STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Petitions of BNE Energy Inc. for a Declaratory Ruling for the Location, Construction and Operation of 4.8 MW Wind Renewable Generating Projects on Flagg Hill Road in Colebrook, Connecticut ("Wind Colebrook South") and Winsted-Norfolk Road in Colebrook, Connecticut ("Wind Colebrook North")	**Petition Nos. 983 and 984**
	April 7, 2011

PREFILED TESTIMONY OF GLENN CHALDER, AICP

Q1. Please state your name, position and business address.

A1. I am Glenn Chalder, AICP, President of Planimetrics, Inc. (Planimetrics). My business address is 31 Ensign Drive, Avon, Connecticut 06001.

Q2. Please state your educational background and work experience.

A2. As outlined in my professional resume attached as Planimetrics Exhibit 1, I have a Bachelor of Science Degree in Geography from McGill University and a Master Degree in City and Regional Planning from Harvard University. My 31 years of professional work have been in the field of land use planning and real estate development with a focus in the last 21 years of community planning and land use regulation. I am a principal owner of Planimetrics, which business began in April of 1995. The firm's professional work products often include the use of digital mapping and graphic visualizations.

Q3. Have you previously testified before the Connecticut Siting Council?

A3. No.

Q4. Have you offered other sworn testimony?

A4. Yes. I have been qualified as an expert and have testified cases in Connecticut Superior Court.

Q5. Do you have any other qualifications or certifications that make you suited for testimony in this case?

A5. Yes. I am a member of the American Institute of Certified Planners (AICP). The Planimetrics staffperson who assisted in the preparation of materials is certified as a Geographic Information Systems Professional (GISP).

Q6. What is the purpose of your testimony in this proceeding?

A6. I was hired by Reid and Riege, PC on behalf of FairwindCT, Inc., Stella and Michael Somers and Susan Wagner to present a graphical simulation of the visibility of the proposed wind turbines from viewpoints in the area.

Q7. Please summarize your testimony.

A7. My testimony consists of simulations of the visibility of the proposed wind turbines from several locations in the vicinity, including Rock Hall, a site listed on the National Register of Historic Places, and the properties of several individuals who are parties to these proceedings. This testimony is entitled "Colebrook – Wind Turbine Visibility" and is attached as Planimetrics Exhibit 2.

Q8. Please summarize your methods in developing the materials that comprise your testimony.

A8. I, and Planimetrics staff under my direct supervision, developed the materials using the methods summarized as follows.

Planimetrics prepared a three dimensional base simulation using ArcMap GIS (also referred to as ArcView) and using the 3-D Analyst module. The aerial photograph (2010) came from the United States Department of Agriculture and is readily available on the Internet (http://datagateway.nrcs.usda.gov/GDGOrder.aspx). The digital elevation data came from the State of Connecticut and is based on a high resolution aerial data collection. This information is also available on the Internet (http://clear.uconn.edu/data/CT_DEM/ct_dem_download.asp).

Road centerlines for use in the visual simulations were created by Planimetrics based on the location of the road in the aerial images. The road pavement width was assumed to be 30 feet.

The locations of the wind turbines were determined from latitude and longitude information provided by the petitioner. Planimetrics plotted seven turbines, three for the proposed Colebrook South site and four for the proposed Colebrook North site, based on our understanding that the petitioner has proposed an alternate location for one turbine at the Colebrook North site but has not committed to either location for that turbine.

Planimetrics determined the dimensions of the wind turbine components by deconstructing a simulation provided by the petitioner, specifically View 1 from Exhibit J of Petition No. 984. Planimetrics derived the scale and dimensions of the blades, nacelle and hub by importing that simulation into CorelDraw and referring graphics available on GE's website. This methodology was necessary because, to my understanding, the petitioner and its visual resources team have refused to provide the dimensions on the grounds that they are confidential and proprietary information. With the dimension information Planimetrics derived through the method described above, a three-dimensional simulation of the wind turbines proposed by the petitioner was created (using 100-meter diameter blades) using a software program called Sketchup. The wind turbines were then imported into the ArcMap three-dimensional simulation.

To depict vegetation, Planimetrics estimated the extent of tree cover from the aerial photographs and randomly located trees within the tree cover area. Deciduous and coniferous trees were randomly located within the tree cover area. The coniferous tree model (pine) was contained within the 3-D Analyst module. The deciduous tree models (leaf-off condition) were obtained from a third-party vendor (www.the3Dstudio.com). The tree canopy height was set at 65 feet based on the petitioner's own assumptions about the tree canopy height.

A sample of viewpoints was determined based on a cursory analysis of possible vantage points. The distance from the viewpoints to intersecting roads and the nearest wind turbines was measured utilizing the Measure tool in ArcMap.

Q9. Does that conclude your testimony?

A9. Yes, it does.

The statements above are true and accurate to the best of my knowledge.

April 7, 2011
Date

Glenn Chalder, AICP

ATTACHMENTS

Planimetrics Exhibit 1:	Professional Resume of Glenn Chalder, AICP
Planimetrics Exhibit 2:	Presentation entitled "Colebrook – Wind Turbine Visibility"

Planimetrics Exhibit 1

Planimetrics
31 Ensign Drive, Avon, CT 06001 860-677-5267

Principal

Glenn Chalder, AICP

Education

Master of City Planning
Harvard University

Bachelor of Science
McGill University

Participation

American Institute of Certified Planners (AICP)

Connecticut Chapter, American Planning Association (CCAPA)

CCAPA Executive Committee (1990-1994)

CCAPA Legislative Committee Co-Chair (1990 - 94), Member (1980 - 1994)

CCAPA Professional Planner Award (1997)

CCAPA Presidents Recognition Service Award (1991)

Legislative Task Forces
State, Regional, & Local Planning (1991 - 1994)
Manufactured Housing (1982-1983)

Professional Background

Glenn has been a planning consultant since 1990. Prior to that he worked as a municipal planning director and for real estate development companies. Glenn credits understanding the land use process "from both sides" as helping him provide meaningful guidance to clients.

