

**TOWN OF SARATOGA  
PLANNING BOARD DRAFT MINUTES**

**November 28, 2012**

Chairman Ian Murray called the meeting to order at 7:32 p.m.

Planning Clerk Linda McCabe called the roll: Chairman Ian Murray – present, Laurie Griffen – present, Patrick Hanehan – present, Robert McConnell – present, Jennifer Koval – present, Joseph Lewandowski – present, Brandon Myers – present, Alternate George Olsen – present.

Also attending: Town Engineer Ken Martin, Dean Long, Michael Cusack, Barbara & John Murphy, Penelope Benson-Wright, Bernard Buff, Richard Cutting Miller, Bob & Julie Stokes, Gay Gamage, Kim & Dave Austin, Marshall & Mary Ellen Cassidy, Clarisse Kilayko, Todd Fiorentino and many other interested persons. (Sign-in sheet is on file in the Planning Clerk's office)

**Approval of Minutes: A motion was made by Patrick Hanehan, seconded by Laurie Griffen to accept the meeting minutes of October 25, 2012.** Chairman Ian Murray – aye, Laurie Griffen – aye, Jennifer Koval – aye, Patrick Hanehan – aye, Robert McConnell – aye, Joseph Lewandowski – abstained due to absence at the Oct. 25<sup>th</sup> meeting, Brandon Myers – aye, Alternate George Olsen – aye. **Carried 7 – 0**  
**Approved**

**Continued Public Hearing for Special Use Permit for a Telecommunications Tower**

**Verizon Wireless /Cellco Partnership#12-04  
Michael E. Cusack, Young/Sommer LLC  
5 Palisades Dr.  
Albany, NY 12205  
S/B/L 181.-1-5  
Location: 178 Wagmans Ridge Rd.**

**Owner: Mr. & Mrs. Joseph Peck  
178 Wagmans Ridge Rd.  
Saratoga Springs, NY 12866**

Returning Applicant seeks a Special Use Permit to construct an unmanned telecommunications tower on the lands of Joseph and Patricia Peck, located at 178 Wagmans Ridge Rd.

Mr. Michael Cusack, on behalf of Verizon Wireless, introduced himself and his team to the public. He reviewed their application and stated he filed a written response to questions that arose at the public hearing last month and will answer as many questions as he can. He said their response is posted on the Town's website, but he wanted to speak upon certain aspects of that public hearing presentation because he believes it will answer some of the comments that came up at that hearing. He stated their application is for a public utility; personal wireless service facility, proposed to be located on the Peck property, which is a 146 acre farm parcel. It is located in the rural district, which is the only zoning district the Town of Saratoga allows for the location of telecommunication towers.

The facility, as proposed, is located on a single parcel as required by the Town of Saratoga zoning law. The monopole itself, in its original location, is a minimum distance of 236' from the nearest residential dwelling and approximately 300' from Wagmans Ridge Rd. The ranges of distances are approximately 160' from the nearest property line to a maximum distance of

approximately 829' from Southard Rd. These distances are important because they fully comply with the required setback for any property line which is equal to 100% of the height of the tower; zoning regulation 400-13, I (2). The facility, as originally proposed, complies with the Town's zoning regulations. The intent and purpose of the facility is to provide new emergency and non-emergency coverage to a substantial area of the north-western part of the Town of Saratoga.

He reiterated that they provided a detailed description of the coverage gaps in their materials, as well as depicted on the large display board. The proposed facility will provide new local coverage to an estimated 19.7 road miles within the Town of Saratoga, 1,139 persons within the Town of Saratoga or approximately 20% of the Town's population, and more than 13 square miles of territory within the Town of Saratoga or approximately 30% of the total square miles in the Town. So it is fair and accurate to state that the project is intended to solve coverage and capacity problems within the Town of Saratoga and not within the city of Saratoga Springs or adjoining municipalities such as Wilton.

He stated they've provided a wide variety of technical information that documents, statistically, that unprecedented growth and sharply increasing wireless usage patterns since 2009, that have resulted in a nationwide shortage of available spectrum and severe capacity limitations within existing networks. It is particularly true near densely populated and developed urban and suburban population centers, such as surrounding municipalities in suburban sections of the Town of Saratoga. He said they are planning for the current need as well as the future need in terms of coverage.

Several months have been put in by the Planning Board looking at alternative sites; at the June 27<sup>th</sup> meeting the Board asked Verizon Wireless to consider camouflaging this facility as a farm silo since it would be more consistent with the surrounding agricultural district. As a result, Verizon Wireless agreed to come up with an alternative design for a farm silo. It would still be an 80' tall monopole, only located within a silo structure. There is a 10' height increase for the dome of the silo which is the vent and yes it can be done and yes, it is something Verizon Wireless agrees to do at that location and height if requested by the Planning Board. The Planning Board has looked at, considered and evaluated three alternative sites. The first is approximately the same ground level elevation of 413' and is referred to as Alternative #1 and is approximately 295' to the south of the original location they applied for. They evaluated that location and a monopole or silo is feasible there and they are agreeable to locating at the Alternative #1 site. Alternative #2, located at a lower area of approximately 840' south, is located north of the existing concrete farm silage bunkers on the Peck farm. They determined that a tower height of 120' would be required at that location. It's feasible for a monopole but too tall for a silo structure. Alternative #3 is approximately 290' east, northeast of the original location. It is basically right along the farm road and there is a slight drop in ground elevation there of approximately 14'-15'. They believe that the location will work from a technical standpoint and will satisfy their coverage need. The height would have to be slightly higher; 90' instead of 80' and an additional 10' with the silo dome, so a 100' height in total. The application is for the original location and while the alternate locations are feasible, they have to be able to secure the chosen alternate location with the landowner under the same terms they currently have with the owner.

Mr. Cusack stated he knows the public would like Verizon Wireless to not build anything, but they would like to know tonight, if something is to be built, which site the public and the Board prefers. If they had been able to find an existing structure to erect upon they would have done so, but no structure exists that will work for them.

The light radio cube technology brought up at the last meeting has generated a lot of excitement but it has potential for densely populated areas, urban areas, subway stations; it doesn't have sufficient power or the ability to do wide area coverage the way traditional cell towers do. In a

rural, suburban environment such as this area, you are looking for wide area coverage. The light radio cube technology may be something to employ at the Times Union Center, but not made for the use they are here for.

He stated he believes they've previously explained why the Independent Tower site won't work for the northwest side of the town. This Wagmans Ridge tower will provide significant benefits to the Town, moving from the traditional 3G network to a new 4G network. He said they've been working on this transition since 2010 and they're now focusing solely on 4G technology; more importantly, manufacturers beginning next year, will no longer be making the 3G technology; everything will be moved up to 4G. If this site is approved in 2012, the technology that is now in place for voice will be transitioned over to the 4G technology. Looking at the various evolutions of this technology, it becomes relevant for them to focus on what they're putting out statewide and nationally. This will still serve the emergency needs of the public and some of the new technologies that will be encompassed by the 4G are the speed for data is surpassing T1 speeds and approaching fiber speeds on the wireless network. That offers benefits not just for personal use, but for emergency communications such as law enforcement and medical technology. They are working on next generation 911 service which includes the nations first text to 911 service. This technology will help the deaf and hard of hearing and more persons who are in a stressful environment where they can't talk; it will help them reach out for emergency services via text messages. The unfortunate thing right now is, if you try to text 911 on any system, you would not get through to anyone. These were hard lessons learned at the Virginia Tech shooting that translated these needs to the next generation 911 system. This is touched upon in the materials that are included in Rick's narrative, Tab 6, in the application. An initiative was kicked off last week, where Verizon Wireless is supporting technology of wireless networks that will allow patients to send readings directly to their physicians from home, as well as alert physicians of patients with chronic diseases who require medical intervention. This support also includes activities for telemedicine which is intended to bring much needed specialty care image interpretation services to rural areas. So this is much more than text messaging and facebook when you think of 4G technology. There's a lot going on behind the scenes; they have to plan the network, build the network for the future and that is what they are here doing.

Chairman Ian Murray stated the Board has spent a lot of time understanding and reviewing this application. He asked if the Board had any questions at this time; there were none.

**Chairman Ian Murray resumed the Public Hearing at 7:56 p.m.**, asking those wishing to speak to please stand and state their name and address and if anyone has documentation they'd like to supply to the Board to please do so.

**The following persons spoke in opposition to this application:**

**Jocelyn Perillo**, Realtor

**Jennifer Moreau, 210 Co. Rt. 68** (letter)

**Kyle & Debra Stark, 229 Southard Rd.** (letter)

**Laura Mindlin** (letter)

**Ed Curtain** (letter)

**Stephen Cutting-Miller, 106 Southard Rd.**

**John Bevis, 104 Co. Rt. 68** (letter)

**Priscilla DeGrosso, 130 Burke Rd.**

**Mark Lynett**, Realtor for Stephen Cutting-Miller (letter)

**Marshall Cassidy, 157 Walsh Rd.**

**Gina Michelin, 251 Co. Rt. 67** (letter)

**Penelope Benson-Wright, 175 Burke Rd.** (letter)  
**Lisa Mitson, 100 Southard Rd.** (letter)  
**Bob Stokes, 173 Burke Rd.** (letter)  
**Cynthia Neemer, 124 Wagmans Ridge Rd.** (letter)  
**Cynthia Reeves, 149 Burke Rd.** (letter)  
**Charlie Zetterstrom, 138 Hillandale Farm Rd.** (letter)  
**Julia Stokes, 173 Burke Rd.** (letter, National Registry of Historic Places)  
**Tom & Sharon Barber, 178 Walsh Rd.** (letter)  
**Richard & Shirley Reuther, 137 Burke Rd.** (letter)  
**Lisa Ribons, Patricia Casey, 104 Dans View Rd.** (letter)  
**Dan Casey, Dans View Rd.** (letter)  
**Todd Fiorentino, 134 Wagmans Ridge Rd.** (information by Dr. David O. Carpenter, information on property values)  
**Bernard Buff, 171 Southard Rd.** stated he's been in the business since 1994  
**Tim Gerber, 144 Wagmans Ridge Rd.** (letter)  
**Sarah Sullivan, 138 Wagmans Ridge Rd.** (letter)  
**Clark Shaffer, 246 Co. Rd. 67**  
**Kim Austen, 142 Wagmans Ridge Rd.** (information on cell tower safety regulations & potential health issues, petition, survey and letter from Jacob F. Lamme, Attorney on behalf of Wagmans Ridge Road Neighbors)  
**David Austen, 142 Wagmans Ridge Rd.** (read a letter from **George M. Rodgers, 406 Co. Rt. 68**)  
**Barbara Marshall, 146 Southard Rd.** (letter)  
**Andy Sheeran, 178 Co. Rt. 69** stated he was speaking on behalf of his mother who owns the property at 174 Burke Rd. He said that property is the second or third highest hilltop in the county, a road is already in place and locating the tower there would alleviate the viewshed upset of the Wagmans Ridge residents; if Verizon Wireless would like to look at it, the lot is available and it is possible it could work for them.

Robert McConnell stated, not to muddy the waters, but he has real concern about local Town coverage. He said the Board had concerns three years ago about coverage on Rt. 29 and since 2009 we still have no coverage on most of Rt. 29. Do you have any plans to cover that area?

Mr. Cusack responded the facility will cover Rt. 29 in the areas shown in their application.

Jennifer Koval stated normal silos range in size from 70' – 90'. When questioned if a silo would work at the Alternative #2 site, in some of the information given the Board it states that it is possible to do a tower near the barn at Alternative #2 site, now you say no, that it's too tall and too difficult to do a silo, that it's not feasible.

Kathy Pomponio, one of Mr. Cusack's team members, stated it would look ridiculous.

Jennifer Koval responded it is in writing where you talk about a silo in that location.

Mr. Cusack said yes, Dave Weidenreder stated in his report that was filed with the Board on Oct. 17, 2012, the use of the camouflage silo alternative isn't recommended due to the taller height to overcome the terrain challenges.

Chairman Ian Murray stated at a meeting he had with Mr. Cusack, they discussed that the silo could possibly happen at that site, correct?

Mr. Cusack said yes, technically speaking, a height of 120' will provide the coverage of the area for Verizon Wireless. If it is the consensus of the Board to approve, that site will work.

Chairman Ian Murray added with the silo, as we had discussed at a prior meeting for that location.

Mr. Cusack said it is their judgement that if the height was taller than they thought it would be, it may not be feasible at Alternative #2 site; if they can get the height down to 100 'or so, a silo may work at that location.

Town Engineer Ken Martin asked what Mr. Cusack meant by not feasible; what's the reason.

Mr. Cusack responded it's out of character with it being so tall; Kathy Pomponio interjected its nuts, it would be enormous.

Town Engineer Ken Martin stated you're saying it's just the aesthetics of it.

Kathy Pomponio said it would be very wide and taller than the normal silos.

Town Engineer Ken Martin stated he drove by one in PA that was 140' high so he's seen them. It was in an open field and what made it look abnormal, is that you don't see silos a mile away from a barn; he grew up on a farm so he knows.

Jennifer Koval said that's her problem with putting a silo at any of the other locations; unless the building that sits next to the tower looks like a barn, it would look ridiculous.

Kathy Pomponio said they've done that.

Jennifer Koval stated she'd like to poll the neighbors and ask which spot they'd prefer and a silo or a tower. If the Board finds they can't deny this, she'd like the neighbors to decide where it will go. She then said the Board would like to know what the neighbors would prefer if choosing the site.

Kim Austen stated, speaking for the all the residents who have hired attorney Jacob Lamme concerning this application, they prefer a silo structure, which is feasible according to the companies that build these types of silos. She said she found the manufacturer of the Ft. Edward silo, and they say they can do 140'. Does it look ridiculous, yes it does, but it will look much less ridiculous if sitting next to a barn structure, a whole farm environment, instead of shoved several hundred feet across a field sitting alone. Also, concerning property values, they don't think it's a decided decision, they believe it's an opinion of Verizon and they can show contradictory evidence of drops in property values. So silo or not, they'd prefer it next to the Peck's property and the large barn structure will be fine too.

Chairman Ian Murray asked if there were any other comments for the Public Hearing; there were none.

**Chairman Ian Murray closed the Public Hearing at 9:53 p.m.**

Chairman Ian Murray then asked Mr. Cusack if he had any comments.

Mr. Cusack responded he doesn't think there is anything gained by surveying the neighbors since they've had two public hearings. Although he appreciates the sentiment, they've had the public hearings and the prevailing mood is deny the application. This Board on the other hand, has put in 5 – 6 months into looking at alternatives and unfortunately they didn't get much feedback from people on where this thing should go. He believes the Board has given reasonable alternatives and he'd like to see what site the Board has decided on so they know what they're deciding for and so that they can come in at the next meeting and talk to the Board about alternatives at the chosen location.

Chairman Ian Murray stated that is what they are planning to do. He appreciates Mr. Cusack trying to help move this along, but again, the Board members are appointed to this position and as such, the Board is tasked to complete jobs like this. He understands where some Board members are coming from, and that their sentiments are heartfelt and that they're trying to resolve a sticky issue here. The Board has reached a point in the application where they have to move forward with site selection so they can get their engineering work complete, the SEQR completed, make a determination on SEQR and make a determination on the application. He then said this will not be an actual vote, it's a poll of the Board. He will ask the Board what their thoughts are and their site selection so they can move forward and get a consensus on how to tell the Applicant to move forward.

Chairman Ian Murray asked for a roll call poll of the Board for site selection for the location of the proposed cell tower. Consultant Dean Long stated that even though the Board has a sophisticated application before them, this poll is like a sketch plan where you are trying to give the Applicant guidance to move forward and not making a decision to absolutely approve it. Chairman Ian Murray stated correct; to move forward on engineering and move forward on SEQR determination.

Clerk Linda McCabe polled the Board:

**Chairman Ian Murray** – Farm site Alternative #2. That site will have fewer impacts to the neighbors and the community. The Peck's, going forward with this, are impacting everyone so he feels they should be the ones to bear the brunt of the impact and it should be at the farm site. The Peck's being the hosts for this tower will be the ones who benefit financially from this, so again, this is the most appropriate site for the tower and for the view shed this is definitely the place to go, especially with a silo at this location since it will blend in with the farm buildings and the aesthetics of the farm area.

**Laurie Griffen** – Farm site Alternative #2. Same sentiment as Chairman Ian Murray; she'd like to move the shot clock so she can digest this a bit longer but she's got the general gist of what they're doing and she would definitely like to see it toward the barn. Most folks are farmers and she likes big open fields; she would not want something in the middle of her open fields. In the scheme of things it fits better at the barn area. In light of some of the research presented, true, you don't see a lot of silos built that tall anymore, however if it's feasible it would fit better than what you'd see otherwise. As far as the view shed is concerned, even though the silo would be taller, the line of sight is all the same. You're on the same horizon, the same plain, so it moves your eyes back over to something already there and opens it up. So she has the same sentiment as the Chairman.

**Brandon Myers** – Alternative site #2. He understands the limitations of the silo and they don't even know exactly what size it would be for it to work; sounds like it may be massive, which to him would be worse in the middle of a field.

**Jennifer Koval** – Farm site Alternative #2. Originally she was for Alternate site #2 with a silo, but depending upon the size of it she may be for a tower at Alternative #2 site. It is furthest away from the neighbors that it would impact the most and it keeps the visual farmstead clustered together and keeps the rest of the vista open.

**Patrick Hanehan** – Alternative #3, he feels natural screening is best and thinks it would be less visible there.

**Robert McConnell** – Farm site Alternative #2. He'd prefer not to see it at all, but if they must choose, go with a silo near the barn; after a while they'll get used to it. He just feels bad for the neighbors in close proximity to it.

**Joseph Lewandowski** – Alternative #3. He agrees with Patrick Hanehan; the natural screening of the structure is better and he feels it will be less obtrusive than #2.

**Alternate George Olsen** – Farm site Alternative #2. At first he thought #3 would be less intrusive to the skyline and view shed, but he thinks it has the most direct impact on the immediate neighbors, so if it's a choice between those that have to look at it from 3 – 4 miles away or those that have to be right next to it, you can mitigate the impact on site #2 and that is the one he prefers.

Chairman Ian Murray stated the Site Selection is the Alternative #2 site; the farm location. The Board will move forward with the balance of the engineering work on that site and begin closing out the SEQR EAF and the visual on that location. Chairman Ian Murray stated there have been concerns of what the silo and monopole will look like. He asked if Dave Weidenreder can do some simulations of that for the Board and Mr. Cusack responded there are some on record already; they'll look at what they have and see what they can come up with.

Laurie Griffen stated that when they have done their site simulations they did not include the buildings. She asked if they can include the buildings on the property in the simulations.

Mr. Cusack responded their application is for the original site. They have some leg work they need to do and he'll let the Board know if they can do it. He then stated that to be fair the silo is not a viable alternative at location #2.

Chairman Ian Murray stated, not to be combative, but the Board cannot take that verbally; Mr. Cusack will have to back that up showing it cannot work. This Board has done its research also, beyond what was submitted by Mr. Cusack, they've studied the companies that build them, they know what's there and again, not to be combative, they want to look at every option there is to protect the community and our neighbors.

All letters and information that were provided to the Board are on file in the Clerk's office and are also attached at the end of the minutes on the Town's website.

