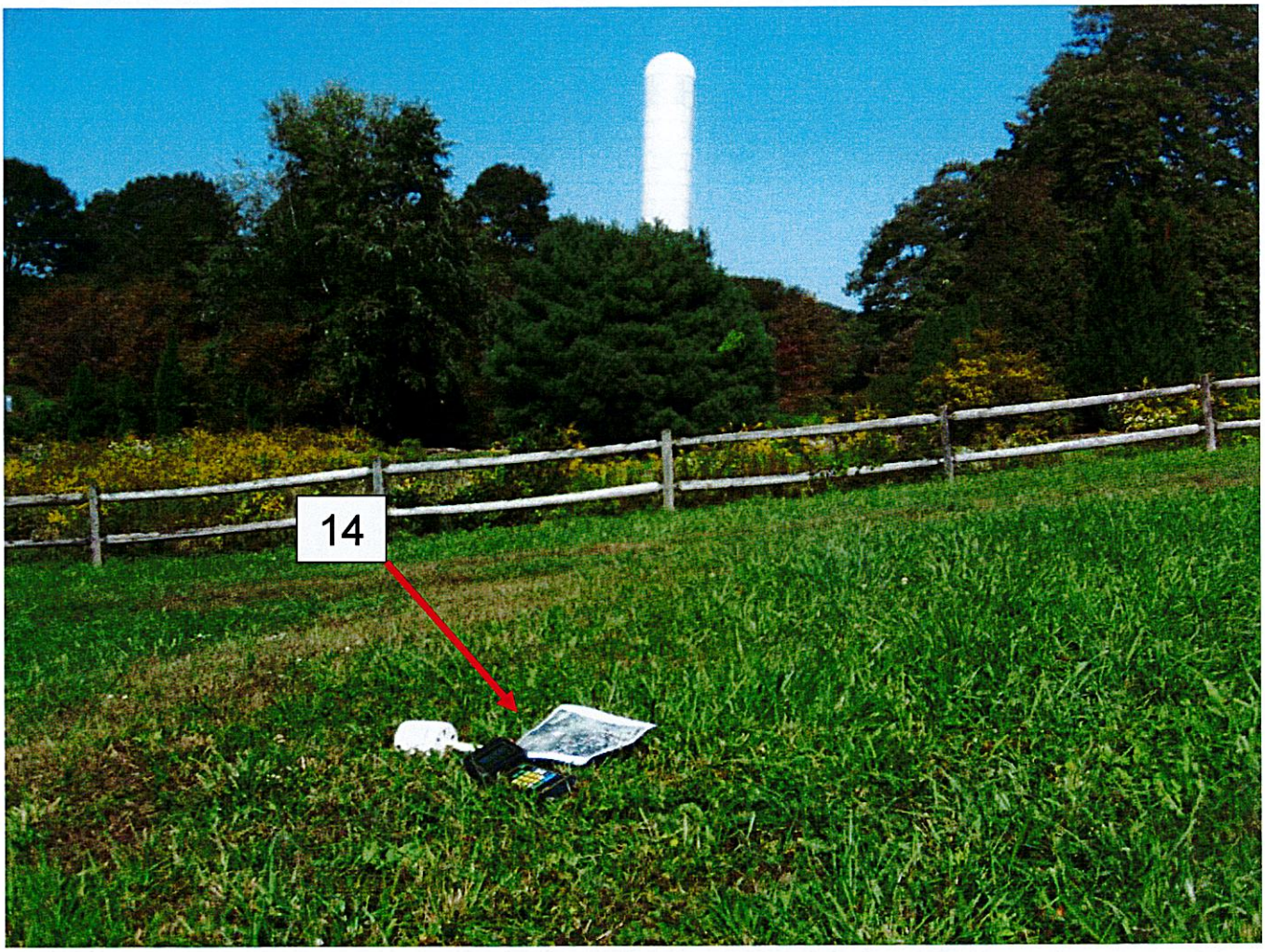


Figure 15: Measurement Location 14

Figure 16: Measurement Location 15

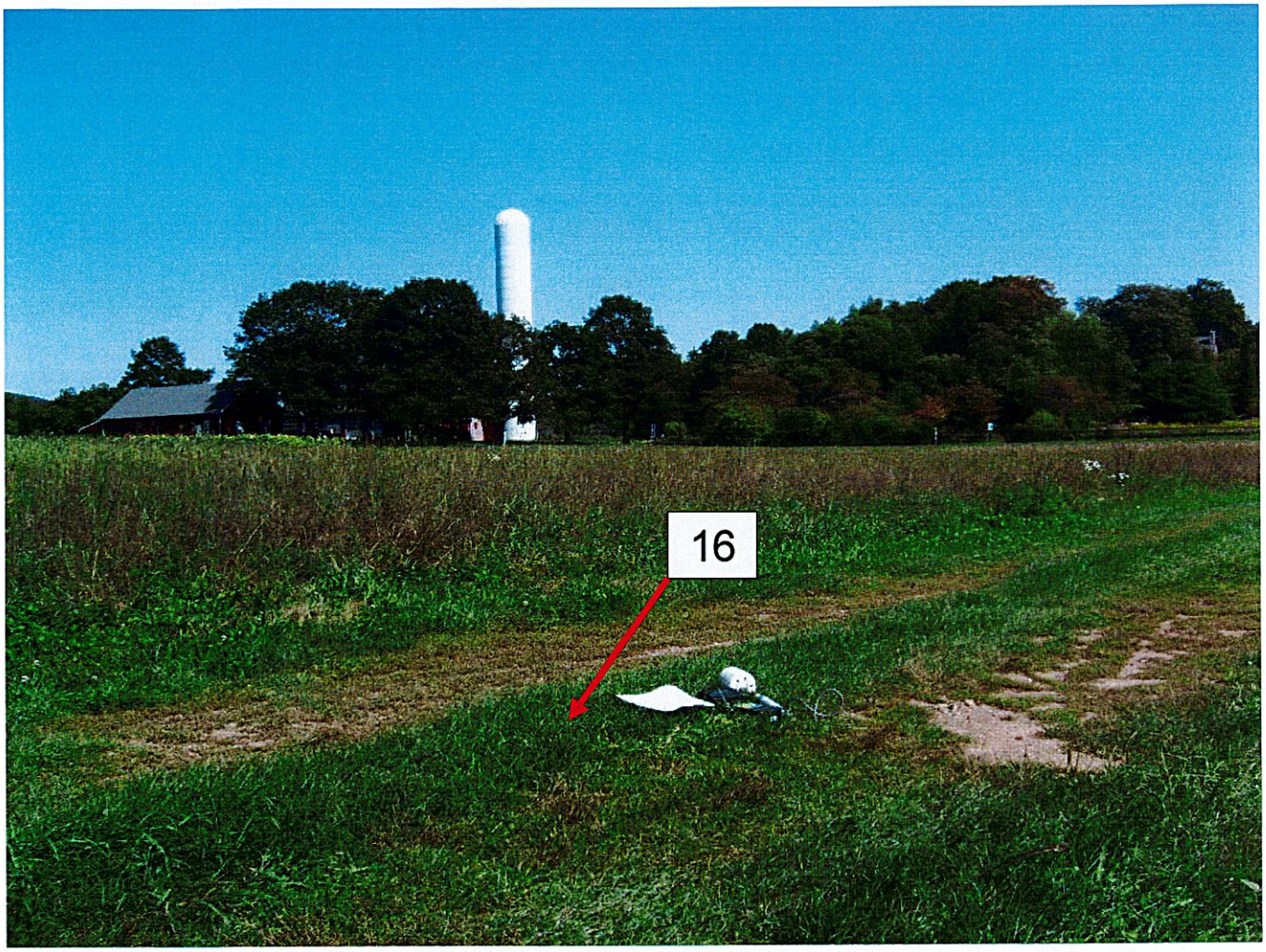


Figure 17: Measurement Location 16

Figure 18: Measurement Location 17

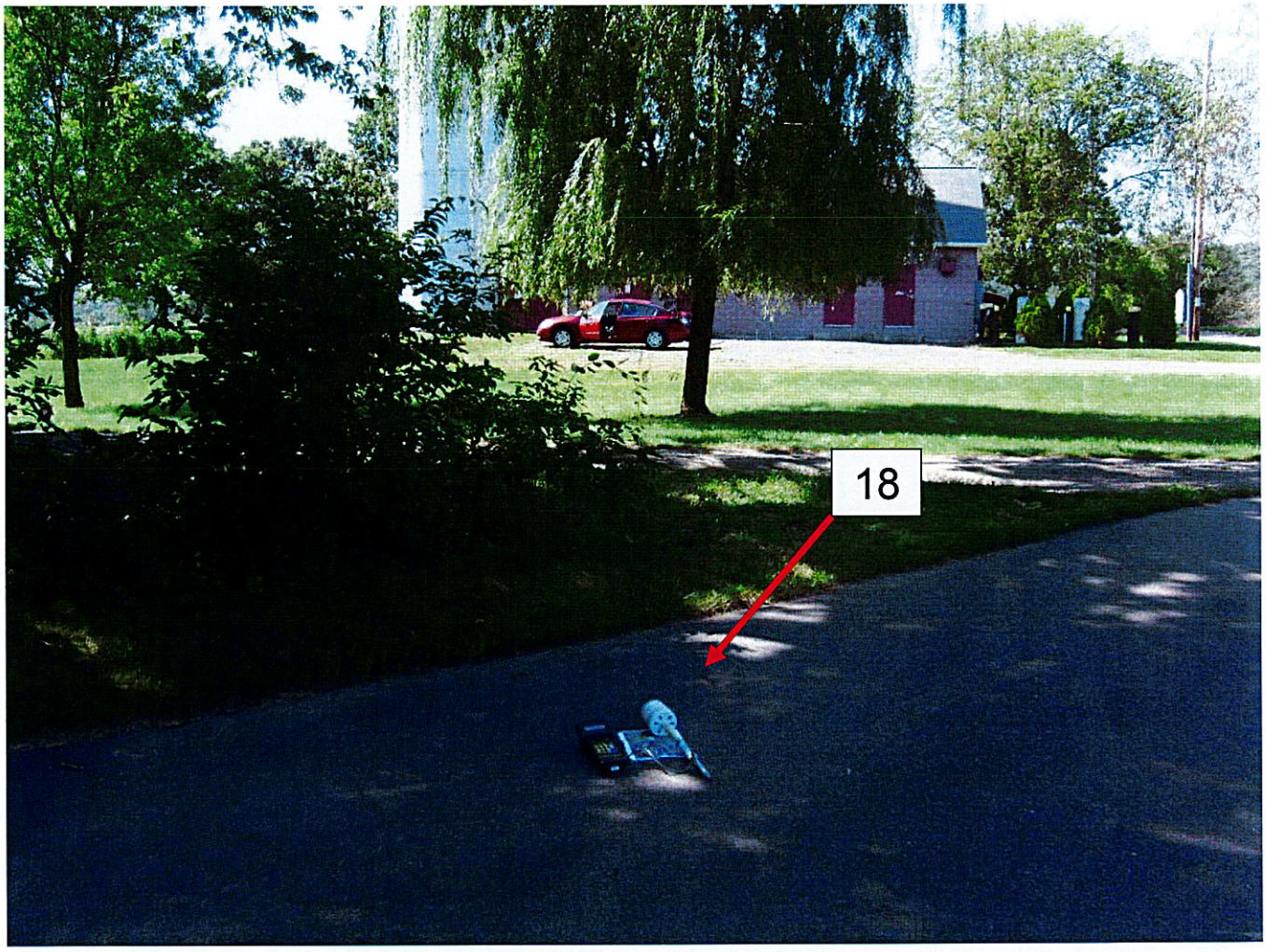


Figure 19: Measurement Location 18

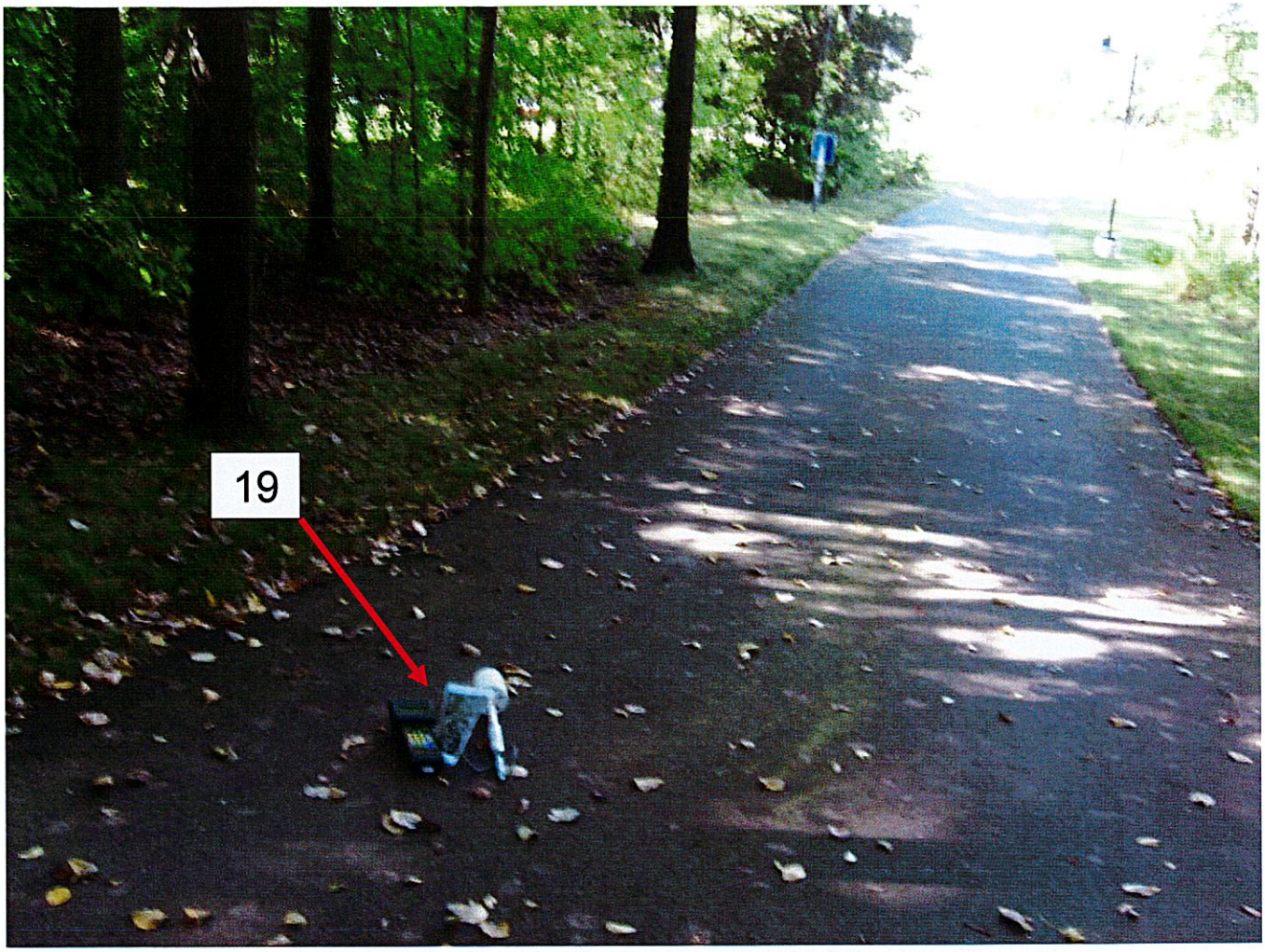