Glenn's primary interests are working for communities in order to help make them better places for future generations.

Professional Experience

Plans of Conservation and Development (partial list)

- Pinehurst, NC (2x)
- East Granby, CT (2x)
- Wilton, CT (3x)
- Ridgefield, CT (2x)
- Shelton, CT
- Groton, CT
- Colchester, CT
- Simsbury, CT
- Narragansett, RI

Land Use Regulations (partial list)

- Zoning Regulations, New Canaan, CT
- Zoning Regulations, Ridgefield, CT
- Subdivision Regulations, New Canaan, CT
- Form-Based Coding, Hamden, CT

Other Projects (partial list)

- Smart Growth Strategies, Guilford, CT
- Soil-Based Density Zoning, Washington, CT
- Center Study, Cromwell, CT
- Fiscal Impact Study, Central Naugatuck Valley

Planimetrics
31 Ensign Drive, Avon, CT 06001 860-677-5267

Firm Overview

Planimetrics is a land use consulting firm providing planning, zoning, and development services – primarily to public agencies in southern New England.

The staff of Planimetrics has years of experience working with land use planning and development issues throughout Connecticut and southern New England. Senior level staff have served as planning directors and gained familiarity and insight to the needs of communities – both large and small. Senior level staff have achieved and maintain their AICP professional designations in order to stay up to date on planning issues and solutions. Due to their recognized expertise, staff often teach or present at professional seminars.

Planimetrics has extensive GIS capabilities and has learned how to apply digital technology to help communities understand and address local issues.

Planimetrics has assisted public agencies with:

- Preparation of plans of conservation and development,
- Preparation of special planning studies,
- Review and drafting of zoning and other land use regulations, and
- Plan review, administrative assistance, and other services as required.

For private clients, Planimetrics has provided:

- Physical and economic feasibility studies (such as development potential analysis),
- Drafting and review of zoning and other land use regulations,
- Assistance in local, state and federal permitting procedures, and
- Project management services and other services as requested.

Members of the firm are active in professional and civic organizations including the American Planning Association and the American Institute of Certified Planners.

Planimetrics
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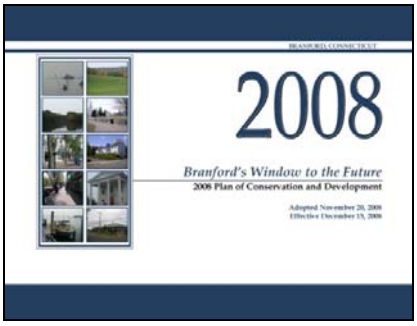
Services Overview

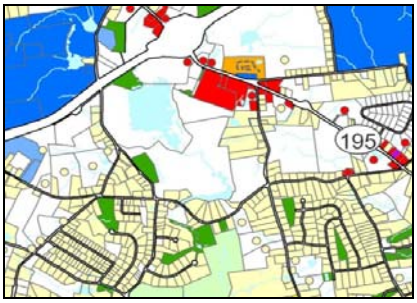
Strategic Planning

Plans of conservation and development
Housing affordability plans
Economic development plans
Community facility plans
Special area plans



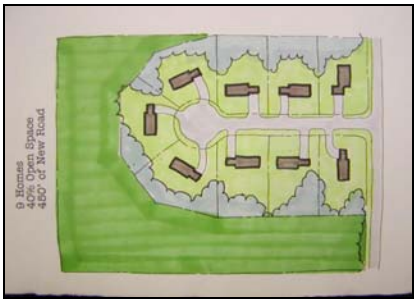
Geographic Information Systems

Digital mapping
3-D computer modeling
Build out analysis
Data management



Regulations / Implementation

Implementation strategies
Zoning regulations
Subdivision regulations
Implementation programs
Progress tracking
Capital budget programming