**Chairman Ian Murray made a motion, seconded by Laurie Griffen to declare Town of Saratoga Planning Board as Lead Agency for this application.** Chairman Ian Murray – aye, Laurie Griffen – aye, Patrick Hanehan – aye, Robert McConnell – aye, Jennifer Koval – aye, Joseph Lewandowski – aye, Brandon Myers – aye. **Carried 7 - 0**

Chairman Ian Murray asked if there were any other questions; there were none.

**Old Business:**

**New Business: SEQR Workshop will be held at 7:00 p.m. on Tuesday, December 11, 2012.**

**Laurie Griffen made a motion, seconded by Robert McConnell to adjourn the meeting at 10:13 p.m.** Chairman Ian Murray – aye, Laurie Griffen – aye, Jennifer Koval – aye, Patrick Hanehan – aye, Robert McConnell – aye, Joseph Lewandowski - aye, Brandon Myers – aye.

**Carried 7 – 0**

**Meeting Adjourned**

The next regular meeting will be held Wednesday, December 19, 2012 at 7:30 PM.

Respectfully submitted,

Linda A. McCabe  
Planning Clerk



11/28/12

**FILE COPY**

210 County Route 68  
Saratoga Springs, NY 12866-6626

November 27, 2012

Dear Ian Murray and Planning Board Members,

I am writing this letter to voice my opinion on the matter of the Verizon application to place a cell tower on Wagman's Ridge Rd. I am opposed to this cell tower based on a few different reasons.

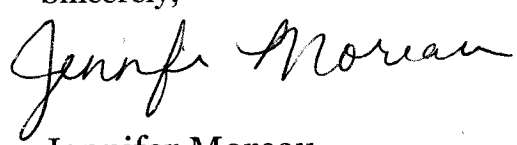
First, I do not believe that a cell tower should be placed so close to a residential neighborhood. The tower's proximity to their homes is sure to reduce the property values and reduce their privacy and enjoyment of their properties.

Secondly, it will have a negative impact on the character of the community. This is a rural, agricultural community and the placement of a large 80-120' industrial tower is significantly out of character with the homes, barns, and pastures that surround the greater Wagman's Ridge, Route 68, Southard Rd, Walsh Road and the Burke Road community.

Finally, I live near the shores of Fish Creek. In 2000, there was an application to designate the Fish Creek – Saratoga Lake area a National Historic Place due to its historical and archaeological resources. See the attached application from Edward Curtin. Preserving the aesthetic beauty and historical importance of this watershed area is also important. Please take it into consideration when conducting any SEQR review.

Thank you for considering my opinions on the Verizon cell tower application.

Sincerely,



Jennifer Moreau

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**FILE COPY**

11/28/12

November 26, 2012

Dear Chairman Murray and the Town of Saratoga Planning Board:

I am writing this letter to voice my concern about the proposed Verizon cell tower on Wagman's Ridge Rd.

I am member of the Skidmore College community and I feel that the placement of a tower on Wagman's Ridge will have a negative aesthetic impact on Fish Creek and the view from the Skidmore Boathouse. As you consider the environmental impact upon the area impacted, I urge you to consider the important recreational and small business impact that the view of an industrial looking 80 to 100 foot cell tower can have upon the area.

As you conduct a SEQR review we urge you to be mindful of the definition of the environment as provided in the SEQR document/application:

(l) Environment means the physical conditions that will be affected by a proposed action, including land, air, water, minerals, flora, fauna, noise, resources of agricultural, archeological, historic or aesthetic significance, existing patterns of population concentration, distribution or growth, existing community or neighborhood character, and human health.

The Fish Creek and Saratoga Lake area has important archaeological and historical significance. Please review the application submitted by Edward Curtin in 2000 for the Fish Creek and Saratoga Lake to be designated a National Historic Place. A large industrial tower looming over the viewshed will diminish the quality of the recreational experience on the creek/lake and be out of character with the neighboring agricultural community.

I urge to vote NO on the Verizon application. We need cell towers, but in appropriately sited locations.

Thank you for considering my thoughts on this matter,

Laura Mindlin



815 N. Broadway

11/28/12

104 County Route 68  
Saratoga Springs, NY 12866

**FILE COPY**

November 27, 2012

To: The Town of Saratoga Planning Board Members

Dear Board Members,

I am writing this letter to let you know that I am opposed to the proposed cell tower facility proposed on Wagman's Ridge Rd.

My home sits on the shores of Fish Creek and I have lived here for over 20 years. The impact of this tower on the view-shed of Fish Creek will have a negative impact on the beautiful natural setting and its recreational enjoyment.

In 2006, Saratoga PLAN passed a Green Initiative Plan that characterized the Fish Creek area as a Greenway in Green Infrastructure Plan for Saratoga County.

**"Kayaderosseras Creek-Fish Creek Greenway**

An interconnected waterway system including Kayaderosseras Creek, Saratoga Lake and Fish Creek winds its way through eight communities in Saratoga County, connecting the southern Adirondacks "hub" to the Hudson River. This greenway links together many open space resources including the Adirondacks, Spa State Park, Saratoga Lake, and the "Old Saratoga" gateway area. The greenway provides opportunities for a diversity of experiences, including existing water and land trails (with opportunities for expansion), historic villages, and scenic agricultural lands. This greenway provides opportunities for passive recreation and conservation that are appropriate to the natural capacity of the land."

[http://www.saratogaplan.org/documents/FullPlan\\_LessApp.pdf](http://www.saratogaplan.org/documents/FullPlan_LessApp.pdf)

It seems like the Kayak Shack next to Fish Creek Marina is a perfect example of promoting this Green initiative and from my understanding, the owner Bo Stoddard, is not too happy about the appearance of an unsightly tower looming over the Fish Creek marina area. The owners of Harvest and Hearth are also opposed to the placement of this tower. We need to support these local businesses.

We have sufficient cell coverage in this area and believe that another cell tower in that location will not add value to this area...only diminish the value of the natural scenery for residents and visitors who come here to enjoy the natural setting and contribute to the local 'green' economy.

I urge you to decline the Verizon application.

Sincerely,



John Bevis



RoadRunner

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Mark Lynett <mlynett@nycap.rr.com>  
Mark <mlynett@nycap.rr.com>

**Subject:** Fwd: **Priority:** Normal **Date:** Tuesday, November 27, 2012 10:54 PM **Size:** 9 KB

Sent from my iPhone

Begin forwarded message:

**From:** "Mark Lynett" <mlynett@nycap.rr.com>  
**Date:** November 27, 2012, 9:19:23 PM EST  
**To:** "mark Lynett" <mlynett@nycap.rr.com>

my clients searched for land in Saratoga County for 3 years... Three Years, not few weeks in finding the perfect location for their home. We found that parcel of land and that land was purchased for it's uncompromising views Stephen and Rick have paid a premium for this parcel, let me re-state the premium was paid for the view , this unobstructed view.

I am here to communicate that in the event this tower is placed in this location my clients property value is dropping by at least 20% Who's going to reimburse my clients for this significant drop in market value ?

If you can hear it , see it, it is simply a negative factor for all

I don't net to tell this board these simple facts.....I invite you to go online and read all the statistics from appraisal industry and real estate professionals.

If you own the land the cell phone tower is on perhaps it would increase the value as you have an income check coming in. But most people do not want anything they perceive as an objection on or near the house they are trying to buy. If you can see it, hear it, or smell it (or it might be a contamination problem sometime in the future) from your property it is a negative factor and should be avoided if a similar property does not have these problems.

If you do not mind this now consider what happens if you ever wish to sell and the next buyers do object. When buying a property with built in objections you need to consider the long term consequences of buying. In times like this any house with any objection is much harder to sell than a house without those objections. Buyers have choices now and can avoid issues like this easily. In a sellers market it is still a problem but not anywhere near as big a one.

Mark Lynett

Research shows that installing a cell tower reduces the property values of homes near the tower. An in-depth study from the Summer 2005 issue of the respected real estate journal, The Appraisal Journal, looked at the effects of wireless base stations on property values in New Zealand. The study concluded that "[t]he results of the sales analysis show prices of properties were reduced by around 21% after a[n] [antenna facility] was built in the neighborhood." A more limited follow-up study, conducted by the same authors in Florida and appearing in The Appraisal Journal's Fall 2007 issue, also found a statistically significant negative effect on property values.

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# FILE COPY

November 28, 2012

Submitted to: Planning Board of the Town of Saratoga - Ian Murray and Meeting Attendees

Submitted by: Town of Saratoga Restaurant Owner, Gina Michelin

Harvest & Hearth, 251 County Route 67, Saratoga Springs, NY

Phone: 518-885-5814

**“It has become appallingly obvious that our technology has exceeded our humanity.”** Albert Einstein said that - a man who embraced technology, but knew all too well of its ability to control and dominate our capacities to be thoughtful, respectful, and cautious.

Our restaurant at the Fish Creek Marina was a dream realized and twelve years in the making. We had always imagined that we would start our business in downtown Saratoga, but when we found our current location, we fell in love. Many of our customers often remark how coming to the creek makes them feel as if they are 100 miles away from the city. It's this bucolic setting that endears us all to this area. In fact, we love the locale so much that we have begun looking for a home in the immediate vicinity in order to be closer to our business. I can assure you that if this cell tower is erected, we will abandon our decision to purchase a home in the area. I'm sure the Peck's value the pastoral setting they've enjoyed for so many years. For this reason, I cannot begin to imagine how they could mar the landscape in this way.

Cell companies like Verizon hide behind the Telecommunications Act of 1996 that prohibits us from arguing the fact that cell phone towers may pose an adverse health impact to our families. At the very least, this is a controversial subject, which will cause prospective home buyers to second guess their decision to invest in this community thereby affecting the local real estate market, our property values and subsequently, the town's tax revenue.

My husband and I both use Verizon as our cell phone carrier and we both have perfect phone service when we are at our business establishment on Route 67 in the Town of Saratoga. At no time in our four years there have we ever had a customer inform us that they were unable to get cell phone service at our restaurant. It is my understanding that Verizon must prove that their services are needed in this area in order to construct a tower. We are not convinced.

To the appointed and elected officials of the Town of Saratoga – the public trusts you to make decisions that are informed with the desire to build a community that is worthy of our investment. Not only have the residents and business owners of this town collectively invested millions of dollars, but we also endow our hopes, dreams, health, aesthetic, and security in this community. This proposed cell phone tower on the Peck's property has the potential to destroy all of the above.

I would be remiss if I didn't mention that we live adjacent to the great city of Saratoga Springs – a city that has focused on long-term, sustainable growth and planning while respecting history, culture and the natural world. We should strive to be a residential, agricultural and business community worthy enough to exist on the periphery of that city. Let us also not forget what this town stands to gain as Global Foundries enters our community. Nearly 1000 employees and their families are coming to our area. For these reasons and more, the Town of Saratoga should look to the future more responsibly now than ever before. This community stands to gain a great deal in the way of tax dollars, business, culture and resources if we plan accordingly. If we do not, we stand to lose everything that has been built and much more.

To Mr. & Mrs. Peck, I respect the fact that your family has maintained a farm in this community for many years and that the surrounding residences and businesses have been a subsequent development for you. But I would also add that the construction and purchase of these homes and the building of these businesses has only increased your property value. Other than ~~the~~ Verizon, you are just *one* entity/who stands to gain financially from this arrangement/. The rest of us stand to lose a great deal. I strongly encourage you to act with a sound conscience, kind heart and respect for this community and the natural environment.

I encourage you all to make the right decision - abandon this initiative and preserve the quality of this town.

Thank you for your time and consideration,

Gina L. Michelin  
Co-Owner, Harvest & Hearth

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11/28/12

11

## STATEMENT OF PENELOPE BENSON-WRIGHT 175 BURKE ROAD, SARATOGA , NY 12866

PRESENTED TO THE TOWN OF SARATOGA PLANNING BOARD ON 11/28/12  
IN OPPOSITION TO VERIZON'S APPLICATION FOR A SPECIAL USE PERMIT FOR A  
TELECOMMUNICATIONS TOWER

CHAIRMAN MURRAY, MEMBERS OF THE PLANNING BOARD, AND FELLOW RESIDENTS:  
MY STATEMENT AT THE PRIOR PUBLIC HEARING ADDRESSED THE REASONS FOR MY  
OPPOSITION AND I WILL NOT RECOUNT THEM AT THIS TIME. HOWEVER, I WISH TO GO ON  
RECORD AS BEING STRONGLY OPPOSED TO VERIZON'S APPLICATION FOR A TOWER AT ANY OF  
THE LOCATIONS PROPOSED IN ITS RESPONSE OF 11/20/12 TO THIS BOARD.

VERIZON'S REPRESENTATIVES STATED IN THEIR RESPONSE THAT THERE IS NOT ANY  
ALTERNATIVE – THAT THE TOWER MUST BE LOCATED IN THE VICINITY OF THE PECK'S FARM –  
BECAUSE OUR RESIDENTS NEED "4G" SERVICE. WHY?

WHY DO I OR ANYONE ELSE IN THE TOWN WANT TO TRADE THE QUALITY OF OUR  
ENVIRONMENT FOR A FASTER TEXT MESSAGE SERVICE OR ANY OTHER "LUXURY" CELL SERVICE  
THE TOWER IS SUPPOSED TO OFFER?

NO MENTION IS MADE IN THEIR STATEMENT OF THE COMMUNITY'S OPPOSITION TO TOWER  
BASED ON ITS NEGATIVE IMPACT ON THE TOWN'S VIEW SHED – ITS NEGATIVE IMPACT ON THE  
VALUE OF OUR HOMES – OR ANY OF THE OTHER ISSUES NOTED IN THE PRIOR HEARING.

THEY NOTE IN THEIR STATEMENT THAT THE TOWN'S RESIDENTS WILL BENEFIT FROM  
IMPROVED SERVICE – EXACTLY HOW MANY CUSTOMERS IN THE TOWN WILL HAVE THEIR LIVES  
CHANGED BY "4G" SERVICE?

AND HOW MANY NEW CUSTOMERS IN THE CITY OF SARATOGA SPRINGS WILL BRING MORE  
REVENUE TO VERIZON AS A RESULT OF THIS SERVICE? ITS ALL ABOUT MARKET SHARE AND  
INCREASED REVENUE.

THE REAL ISSUE IS THAT VERIZON DOES NOT WANT TO INVEST IN THEIR TOWER APPROVED BY  
THE BOARD AND BUILT ON HAYES ROAD – BECAUSE IT WON'T BRING THEM AS MUCH OF A  
RETURN ON INVESTMENT FROM CUSTOMERS OUTSIDE OF OUR SPARCELY POPULATED TOWN.

WE LIVE HERE AND WE DON'T CARE IF VERIZON'S "BUSINESS PLAN" REQUIRES THIS TOWER TO  
BE BUILT – LOSS OF OUR VIEW SHED, LOSS OF OUR HOME VALUE, LOSS OF OUR NATURAL  
ENVIRONMENT IS NOT PART OF OUR "LIFE PLAN".

THANK YOU FOR THE OPPORTUNITY TO ADDRESS THIS CRITICAL ISSUE FOR OUR TOWN.

# FILE COPY

Cynthia Nemer  
124 Wagmans Ridge Rd  
Saratoga Springs, NY 12866

November 27, 2012

To the Town of Saratoga Planning Board:

At the last meeting, my husband, Peter Nemer spoke about the concerns he had about the application for Verizon to place a cell tower at the top of Wagman's Ridge Rd.

I want to also voice my opinion on the matter. I am very displeased that Verizon is trying to place a cell tower so close to my neighbor's properties. This will undoubtedly be a gigantic 100 foot eyesore that will be there for the next 50 years. It is not fair to these neighbors as it will very likely reduce the value of their homes and make it much, much harder to sell when they chose to do so.

The town board should consider the negative tax implications on their properties and realize many other neighbors on Southard road will also have some visual impact that might well do the same to their home values.

This is a beautiful community of homes, farms, cows, horses, and farmland. People love this community for those important attributes- not ugly towers that should be placed in better places- like the Hayes Rd dump.

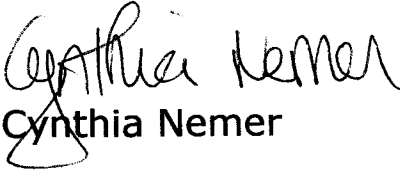
I do not believe that Verizon has proven that they need a tower at this exact location. We can see Radar Rd towers on our daily walks around the block. We have good cell coverage.



Lastly, I have serious concerns about the health and safety of the neighbors close to the tower but also for all of us in the general vicinity of a huge rf and microwave tower.

Please take my concerns into consideration when you make your decision.

Cordially,

  
Cynthia Nemer

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10

# PARAGON

HOME LOANS

## FILE COPY

63 Putnam Street, Saratoga Springs, NY 12866 • Office: (518) 886-8771 • Fax: (518) 886-8780

November 26, 2012

Town of Saratoga  
12 Spring Street  
Schuylerville, NY 12871

**Planning Board:**

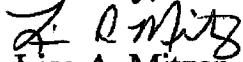
I am writing in regards to the proposed Verizon Cell Tower on Wagman's Ridge Road in the Town of Saratoga. My husband and I purchased a new home on Southard Road in September 2012. The news of this proposed cell tower has us very disappointed and concerned about our property value.

Although I recognize the importance of cell towers and adequate coverage, it seems that there must be a better location for the placement of this tower. This potential cell tower will not only be a visual detriment to the area but will most certainly have a negative impact on the property values within a five mile radius.

As a mortgage professional for several years in this community, it would be very sad to see the properties in this area struggle to obtain financing due to the impact of this proposed tower.

I certainly hope from a personal and professional standpoint that their application to erect the tower is denied.

Sincerely,



Lisa A. Mitzen

Branch Manager, Assistant Vice President  
Paragon Home Loans  
#518-307-3810

100 Southard Rd  
Saratoga Springs, NY 12866

Buffalo • Plattsburgh • Saratoga Springs • Syracuse • Whitesboro

[www.paragonhomeloans.com](http://www.paragonhomeloans.com)



LICENSED MORTGAGE BANKER • NYS BANKING DEPARTMENT

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11/28/12

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# FILE COPY

Robert A. and Julia S. Stokes  
173 Burke Road  
Saratoga Springs, N.Y. 12866

November 28, 2012

Ian Murray  
Chair, Planning Board  
Town of Saratoga  
12 Spring Street  
Schuylerville, NY 12871

RE: Verizon Wireless/Cellco Partnership # 12-04 on J. Peck Wagamans Ridge Rd.

Dear Chairman Murray and members of the Town Planning Board;

We are opposed to the construction of a cell tower on any of the four locations proposed on Wagamans Ridge Road. Each of them is clearly in our view shed at 173 Burke Road. In the materials presented at the last public hearing on this project the view shed analysis excluded our property from the affected views. This is in error and should be corrected. We request that Verizon correct the Visual Environmental Assessment Form Addendum reaching out to properties from ½ mile to a 5 mile 360 degree radius as required by SEQR. The one presented to the Planning Board at the November meeting did not demonstrate increasing radius from the proposed cell tower site.