Figure 20: Measurement Location 19

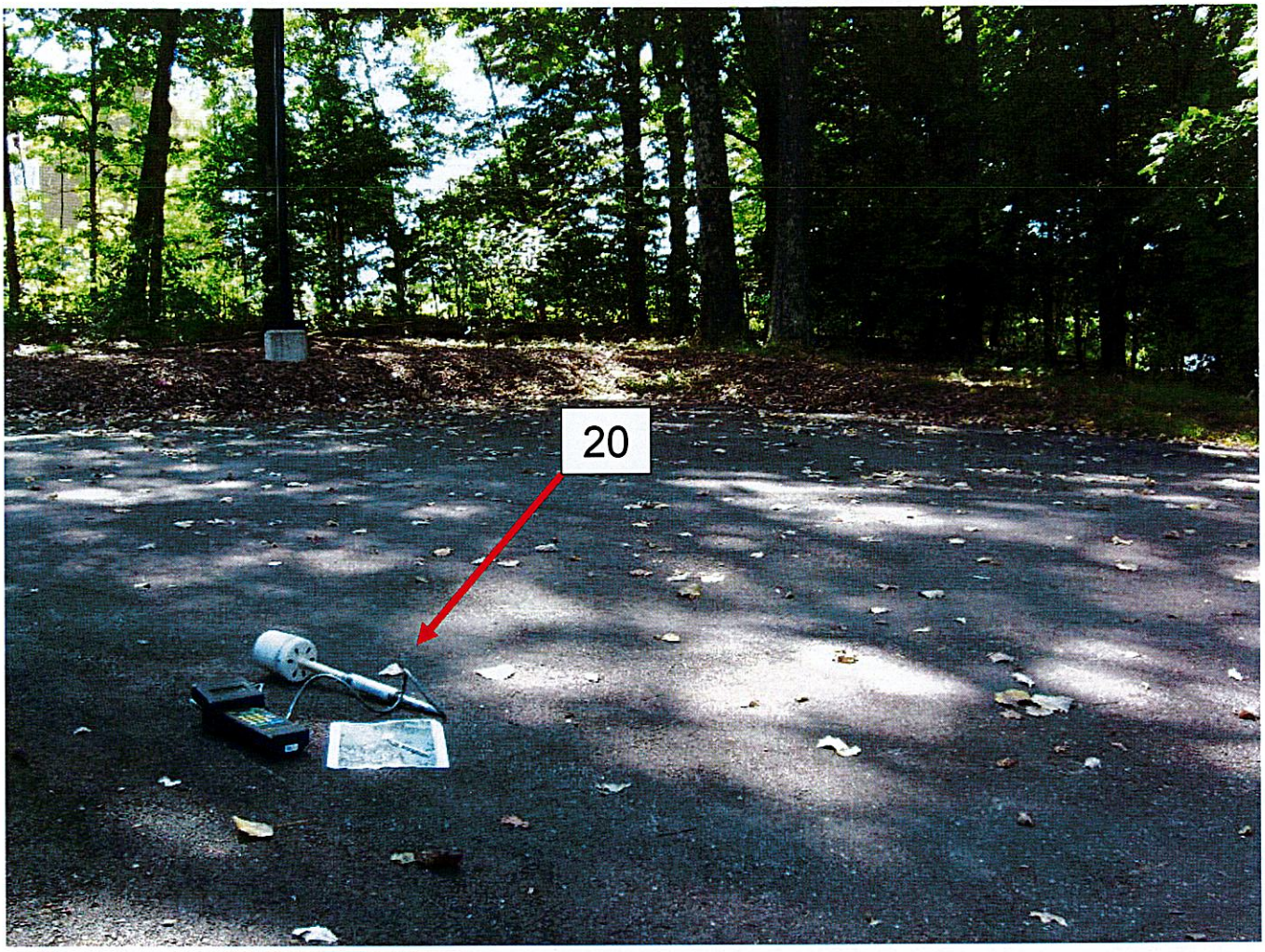


Figure 21: Measurement Location 20

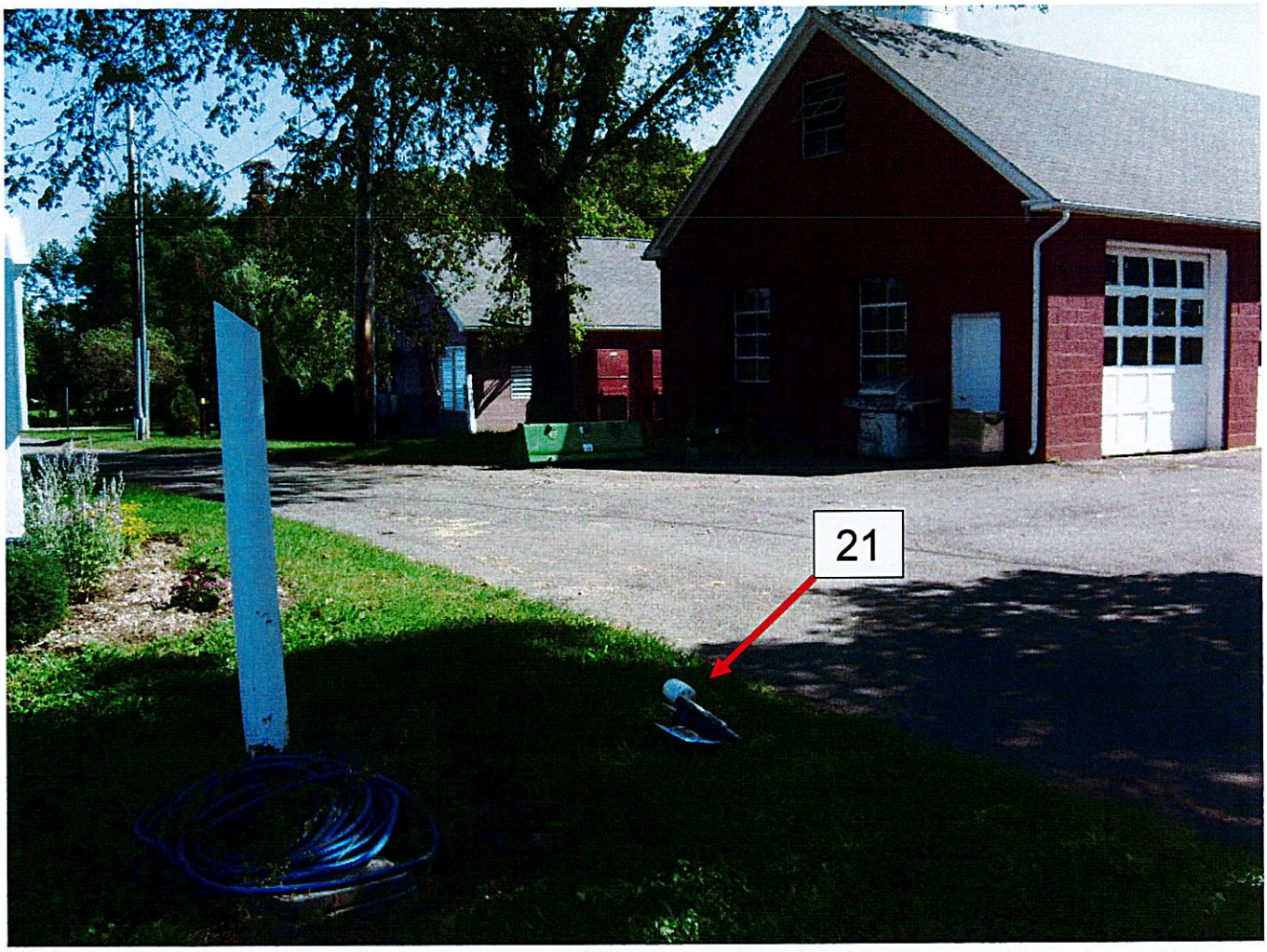


Figure 22: Measurement Location 21

Figure 23: Measurement Location 22

Figure 24: Measurement Location 23

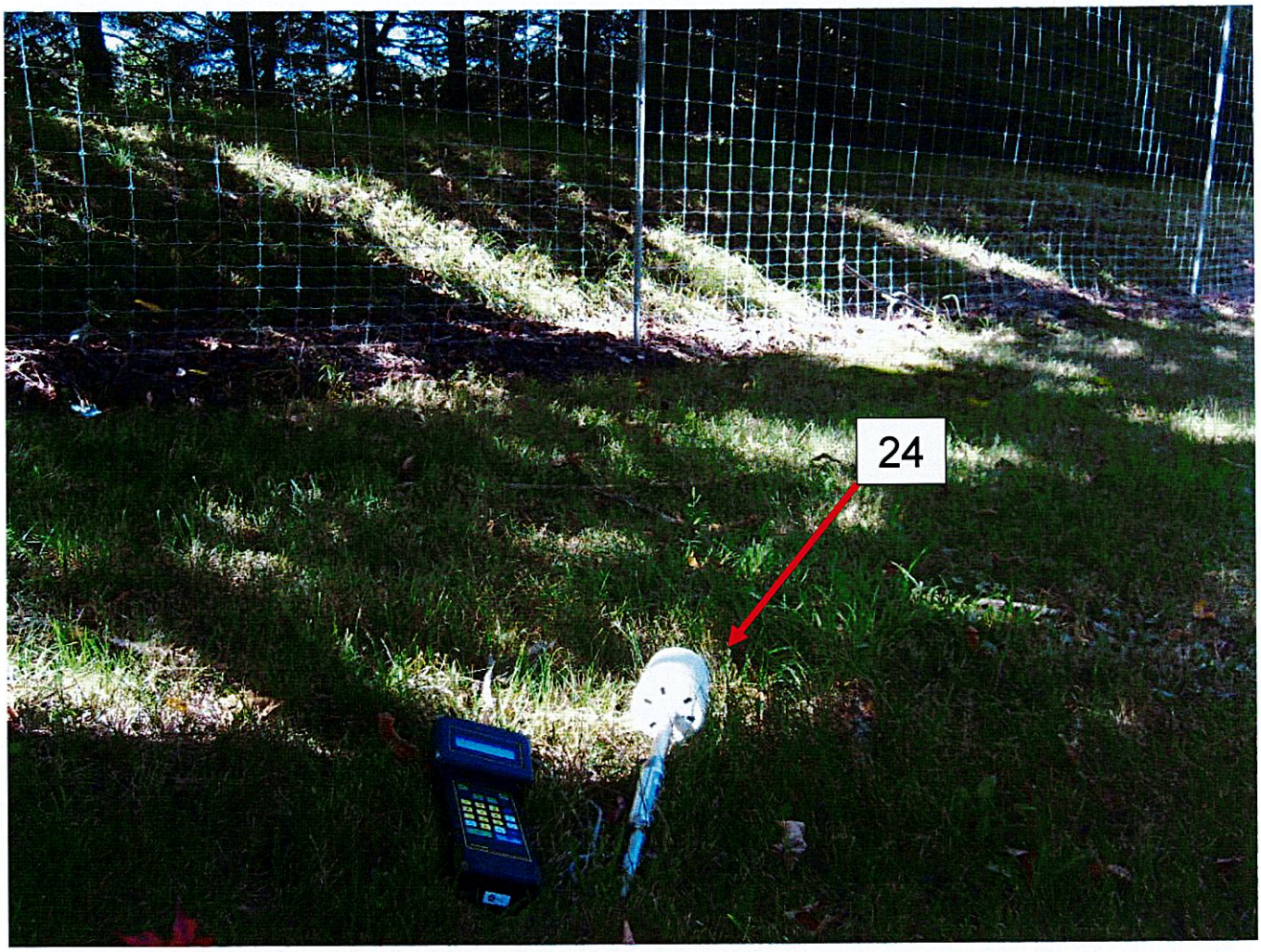


Figure 25: Measurement Location 24

Figure 26: Measurement Location 25