Public Participation

Public presentations
Interactive workshops
Community events
Community surveys

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Sample Projects

Completed POCDs in Past 5 Years

City of Torrington, 2010

Town of Tolland, 2009

Town of Wilton, 2009

Town of Greenwich, 2009

Town of Norfolk, 2009

Town of Warren, 2009

Town of Branford, 2008

Town of Ellington, 2008

Groton City, 2008

Town of Bethel, 2007

Town of Simsbury, 2007

Town of Westport, 2007

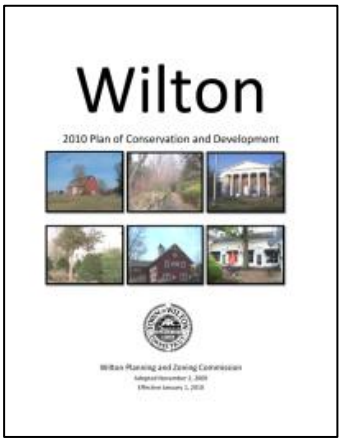
City of Shelton, 2006*

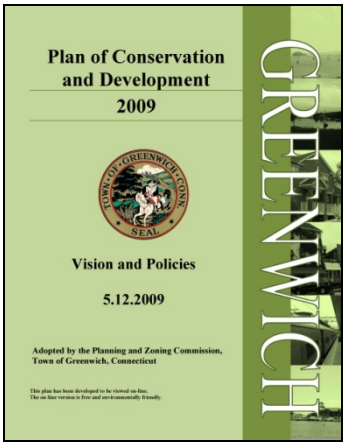
Town of Portland, 2006

Town of East Hampton, 2006

Town of New Hartford, 2005

**CCAPA Award Winner*

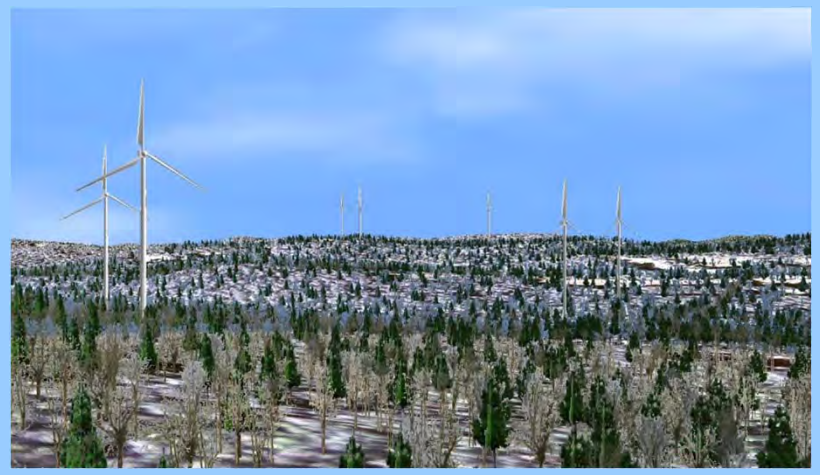




Planimetrics Exhibit 2

Colebrook

Wind Turbine Visibility



April 2011

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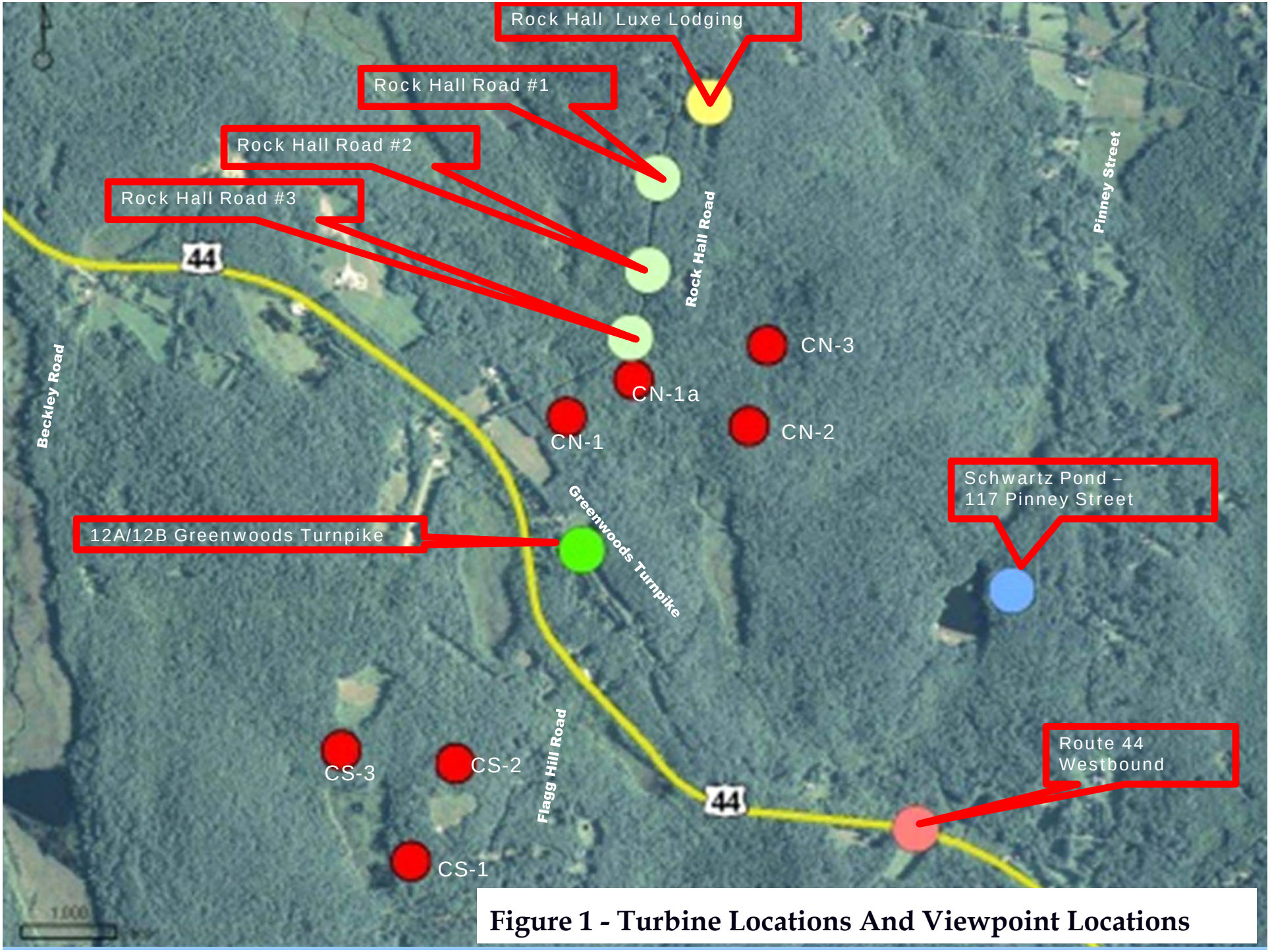