Page 4 of the SEQR Long Form – Question 14 Part 1 asks if scenic views are important to the community. The Town of Saratoga has recognized in its planning documents that agricultural landscapes and view sheds are important components of the town. The Town was a participant in two planning documents that focused on view sheds. In 2006, Saratoga County unanimously adopted a Green Infrastructure Plan, which identifies agricultural landscapes as critical components of the county's fabric and economy. Further the town was also a participant in a view shed analysis done by the American Battlefield Protection Program that rated the views from and to the battles, siege and surrender at Saratoga in 1777. The views from the ridges of Burke and Walsh Roads towards the Adirondack Mountains and Grant Cottage State Historic Site are no less important.

This afternoon I was shown the Saratoga Lake Fish Creek nomination to the National and State Registers of Historic Places. The nomination describes the prehistoric and historic importance of the Saratoga Lake and Fish Creek shorelines, particularly at Stafford Bridge. The nomination was prepared by a certified archeologist and edited by a staff member of the State Historic Preservation Office. The submittal triggered the "potentially eligible to the State and National Registers" category as part of SEQR. I will reach out to the SHPO office to determine where the nomination is in the process and make it available to the board. I suspect they were not aware

*as a multiple map nomination  
was signed by TH Dep. C. of HP in 1/00  
and by Susan G. Hall in May of 2000.*

Page 2 – Stokes letter 11/28/12

of the proximity to this area. Since the Peck Farm is less than a mile distant from the proposed cell tower site the board should require an archeological assessment.

There are multiple locations within the town that are more appropriate for the location of this cell tower which is primarily being proposed to provide for customers in the City of Saratoga Springs. There are several silos on County Route 69 and lower Burke Road that could be used for cell tower locations. Further, Verizon should complete its negotiations with the radar site (clearly within our view shed to the south) and the cell tower on Hayes Road which the board approved two years ago before proposing new sites in our town.

The board in the past has worked to keep cell towers within tree lines to at least partially screen them. Verizon is completely ignoring that precedent.

Please deny this application.

Sincerely yours,

Bob and Julie Stokes

# FILE COPY

To Chairman Murray and Town of Saratoga Planning Board:

We are writing to urge you to vote no on the Verizon application for a cell tower on Wagman's Ridge Road.

The placement of an 80 to 120 foot cell tower will diminish the agricultural character of the community. The 30 mile view-shed from Wagaman's Ridge, Southard Rd, and Walsh Rd is a beautiful aesthetic resource that should be protected.

Like other neighbors, we feel strongly that a cell tower will also hurt property values. The cell tower should not be only 200 feet from the inside of homes. There are likely other locations for a tower that will have less of a negative impact on this community.

Thank you for considering our thoughts on the matter.

Sincerely,

Lynthia A. Reeves

Lynthia A. Reeves

149 Burke Rd

Saratoga Springs, NY 12866

# FILE COPY

Charles Zetterstrom  
138 Hillandale Farm Rd  
Saratoga Springs, NY 12866

November 27, 2012

To the Town of Saratoga Planning Board:

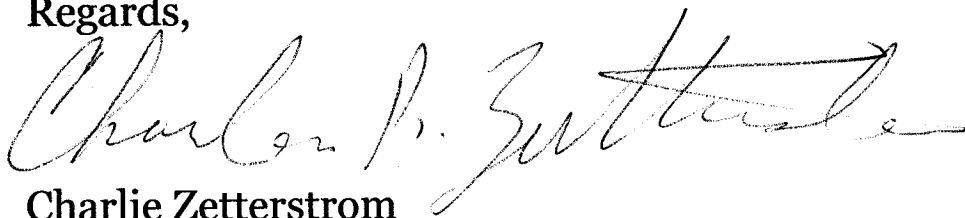
First I would like to say that I am against the Verizon cell tower that is proposed for Wagman's Ridge.

When this became an issue in April, I was never contacted by Verizon about that balloon flight or any others that have since been conducted. I have property that borders the Peck farm I feel that I should have been alerted to this important event.

I think that a cell tower is the last thing that the neighborhood needs to look at for the next 50 years. It will ruin the look of the whole area. People like the Southard Road and Wagman's Ridge Rd area because it looks like a nice and safe community to live in.

I urge the board to vote NO on the Verizon cell tower.

Regards,



Charlie Zetterstrom

As a last note

As a 36 year mgmt employee of Verizon, I can assure you that they are <sup>only</sup> interested in putting a cell tower on Wagnan's Ridge Rd if they accomplish that - they can leave here and never have to face you - the board, and as the residents again -  
Till the next time

11/28/12

**FILE COPY**

Richard and Shirley Reuther  
137 Burke Rd  
Saratoga Springs, NY 12866

Dear Chairman Murray and the Town of Saratoga Planning Board:

We are long time residents of the town and Burke road. We do not support the placement of a cell tower on Wagman's Ridge Road.

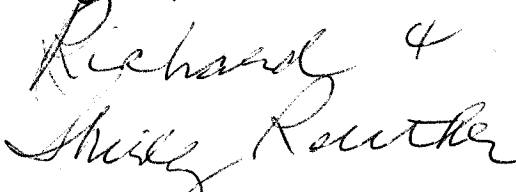
We want Verizon to first co-locate on the cell tower that they are allowed to use on the Hayes Rd Dump. Verizon has neglected to cover significant portions of Route 29 by not using that tower since 2009.

Additionally, Verizon has not done a good job of maintaining current land lines in the area. Shirley was a Verizon employee and wants to be sure the local land lines continue to work for the community. It took us many weeks to have the land line fixed in our home.

Verizon has not provided enough proof that they need this additional cell tower to help the town of Saratoga.

Thank you for taking our statements into consideration. We urge you to vote NO on this application.

Regards,



Richard and Shirley Reuther



11/28/12

**FILE COPY**

November 26, 2012

Thomas and Sharon Barber  
178 Walsh Rd  
Saratoga Springs, NY 12866

Dear Town of Saratoga Planning Board;

We are writing this letter to voice our opposition to a cell tower placed on Wagman's Ridge Rd.

Back in 2009, Verizon was allowed to co-locate on the Hayes Road dump cell tower. To date, Verizon has chosen not to co-locate. They should be required to co-locate first on that tower to improve coverage on Route 29 before being allowed to place another tower in the Town of Saratoga.

The location of the proposed Wagman's Ridge cell tower would diminish the character of the agricultural community that we live in. Placing a cell tower there would clearly and significantly impact the viewshed for over one hundred families who live, commute and work in this community every day.

We hope that you vote NO to the Verizon cell tower like you appropriately did in 2009 when Verizon proposed another cell tower on Walsh Road. You made the right

choice to site a tower in an industrial area with limited impact on residents in the community.

Sincerely,

*Thomas E. Barber*  
Thomas and Sharon Barber

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11/28/12

**Lisa Ribons**  
**104 Dans View Rd**  
**Saratoga Springs, NY 12866**

**FILE COPY**

To Chairman Murray and Town of Saratoga Planning Board:

I am writing to urge you to vote no on the Verizon application for a cell tower on Wagman's Ridge Road.

The placement of an 80 to 120 foot cell tower will diminish the agricultural character of the community. The 30 mile view-shed from Southard Rd is a beautiful aesthetic resource that should be protected.

Like other neighbors, I feel strongly that a cell tower will also hurt property values. There are likely other locations for a tower that will have less of a negative impact on this community.

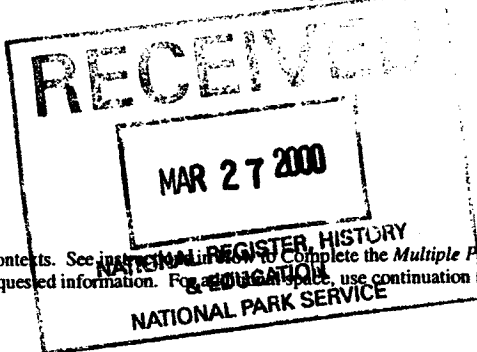
Thank you for considering my thoughts on the matter.

Sincerely,  
*Patricia A. Casey*  
Lisa Ribons *Lisa Ribons*  
+  
*Patricia Casey*

United States Department of the Interior  
National Park Service

National Register of Historic Places  
Multiple Property Documentation Form

*Cover*



20

This form is used for documenting multiple property groups relating to one or several historic contexts. See instructions to complete the Multiple Property Documentation Form (National Register Bulletin 16B). Complete each item by entering the requested information. For additional information, use continuation sheets (Form 10-900-a). Use a typewriter, word processor, or computer to complete all items.

New Submission  Amended Submission

**A. Name of Multiple Property Listing**

Archaeological Sites of the Saratoga Lake-Fish Creek Area, Saratoga Springs, New York

**B. Associated Historic Contexts**

- 1. Prehistoric Period (9500 BC to AD 1609)
- 2. Historic Period (AD 1609-1950)

**C. Form Prepared by**

name/title Edward V. Curtin, Director; Kerry L. Nelson, Research Associate; and A. Caroline Hotaling, Research Associate  
 organization Skidmore Archaeological Survey date November 15, 1999  
 street & number SASW, Skidmore College telephone 518-580-5000  
 city or town Saratoga Springs state New York zip code 12866

Edited by: Linda M. Garofalini, Historic Preservation Program Analyst  
New York State Office of Parks, Recreation and Historic Preservation  
Peebles Island, PO Box 189  
Waterford, NY 12188-0189 Phone: 518-237-8643 ext.3267

**D. Certification**

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR part 60 and the secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation. ( See continuation sheet for additional comments)

*J.W. Acem* Deputy Commissioner for Historic Preservation 18 January '00  
 Signature and title of certifying official Date

New York State Office of Parks, Recreation and Historic Preservation  
 State or Federal agency and bureau

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

*Edson H. Beall*  
 Signature of the Keeper 5/1/2000  
 Date of Action

Page Numbers

**E. Statement of Historic Contexts**.....E-1

1. Prehistoric Period (9500 BC – AD 1609) .....E-3

    a. *The Paleo-Indians, 9500-8000 BC* ..... E-3

    b. *The Archaic Cultures, 8000-1000 BC*.....E-4

    c. *Early and Middle Woodland Cultures, 1000 BC - AD 1000* .....E-5

    d. *Late Woodland to Contact Period Cultures, AD 1000-1609+* .....E-7

2. Historic Period (AD 1609-1950).....E-8

    a. *Indian-European Contact, 1609-1780*.....E-8

    b. *Early Euro-American Settlement, 1780-1820*.....E-10

    c. *Nineteenth Century Lake Houses and Leisure, 1820-1900*.....E-13

    d. *Twentieth Century Lake Houses and Leisure, 1920-1950*.....E-15

**F. Associated Property Types** .....F-1

1. Prehistoric Period (9500 BC- AD 1609).....F-1

    a. *Residential Sites (including Seasonal Residential Sites, Residential Sites with Storage Features, Residential Sites with Elongate Wigwam-Type Dwellings)*.....F-2

    b. *Repeated Logistical Camps*.....F-3.

    c. *Situational "Emergency" Sites (including short term camps and caches)*.....F-4

    d. *Lithic Manufacturing Sites*.....F-5

    e. *Fish Weirs*.....F-5

    f. *Burial Ritual Sites*.....F-6

    g. *Garden Sites (including areas associated with residential sites as well as dispersed garden sites)*.....F-7

2. Historic Period (AD 1609-1950).....F-8

    a. *Native American Seasonal Sites, c.1609 – c.1800*.....F-8

    b. *Farmstead Sites, 1780 – 1820*.....F-9

    c. *Cemeteries*.....F-10

    d. *Leisure and Recreation Sites (Taverns, Restaurants, Hotels, Casinos, Estate Homes)*.....F-11

**G. Geographical Data**.....G-1

**H. Summary of Identification and Evaluation Methods**.....H-1

**I. Major Bibliographic References**.....I-1

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 120 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, D.C. 20013-7127 and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, D.C. 20503.

**NATIONAL REGISTER OF HISTORIC PLACES  
MULTIPLE PROPERTY DOCUMENTATION FORM  
CONTINUATION SHEET**

Archaeological Sites of the Saratoga Lake-Fish Creek Area  
Saratoga County, New York

Section E, Page 1

**E. Statement of Historic Contexts**

Introduction

The City of Saratoga Springs is within the County of Saratoga, located in the northeastern section of New York State (Figure 1). The name Saratoga is derived from an Iroquois term, although its meaning is unclear and several possible interpretations have been discussed (Beauchamp 1893). Historically, Saratoga referred to a region within modern Saratoga and Washington Counties, as well as a stretch along the Hudson River at modern Schuylerville (named "Old Saratoga" during the mid-late eighteenth century), and a 1708 land patent. The two 1777 Battles of Saratoga were fought on lands ten to fifteen miles east and southeast of the modern City of Saratoga Springs. Saratoga Springs is named for the numerous local fault and low, limestone escarpment running through the city.

Saratoga Springs is a small city with several significant educational, cultural and recreational assets. These include Skidmore College (a small, private, liberal arts college), the thorough-bred racing season at the Saratoga flat track, the Saratoga Performing Arts Center (summer home of the New York City Ballet and Philadelphia Orchestra), and the National Museum of Dance. The City borders Saratoga Lake, which provides water sports and vacationing. The Saratoga Battlefield National Historic Site and other attractions are located nearby. As a result, tourism has long been an important local industry, and a vibrant main street (Broadway) shopping district is supported by the large number of visitors. The extensive preservation and maintenance of local historic properties (primarily nineteenth and early twentieth century buildings and landscapes) which provides much of the built environment for shoppers and tourists, also promotes Saratoga Springs as a specific destination for history tourism. Several National Register of Historic Places buildings and districts have been listed within the City, including the Broadway Historic District, the Casino-Congress Park-Circular Street Historic District, The Drink Hall, the East Side Historic District, Franklin Square Historic District, Pure Oil Gas Station, Saratoga Spa State Park District, the Hiram Charles Todd House, the United States Post Office building, the Union Avenue Historic District, and the Petrified Sea Gardens (NHL).

The Saratoga Lake-Fish Creek archaeological study area



**NATIONAL REGISTER OF HISTORIC PLACES  
MULTIPLE PROPERTY DOCUMENTATION FORM  
CONTINUATION SHEET**

Archaeological Sites of the Saratoga Lake-Fish Creek Area  
Saratoga County, New York

Section E, Page 2

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**Environment**

The Saratoga Lake-Fish Creek Study Area lies within an environmentally rich area with well drained, sandy plateaus and terraces overlooking extensive wetlands, streams, ponds, and lakes. The plateau between Lake Lonely and Saratoga Lake is a kame terrace that was formed when sand was deposited by glacial melt waters flowing between ice blocks. The melting of the ice blocks created Lake Lonely and Saratoga Lake (Cushing and Ruedeman 1914:15). Soils on the plateau are well-drained brown or slightly yellowish brown sand with loose, bright yellow sand subsoil which becomes yellowish gray with depth. Small, rounded gravel may be present in all layers (Maxon 1919:31-32).

**NATIONAL REGISTER OF HISTORIC PLACES  
MULTIPLE PROPERTY DOCUMENTATION FORM  
CONTINUATION SHEET**

Archaeological Sites of the Saratoga Lake-Fish Creek Area  
Saratoga County, New York

Section E, Page 3

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Drainage involves a complex of streams that flow eventually to the Hudson River via Fish Creek. Bog Meadow Brook runs from the northwestern corner of the district through Bear Swamp and into Lake Lonely. Lake Lonely empties into Kayaderosseras Creek via Little Lake Creek, which flows through a marshy area into Saratoga Lake. Owl Pond, a small kettle lake, is just west of Lake Lonely. Most of the northeastern section of the project area consists of terraces bordering Fish Creek. A small intermittent stream flows into Fish Creek in the northeast corner of the project area. Historically, and no doubt prehistorically, Fish and Kayaderosseras Creeks were known for spring runs of herring, shad, and alewife. Before the introduction of a variety of non-native species such as black bass, pickerel and muskellunge, Saratoga Lake was an important trout fishery (James P. Walsh, personal communication).

Forests in the region are northern hardwood types featuring components of the oak-chestnut and maple-beech-hemlock regions (Shelford 1963). The oak-chestnut forest follows Fish Creek from the Hudson Valley to Saratoga Lake reflecting the extension into the hinterlands of a more southern climate and richer environment, characteristic of the Hudson valley (Bender and Curtin 1990). The maple-beech-hemlock forest is found at higher elevations within the region, although on sandy, upland soils other forest types may predominate depending upon local conditions of drainage and climate. White pine is a significant constituent if relatively recent disturbance by fire or timbering has occurred. On the sandy plateau between Lakes Lonely and Saratoga, oak is predominant in the mature forest.

The built environment is now dominated by a combination of mid-twentieth century cottages and new, extensive, residential subdivisions comprised of single family homes and condominiums. There is also a boat launch, several restaurants, small businesses, and older private homes. Woods and fields continue to exist in places. A large area within the 1990s Waters Edge planned unit development is regulated by the city as an archaeological park or conservation area where potential future construction is severely limited.

**Historic Contexts**

**1. Prehistoric Period (9500 BC – AD 1609)**

In New York State the prehistoric period is divided into three major cultural-historical divisions, the Paleo-Indian, Archaic and Woodland. These are further subdivided into subperiods and phases associated with features of environmental adaptation, subsistence, technology or other characteristics.

***a. The Paleo-Indians, 9500 – 8000 BC***

The Paleo-Indian is the earliest period of Northeastern U. S. prehistory. Paleo-Indian cultures were adapted to a late glacial environment, likely hunting caribou and possibly other species, such as mastodon, now locally or globally extinct. The Paleo-Indian way of life seems to have involved mobility over long distances in order to procure food. The earliest Paleo-Indians produced chipped stone artifact assemblages with a diversity of specialized implements, including characteristic fluted or "Clovis" points. At the end of the Paleo-Indian period, similar points, usually lanceolate in outline but without the flutes or channels on the blade faces, replaced the fluted points. These unfluted points are often referred to as Plano points, as they are most common in the central, plains region of North America.



NATIONAL REGISTER OF HISTORIC PLACES  
MULTIPLE PROPERTY DOCUMENTATION FORM  
CONTINUATION SHEET

Archaeological Sites of the Saratoga Lake-Fish Creek Area  
Saratoga County, New York

Section E, Page 4

Paleo-Indian sites have been [redacted] and elsewhere in Saratoga County (Funk and Walsh 1988; Levine 1989). [redacted] but based on topography, water resources, and environmental history, Paleo-Indian sites are expected to occur there.

*b. The Archaic Cultures, 8000 – 1000 BC*

By 10,000 years ago the world's temperature had warmed sufficiently for a variety of trees to migrate north, reestablishing forests. As the climate continued to ameliorate, more deciduous tree species became abundant, producing more nuts and browse for the species hunted by ancient Native Americans. Notable among these species are deer, turkey, and the now extinct passenger pigeon. It is likely that the territories of the hunting and gathering bands decreased as natural productivity increased and as the bands, therefore, could be more sedentary, living at fewer sites for longer periods of time. A succession of Indian cultures adapted to this improving situation, and readapted when the climate turned colder and wetter about 1000 BC.