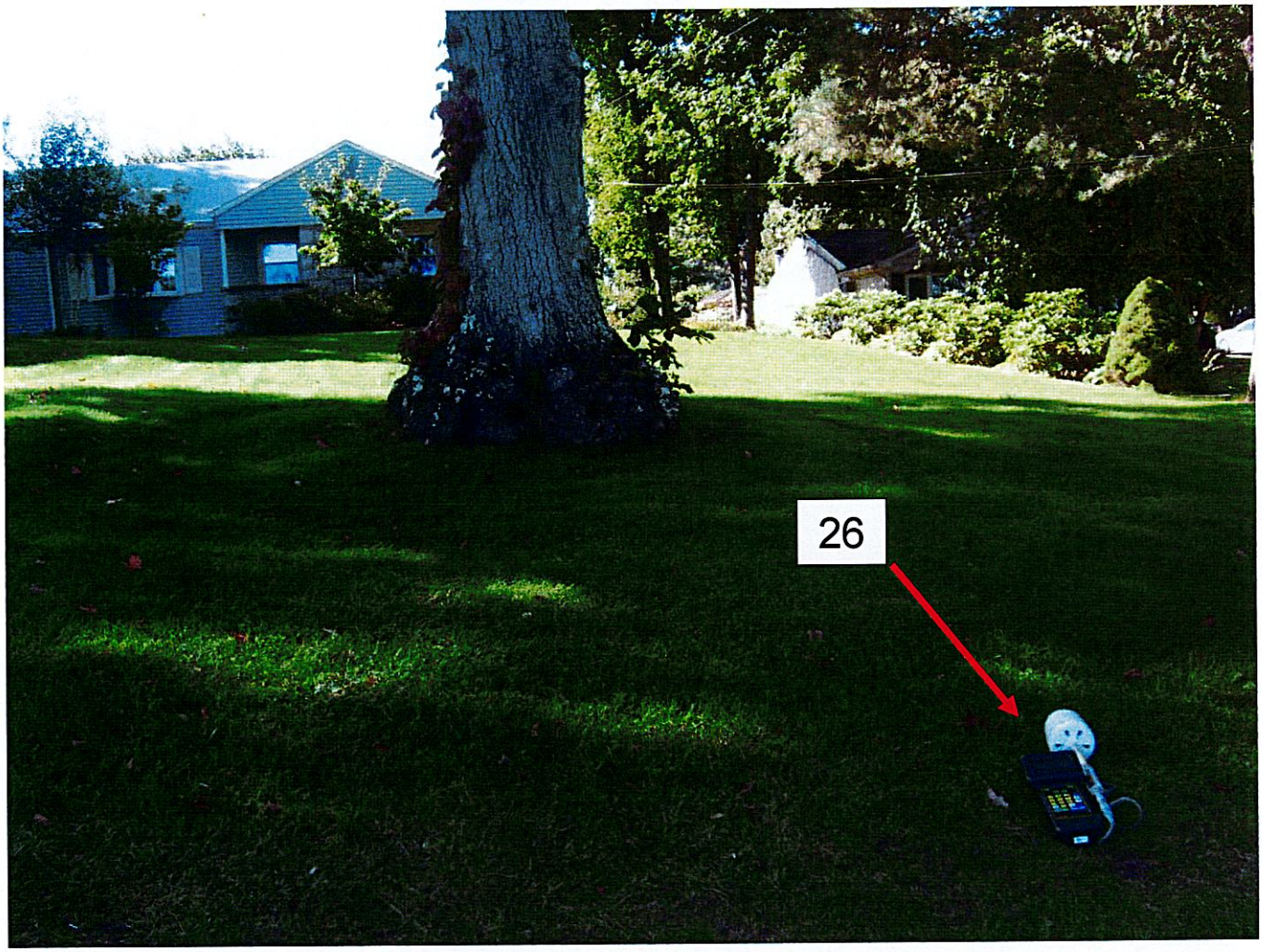


Figure 27: Measurement Location 26

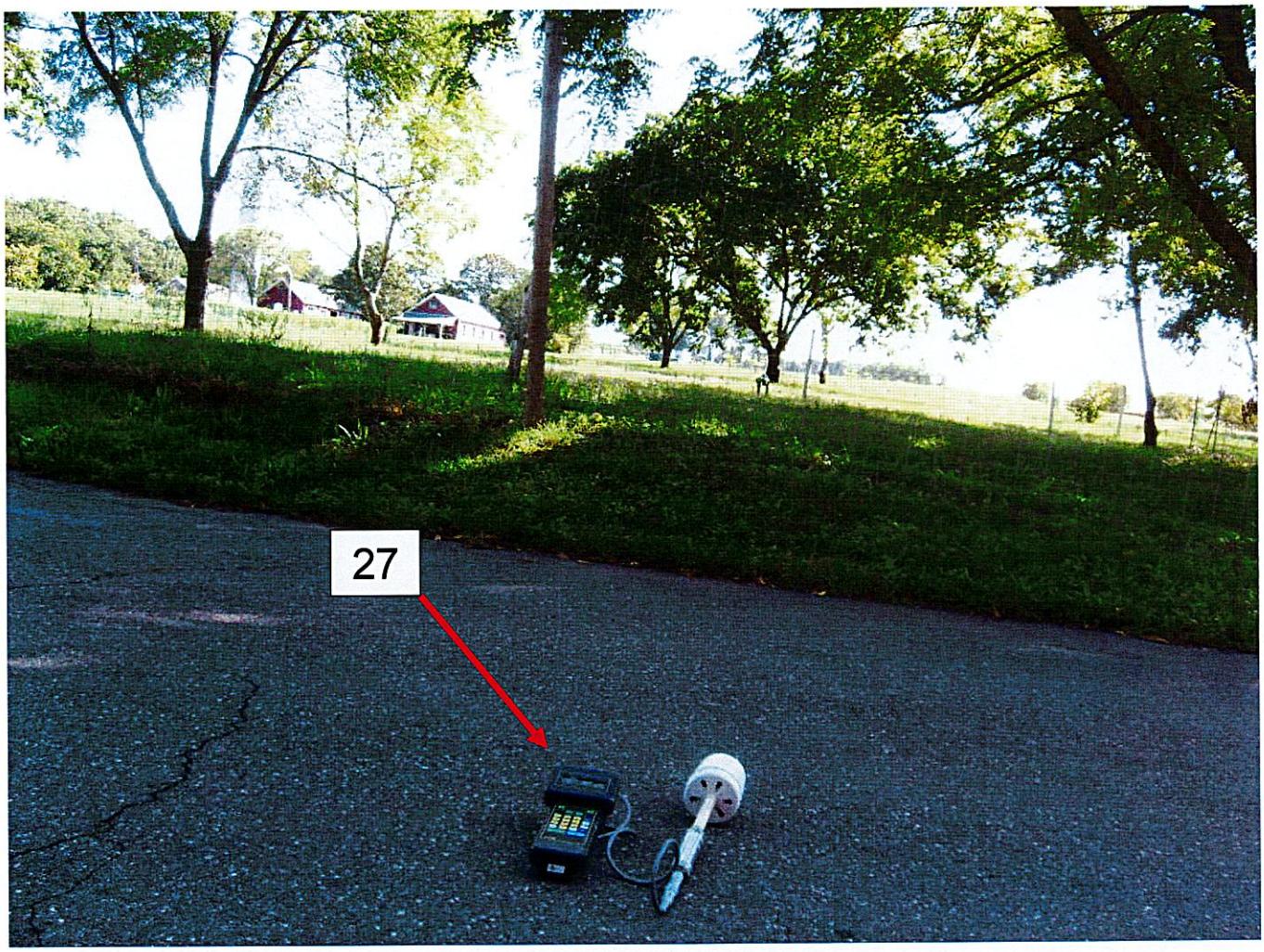


Figure 28: Measurement Location 27

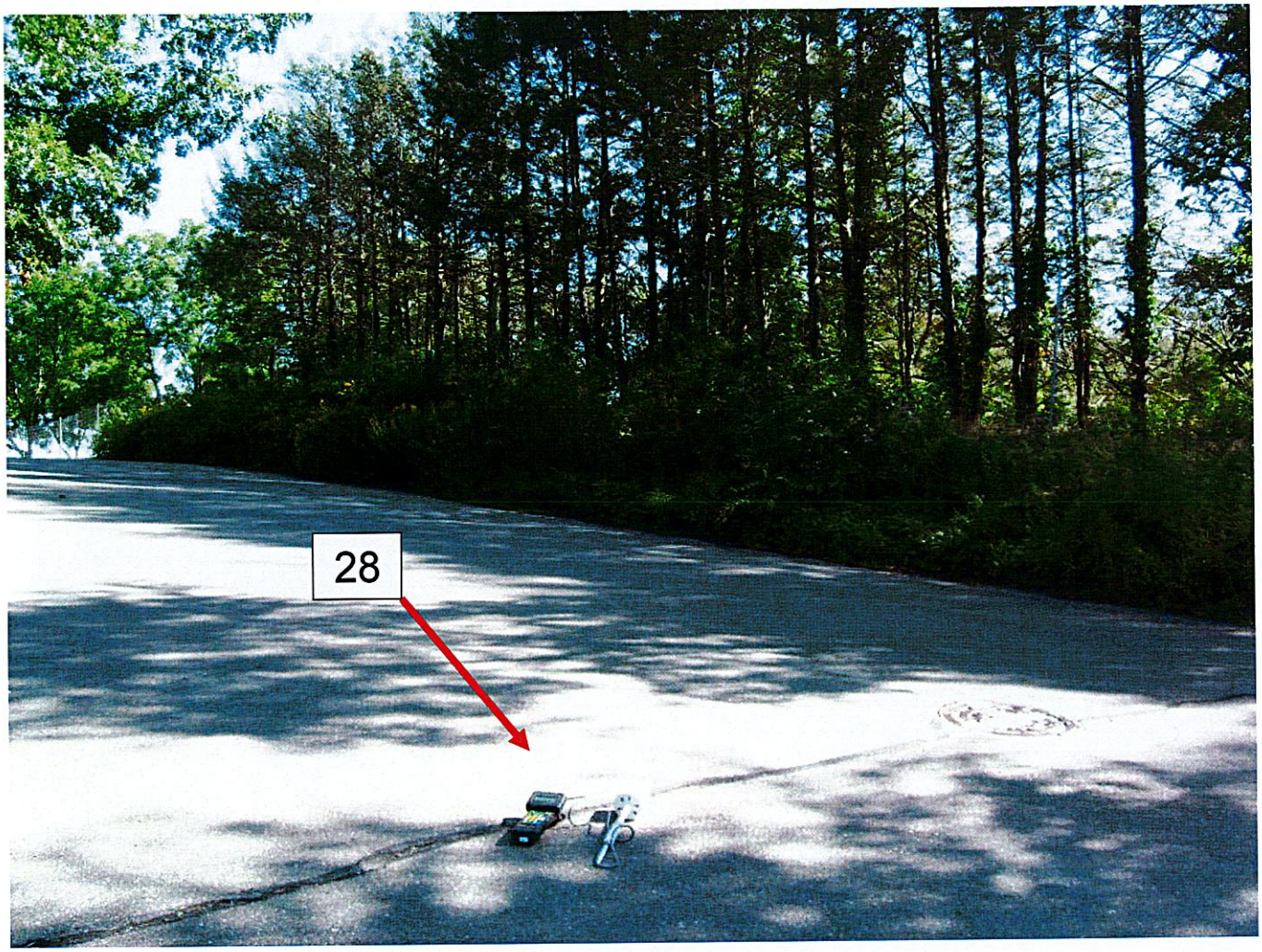


Figure 29: Measurement Location 28

Conclusion

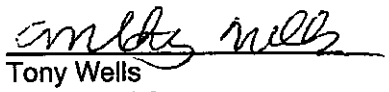
Public accessible areas in the vicinity of proposed