Figure 1 - Turbine Locations And Viewpoint Locations

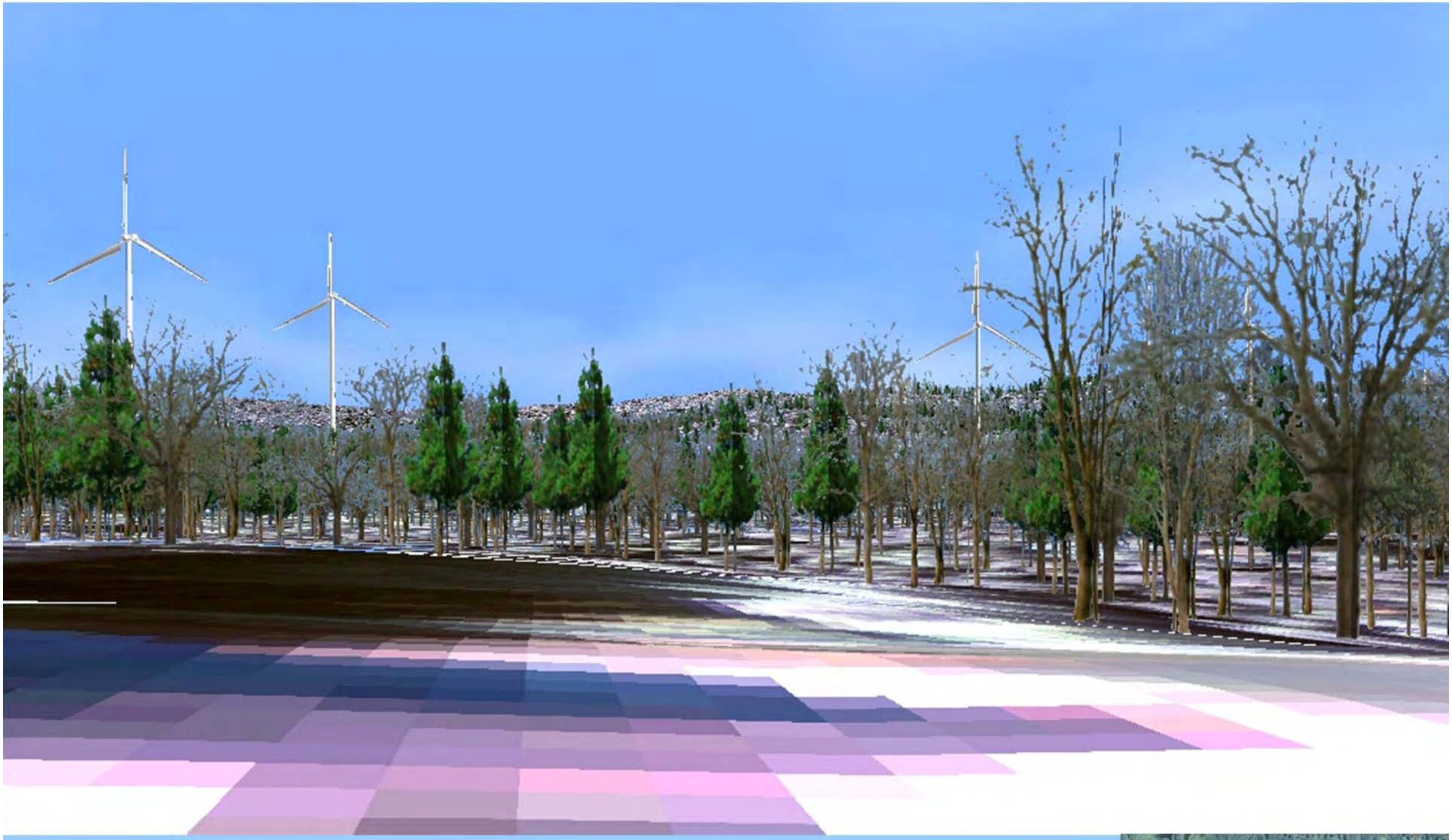
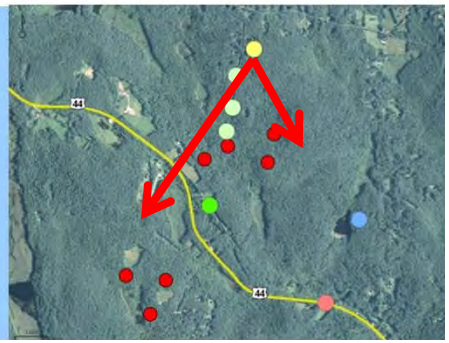


Figure 2 –

Rock Hall Luxe Lodging, 19 Rock Hall Road

View from 10 feet above ground level at rear of residence
Turbine CN-3 approximately 0.50 miles away (turbine on left)