The earlier hunting and gathering adaptations to the temperate forest, before the invention of pottery, are called Archaic cultures. The Archaic is divided into three subperiods, Early (8000-6000 years BC), Middle (6000-4000 BC), and Late (4000-1000 BC). The period 1800-1000 BC is often referred to as the Transitional (Funk 1976; Ritchie 1969) or Terminal Archaic (Kraft 1986; Snow 1980). These divisions generally coincide with distinctive artifacts, especially projectile point types. The Early Archaic period shares characteristics such as small population size with the Paleo-Indian period, and together with the Paleo-Indian forms the human dimension of change from Pleistocene to Holocene ecologies (Cleland 1976). Small, mobile Early Archaic populations adapted to an environment with few nut bearing trees and fish poor waters. They were probably attracted to wetlands for aquatic resources as well as stands of oak, where deer would be more found. Early Archaic bifurcate base projectile points dating to about 8000-8500 BP have been documented at the Arrowhead Casino site by James Walsh (1977), and are reported by Michael Stoika from a site known as the Three Brothers site (notes on file, Skidmore College and New York State Museum). Other, similar projectile points from local sites have been identified in private collections, although it is not always possible to relate these artifacts directly to the project area. Early Archaic period projectile point types, such as Palmer and Kirk corner notched, have also been found in the collections of avocational archaeologists.

Cultures of the Middle Archaic period (6000-4000 BP) occupied a land richer in resources as deciduous forests became more fully established, and the increasing stabilization of coastlines and stream gradients, along with ameliorating temperatures, allowed richer aquatic communities to develop. Collectors have found Middle Archaic Neville points in or near the study area. Numerous Neville type points found [redacted] the study area are in the Louis Follette collection at Skidmore College. Otter Creek side-notched points are also found in the study area. This type recurrently has been radiocarbon dated between 4000-4600 BC in the northeast. Assemblages dominated by this projectile point type may be regarded as of Middle Archaic age, and may also to indicate a "proto-Laurentian" or initial phase of the Late Archaic Laurentian tradition (Funk 1993).

Relatively modern climatic conditions were reached by 4000 BC. As a consequence, after this time, Late Archaic cultures seem to have exploited smaller, though richer territories. Artifacts associated with the Late Archaic are among the most frequent artifacts found in institutional and private collections, including well-documented, excavated collections from [redacted] James Walsh (1977) has described Late Archaic period, River phase occupations dating to 3500-4000 years ago from [redacted]

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The record of exchange of exotic materials during the Late Archaic period includes small amounts of copper from the Great Lakes and marine shell from the Gulf of Mexico, Chesapeake, and Long Island regions. A copper awl has been recovered from the Late Archaic period occupations [redacted] (Walsh 1977).

The Laurentian Tradition and the River Phase, 3000-1500 BC: Recurrent sequences of Late Archaic projectile point types are found at stratified archaeological sites in the [redacted]. The recurrent sequence of different styles and stone chipping traditions indicates the succession over time of two major cultural traditions, the Laurentian and the Small Stemmed Point traditions. The time frame of changes in the sequence is approximately 3000 BC-1500 BC (5000 BP-3500 BP). The Arrowhead Casino site has shown an important, rare example of this sequence. [redacted] a variety of Laurentian Tradition projectile point types such as Otter Creek, Vosburg, Brewerton side notched and Brewerton eared notched are on the average stratigraphically deeper than a large number of Normanskill type points, the key diagnostic of the River phase of the Small Stemmed Point tradition (Walsh 1977).

The Laurentian Tradition and River Phase have been associated with two essentially different temperate forest adaptations by Snow (1980): the Lake Forest Archaic and Mast Forest Archaic, respectively. In addition to artifact assemblage differences, Snow indicates that the Mast Forest Archaic shows a broader subsistence orientation to a large variety of species, particularly plant species, than the Lake Forest Archaic. Funk (1976) finds a low incidence of River phase settlements or camps with lacustrine associations. However, sites in the study area seem to show evidence of the River phase adaptation not identified elsewhere. This evidence therefore is important for understanding the total settlement pattern of the River phase. Moreover, important comparisons can be made between the River phase and the Laurentian tradition. While the River Phase is strongly represented at [redacted] prehistoric site (Walsh 1977), evidence of Laurentian Tradition occupation has been found recurrently along [redacted] including the apparently single component [redacted] (Walsh 1996).

The Transitional or Terminal Archaic, 1800-1000 BC: At the end of the Late Archaic period, during an interval referred to as the Transitional or Terminal Archaic period (1800-1000 BC), exchange across regional and subregional boundaries greatly increased. Terminal Archaic exchange usually involved chipped stone bifaces and projectile points made from quarry sources in Pennsylvania, New York, New Jersey, and southern New England. In fact, distinct patterns seem to characterize this trade, with Pennsylvania jaspers and rhyolites being the materials most often entering the Hudson, upper Delaware, Susquehanna, and Genesee valleys (Ritchie 1971; Funk 1976; Kinsey *et al.* 1972; Trubowitz 1977; Curtin 1984).

Another important stone material exchanged over long distances during the Transitional period is carved steatite or "soapstone" (talc schist), made into usually flat bottomed, lugged bowls. The identified sources of steatite occur in southern Pennsylvania, Connecticut, and Rhode Island. Near the end of this period, and seemingly at the same time that stone bowls were being produced, baked clay pottery was introduced from the south.

*c. Early and Middle Woodland Cultures, 1000 BC - AD 1000*

Archaeologists identify the introduction of pottery (invented along the Atlantic coast in the southern United States) as the beginning of a new era, the Woodland period. The earliest pottery is believed to have been used to stew nut-based meals featuring hickory nuts and walnuts, and to render nut oil available as a fat-rich food.

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Pottery significantly improved the efficiency of food preparation, helping to buffer against subsistence stresses possibly caused by the cooling climate, or population growth, an effect of increasingly settled life.

The first five hundred years of the Early Woodland period (1000 BC – 1 BC) in the Hudson valley, as in other coastal and eastern valley areas, features a culture referred to as the Orient phase. Orient phase projectile points that are similar to, although narrower than Terminal Archaic period Susquehanna Broad points (Kraft 1986). The inclusion of the Orient phase in the Early Woodland period is a revision of earlier chronology (Funk 1976; Ritchie 1969) by authors such as Snow (1980), Kraft (1986) and Bender and Curtin (1990), based upon radiocarbon dating and the occurrence of Early Woodland type ceramics in Orient phase sites. Walsh (1977) has described Orient phase occupations dating to approximately 2500 years ago at the Arrowhead Casino site. At other sites in the Hudson valley, Orient points have been found in association with an early pottery type, Vinette 1. The archaeological collection recovered by Hartgen Archeological Associates ahead of sewer construction at the Arrowhead Road site includes at least one example of Vinette 1 pottery (in the collection curated by the New York State Museum). Another Early Woodland culture, the Meadowood phase, also employed Vinette 1 pottery, but traces of this culture are slim in eastern New York. Nonetheless, evidence of the Meadowood phase has been documented at the Dennis site near Albany (c. 30 miles south of the project area), where the Meadowood phase seems to post-date the Orient phase based upon stratigraphic evidence (Funk 1976). Funk (1976) indicates that during the Meadowood phase chipped stone material was traded into the upper Hudson valley from sources in western New York. But on a broader geographic scale, radiocarbon dates associated with both phases overlap significantly, indicating that these cultures were at least partly contemporaneous. If they were contemporaneous, then the two cultures may have had different adaptations, or at least used the landscape in different ways. For example, even with similar adaptations, the Meadowood culture might have incorporated the upper Hudson in a hunting and gathering strategy involving extended mobility away from a home territory, while populations of the Orient culture made a home within the upper valley.

Alternatively, even though more broadly contemporary, the two cultures may have occupied the upper Hudson region in succession. If the latter process occurred, the evidence from the Dennis site suggests that Meadowood phase settlements may have followed the Orient phase in the upper Hudson valley. However, paucity of data in the region precludes evaluation of these alternative hypotheses. The Orient phase component at the Arrowhead Casino site is thus an extremely important resource for testing ideas of human settlement and land use strategies in this part of eastern North America during the Early Woodland period.

Other terminal Early Woodland (or incipient Middle Woodland) cultures are the Bushkill and Middlesex phases. However, the Bushkill phase is not identified in the upper Hudson drainage, while evidence of the Middlesex phase, although present, may pertain to a mortuary program associated with the Meadowood phase or other Early to Middle Woodland cultures (Curtin, Anderson and Lloyd 1994; Snow 1980).

The Middle Woodland period (AD 1-1000) shows continued long distance exchange, although perhaps with varying strength at different times. There is strong evidence (Funk 1976; Johnson 1979) that certain occupation sites were becoming larger during this period. Thicker middens were developing and food storage was becoming a common practice. Fresh water mussel shells and sturgeon plates are found at Hudson Valley Middle Woodland sites, suggesting that people were exploiting a greater variety of foods, perhaps as another response to stress induced by increasing settlement stability, residential sedentism, and perhaps, population size. This may have been a period of intensified exploration of herring and other anadromous fish in Fish Creek.

Approximately 2000 years ago, the use of harder, more refined pottery became common as technological improvements were made. These improvements were perhaps a result of subsistence changes requiring more effective cooking methods, particularly of native seed plants. Ceramics recovered in the study area by Hartgen

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Archeological Associates and Greenhouse Associates include Middle Woodland pottery types with either stamped and rocker-stamped designs, or fabric and net impressed surfaces. The stamped and rocker-stamped pottery tradition is associated with the Middle Woodland period (AD 1-1000 AD), and is connected culturally to the Great Lakes-St. Lawrence region. The fabric and net marked pottery indicate associations with an Atlantic cultural province centered in the Chesapeake Bay and Delaware River area, c. 500 BC-AD 500. Among all sites producing Native American ceramics in the Saratoga Lake-Fish Creek area, those producing Middle Woodland ceramics are most frequent.

The wide-spread occurrence of Middle Woodland sites may indicate that the Native American population was growing through this period. In the upper Hudson drainage, there are several indications that Middle Woodland populations were becoming more sedentary, often banding together in larger communities. Perhaps consequently, they were exploiting a wide variety of foods more intensively; such as fish, shellfish, and native seed-producing plants. However, the origin of these Middle Woodland events is poorly understood, as sites dating between about 500 BC to AD 500 are relatively rare. Importantly, high frequencies of ceramics believed to date from this interval were recovered by Greenhouse Associates at the Water's Edge subdivision within the study area.

In other areas such as the American Mid-continent, Native American populations of the Middle Woodland period were domesticating native seed bearing-plants. One of the most important wild seed plants, possibly involved with early, indigenous domestication, was chenopodium, also known as goosefoot, lamb's quarters, or pigweed. Smartweed (*Polygonum*) is another important, early potential domesticate. This process may also have been occurring in the project area, as a high frequency of native seeds of these species are associated with the period AD 300-600 [REDACTED] (Bender and Curtin 1994).

**d. Late Woodland to Contact Period Cultures, AD 1000-1609+**

Increasing sedentism, community size, and plant food exploitation of the Middle Woodland period was succeeded in the Late Woodland period by trends that may well be the culmination of Middle Woodland cultural processes. These include the adoption of corn horticulture by local populations, and further adaptation of ceramic technology. Corn horticulture spread east from the Midwest and Great Lakes areas just prior to AD 1000 due to the success of the cold-resistant variety, Northern Flint, which first appeared in the northern midwest or south-central Ontario. The use of corn no doubt changed Native American society by providing more storable food and an important energy source. It may also have strengthened the social importance of matrilineal descent, inheritance, and land use rules, and the elaboration of labor organization and diplomatic relationships. Many of the characteristics of Northeastern Algonquian and Iroquoian peoples known through historical records most likely emerged with this subsistence transformation.

The precise timing of the adoption of corn horticulture is not known, but certain discoveries, such as at the [REDACTED] (Funk 1976) suggest an agricultural adaptation including food storage was underway by AD 1300. The earliest corn in the region has been found at a transitional Middle-Late Woodland period site (c. 900-1000 AD) on the Roeliff-Jansen Kill [REDACTED] (Cassedy *et al.* 1993). In the Midwest, an intensification of wild seed use, and the domestication of native plants, including the sunflower and chenopods preceded corn horticulture. The adoption of corn may have continued a trend of subsistence species diversification inferred for the Middle Woodland period.

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The Late Woodland people of the upper Hudson Valley were ancestors of the Algonquian-speaking Mohican Indians, whose corn supply was described by Henry Hudson in 1609. Corn horticulture seems to have encouraged accelerating population growth, village life, and warfare among some cultures, such as the Iroquois west of the Hudson Valley. It is not known whether similar effects occurred in the Hudson Valley, but since large, Late Woodland village sites have not been documented by archaeologists in this region, chances are that the Mohicans or their ancestors did not typically establish such large, aggregated communities. It seems more likely that the late prehistoric peoples of the upper Hudson Valley lived in small, dispersed farmsteads or hamlets, in similar fashion to many of the New England Indians (Bender and Curtin 1990; Cronon 1983; Handsman 1990). Sites of this small type recently have been described by Lavin *et al.* (1996) and Diamond (1996) in the middle and upper Hudson valleys.

New ceramic manufacturing and decorative traditions also became apparent during the Late Woodland period, including elaborate style signals executed through the application of linear, zoned decorative fields on collared pots, and harder, thinner-walled pots that were resistant to thermal shocks created by long periods of cooking. These pots effectively and evenly conducted heat during the cooking process. The latter adaptation may have been necessary in order to enhance corn preparation for proper digestion.

Well-documented Late Woodland period occupations are uncommon in the study area, suggesting possible abandonment during the Late Woodland period. However, Late Woodland pottery is a minor constituent of the collection made by Hartgen Archeological Associates during studies for the sewer system [redacted]. Other Late Woodland pottery has been identified through recent excavations at [redacted] Skidmore College. Intriguingly, a Late Woodland ceramic component is well represented within the Edward Spencer collection, a private collection reported to be from the study area. Although the question of Late Woodland settlement within the study area is open, Late Woodland sites have been documented [redacted] (Bender and Brumbach 1986; Funk 1976; Funk and Lord 1972).

## 2. Historic Period (AD 1609 – 1950)

### *a. Indian-European Contact 1609-1780*

During the sixteenth and early seventeenth centuries, the prehistoric period became historic as trade and interaction was initiated between Indians and Europeans. This change is not well-documented in the upper Hudson drainage in either the identified archaeological record or historic documents (Bender and Curtin 1990:3-13; Grumet 1992:88) until Dutch exploration and settlement began in 1609. During the early seventeenth century, the Iroquoian Mohawks from the middle Mohawk Valley defeated the Mohicans of the upper Hudson region, and control of the Saratoga region shifted from the Mohicans to the Mohawks (Dunn 1994). However, European American settlement and record keeping did not occur locally until the late eighteenth century.

It is possible that the first European visitor to the area was the Jesuit Isaac Jogues, who may have visited the outlet of Saratoga Lake or locations along Fish Creek while a missionary to the Mohawk Indians during the 1640s. Jogues provided brief descriptions of a region that may include Fish Creek and Saratoga Lake. However, there is virtually no documentary record of the seventeenth century in the vicinity. Archaeological evidence of Native American use of the area during the seventeenth century may include a single blue glass bead reported from a location along [redacted] (Berg *et al.* 1977), and European trade beads and axes found outside the study area at the [redacted] (Bender and Brumbach 1986).

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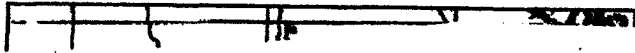
As the seventeenth century passed into the eighteenth, European colonists grew increasingly interested in the Native American lands of the upper Hudson region (Figure 3). The Saratoga (granted 1684, confirmed 1708) and Kayaderosseras (granted in 1703) Patents, opened the claims of Euro-American owners to the lands within and surrounding the study area. However, the Kayaderosseras Patent was not settled quickly, and remained unoccupied until after the end of the French and Indian Wars (1763), presumably when the threat of violence to northern frontier colonies dramatically abated (Figure 4). An attempt to settle within the modern bounds of the City of Saratoga Springs in 1764 was turned back by a Mohawk party who disputed the patent. The Mohawk resistance to the Kayaderosseras Patent became a matter of concern to the entire confederacy of the Iroquois, who went to great effort to negotiate it with the Crown's Indian Agent, Sir William Johnson of Johnstown. A settlement finally was reached through the Governor. The patent was surveyed in 1768, and divided for the patentees in 1771 (Stone 1875:72,93-94; Sylvester 1878:75-6). Subsequently, the military defeat of the Mohawks, who were a British ally in the Revolutionary War (1776-1783), removed any possible doubt regarding legal claims by that nation to the lands around Saratoga Springs. Mohawk resistance to settlers was no longer possible after the Revolution.

**Early Land Grants in  
New York** (from P.S. Palmer,  
*Lake Champlain 1609-1814*,

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***b. Early Euro-American Settlement, 1780-1820***

Saratoga Lake and Fish Creek, with access to transportation by road and water, and plentiful game, fish and land, were attractive locations for settling. In 1780 Benjamin French settled "on the Kayederroseras flats adjacent to the lake" (Durkee 1927-8:250). He is believed to be the earliest permanent European-American settler in the study area. In 1784, Levi Fish ran a dug-out ferry across Fish Creek near the Saratoga Lake outlet in order to meet the demand for crossing. It became a rope ferry one or two years later, and ran until it was replaced by Moon's Bridge (Stone 1875:75-6; Sylvester 1878:219). Other early settlers included Amos Stafford and the Ramsdill family. Jonathan Ramsdill built a house on the [REDACTED]

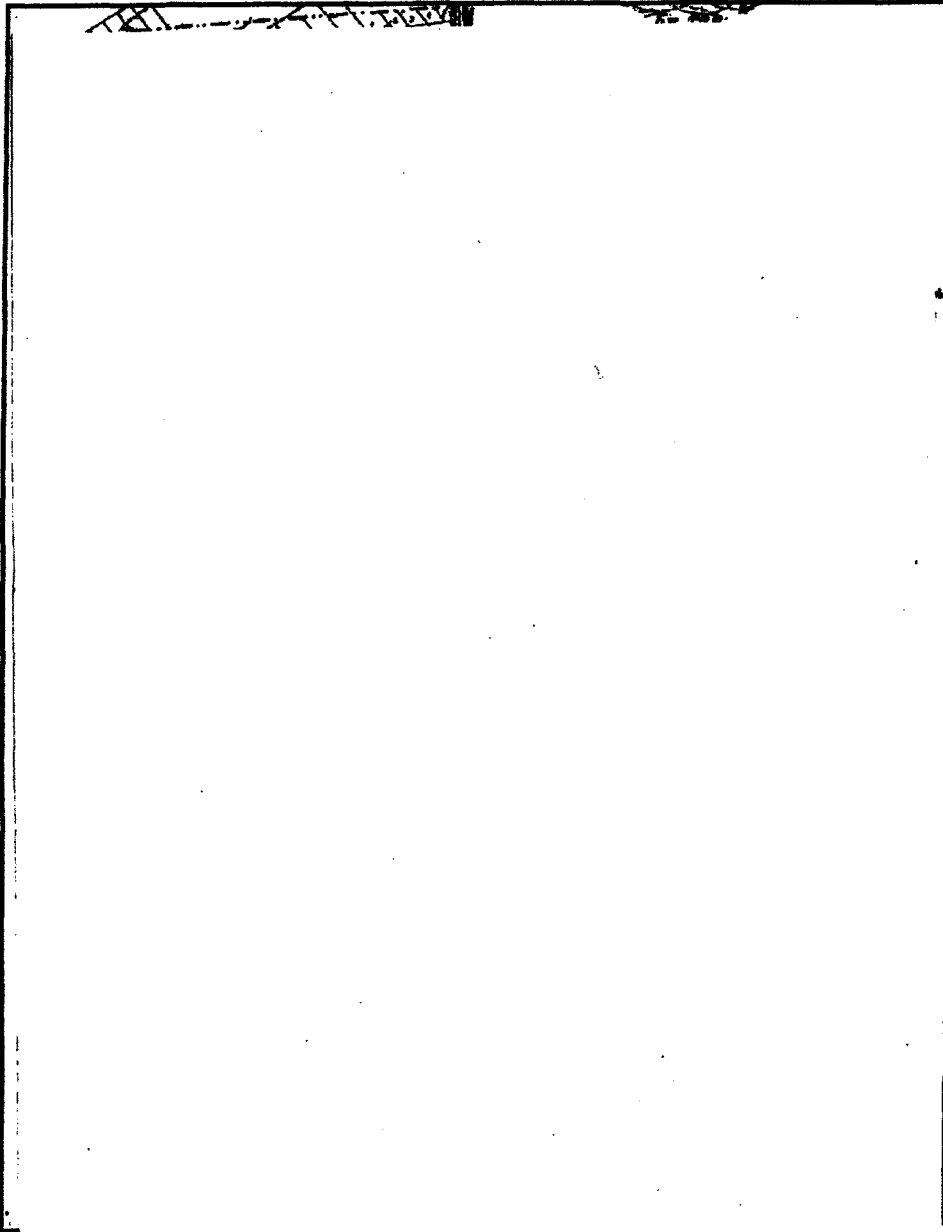
[REDACTED] One of the early Ramsdill ancestors, Laura Winne, was born [REDACTED] in a tiny house whose foundation was accompanied by the remains of an apple orchard and several currant bushes even into the middle of this century (Lester Ramsdill, Jr., interview). At Stafford's Bridge was an important intersection with the road coming from [REDACTED]

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██████████ The Stafford's had a tavern there which also served occasionally as a meeting place for the governments of Saratoga and Saratoga Springs (Stone 1875:40; Sylvester 1878:219). The earliest recognized European American cemetery in the study area is that of the Stafford's, with a first grave date of 1811 (Sylvester 1878:221). Other cemeteries are those of the Jewell, McDowall/ Ingarson, Leslie, Ramsdill, and Abel families. The settler families intermarried until a web of family connections had solidified the Saratoga Lake neighborhood (Figures 5 & 6).