wireless tower to be located at 890 Evergreen Ave, Hamden, CT were surveyed and found to be within the mandated General Population/Uncontrolled limits for Maximum Permissible Exposure, as delineated in the Federal Communications Commission's Radio Frequency exposure rules published in 47 CFR 1.1307(b)(1)-(b)(3).

The maximum power density at the locations measured was predicted to be 24.19% MPE after the addition of the Pocket Wireless antennas.

The above analysis shows that the proposed configuration will not substantially increase power density in the vicinity and that the site will be well within FCC limits.

Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The measurements were obtained with properly calibrated equipment using techniques in compliance with ANSI/IEEE Std. C95.3, ANSI/IEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



Tony Wells
C Squared Systems

9/30/2008
Date

References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz. IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave. IEEE-SA Standards Board

FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure

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

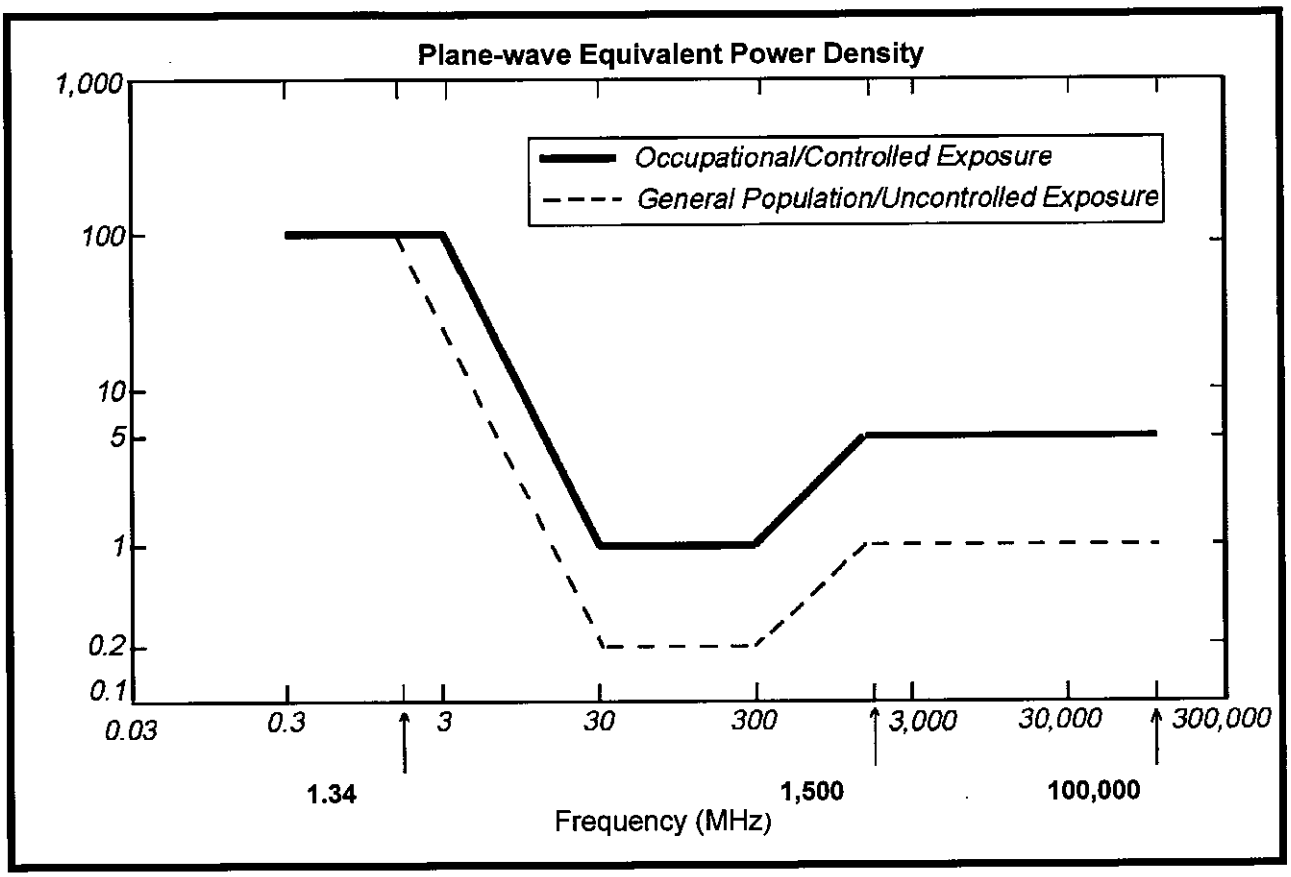
(B) Limits for General Population/Uncontrolled Exposure

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

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

NOTE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.