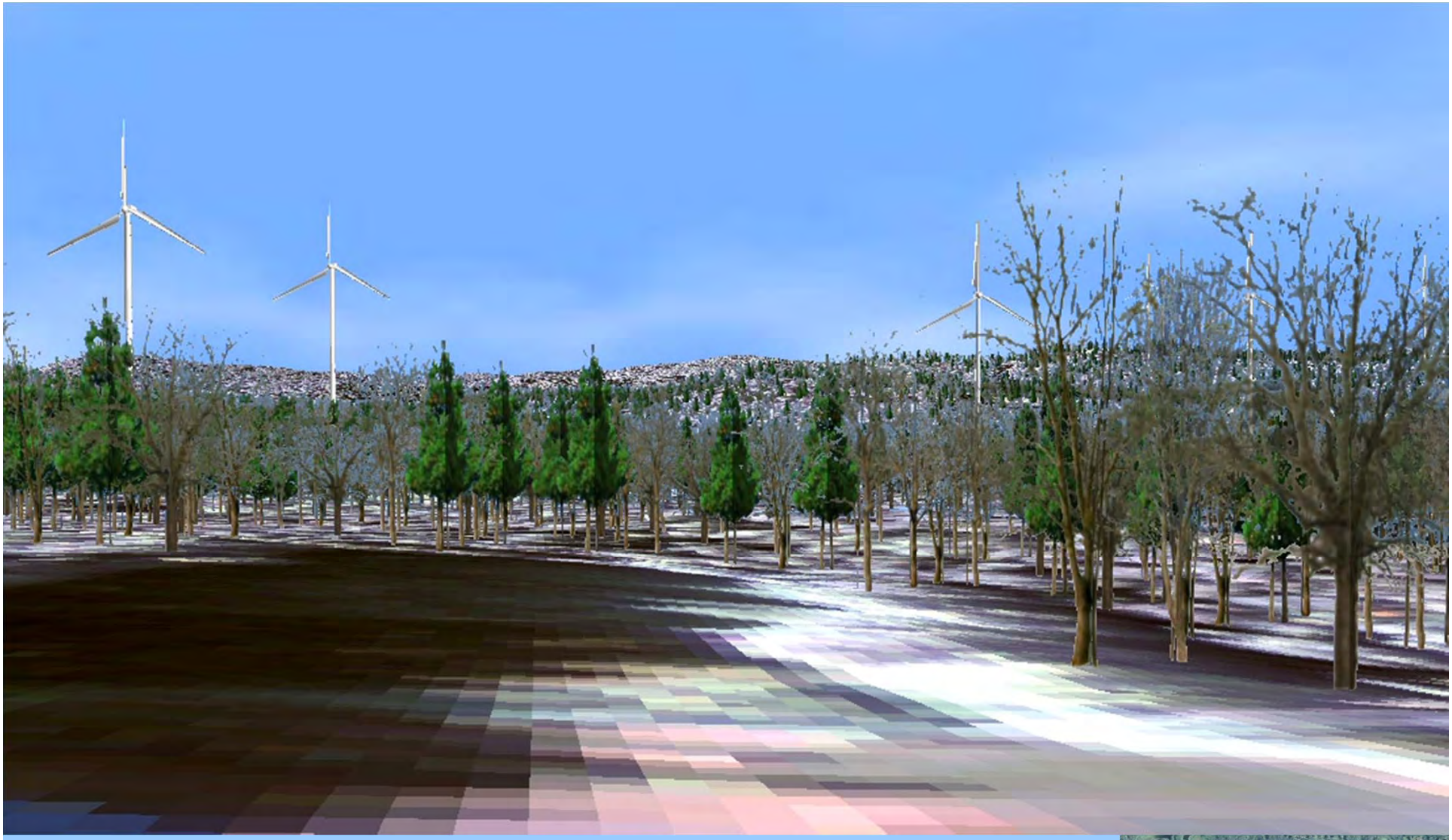
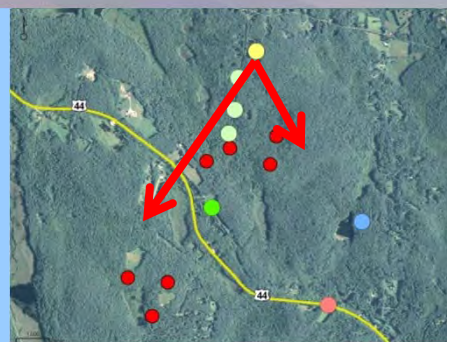


Figure 3 –

Rock Hall Luxe Lodging, 19 Rock Hall Road

View from 20 feet above ground level at rear of residence
Turbine CN-3 approximately 0.50 miles away (turbine on left)