Study Area

rr Atlas, 1840

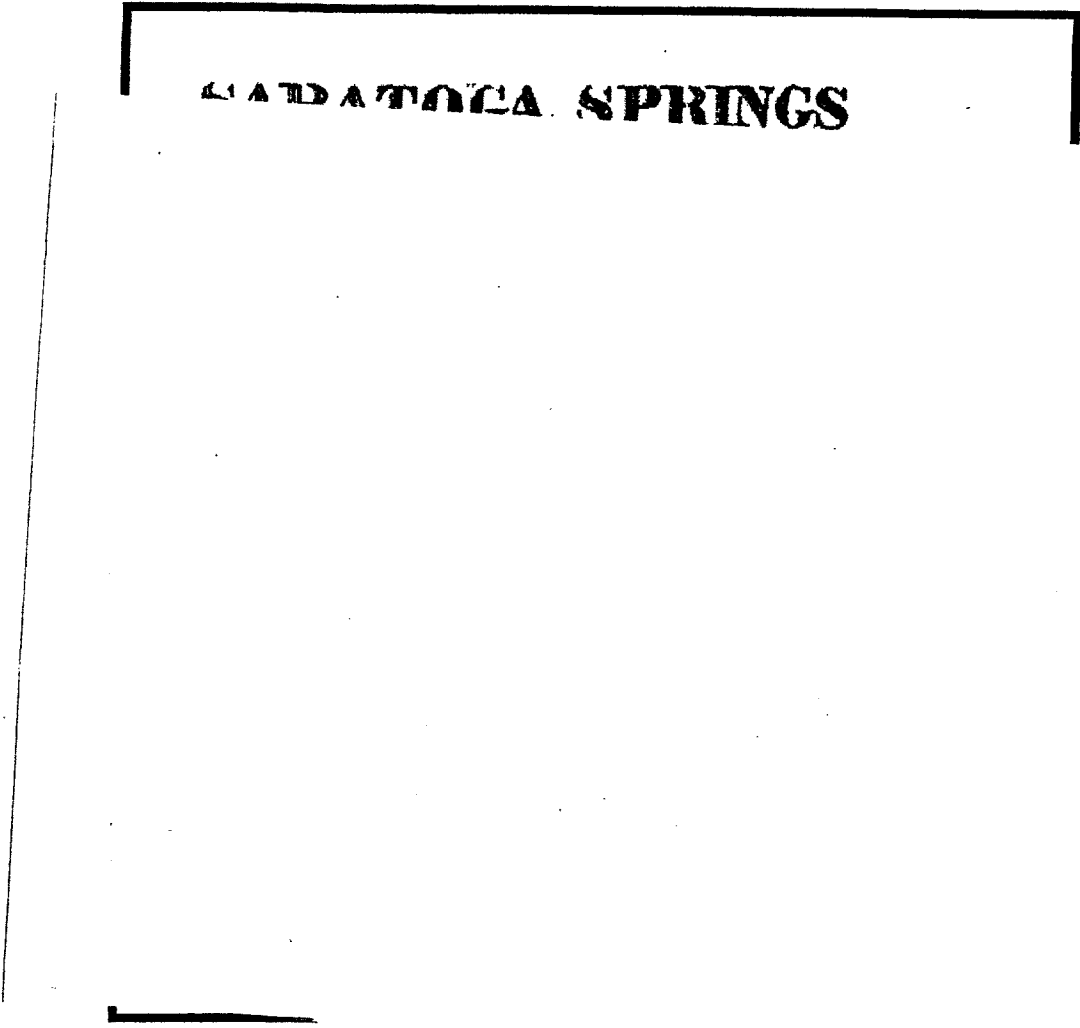


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**Figure 6: Beers Atlas, 1866**

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Despite their loss of lands through sale and conquest, Native Americans continued to travel to the Saratoga region and use its natural resources. Most recorded or retold stories of Native American-white interaction seem to refer to the period 1780-1800 (Durkee 1927-1928), although seasonal uses by Native Americans may have continued on a small scale for several decades afterward. Besides fishing and hunting, the Native Americans made baskets and bows and arrows along the Kayaderosseras (Durkee 1927-1928:255). A Ramsdill family story relates that Indians would come to fish in the spring when the herring were spawning, and stay in the Ramsdill barn until they had built their seasonal lodges on the flats along the creek, where they would catch and smoke the fish. Eventually, the damming of the Hudson [REDACTED] prevented the age-old herring, shad, and alewife migrations that had made Fish Creek, Saratoga Lake and the Kayaderosseras significant fisheries.

*d. Nineteenth Century Lake Houses and Leisure, 1820-1900*

The first several decades of the nineteenth century saw many changes, as the fisheries ecology of the lake was altered, the land was increasingly deforested in favor of farms, small or cottage industries developed, and an incipient tourist trade grew. Pickerel were introduced into Saratoga Lake in 1824, which hastened the demise of trout. Other introduced species were muskellunge in 1855 and black bass in 1857 (Stone 1875:114-5). The increased rate at which the lake was being developed in the 1850s and 1860s is evidenced in its stocking with fish. During the nineteenth century, the Ramsdills produced not only game, fish, crops, and dairy, but also ice from the lakes and wheels for carriages from a factory on Lake Lonely. Farmers in the neighborhood were as strongly connected with the resort industry as the innkeepers themselves.

Saratoga Springs, with its grand hotels and mineral springs, had begun to overshadow the Saratoga Lake neighborhood in the early 1800s. However, Saratoga Lake remained a favorite destination for travelers passing along the road to Schenectady, and families looking for a day at the lake and meals of fresh game and fish. The first innkeepers were families who rented rooms to the travelers who were working their way north or south via the road by the lake. Often a room was accompanied by fresh game or fish caught by the owner or the guest, and

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the reputation of the food and the scenery grew. As the waters in Saratoga Springs became a tourist magnet before the Civil War, the first lake houses went up to serve wealthy tourists (Sylvester 1878:214). The first restaurant at Riley's Lake House overlooking Lake Lonely was opened in 1821.

Of particular interest among the early resorts is the mid-19th century Moon's Lake House. (The original Moon's Lake House site, including an extant foundation, is identified in the state archaeological site inventory.) The lake houses grew until they included shady lovers' groves, summer-houses from which to gaze at the lake, gardens, stairwells stepping down the steep slope, two-story boathouses, woodlands, designed driving parks to provide excursions, and farmland to provide for the table (Sylvester 1878:214). In the 1870s, publisher Frank Leslie, of *Leslie's Illustrated Weekly*, was central to the scene at the lake where he had a large estate between Lake Lonely and Saratoga Lake, aptly named Interlaken (Figure 7).

An elegant, broad carriage way was opened in 1866 which connected Saratoga Springs with the lake (Stone 1866:25). A trolley ran in a loop from town to bring people to the shore. The railroad also ran through two sections of the Saratoga Lake-Fish Creek study area, and certain portions of the nineteenth century railroad route abandoned in the 1950's is on the archaeological site inventory of the State Historic Preservation Office.

The scene at Saratoga Springs grew to be fast-paced and exciting in part due to the trotting races which began in Saratoga Springs in 1847, and the thoroughbred race track which opened there in 1863 (Saratoga History Timeline, Saratoga Room). Gambling began to take a larger place in the summer activities. There were more than a dozen gambling houses in town and at the lake by 1873 (*Poor Richard's Saratoga Journal* 1991).

Rowing regattas were held on Saratoga Lake beginning in 1871 when John Morrissey staked the first one, calling it the International. The first intercollegiate regatta was in 1874; participants included Yale, Cornell, Columbia, Dartmouth and Williams. 1875's intercollegiate regatta involved 13 colleges, 105 students, included track and field events, and is considered by some to be the greatest regatta ever held in this country. One of the more famous oarsmen was John Riley, the lake house restaurateur, who led the country as an oarsman for 25 years and won the world record in 1876 at the United States Championship. Some of the structures

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Mitchell of the Saratoga Springs estate. It was built on the way to Saratoga Lake because the politics of the town at the time did not favor its establishment in the city. This may have been true of other lake houses. The Piping Rock is one of the more infamous of the houses. It closed in 1949 and burnt down in 1954 (Deuel 1989 video).

Riley's, an art deco entertainment palace overlooking Lake Lonely, was associated with both the oarsman John Riley and Benton Riley, who ran "Ben Riley's Arrowhead Inn" in New York City. The business was the oldest operating public restaurant in Saratoga at the time of its closure, having been established in 1821 (Deuel 1989 video).

The Estes Kefauver Investigation in 1950 led to the shutdown of the open gambling industry in 1951. The lake house casinos closed and one by one burned or were torn down. Newman's Lake House had been open since 1871 when it closed after the crackdown on open gambling in the 1950s. It has since been demolished (Deuel 1989 video). In the 1890s, Ben Riley converted the former Hall Estate (c. 1840) into a country restaurant called the Arrowhead Inn. In the 1920s, the Arrowhead Inn was converted into a casino, which was closed in the 1950s; today only the annex (used as the gambling hall) remains.

The glamorous side of the early nineteenth century entertainment industry in Saratoga included Bing Crosby making his movie premiere in "The King of Jazz" (or "Pure Jazz") in Saratoga, performances by the Paul Whiteman Orchestra with the Rhythm Boys, (including the young Bing Crosby) at the Arrowhead Inn, and the entertainment at the Piping Rock including Vincent Lopez, Gypsy Rose Lee, Joe. E. Lewis, Helen Larkin, and Sophie Tucker (Deuel 1989 video; *Poor Richard's Saratoga Journal* 1992).

Kaydeross Beach and Amusement Park closed as recently as 1987, when it was sold to residential developers (Saratoga History Timeline, Saratoga Room). It was in existence in 1905, when a tourist circular listed it on the route of the carriage ride from the city to the lake (N.Y.S.P.A. 1905). It probably had a casino, and later it had a roller rink and the Rafters nightclub (1980s). A 1928 tourist brochure advertised 650 rooms, showers, night bathing and free parking (Saratoga Souvenir 1928). The 1937 *Guide to Saratoga Springs* (Blue Book Publishing Co. 1937) mentions Kaydeross offered camping in a trailer park. In 1987, shortly before it was demolished, it was 40 acres and consisted of picnic tables, rides, a historic carousel, and a public beach, among other things (*Saratogian* 1992:3A).

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**F. Associated Property Types**

**1. Prehistoric Period, 9500 BC – AD 1609:**

- a. *Residential Sites (including Seasonal Residential Sites, Residential Sites with Storage Features, Residential Sites with Elongate Wigwam Type Dwellings)*
- b. *Repeated Logistical Camps*
- c. *Situational "Emergency" Sites (including short term camps and caches)*
- d. *Manufacturing Sites*
- e. *Fish Weirs*
- f. *Burial Ritual Sites*
- g. *Garden Sites (including areas associated with residential sites as well as dispersed garden sites)*

**2. Historic Period, c.1609 - 1950:**

- a. *Historic Native American Seasonal Sites, c.1609-c.1800*
- b. *Farmstead Sites, 1780-1820*
- c. *Cemeteries*
- d. *Leisure and Recreation Sites (Taverns, Restaurants, Hotels, Casinos, Estate Homes)*

A review of the archaeological and historical literature concerned with the Upper Hudson region, Saratoga County, and the Saratoga Lake-Fish Creek study area indicates the existence of several property types associated with either the prehistoric or historic period. The prehistoric and historic periods are each associated with context specific property types. Moreover, the occurrence or relative frequency of the property types vary over time within each context. The characteristics and changing nature of the property types are discussed below in association with each historic context.

**1. Prehistoric Period, 9500 BC – AD 1609**

The longest time scale considered in this multiple property document is the period during prehistory when Native American populations practiced mixed hunting-gathering-fishing subsistence strategies. These subsistence strategies are associated with mobile land use strategies that ranged from highly mobile during the Paleo-Indian period (c. 9500 BC) to semi-sedentary at the time of the introduction of corn horticulture during the later part of the Middle Woodland period (c. AD 850-1000). Over the last three decades, the field of archaeology has developed explicit, general models concerned with the ways in which mobile and semi-sedentary hunting and gathering peoples have cognitively constructed, behaviorally encountered, and affected the physical environment. Archaeologists have come to considerable agreement concerning the use of a variety of site types reflecting systems of site and land use strategies and behaviors (Bamforth 1986, 1991; Bettinger 1987; Binford 1979, 1980; Magne 1989; Nelson 1991; Yellen 1977). The main concepts and general aspects of these models have been applied aptly and with cogent articulation between theory and data in the archaeology of the United States eastern woodlands (Anderson and Hanson 1988; Cesarski 1996; Curtin 1996; Pagoulatos 1988; Versaggi 1987, 1996). The general site types of these models show enduring utility over long periods of prehistory, and are characterized by changes in frequency, landscape associations, and particular details over extended time frames. Accordingly, the general model of mobile, hunter-gatherer land use is adopted for the identification of Paleo-Indian through Middle Woodland period property types. The four common site types, Residential, Repeated Logistical, Situational Emergency, and Lithic Manufacturing sites assist the understanding of mobile land use strategies as discussed below.

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With increasing sedentism and the introduction of corn horticulture, significant changes occur in the characteristics of human settlement and land use strategy. Archaeological sites potentially associated with prehistoric Native American horticulture are beginning to be recognized within the Saratoga Lake-Fish Creek study area through current excavation programs and the study of archaeological collections. Therefore, property types associated with increasing sedentism and early Native American horticultural sites and associated settlements are identified below. The elaboration of Residential Sites to include storage facilities, more substantial housing, and garden plots are expected based upon information from other northeastern locales. At the same time, specialized subsistence sites including dispersed gardens, fishing camps and fish weirs would increasingly characterize land use patterns and subsistence strategies. Complex, ritual burial sites represent yet another dimension of the prehistoric Native American cultural landscape. These concepts and trends are discussed below as a series of property types associated with the prehistoric period in the study area.

*a. Residential Sites (including Seasonal Residential Sites, Residential Sites with Storage Features, Residential Sites with Elongate Wigwam-type Dwellings)*

Description:

Residential Sites are identified through study of a variety of evidence, some of which distinguish sub-types of residential sites thought to pertain to specific prehistoric periods. Generically, residential sites contain evidence of a relatively wide variety of activities and a considerable amount of manufacturing. Residential sites often are inferred to be seasonal based upon various lines of evidence. These may include the specific subsistence activities indicated by the artifact assemblage, in comparison to the seasonal availability or abundance of food sources such as various game, fish, nuts and seeds. Stronger cases for seasonal use of a residential site can be made through the study of pollen, macrofloral and faunal assemblages. Residential sites may also contain storage pits and evidence of houses. Regional archaeological evidence indicates that Paleo-Indian, Archaic and Early Woodland period residential sites are most aptly identified by study of the artifact assemblage, while Middle and Late Woodland period sites are more likely to contain relatively well preserved floral and faunal information, storage pits, midden deposits, or evidence of houses. Evidence of houses so far has been restricted to the Late Woodland to Contact periods in the Hudson drainage. Nonetheless, the accumulation of middens and presence of substantial archaeological features indicates increasing sedentism, and leads to the consideration of more elaborate examples of the Residential Site property type: Residential Sites with Storage Features, and Residential Sites with Elongate, Wigwam-type Dwellings. Another property type defined below, The Garden Site may form a complex with either of these sub-types of residential sites during the late Woodland and Contact periods. Finally specialized, seasonal fishing sites are recorded as a type of local, Mohican residential site in the ethnohistoric literature. Such sites are likely to have been used during the Late Woodland period as well, and may show continuity with the Historic Native American Seasonal Site property type described below.

Significance:

Residential sites are fundamentally important components of prehistoric Native American settlement systems of all periods. In earlier times they were moved seasonally to locations of optimal access to resources, although additional trips originating at the residential sites and venturing into the wider environment were usually necessary to procure all resources. Thus, complete settlement systems are composed of a range of sites including a variety of property types, among which residential sites are the central bases, and often, the most recurrently occupied. The wide variety of activities performed at residential sites provides a correspondingly rich

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opportunity to reconstruct past cultures through archaeological analysis. In addition, the changes in residential site attributes over time, such as the addition of storage features, the accumulation of middens, the development of associated gardens, and the construction of substantial dwellings provide the record for studying the development of prehistoric cultures into historic Native American peoples. Thus, evidence from residential sites is crucial to understanding the continuous, long term history of the Mohicans of the surrounding upper Hudson region. Residential sites contain large, varied artifact assemblages, substantial evidence of manufacturing which could include either stone tool manufacturing or manufacturing of other objects such as wood tools or building material, bone and antler tools, basketry or nets, shell or bone beads, etc.