FCC Limits for Maximum Permissible Exposure (MPE)

Exhibit E

Structural Analysis

Pocket Site NHCT0330A

890 Evergreen Avenue

Hamden, Connecticut

Date: **August 25, 2008**

Veronica Harris
Crown Castle USA, Inc.
1200 McArthur Blvd.
Mahwah, NJ 07430
(201) 236-9094

PSG Engineering, Ltd.
1006 Thompson Highway
Richmond, TX 77469

Phone: (281) 239-8490
Fax: (281) 239-8515

Subject: **Structural Opinion Letter**

Carrier Designation	***Youghiogheny Communications* Co-Locate** **Carrier Site Number:** *"NHCT0330A"* **Carrier Site Name:** *"N/A"*
Crown Castle Designation	**Crown Castle BU Number:** *800529* **Crown Castle Site Name:** *CT HAMDEN NORTH CAC* **Crown Castle JDE Job Number:** *109322*
Engineering Firm Designation	**PSG Engineering Project Number:** *0801H163-Z320108*
Site Data	**890 Evergreen Ave., Hamden, CT, New Haven County** **Latitude 41° *24' 24.24"*, Longitude -72° *54' 15.20"*** *100* **Foot -** Silo **Tower**

Dear Ms. Harris,

PSG Engineering, Ltd. is pleased to submit this **"Structural Opinion Letter"** for the structural integrity of the aforementioned tower. This letter has been performed in Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 300505, in accordance with application 68072, revision 1. The purpose of this letter is to determine the suitability of the tower with the proposed, existing, and reserved loading as specified in Tables 1 & 2 below. This opinion is consistent with the guidelines as stated in the TIA/EIA 222-F standard based upon a fastest mile wind speed condition of 85 mph (equivalent to 105 mph 3-second gust wind speed).

Table Legend
Proposed = (P)
Reserved = (R)

Table 1 – Proposed (P) Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount	Number Of Feed Lines	Feed Line Size (inches)
65	3(P)	Kathrien	742 213	-	6(P)	1 5/8

Table 2 – Installed and Reserved (R) Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount	Number Of Feed Lines	Feed Line Size (inches)
104	1	Decibel	DB806-XC	Silo Internal Mount (1)	1	7/8
100	3	EMS Wireless	DR65-18-02DPL2Q		12	1 5/8
	6	REMEC	S20057A1			
95	***CASE A***					
	12	Swedcom	ALP 9212-N	Silo Internal Mount (1)	12	1 5/8
	CASE B					
	12(R)	MLA	52"x9"x3"	Silo Internal Mount (1)	12(R)	1 5/8
	CASE C (Controlling Load Case)					
	6(R)	Decibel	DB844H80-XY	Silo Internal Mount (1)	24(R)	1 5/8
	6(R)		DB948F85T2E-M			
90	1	Decibel	DB411-A	Silo Internal Mount (1)	2	1/2
85	6	CSS	DU01417-8686		9	7/8
	3	Powerwave Technologies	7770.00			
	6		LGP13519			
	6	ADC	DB 800/1900 FB MSTHD			
75	10	Decibel	DB844H90E-XY	Silo Internal Mount (1)	11	1 5/8
	2	CSA Wireless	A-18A24N-U		2	1 1/4
*65	*6	*Allgon	*7250.03	Silo Internal Mount (1)	*6	*1 1/4

*Note: Installed antennas and coax lines will be removed and replaced with proposed loading. Installed mounts will remain to support proposed loads.

Table 3 – Original Tower Manufacturer Design Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount	Number Of Feed Lines	Feed Line Size (inches)
95	12	Allgon	7129.16.33	Silo Internal Mount	Not Available	
85	12	Allgon	7120.16	Silo Internal Mount	Not Available	
75	12	Decibel	844H90EXY	Silo Internal Mount	Not Available	

Based on a comparison of the original design loads (including wind speeds), the current loads, and the proposed loads, we have determined the tower structure and foundation ***ARE*** sufficient for the proposed loading.

All proposed equipment shall be installed in accordance with the attached drawings.

We at *PSG Engineering* appreciate the opportunity of providing our continuing professional services to you and Crown Castle International. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted,

Oscar Pedraza, P.E.
President

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100	3	EMS Wireless	DR65-18-02DPL2Q		12	1 5/8
	6	REMEC	S20057A1			
95	***CASE A***					
	12	Swedcom	ALP 9212-N	Silo Internal Mount (1)	12	1 5/8
	CASE B					
	12(R)	MLA	52"x9"x3"	Silo Internal Mount (1)	12(R)	1 5/8
	CASE C (Controlling Load Case)					
	6(R)	Decibel	DB844H80-XY	Silo Internal Mount (1)	24(R)	1 5/8
	6(R)		DB948F85T2E-M			
90	1	Decibel	DB411-A	Silo Internal Mount (1)	2	1/2
85	6	CSS	DU01417-8686		9	7/8
	3	Powerwave Technologies	7770.00			
	6		LGP13519			
	6	ADC	DB 800/1900 FB MSTHD			
75	10	Decibel	DB844H90E-XY	Silo Internal Mount (1)	11	1 5/8
	2	CSA Wireless	A-18A24N-U		2	1 1/4
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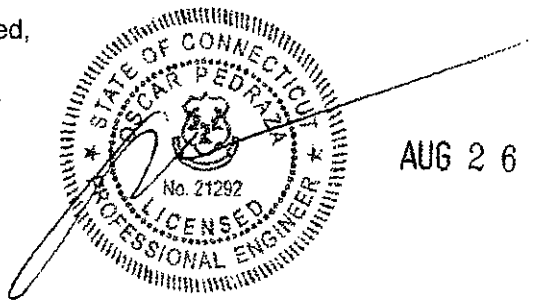

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