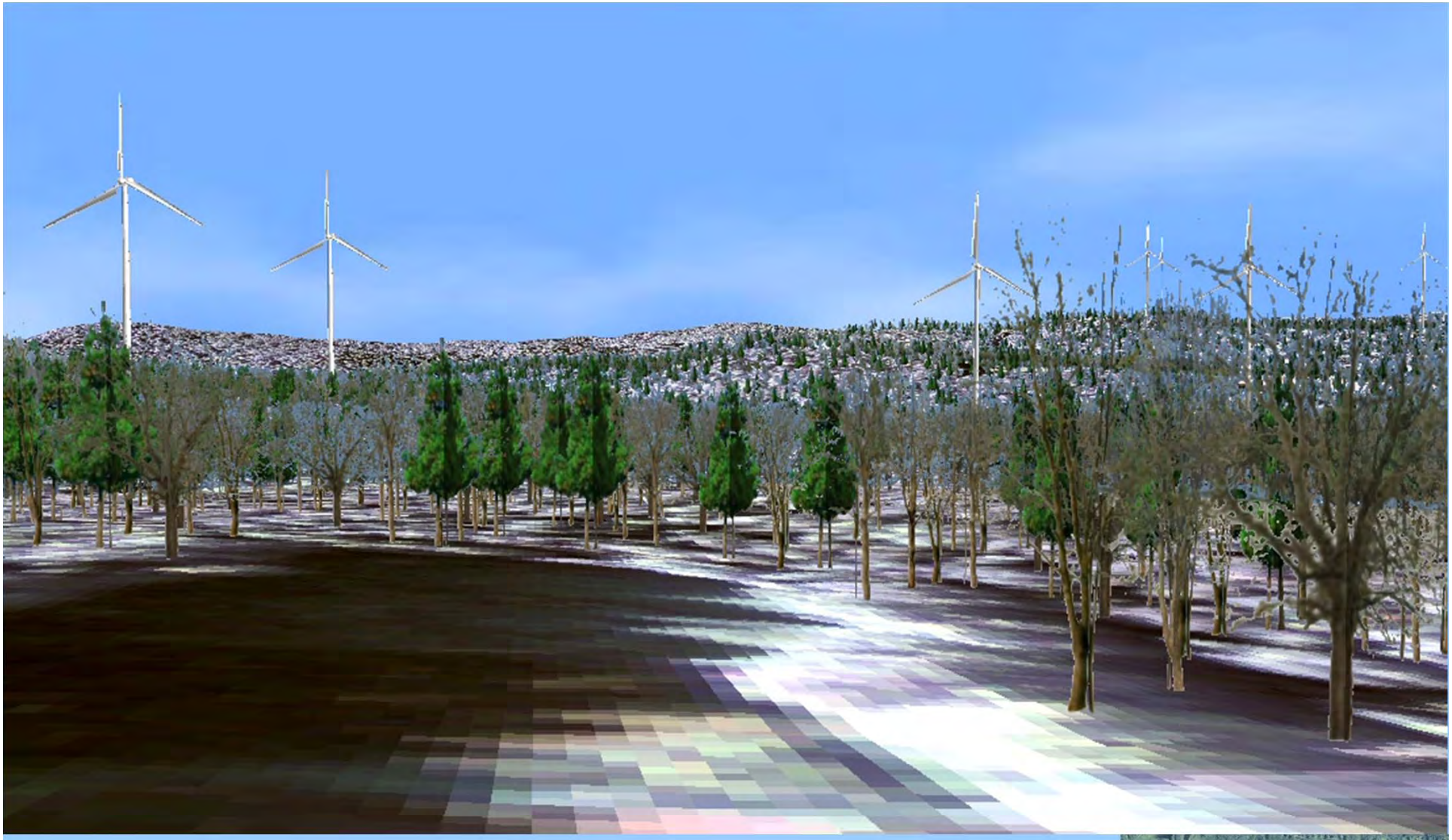


Figure 4 –

Rock Hall Luxe Lodging, 19 Rock Hall Road

View from 30 feet above ground level at rear of residence
Turbine CN-3 approximately 0.50 miles away (turbine on left)

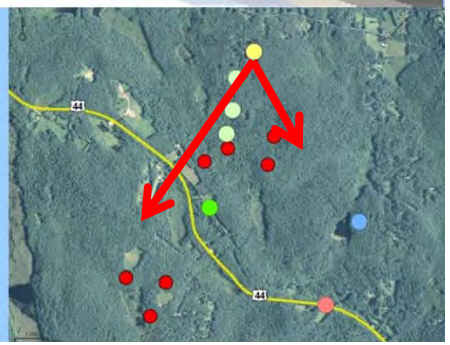


Figure 5 –

Rock Hall Road #1

View driving south on Rock Hall Road (0.7 miles from Route 44)
Turbine CN-1a approximately 0.40 miles away

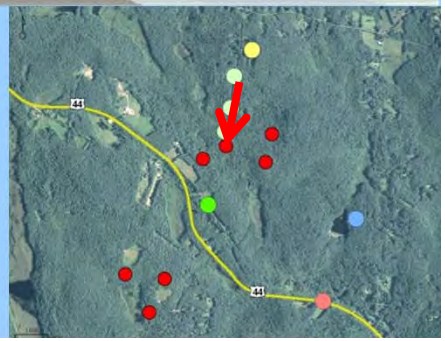


Figure 6 –

Rock Hall Road #2

View driving south on Rock Hall Road (0.5 miles from Route 44)
Turbine CN-1a approximately 0.22 miles away

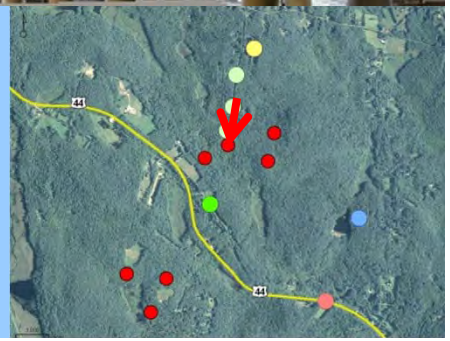


Figure 7 –

Rock Hall Road #3

View driving south on Rock Hall Road (0.7 miles from Route 44)
Turbine CN-1 approximately 0.40 miles away

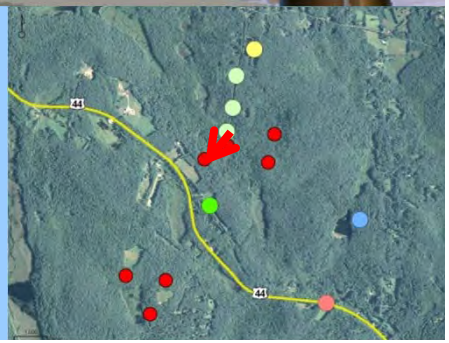


Figure 8 –

Route 44 Westbound

View driving west (approximately 1.96 miles east of Rock Hall Road)
Turbine CS-2 approximately 0.93 miles away