Registration Requirements:

a) National Register Criteria: D

b) areas of significance: prehistoric archaeology

c) data requirements: In order to be included in the National Register under Criterion D, a residential site must contain undisturbed deposits sufficient to provide important information concerning the artifactual assemblage, archaeological features, floral remains or faunal remains. Such important information would contain some combination of diverse artifact assemblages, an abundance of archaeological features, spatial patterning of features and/or artifact assemblages to show how space was divided and activities were performed in relation to the residential context. The chronological placement of the site within the prehistoric period historic context should be clear, or a plausible case should be made that the chronological placement of the site is new information that would expand the description of the context. Specialized information such as faunal and floral assemblages, storage features, house patterns or garden sites, or specialized features such as roasting or smoking facilities would provide additional, important information. However, this additional evidence is not necessary to demonstrate significance if the conditions of site integrity, artifact assemblage, and archaeological features such as cooking or heating hearths are sufficient.

***b. Repeated Logistical Camps***

Description:

Repeated logistical camps also are the locations of a variety of activities, so like Residential Sites, they have a high assemblage diversity. However, since they are involved with a logistical mobility phase of human subsistence and settlement, they normally are provisioned from elsewhere, and do not have a high proportion of debris produced by manufacturing. Waste materials likely are dominated by repair rather than manufacturing debris. Facilities other than basic hearths or certain specialized resource processing facilities are either not present or not numerous (Binford 1980; Curtin 1996). Nonetheless, the spatial patterning of artifact assemblage may be well-defined.

Significance:

These sites are important components of land-use strategies that locate residential sites optimally with respect to a variety of resources while reducing the frequency of residential site movement. Therefore, the hunting-gathering-fishing strategies of many or most prehistoric, Native American populations cannot be understood without study of repeated logistical sites.

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Registration Requirements:

- a) National Register Criteria: D
- b) areas of significance: prehistoric archaeology
- c) data requirements: In order to be included in the National Register under Criterion D, a repeated logistical site must contain undisturbed deposits sufficient to provide important information concerning the artifactual assemblage, the site's chronology (through temporally diagnostic artifacts and/or radiocarbon dating), and the spatial patterning of artifactual data. The presence of archaeological features augments these data, but is not a necessary data requirement.

*c. Situational "Emergency" Sites (including short term camps and caches)*

Description:

Situational Sites are short term camps occasioned by the challenges and unpredictability of travel and environmental variables. Assemblages have low diversity as the technology is mobile and little is left behind, unless cached against future travel or field difficulties. Binford (1979) finds that such sites are locations where useful materials may be stashed away in anticipation of future use, particularly when travel is interrupted, or importantly, when emergencies arise in transit. These sites usually contain some combination of waste materials derived from responses to situational exigencies or incidental repairs. They may also contain caches or insubstantial archaeological features such as isolated hearths or insubstantial shelters. In the stone artifact assemblage, repair debris greatly dominates manufacturing debris.

Significance:

These sites represent key, strategic moments of punctuation in mobile land use patterns. Their study is necessary in order to understand the adaptation of prehistoric Native American populations to broad geographical regions. Since these sites contain evidence of situational activities performed in relative isolation from other events that otherwise could create confusing volumes of archaeological evidence, these sites can be important to reconstruct individual events performed by even a single individual, such as the repair of a tool, the rejuvenation of a tools kit, or the construction and use of a special purpose or single use feature.

Registration Requirements:

- a) National Register Criteria: D
- b) areas of significance: prehistoric archaeology
- c) data requirements: In order to be included in the National Register under Criterion D, a Situational "Emergency" Site must contain undisturbed deposits sufficient to provide important information concerning the artifactual assemblage, artifact or material caches, chronology, and/or archaeological features. Since artifacts may occur in low density at this type of site, radiocarbon dating using standard chronometric or accelerator determination is expected to provide necessary information on chronology.



(H)

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*d. Lithic Manufacturing Sites*

Description:

Lithic Manufacturing Sites are sites where manufacturing or the initial stages of manufacturing took place, such as stone quarry sites or lithic workshops. Manufacturing debris is abundant, repair debris is incidental or limited to specialized technology, such as quarry tool rejuvenation (LaPorta 1996), and assemblage diversity is low as a result of the specialized nature of activity at these sites. Quarry sites will contain rock sources such as exposed faces of rock stratigraphy including chert, and/or quarry pits excavated to reach chert beds. Workshop sites may be at or adjacent to quarry sites, or en route to either residential sites or resource procurement locations.

Significance:

Lithic Manufacturing Sites contain evidence of the technology and raw material of chipped stone tools. Chipped stone technology is one of the most fundamental components of prehistoric Native American technological systems.

Registration Requirements:

- a) National Register Criteria: D
- b) areas of significance: prehistoric archaeology
- c) data requirements: In order to be included in the National Register under Criterion D, a Lithic manufacturing Site must contain a chipped stone quarry, or evidence of the initial stages of lithic raw material reduction. A chronological interpretation based upon the presence of chronologically diagnostic artifacts, radiocarbon dating, or other reasonable means is necessary. Sufficient integrity must be present to identify activities, features, or the organization of behavior.

*e. Fish Weirs*

Description:

Two general types of Native American fish weirs are known in the fresh waters of eastern North America. One is formed of two lines of boulders and cobbles placed in a stream with the apex facing downstream. Fish could be concentrated for netting in this restricted space. The other type is a barrier of poles set in the stream or lake bottom, either closely spaced or with intertwined laths closing the barrier. Fish trapped behind this weir could be netted, or gill nets could be placed in an opening directing fish downstream. Impediments in the stream may also have functioned to impede upstream fish migrations, such as the spring migrations of certain anadromous species. Fish weirs may have functioned doubly in this regard, or special impediments such as stone dams may have been constructed to assist migratory fish procurement.

Significance:

Fish weirs are facilities that allow enlarged fish catches, obviously important to subsistence. Such facilities positioned strategically on Fish Creek or Kayaderosseras Creek would have enhanced the windfall catch of

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seasonally abundant species such as shad and herring, which migrated in the spring to the first impassable barriers along Atlantic Slope drainages. Fish weirs would not have provided such barriers, but would have slowed fish and exposed them to capture. Importantly, the presence of these features require consensus and cooperation of local human populations, since they concentrate the fish resources in portions of the waterways, affecting access unless agreement is reached concerning joint use. Moreover, the features are large enough to require communal construction and maintenance. These factors together (the windfall harvest, right of access to the harvest, and labor requirements) indicate that fish weirs were an important focus of social integration and perhaps, diplomatic conflict resolution.

Registration Requirements:

- a) National Register Criteria: D
- b) areas of significance: prehistoric archaeology
- c) data requirements: In order to be included in the National Register under Criterion D, a fish weir site must contain undisturbed evidence of stone or wood features indicating an impoundment or barrier in a stream or lake. Its chronological age must be reasonably inferred from direct evidence such as the radiocarbon dating of organic construction materials or submerged materials in stratigraphic association, or by inferred association with an archaeological site nearby on the shore.

*f. Burial Ritual Sites*

Description:

Prehistoric Burial Ritual Sites are locations where Native American human remains have been interred outside of residential sites. These locations often occupy commanding views such as high bluffs overlooking streams and lakes. The human remains may have been buried in the flesh, or they may be secondary burials of bone bundles or cremations. Often these burials are associated with deposits of red ochre, and sometimes they contain artifacts, including grave offerings. Occasionally dogs were interred with the human remains. Sometimes the burial site is an elaborate ritual setting inside of a large excavated pit, with offerings arranged in juxtaposition to each other or internal site features such as fire places, rock platforms, or ochre deposits. Burned or unburned animal bones also may be found within the ritual site. Given the elaborate contexts and associations, it is not at all clear that the ritual sites were fundamentally mortuary sites, or whether they contain human remains among other offerings of ritual substances and objects. In some cases, crematoriums or pits containing apparent offerings have been found nearby. This type of ritual site is most often associated with the Late and Terminal Archaic, Early Woodland, and Middle Woodland periods.

Significance:

These sites are rich in symbolic meaning and evidence of ritual performance. They are also considered to be sacred places by modern Native Americans and have special significance in their living traditions.

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Registration Requirements:

a) National Register Criteria: A or D

b) areas of significance: prehistoric archaeology

c) data requirements: In order to be included in the National Register under Criterion D, a Prehistoric Burial Ritual Site must contain undisturbed deposits sufficient to provide important information concerning ritual materials and activities. Given the likely status of these sites as Native American sacred places and appropriate cultural sensitivity, it should not be necessary to extensively excavate and study these sites for the purpose of National Register of Historic Places nomination. Some ability or potential to infer the age of the site may be required to nominate the site under Criterion D. This information may become available as a matter of course if extensive investigation is required should such a site be found inadvertently during construction, or if it is threatened by development and cannot be avoided. The case for significance under Criterion A may be plausible as a traditional cultural property due to the special importance of ritual to Native American culture and history.

*g. Garden Sites (including areas associated with residential sites as well as dispersed garden sites)*

Description:

Garden sites may be ephemeral and thus go unrecognized. However, the corn hill features that were common to Native American gardens in the Northeast are found in special preservation circumstances where they were sealed by sand or silt prior to erosion and deflation. In addition to low mound type features sealed in soil stratigraphy, they likely contain pollen or plant macrofossils indicative of Native American crops such as corn, beans, squash, tobacco, sunflower, and Jerusalem artichoke. They may also show concentrations of the pollen of weeds such as ragweed, chenopod and amaranth. Pollen may occur on-site soil stratigraphic contexts, or in bog, wetland, pond or lake sediments, especially in contextual relationship to organic material that can radiocarbon dated. Artifacts associated with cultivation such as deer scapula, shell or stone hoes or digging stick tips may occur, as well as stone axes or ax spalls used for clearing. Garden sites are thought to be associated with residential sites as well as dispersed away from residences. Therefore they may be physically associated with structures of varying types, whether elongate wigwams or smaller, temporary shelters constructed for use at dispersed gardens.

Significance:

Garden sites are fundamentally important to the study of the role of horticulture in native subsistence. Moreover, since the ecological adaptation of the Mohicans is seen as intimately connected to the use of floodplain settings, and garden locations were on these alluvial flats, garden sites are symbolic of the early historic Mohican way of life.

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Registration Requirements:

a) National Register Criteria: D

b) areas of significance: prehistoric archaeology, Mohican Indian culture

c) data requirements: In order to be included in the National Register under Criterion D, a Garden Site must contain evidence of horticulture such as corn hills or concentrations of pollen or plant macrofossils in frequency and context sufficient to infer the existence of a garden. The requirement of site integrity has a relatively high threshold, since the identification of corn hills requires the preservation of distinctive soil stratigraphic evidence, while the identification of pollen depends upon stratigraphic contexts that have not been contaminated. These sites no doubt once were widespread, but their preservation may be unusual.

**2. Historic Period (c. 1609-1950)**

The Euro-American colonization of the land now within the study area occurred between about 1780-1820. The early settlement pattern included dispersed farmsteads at the end of lanes such as Benjamin French's homestead near Kayaderosseras Creek and the Ramsdill homes overlooking Saratoga Lake. Other early sites such as Amos Stafford's home and Stafford's Tavern were close to early thoroughfares. Home industries included providing game, fish and farm produce and light manufacturing. Stafford's tavern, overlooking the crossing of Fish Creek where Stafford's Bridge has been located since the early nineteenth century was a central location important for political and governmental activity. Several small family cemeteries are dispersed through the area. Late eighteenth century Native American lodge sites associated with seasonal fishing trips are believed associated with some of the early farmsteads such as Ramsdill's. Thus, the early neighborhood integrated a diversity of people, places, and economic strategies.

In addition, by the early nineteenth century, the Saratoga Lake locale was being visited regularly by people looking for leisure. Tourism and recreation was supported by the local network of farmers, hunters, fishers and inn-keepers. Through the nineteenth century, restaurants and resort hotels such as Moon's Lake House and Briggs Hotel were established, along with resort homes for the wealthy, such as publisher Frank Leslie. The diversity of sites grew to include gambling casinos, rowing team headquarters and a large grandstand from which to view the regattas. These activities died down by the turn of the century, but casinos again appeared in the 1920s, and enjoyed an approximate three decade heyday before being closed again.

**a. *Historic Native American Seasonal Sites, c. 1609- c. 1800***

Description:

Historic period native American seasonal sites are anticipated both as an extension of the mobile dimension of late prehistoric Mohican land and from information related in nineteenth century histories. In the early seventeenth century Mohawk use of the region for fishing is referenced in the interpretation of a trip to Saratoga Lake in the record of the Jesuit missionary Isaac Jogues. Nineteenth century histories describe seasonal visits by Native Americans for fishing on Kayaderosseras Creek during the early years of Euro-American settlement.

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Native Americans are recorded as building seasonal lodge sites on at least one Euro-American farm. However, these lodges are not described further, and could have taken a variety of forms such as log cabins or covered pole structures. These lodge sites would contain facilities such as cooking/heating hearths as well as pole frames or fireplaces associated with drying or smoking fish. Pits may have been used for storage or refuse, and refuse middens may also be present. A dug-out canoe associated with Native American fishing is reported to have been found in the study area and donated to the New York State Museum. Dug-out canoe sites are a specialized element of this property type and are most likely to occur submerged in water or mud.

Significance:

Historic Native American seasonal sites represent important, cyclical food procurement activities away from areas of permanent residence. Late eighteenth century sites may represent the end of a continuum of Native American seasonal fishing which has been documented as early as the early seventeenth century, and may have also in part characterized prehistoric Native American use of the same area. As such, these sites are representative of an important, local Native American tradition demonstrating continuity with the prehistoric period. Moreover, Native American sites of the post-Revolutionary War period have rarely been investigated in New York State. Preserved sites of this period in this study area may provide an unusual opportunity to obtain information regarding historic period native American culture. Therefore, these sites contain information critical to understanding local and regional Native American culture.

Registration Requirements:

- a) National Register Criterion: D
- b) areas of significance: historical archaeology
- c) data requirements: In order to be included in the National Register under Criterion D, an historic Native American seasonal site must contain undisturbed deposits sufficient to provide important information concerning the artifactual assemblage, dwelling evidence, specialized archaeological features such as food procurement or processing features or watercraft sites, and faunal remains or floral remains

***b. Farmstead Sites, 1780-1820***

Description:

This property type is the archaeological sites of early Euro-American settlement, c. 1780-1820. These sites may have started as small, non-permanent dwellings such as log cabins, and developed over time into frame farmsteads with outbuildings such as privies, barns, sheds, root cellars, or other functional structures. They may also contain evidence of landscaping such as terracing or the construction of bulkheads to contain level ground above slopes. The houses uniformly would be associated with wells. Many or most would have detached kitchens later replaced inside or incorporated into the house by extension. Many of the archaeological features, such as privies, wells and landscaped surfaces are highly likely to contain sealed archaeological deposits and preserved stratigraphy. Both sheet and thick middens would occur near the house walls and cellar hole, and may be sealed in some cases below architectural or landscaped features. Well-preserved archaeological sites of this type will contain a variety of artifacts and other objects such as ceramics, clay pipe fragments, personal items, and faunal remains.

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Significance:

Farmstead sites represent the pioneer Euro-American settlement of the archaeological district, and will contain information for interpreting the pioneer experience. This information will reflect economic circumstances, and may reflect the degree of self-sufficiency or socioeconomic integration of local farmsteads.

Registration Requirements:

a) National Register Criterion: D

b) areas of significance: historical archaeology

c) data requirements: In order to be included in the National Register under Criterion D, an historic farmstead site must contain undisturbed deposits sufficient to provide important information concerning the artifactual assemblage, archaeological features, floral remains or faunal remains associated with the early settlement period. Stratified or spatially dispersed or organized deposits or features representing relatively short periods of time, or sequences of distinctive time frames, are examples of archaeological contexts that could provide such information.

*c. Cemeteries*

Description:

Historic cemeteries in the Saratoga Lake-Fish Creek Archaeological District are small, family graveyards from the nineteenth century. The earliest recognized European American cemetery in the study area is that of the Stafford's, with a first grave date of 1811. Other reported cemeteries are those of the Jewell, McDowall/Ingarson, Leslie, Ramsdill, and Abel families. Historic cemeteries exist at least in part as small plots with standing, engraved headstones. Unrecorded or unobtrusive family plots may contain graves not currently marked. Largely cemeteries are not recorded or expected.

Significance:

Historic period cemeteries provide important information concerning burial practices, personal artifacts and clothing, gravestone styles and epitaphs, other cultural information, as well as human demography, lifestyle and health. The early age of these cemeteries indicates the potential to provide important cultural and biological information relative to populations that originated in the eighteenth century and whose lives reflect the pioneer/early settlement experience.

Registration Requirements:

a) National Register Criterion: A, C or D

b) areas of significance: historical archaeology, bioarchaeology

c) data requirements: The historic cemeteries in the study area are most likely to be eligible under Criterion D, as archaeological sites. However, it is possible that arguments could be developed to support eligibility under

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Criteria A or C. In order to be included in the National Register under Criterion D, an historic cemetery must contain artifacts such as clothing and personal effects, particularly those indicative of burial practices, as well as human remains. Human remains should be sufficiently well-preserved for anthropological and forensic analyses. Other information such as analyses of gravestone style or relation of the stones to the work of a master could result in consideration of other National Register criteria such as Criterion C, or as related to the initial settlement of the region, to Criterion A.

*d. Leisure and Recreation Sites (Taverns, Restaurants, Hotels, Casinos, Estate Homes)*

Description:

This property type includes a series of commercial establishments that provided primarily social and recreational functions. It also includes luxurious homes used for living, vacations, entertaining, and hosting institutional guests such as college rowing teams. The earliest site in this property type is the early nineteenth century Stafford's Tavern, which also provided rooms for early governmental meetings. Later sites include Moon's Lake House and the Briggs Hotel of the middle to late nineteenth century as well as the c. 1920-1950 Arrowhead Inn and Newmans Lake House. The sites of these establishments will contain architectural elements such as cellar holes, foundations, and outbuildings. The nineteenth century sites typically also have specialized facilities related to storing food and beverages to provision meals. These facilities normally would include root cellars, water-cooled storage rooms/structures, cisterns, and icehouses. Privies and wells would have been used before indoor plumbing at the early sites. Subterranean features such as privies and wells typically contain stratified trash deposits. In addition, large middens containing kitchenware, bottles, smoking pipe fragments, and floral and faunal remains should occur in reasonably close proximity to building sites. The preserved elements of historic recreation and tourist sites may be present as parts of the original sites, which often have been disrupted by later development.

Significance:

Recreational and tourist sites are fundamentally important to understanding nineteenth and early twentieth century life at Saratoga Lake. The sequence of commercial establishments devoted to these industries, as well as large private homes with extensive grounds and facilities provided leisure settings and activities that are intimately associated with the development of Saratoga Springs as a cultural and recreational center. Several miles from the race-track, spas, springs and downtown businesses, the lake establishments and estates provided the major rural aspect of the enduring city-country duality that has long-characterized the organization of leisure in Saratoga. The history and variation of the archaeological components of these sites can assist the interpretation of recreation in Saratoga Springs, and provide insights into the special role of the lake neighborhood.

Registration Requirements:

a) National Register Criteria: D

b) areas of significance: historical archaeology

c) data requirements: In order to be included in the National Register under Criterion D, these sites must contain undisturbed deposits sufficient to provide important information concerning the artifactual assemblages,

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archaeological features, floral remains or faunal remains. Artifact, floral and faunal assemblages are expected to reflect the functions of the resorts (often food service). Archaeological features similarly will be related to function, but in some cases they may be extensive, if indicative of large storage facilities, out-buildings, or sport facilities (such as tennis courts, toboggan runs, boat houses, or seating), or landscape features, such as gardens, pools and walks. Additional floral information may be obtained from pollen recovered from suitable deposits. Pollen profiles would indicate land use changes and landscape alteration, particularly if collected in sequences reflecting the periods before and after the period when the recreational/tourist site was used.