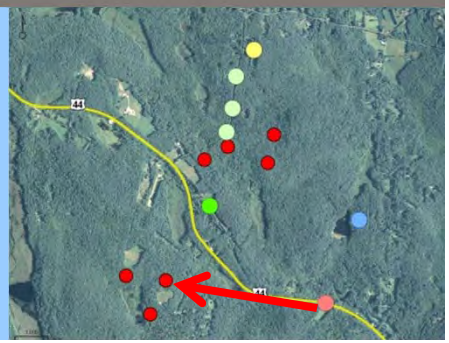
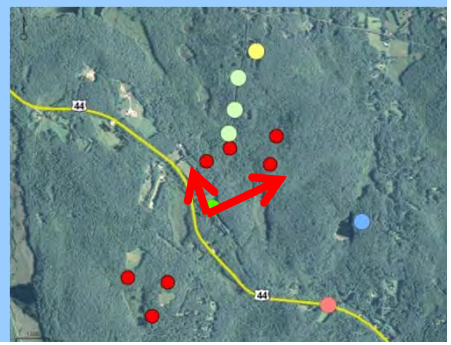


Figure 9 –

12A/12B Greenwoods Turnpike

View looking north towards Rock Hall Road
Turbine CN-1 approximately 0.24 miles away (turbine on left)



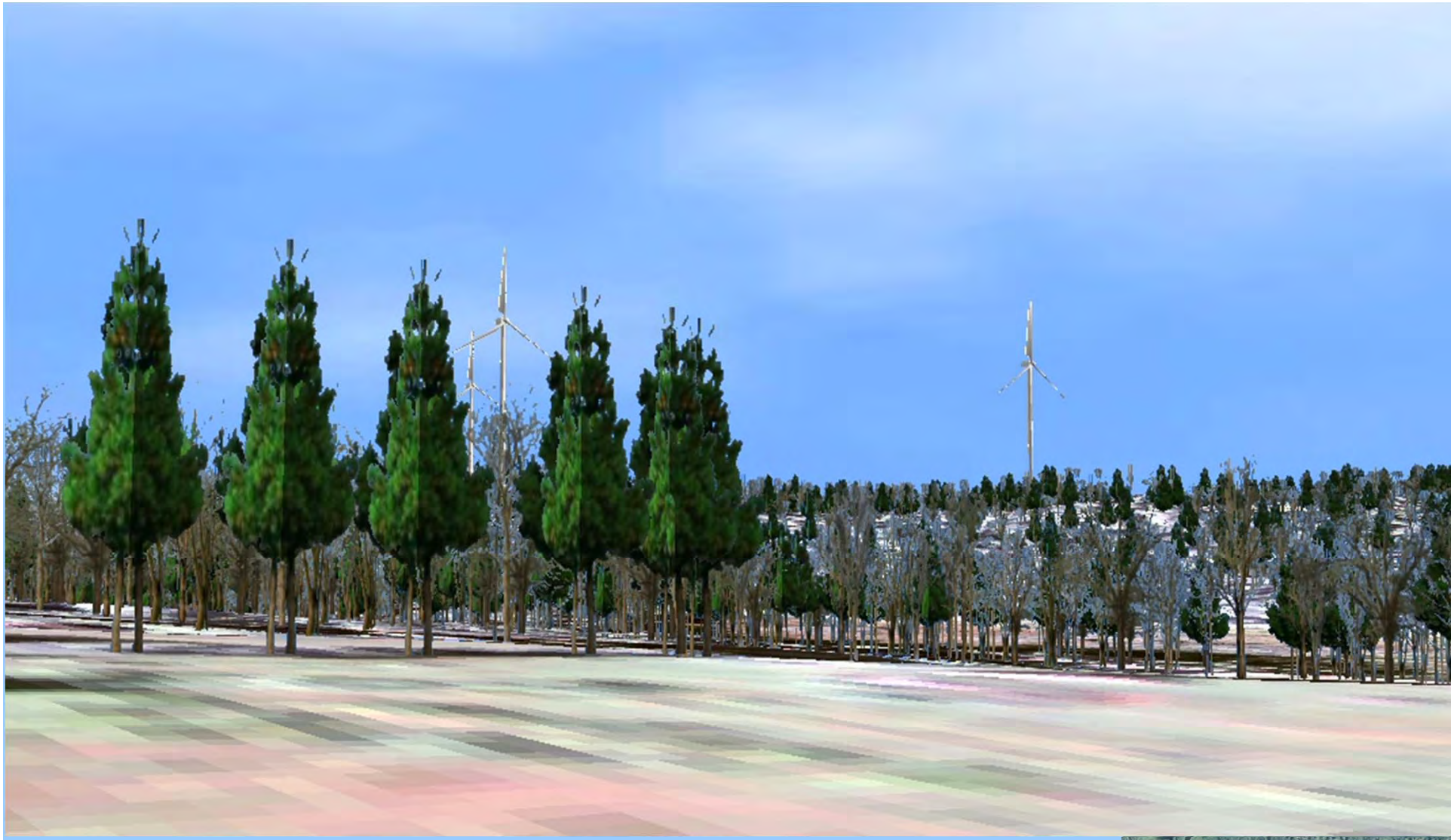
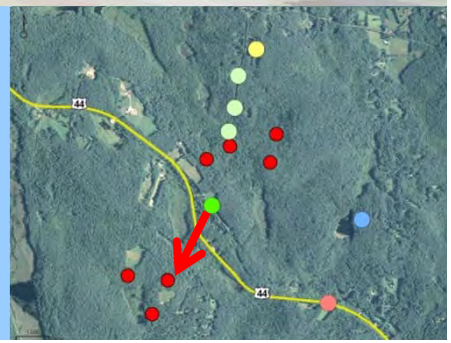


Figure 10 –

12A/12B Greenwoods Turnpike

View looking south towards Flagg Hill Road
Turbine CS-2 approximately 0.56 miles away



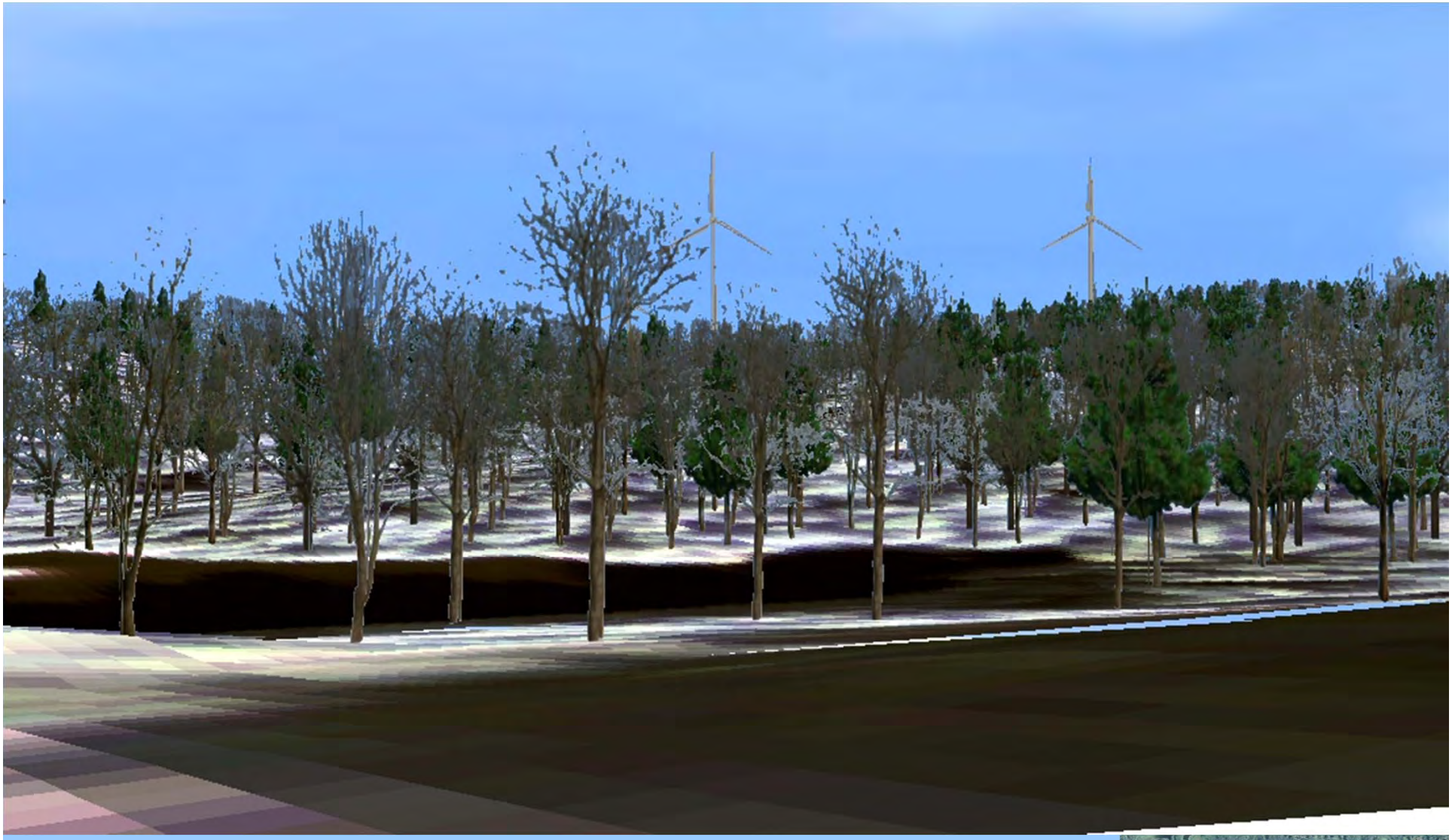


Figure 11 –

Schwartz Pond, 117 Pinney Street

View looking west-northwest towards Rock Hall Road
Turbine CN-2 approximately 0.62 miles away

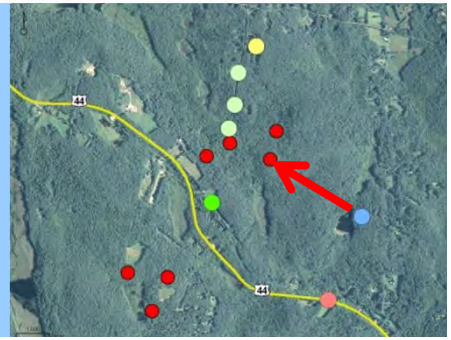
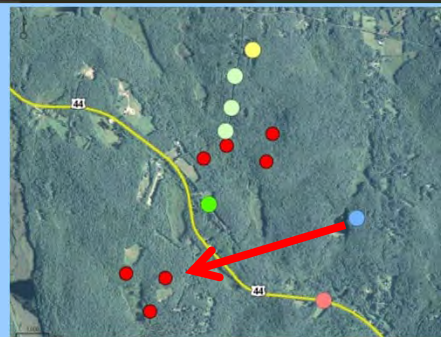


Figure 12 –

Schwartz Pond, 117 Pinney Street

View looking west-southwest towards Flagg Hill Road
Turbine CS-2 approximately 1.17 miles away



CERTIFICATION

I hereby certify that a copy of the foregoing document was delivered by first-class mail and e-mail to the following service list on the 7th day of April, 2011:

Carrie L. Larson
Paul Corey
Jeffery and Mary Stauffer
Thomas D. McKeon
David M. Cusick
Richard T. Roznoy
David R. Lawrence and Jeannie Lemelin
Walter Zima and Brandy L. Grant
Eva Villanova

and sent via e-mail only to:

John R. Morissette
Christopher R. Bernard
Joaquina Borges King

Emily Gianquinto