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**G. Geographical Data**

The multiple property listing for the Archaeological Sites of the Saratoga Lake-Fish Creek Area includes all the area within the locally-designated



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**H. Summary of Identification and Evaluation Methods**

The archaeological resources inventoried within the Saratoga Lake-Fish Creek study area have been identified over a long period of time through a variety of means. These include review of (1) institutional site files maintained by the New York State Museum dating to the days of the early archaeologists William Beauchamp (1900) and Arthur C. Parker (1922); (2) avocational archaeological excavations by James P. Walsh and members of the Auringer-Seelye Chapter, New York State Archeological Association; (3) cultural resource management surveys either required by the United States Environmental Protection Agency (Berg 1977; Fisher and Bouchard 1980) or the City of Saratoga Springs for State Environmental Quality Reviews (Hartgen 1987, 1988; Greenhouse 1992); (4) background research performed by A. Caroline Hotaling and Edward V. Curtin of the Skidmore Archaeological Survey through a Certified Local Government grant to the City of Saratoga Springs; and (5) recent (1997) investigation *via* Skidmore College's archaeology field and lab methods class taught by Dr. Susan Bender.

Walsh's excavations and initial publication (1977) drew the attention of the modern community of Northeastern archaeologists to the extent and importance of the Arrowhead Road vicinity. Subsequent cultural resource surveys prior to sewer system installation led to the 1985 determination of eligibility for inclusion in the National Register of Historic Places afforded to five prehistoric sites identified by Walsh: the Arrowhead Casino, Kitchen Garden, Cottonwood, Arrowhead II and Arrowhead III sites (Environmental Protection Agency 1985), as well as the areas between these sites that have demonstrated archaeological importance, but for which specific boundary information is unavailable. This area was subsequently included within the boundaries of an archaeological park locally designated for protection and special consideration. The size of the archaeologically important area was expanded north in 1990 as the result of additional cultural resource surveys to include two sites known as the Waters Edge Locus 1 and 2 sites (Bender and Curtin 1990). The Waters Edge Locus 2 site is also known as the Rafters site (Greenhouse Consultants 1991).

In 1994, the City of Saratoga Springs Design Review Commission identified the Saratoga Lake-Fish Creek study area as an archaeological study area for municipal planning. In cooperation with the Skidmore Archaeological Survey of Skidmore College, the Design Review Commission took this action in order to recognize the area's archaeological potential and provide a process of local archaeological resource management. The Skidmore Archaeological Survey compiled all available information from archaeological site files, museum and private collections, cultural resource survey reports, published reports and other documentary sources (Curtin and Hotaling 1994; Curtin, Nelson and Hotaling 1996). These site file and documentary research activities were augmented by windshield and canoe surveys, 1994-1995, by Hotaling and Curtin, who were joined in a field visit by Linda M. Garofalini of the New York State Historic Preservation Staff, 1995. This research showed that the Saratoga Lake-Fish Creek area has been used by human populations since at least 8000 BC (10,000 BP), and established that most, if not all, local phases of the Archaic and Woodland periods (8000 BC-AD 1600) are represented. Continued Native American use of the locale during the historic period, as well as the initial European-American settlement of Saratoga Springs, the early nineteenth century tourist resort industry, and late nineteenth century-twentieth recreational uses were identified as contexts with identified or likely associated archaeological components within the study area.

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**United States District Court**

**District of Oregon**

**Portland Division**

**AHM**, by and through  
her Guardian *ad litem* and father,  
**David Mark Morrison**, and  
**David Mark Morrison**, individually,

Civil Action No. 3:11-cv-00739-MO

v.

**Amended Declaration of  
Dr. David O. Carpenter, M.D.**

**Portland Public Schools**,  
Defendant.

I, Dr. David O. Carpenter, M.D., under penalty of perjury pursuant to 28 U.S.C. § 1746, hereby make the following declaration in support of an injunction against Portland Public Schools' use of WI-FI:

1. I am a public health physician, educated at Harvard Medical School. My current title is Director of the Institute for Health and the Environment at the University at Albany and Professor of Environmental Health Sciences within the School of Public Health. Formerly, I was the Dean of the School of Public Health at the University of Albany and the Director of the Wadsworth Center for Laboratories and Research of the New York State Department of Health.

2. I served as the Executive Secretary to the New York State Powerlines Project in the 1980s, a program of research that showed children living in homes with elevated magnetic fields coming from powerlines suffered from an elevated risk of developing leukemia. After this I became the spokesperson on electromagnetic field (EMF) issues for the state during the time of my employment in the Department of Health. I have published several reviews on the subject and have edited two books.

3. I am a Co-Editor and a Contributing Author of the *BioInitiative: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)*, [www.bioinitiative.org](http://www.bioinitiative.org). It documents bioeffects, adverse health effects and public health conclusions about impacts of electromagnetic radiation (electromagnetic fields including extremely-low frequency ELF-EMF and radiofrequency /microwave or RF-EMF fields). The public health chapter from this report was subsequently published in a peer-reviewed journal.

4. Additionally, I am a Co-Author of *Setting Prudent Public Health Policy for Electromagnetic Field Exposures*, *Reviews on Environmental Health*, Volume 23, No 2, 2008, attached as Addendum A-2.

5. In addition, in 2009, I was invited to present to the President’s Cancer Panel on the subject of powerline and radiofrequency fields and cancer, and have testified on this issue before the United States House of Representatives.

6. In sum, I am a public health physician, professor and former public health school Dean with expertise in electrophysiology, low-frequency electromagnetic fields bioeffects, and

radiofrequency (RF) and microwave (MW) radiation bioeffects.

7. WI-FI deploys pulse-modulated (“PM”) microwave (“MW”) radiation (within the larger RF radiation spectrum) with a carrier frequency that is similar to that used by a microwave oven: about 2.45 GHz. This is the “Agent”. The 2.45 GHz frequency was chosen for the oven because of its wavelength and harmonic resonance with the water molecule, to ensure the most efficient absorption by living tissues and effective heating by way of the agitation of water at the molecular level. The pulse-modulation of a wave with lower frequencies in addition to the high-frequency carrier signal, increases the exposure complexity and in turn the bioeffects in an exposed population.

8. In the context of school development, WI-FI exposes building occupants including children and adults constantly from both computers and infrastructure antennas. Duration may be an even more potent contributing factor to RF/MW radiation bioeffects than exposure levels. Chronic, such as all-day, school exposure, is more likely than short and intermittent exposure, such as cell phone use, to produce harmful health effects, and is likely to do so at lower exposure levels.

9. Persons stationed close to school computers with WI-FI and especially those very near to any WI-FI infrastructure will receive considerably higher exposure than do others.

10. It is generally accepted within the relevant scientific community and has been established beyond any reasonable doubt that adverse human health effects occur at far lower levels of RF/MW radiation exposure than those that cause noticeable heating, particularly where the wavelength approaches body-part size and thus maximizes absorption, where the wavelength has resonance with the water molecule, where there is more complex, modulated wave, where there is chronic exposure duration, and where exposed persons lack the capacity voluntarily to remove themselves from radiation sources.

11. Some effects are shown to occur at several hundred thousand times below the FCC public exposure guidelines, which are set based on the fallacious assumption that there are no adverse health effects at exposures that do not cause easily measureable heating. FCC guidelines

also only apply to 30-minute public exposures; therefore do not even infer safety at durations >30 minutes, such as in a school setting.

12. Exposure to high-frequency RF and MW radiation and also the extreme low frequency (ELF) EM fields that accompany WI-FI exposure have been linked to a variety of adverse health outcomes. Some of the many adverse effects reported to be associated with and/or caused by ELF fields and/or RF/MW radiation include neurologic, endocrine, immune, cardiac, reproductive and other effects, including cancers.

13. Studies of isolated cells have shown that RF/MW exposures may cause changes in cell membrane function, cell communication, metabolism, activation of proto-oncogenes, and can trigger the production of stress proteins at exposure levels below FCC guidelines and also at and less than school WI-FI exposure levels and parameters. Resulting effects in cellular studies include without limitation DNA breaks and chromosome aberrations, cell death including death of brain neurons, increased free radical production, activation of the endogenous opioid system, cell stress and premature aging.

14. Human studies of comparable RF/MW radiation parameters show changes in brain function including memory loss, retarded learning, performance impairment in children, headaches and neurodegenerative conditions, melatonin suppression and sleep disorders, fatigue, hormonal imbalances, immune dysregulation such as allergic and inflammatory responses, cardiac and blood pressure problems, genotoxic effects like miscarriage, cancers such as childhood leukemia, childhood and adult brain tumors, and more.

15. There is consistent evidence for increased incidence of effects in individuals who live near to high-power short-wave, AM, FM and TV transmission towers. This is particularly relevant because, like WI-FI, radio-TV transmission towers give continuous, whole-body radiation, not just radiation to the head, constantly.

16. Since WI-FI transmitters, both infrastructural and on computers, are indoors, where children and teachers may be very close by, and since WI-FI, at 2.45 GHz, deploys a

wavelength, at ~12.2 cm or ~ 4.8 inches, more absorbable by children's and adults' bodies and brains than radio-TV wavelengths, the harmfulness of WI-FI radiation likely exceeds that of radio-TV towers.

17. Like second-hand smoke, EMF and RF/MW radiation involve complex mixtures, where different frequencies, intensities, durations of exposure(s), modulation, waveform and other factors are known to produce variable effects, often more harmful with greater complexity. Decades of scientific study have produced substantial evidence that EMF and RF/MW radiation may be considered neurotoxic, carcinogenic and genotoxic. Sources of fields and radiation, but are not limited to: power lines, navigational radar, cell phones, cordless phones [or Digitally Encoded Cordless Transmission Devices (D.E.C.T.) phones], cell towers, 'smart' meters and their grids or infrastructure, "smart" boards, meters and grids, WiMax and wireless internet (WI-FI).

18. The RF/MW radiation and low-frequency EMF science that currently exists includes tens of thousands of studies dating back to the 1920s. On the basis of this vast body of literature, many public health experts believe, myself included, that it is likely society will face epidemics of neurotoxic effects and degeneration, cancers and genotoxicity in the future, resulting from the extreme and mostly involuntary exposure to RF/MW radiation and EMFs. WI-FI radiation in schools exceeds natural background levels of microwave radiation by trillions of times. Thus, it is important that all of us restrict our use of cell phones, and be as free as possible from exposure to unnatural, background sources of MW radiation, particularly WI-FI.

19. In public health science, it is generally accepted fact that vulnerable subgroups exist within any human population. This is also recognized specifically for RF/MW radiation and fields. These groups include children, pregnant women, the elderly and those with preexisting illnesses and/or impairments. Children are more vulnerable to RF/MW radiation because of the susceptibility of their developing nervous systems. RF/MW penetration is greater relative to head size in children, who have a greater absorption of RF/MW energy in the tissues of the head at WI-FI frequencies.

Such greater absorption results because children's skulls are thinner, their brains smaller, and their brain tissue is more conductive than those of adults, and since it has a higher water content and ion concentrations. The Presidential Cancer Panel found that children 'are at special risk due to their smaller body mass and rapid physical development, both of which magnify their vulnerability to known carcinogens, including radiation.'

[http://deainfo.nci.nih.gov/advisory/pcp/annualReports/pcp08-09rpt/PCP\\_Report\\_08-09\\_508.pdf](http://deainfo.nci.nih.gov/advisory/pcp/annualReports/pcp08-09rpt/PCP_Report_08-09_508.pdf)

20. FCC public RF/MW radiation exposure guidelines are based on the height, weight and stature of a 6-foot tall man, not children or adults of smaller stature. The guidelines do not take into account the unique susceptibility of growing children to exposures. Since children are growing, their rate of cellular activity and division is more rapid, and they are at more risk for DNA damage and subsequent cancers. Growth and development of the central nervous system is still occurring well into the teenage years, such that the neurological impairments predictable by the extant science may have great impact upon development, cognition, learning, and behavior. Prenatal exposure has been identified as a risk factor for childhood leukemia, and is associated with miscarriage. Children are largely unable to remove themselves from exposures to harmful substances in their environments. Their exposure is involuntary.

21. When WI-FI is in operation in a school, children and their parents have no choice but to allow the school to expose them to trillions of times higher microwave radiation than exists naturally on Earth at the same frequencies. Children and other building users are exposed to as much as 30-40 hours per week of constant, digitally encoded WI-FI signals from each wireless device and infrastructural antenna in a school building. Based upon a review of the Mount Tabor WI-FI Floor Plan, a given child is subject to direct signals from multiple WI-FI transmitters, including rooms full of students and teachers transmitting numerous laptop and other wireless signals. There is a major legal difference between an exposure that an individual chooses to accept and one that is forced upon a person, especially a dependent, who can do nothing about it.

22. WI-FI in the Portland Schools deploys similar PM MW radiation, at 2.45 and 5 GHz, to that of cell and cordless phones and their infrastructure. There is clear and strong evidence that intensive use of cell phones increases incidence of brain cancer, tumors of the auditory nerve, and cancer of the parotid gland, the salivary gland in the cheek by the ear. Cell and cordless phone radiation closely resembles that of WI-FI radiation exposure, except that WI-FI is more hazardous by way of frequency, duration, and the involuntary nature of exposure. While a cell or cordless phone is used only intermittently and primarily voluntarily, a WI-FI radiation microenvironment is constant in duration, with unavoidable radiation exposure even when nearby students are not actively using it. Because WI-FI radiation is essentially the same as, but more hazardous than, that for cell and cordless phones, there is every reason to understand that the health effects will be the same or worse, varying in relation to the total dose of radiation, and intensified by the constancy of duration. There is evidence from Scandinavian studies of cell phone usage that children who use cell phones are about five times more likely to develop brain cancer than if their usage starts as an adult. Thus, it is especially necessary to protect children from pulse-modulated MW radiation such as both cell phones and WI-FI deploy.

23. Based on a high degree of scientific certainty, Portland Public Schools' use of WI-FI is causing and will continue to cause AHM, other students, and school staff and faculty adverse health effects, and should be discontinued immediately. Educating by way of the Internet via cabled systems only decreases MW radiation exposure and is of minimal expense.

24. Having reviewed hundreds, possibly thousands, of studies in RF/MW radiation and ELF fields, published from decades ago to the present, I would provide you the following primary evidence, without limitation. Due to the active suppression of the RF/MW literature, some researchers in public health science are less aware of these studies. However, the forefront experts specializing in these areas, RF/MW radiation and ELF fields, recognize the certainties in this large body of scientific literature, which establishes without limitation that PM MW radiation with chronic duration is quite harmful to humans, particularly children, as well as to animals and plants.



25. It is not surprising that even as of 1990, the US Environmental Protection Agency ("EPA") had determined RF/MW radiation a "probable carcinogen". Now that we have much more confirming study in the interim, the conclusion is yet more certain. And when we focus on MW radiation, particularly pulse-modulated radiation, on long, non-intermittent duration and on more vulnerable subgroups such as children, we see that the cancer outcome is very certain, indeed. Amongst the epidemiologic studies showing cancer outcomes, the following are particularly strong:

- a. Dode AC, Leao M, Tejo FdeAF, gomes ACR, Dode DC, Dode MC, Moreira CW, Condessa VA, Albinatti C and Calaffa WT. Mortality by neoplasia and cellular telephone base stations in the Belo Horizonte municipality, Minas Gerais State, Brazil. *Sci Total Environ* 409: 3649-3665:2011. This study shows higher rates of cancer in people living close to cell phone towers than for people living further away. Cell phone radiation is similar to but likely not as harmful as 2.45 GHz radiation from WI-FI. The exposure levels in this study are lower than those that Portland school building occupants receive from WI-FI.
- b. Oberfeld G. Environmental Epidemiology Study of Cancer Incidence in the Municipalities of Hausmannstatten & Vasoldsberg (Austria), 2008. This government-commissioned study found significantly increased cancer risk relative to a lower-exposure reference category, 23x higher for breast cancer and 121x higher for brain tumors, with strong exposure-effect relations.
- c. Michelozzi P, Capon A, Kirchmayer U, Forastiere F, Biggeri A, Barca A and Perucci CA. Adult and childhood leukemia near a high-power radiostation in Rome, Italy. *Am J Epidemiol.* 155: 1098-1103: 2002. The authors show that there is a significant elevation of childhood leukemia among residents living near to Vatican Radio, and that the risk declines with distance away from the transmitter. This is RF radiation in frequencies similar to that of WI-FI.

d. Ha M, Im H, Lee M, Kim HJ, Kim BC, Gimm YM and Pack JK. Radio-frequency radiation exposure from AM radio transmitters and childhood leukemia and brain cancer. Am J Epidemiol 166: 270-279: 2007. Leukemia and brain cancer in children in Korea were investigated in relation to residence within 2 km of AM radio transmitters. There was a significant elevation in rates of leukemia but not of brain cancer. WI-FI radiation is more harmful than AM.

e. Park SK, Ha M, Im HJ. Ecological study on residences in the vicinity of AM radio broadcasting towers and cancer death: preliminary observations in Korea. Int Arch Occup Environ Health. 2004 Aug;77(6):387-94. This study found higher mortality areas for all cancers and leukemia in some age groups in the area near the AM towers.

f. Hallberg O. Johansson O. Med Sci Monit 2004 Jul;10(7):CR336-40. Malignant melanoma of the skin – not a sunshine story! Increased incidence and mortality from skin melanoma are concluded to result from continuous disturbances of cell repair mechanisms by body-resonant EMFs from FM/TV networks.

g. Hallberg O. Johansson O. 2005. FM Broadcasting exposure time and malignant melanoma incidence, Electromagnetic Biology and Medicine 24;1-8. Age-specific incidence of malignant melanoma of the skin is related to FM broadcasting radiation at whole-body resonant frequencies. This is very relevant to children, since the smaller wavelengths of WI-FI are at resonant frequencies with dimensions of the human head, particularly the child’s head.

h. Dolk H, Shaddick G, Walls P, Grundy C, Thakrar B, Kleinschmidt I, Elliot P. Cancer Incidence near radio and television transmitters in Great Britain. I – Sutton-Colfield transmitter, and II. Al high-power transmitters. Am J Epidemiol 1997; 145(1):1-9 and 10-17. In the first study, there was a statistically significant

increase in cancer; in the second, a small but significant increase in adult leukemia.

i. Hocking B, Gordon IR, Grain HL, Harfield GE. Cancer incidence and mortality and proximity to TV towers. Medical J of Australia. 165:601-605. At extremely low exposure levels, there was an association between increased childhood leukemia incidence and mortality and proximity to TV towers. TV radiation, in the VHF and UHF bands, is similar to but not as harmful as WI-FI radiation at 2.45 GHz.

j. Grayson JK. Radiation exposure, socioeconomic status, and brain tumor risk in the US Air Force: A nested case-control study. Am J Epidemiol 1996; 143:480-6. This study found an association between exposure to ELF and RF/MW radiation and brain tumors.

k. Szmigielski S. Cancer morbidity in subjects occupationally exposed to high frequency (radiofrequency and microwave) electromagnetic radiation. Sci Total Environ 1996;180:9-17. This study showed huge increases in leukemia and Non-Hodgkin's lymphomas. Though exposure levels are higher in this study than they would be with school WI-FI, it is possible that certain students or teachers stationed immediately next to the WI-FI infrastructure could receive comparable levels in radiation peaks.

26. Additional studies show neurologic, immune, endocrine, reproductive and cardiac, adverse health effects from low-dose, chronic exposure to RF/MW radiation in humans:

a. Papageorgiou CC, Hountala CD, Maganioti AE, Kyprianou MA, Rabavilas AD, Papadimitriou GN, Capsalis CN. Effects of WI-FI signals on the p300 component of event-related potentials during an auditory hayling task. J Integr Neurosci 2011 Jun;10(2):189-202. This study concludes that WI-FI exposure may exert gender-related alterations on neural activity.

- b. Altpeter ES, Roosli M et al. Effect of Short-wave magnetic fields on sleep quality and melatonin cycle in humans: The Schwarzenburg shut-down study. *Bioelectromagnetics* 27:142-150, 2006. Sleep quality improved and melatonin excretion increased when the transmitter was shut down.
- c. Abelin T et al. Sleep disturbances in the vicinity of the short-wave braodcast transmitter Schwarzenburg. *Somnologie* 9:203-209, 2005. There is strong evidence of a causal relationship between operation of a short-wave radio transmitter and sleep disturbances in the surrounding population.
- d. Hutter HP et al. Subjective symptoms, sleeping problems, and cognitive performance in subjects living near mobile phone base stations. *Occup Environ Med* 2006;63:307-313, 2006. There was a significant relation of some symptoms, especially headaches, to measured power density, as well as effects on wellbeing and performance.
- e. Preece AW, Georgious AG, Duunn EJ, Farrow SC. *Occup Environ Med* 2007 Jun;64(6):402-8. Compared to control village, there were highly significant differences in the reporting of migraine, headache and dizziness military and cell phone antenna systems.
- f. Buchner K, Eger, H. Changes of clinically important neurotransmitters under the influence of modulated RF fields – a long-term study under real-life conditions. *Umwelt-Medizin-Gesellschaft* 24(1):44-57, 2011. There is clear evidence of health-relevant effects, including increase in adrenaline/noradrenaline, subsequent decrease in dopamine from a new MW-emitting base station. During counterregulation, trace amine PEA decreased and remained decreased. Clinically documented increases in sleep problems, cephalgia, vertigo, concentration problems and allergies followed the onset of new microwave transmissions.

- g. Eliyahu I, Luria R, Hareuveny R, Margalioth M, Neiran N and Shani G . Effects of radiofrequency radiation emitted by cellular telephones on the cognitive functions of humans. *Bioelectromagnetics* 27: 119-126: 2006. A total of 36 human subjects were exposed to PM MW and were tested on four distinct cognitive tasks. Exposure to the left side of the brain slows left-hand response time in three of the four tasks.
- h. Barth A, Winker R, Ponocny-Seliger E, Mayrhofer W, Ponocny I, Sauter C and Vana N. *Occup Environ Med* 65: 342-345: 2008. A meta-analysis for neurobehavioural effects due to electromagnetic field exposure emitted by GSM mobile phones. The authors looked at 19 studies of cognitive function in cell phone users, and found in the meta-analysis that there is evidence for a decreased reaction time, altered working memory and increased number of errors in exposed persons.
- i. Augner C, Hacker GW, Oberfeld G, Florian M, Hitzl W, Hutter J and Pauser G. Effects of exposure to base station signals on salivary cortisol, alpha-amylase and immunoglobulin A. *Biomed Environ Sci* 23: 199-207: 2010. This was a human experimental study with exposure to PM MW radiation wherein immune indicators were monitored after five 50-minute sessions. The researchers found dose-dependent changes in cortisol and alpha-amylase.
- j. Avendano C, Mata A, Sanchez Sarimiento CA and Doncel GF. Use of laptop computers connected to internet through WI-FI decreases human sperm motility and increases sperm DNA fragmentation. *Fert Steril*, 2012, In press. In this study human sperm were exposed to WI-FI from a laptop, and were found to show reduced motility after a 4-hour exposure. The results are consistent with other publications (see Agarwal et al., *Fert Steril* 89: 124-128: 2008) that reported that those who use cell phone regularly have reduced sperm count.

k. Baste V, Riise T and Moen BE (2008) *Int J Epidemiol* 23: 369-377: 2008. Radiofrequency electromagnetic fields: male infertility and sex ratio of offspring. This is a study of Norwegian Navy personnel chronically exposed to RF fields on the job. The rates of infertility were related to level of exposure in a dose-dependent fashion.

27. Many toxicologic and other animal studies, of which the following are but a few, support conclusions of cancer, genotoxicity, neurotoxicity and other health outcomes from RF/MW radiation.

a. Sinha R. Chronic non-thermal exposure of modulated 2450 MHz microwave radiation alters thyroid hormones and behavior of male rats. *Int. J. Radiation Biol.* 84:6:505-513, 2008. This study of 2.45 GHz at levels and durations comparable to and less than those of school WI-FI concluded that the radiation was sufficient to alter the levels of thyroid hormone as well as emotional reactivity compared to controls.

b. Nittby H, Grafstrom G, Tian DP, Malmgren L, Brun A, Persson BRR, Salfors LG and Eberhardt J. *Bioelectromagnetics* 29: 219-232: 2008. This study showed cognitive impairment in rats after long-term exposure to PM MW radiation. This is study of rats shows that after 2 hours per week for 55 weeks there was impaired memory for objects in exposed as compared to sham animals.

c. Kimmel S et al. *Electromagnetic radiation: Influences on honeybees (Apis mellifera)*. A significant difference between non-exposed and fully irradiated bees was the result of the influence of high-frequency PM RF/MW radiation.

d. Panagopoulos DJ et al. Bioeffects of mobile telephony radiation in relation to its intensity or distance from the antenna. *Int. J Radiat Biol*, 86;(5):345-357, 2010. The PM MW radiations at 900 and 1800 MHz decreased the reproductive capacity by cell death induction, with an increased bioactivity “window” at 10

uW/cm<sup>2</sup>, and still evident down to 1 uW/cm<sup>2</sup>.

e. Everaert J, Bauwens D. A possible effect of electromagnetic radiation from mobile phone base stations on the number of breeding house sparrow (*passer domesticus*). *Electromagnetic Biology and Medicine*, 26:63-72, 2007. Long-term exposure to higher-level low-intensity PM MW radiation negatively affects the abundance or behavior of House Sparrows in the wild.

f. Magras I, Xenos T. RF Radiation-Induced Changes in the Prenatal Development of Mice. *Bioelectromagnetics* 18:455-461, 1997. Near almost 100 TV and FM broadcast transmitters, with exposure levels between 0.168 uW/cm<sup>2</sup> and 1.053 uW/cm<sup>2</sup>, found in the more exposed groups testicular damage and decreasing size of litters to irreversible infertility.

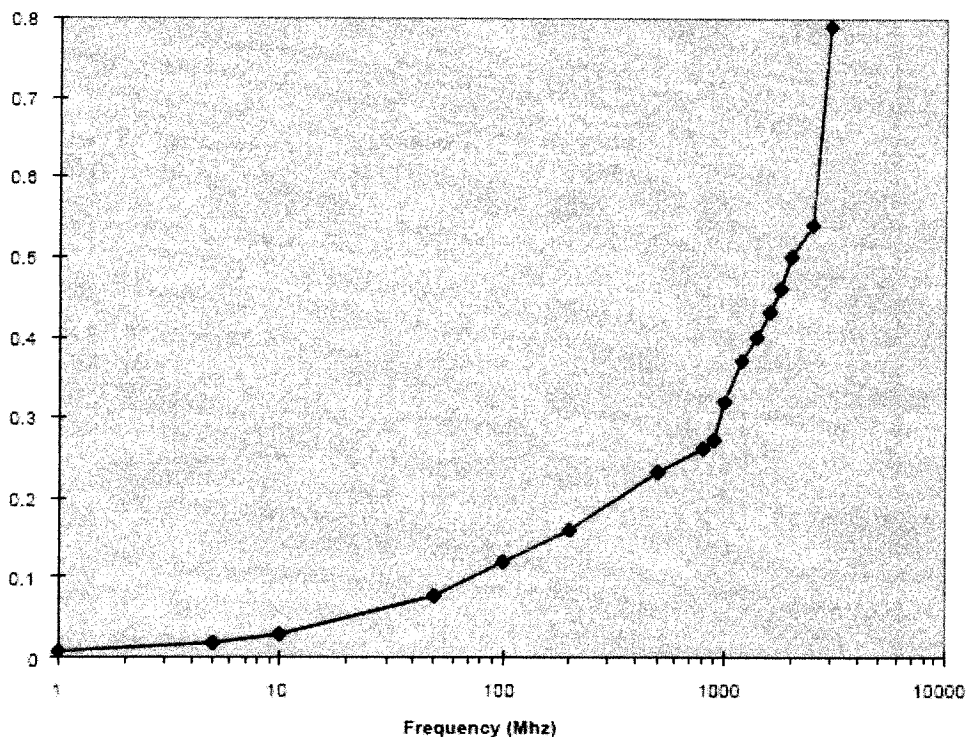
g. Balmori A. Electromagnetic pollution from phone masts. Effects on wildlife, *Pathophysiology* 2009. This large review of wildlife effects concludes, “pulsed telephony microwave radiation can produce effects on nervous, cardiovascular, immune and reproductive systems,” including damage to the nervous system by altering EEG and changes to the blood-brain barrier, disruption of the circadian rhythms (sleep-wake) by interfering with the pineal gland and hormonal imbalances, changes in heart rate and blood pressure, impairment of health and immunity towards pathogens, weakness, exhaustion, growth problems, problems in building the nest or impaired fertility, embryonic development, hatching percentage, genetic and developmental problems, problems of locomotion, promotion of tumors and more.

28. Exposure thresholds for harmful effects are lowered in human populations and individuals when duration is increased. Due to the variability of thresholds for harmful effects both in the population and within the individual, there is no exposure power density that is safe. The School's WI-FI deploys arguably the worst possible frequency of 2.45 GHz, that of the

microwave oven, worst because it is most absorbable by the brain and most resonant with the water molecule, such that:

- a. absorption-per-exposure is maximized, dramatically lowering effects thresholds for population and individual effects; and
- b. water molecules in tissues and cells are highly agitated.

**Microwave Absorption in Brain Tissue (Grey Matter)**



Curry, Ph.D., *Wireless LANs in the schoolroom*

29. This above graph, from physicist William Curry PhD's presentation *Wireless LANs in the Schoolroom*, shows how absorption in brain tissue (grey matter) increases exponentially toward the ultra-high frequency (UHF) area of the microwave oven and WI-FI.

30. In the case of the Portland Schools, the additional, unused but still deployed carrier frequency of 5 GHz would likely increase absorption in other, smaller organs, such as the thyroid.



31. The graph also illustrates the problem with the drive of the wireless industry toward ever higher frequencies within the cm microwave band. While nearly all the lower frequency bands have already been allocated by the FCC for specific types of radio transmissions, and transmission of ever more information content on any given channel requires greater bandwidth, each new deployment undermines further the integrity of the population's health. Engineers who design these systems have no training that would qualify them to consider the effects on biologic systems, which is why public health scientists need to be called in to policymaking *prior to* contracting and deployment, not after the fact.

32. The following studies explain the mechanisms of interaction between RF/MW radiation and biologic systems at the cellular level.

a. The cell membrane recognition process -- which includes signal transduction and 'heat-shock protein' release -- was first discerned by Litovitz and his co-workers at Catholic University of America in the mid-1990s.

Below are a few citations that make the point.

- i. Litovitz, T., C. Montrose, et al. (1994). "Superimposing spatially coherent electromagnetic noise inhibits field induced abnormalities in developing chick embryos." *Bioelectromagnetics* 15(2): 105-113.
- ii. DiCarlo, A., J. Farrell, et al. (1998). "A simple experiment to study electromagnetic field effects: Protection induced by short term exposures to 60 Hz magnetic fields." *Bioelectromagnetics* 19(8): 498-500.
- iii. Penafiel, L., T. Litovitz, et al. (1997). "Role of modulation on the effect of microwaves on ornithine decarboxylase activity in L929

cells." *Bioelectromagnetics* **18**(2): 132-141.

- iv. Dicarlo, A. L., Michael T. Hargis, L. Miguel Penafiel, Theodore A. Litovitz, A. (1999). "Short-term magnetic field exposures (60Hz) induce protection against ultraviolet radiation damage." *International journal of radiation biology* **75**(12): 1541-1549.
- v. Litovitz, T., C. Montrose, et al. (1990). "Amplitude windows and transiently augmented transcription from exposure to electromagnetic fields." *Bioelectromagnetics* **11**(4): 297-312.
- vi. Litovitz, T., M. Penafiel, et al. (1997). "The role of temporal sensing in bioelectromagnetic effects." *Bioelectromagnetics* **18**(5): 388-395.
- vii. Litovitz, T., L. Penafiel, et al. (1997). "Role of modulation in the effect of microwaves on ornithine decarboxylase activity in L929 cells." *Bioelectomagnetics* **18**: 132-141.]
- viii. Litovitz, T., D. Krause, et al. (1993). "The role of coherence time in the effect of microwaves on ornithine decarboxylase activity." *Bioelectromagnetics* **14**(5): 395-403.

- b. Cell membrane reaction is lipid peroxidation.
  - i. Serban, M. and V. Ni (1994). "Lipid peroxidation and change of plasma lipids in acute ischemic stroke." *Romanian journal of internal medicine= Revue roumaine de médecine interne* **32**(1): 51.

- ii. Vileno, B., S. Jeney, et al. (2010). "Evidence of lipid peroxidation and protein phosphorylation in cells upon oxidative stress photo-generated by fullerenols." *Biophysical chemistry*.
- iii. Maaroufi, K., E. Save, et al. (2011). "Oxidative stress and prevention of the adaptive response to chronic iron overload in the brain of young adult rats exposed to a 150 kilohertz electromagnetic field." *Neuroscience*.
- iv. Nelson, S. K., S. K. Bose, et al. (1994). "The toxicity of high-dose superoxide dismutase suggests that superoxide can both initiate and terminate lipid peroxidation in the reperfused heart." *Free Radical Biology and Medicine* **16**(2): 195-200.
- v. Alvarez, J. G. and B. T. Storey (1989). "Role of glutathione peroxidase in protecting mammalian spermatozoa from loss of motility caused by spontaneous lipid peroxidation." *Gamete research* **23**(1): 77-90.
- vi. Devasagayam, T., K. Boloor, et al. (2003). "Methods for estimating lipid peroxidation: An analysis of merits and demerits." *Indian journal of biochemistry & biophysics* **40**(5): 300-308.
- c. Free-Radical Damage:
  - i. Ozgur, E., G. Güler, et al. (2010). "Mobile phone radiation-induced free radical damage in the liver is inhibited by the antioxidants n-acetyl cysteine and epigallocatechin-gallate." *International journal of radiation biology*(00): 1-11.

- ii. Gutteridge, J. and X. C. Fu (1981). "Enhancement of bleomycin-iron free radical damage to DNA by antioxidants and their inhibition of lipid peroxidation." *FEBS letters* **123**(1): 71.
  
- d. mRNA:
  - i. Yan, J. G., M. Agresti, et al. (2009). "Qualitative Effect on mRNAs of Injury-Associated Proteins by Cell Phone Like Radiation in Rat Facial Nerves." *Electromagnetic Biology and Medicine* **28**(4): 383-390.
  - ii. Yan, J. G., M. Agresti, et al. (2008). "Upregulation of specific mRNA levels in rat brain after cell phone exposure." *Electromagnetic Biology and Medicine* **27**(2): 147-154.
  - iii. Simbürger, E., A. Stang, et al. (1997). "Expression of connexin43 mRNA in adult rodent brain." *Histochemistry and cell biology* **107**(2): 127-137.
  - iv. Chen, J., H. C. He, et al. (2010). "Effects of Pulsed Electromagnetic Fields on the mRNA Expression of RANK and CAII in Ovariectomized Rat Osteoclast-Like Cell." *Connective Tissue Research* **51**(1): 1-7.
  
- e. Epigenetic changes.... environmentally induced genetic change:
  - i. Migliore, L. and F. Copped (2009). "Genetics, environmental factors and the emerging role of epigenetics in neurodegenerative diseases." *Mutation Research/Fundamental and Molecular*

*Mechanisms of Mutagenesis* 667(1-2): 82-97.

ii. Currenti, S. (2009). "Understanding and Determining the Etiology of Autism." *Cellular and Molecular Neurobiology* 30(2): 161-171.

f. Micronuclei formation:

i. Tice, R. R., G. G. Hook, et al. (2002). "Genotoxicity of radiofrequency signals. I. Investigation of DNA damage and micronuclei induction in cultured human blood cells." *Bioelectromagnetics*, 23(2): 113-126.

ii. Lerchl, A. (2009). "Comments on "Radiofrequency electromagnetic fields (UMTS, 1,950 MHz) induce genotoxic effects in vitro in human fibroblasts but not in lymphocytes" by Schwarz et al. (Int Arch Occup Environ Health 2008: doi: 10.1007/s00420-008-0305-5)." *Int Arch Occup Environ Health* 82(2): 275-278.

iii. Vijayalaxmi and T. J. Prihoda (2009). "Genetic damage in mammalian somatic cells exposed to extremely low frequency electro-magnetic fields: a meta-analysis of data from 87 publications (1990-2007)." *Int J Radiat Biol* 85(3): 196-213.

iv. Sannino, A., M. Sarti, et al. (2009). "Induction of adaptive response in human blood lymphocytes exposed to radiofrequency radiation." *Radiat Res* 171(6): 735-742.

g. DNA repair disruption:

i. Brusick, D., R. Albertini, et al. (1998). "Genotoxicity of radiofrequency radiation. DNA/Genetox Expert Panel." *Environ*

*Mol Mutagen* **32**(1): 1-16.

ii. Belyaev, I. Y., E. Markova, et al. (2009). "Microwaves from UMTS/GSM mobile phones induce long-lasting inhibition of 53BP1/gamma-H2AX DNA repair foci in human lymphocytes." *Bioelectromagnetics* **30**(2): 129-141.

iii. Sun, L. X., K. Yao, et al. (2006). "[Effect of acute exposure to microwave from mobile phone on DNA damage and repair of cultured human lens epithelial cells in vitro]." *Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi* **24**(8): 465-467.

h. Immune response suppression:

i. Lyle, D. B., P. Schechter, et al. (1983). "Suppression of T-lymphocyte cytotoxicity following exposure to sinusoidally amplitude-modulated fields." *Bioelectromagnetics* **4**(3): 281-292.

ii. Elekes, E., G. Thuroczy, et al. (1996). "Effect on the immune system of mice exposed chronically to 50 Hz amplitude-modulated 2.45 GHz microwaves." *Bioelectromagnetics* **17**(3): 246-248.

iii. DABALA, D., D. SURCEL, et al. (2008). "Oxidative and Immune Response in Experimental Exposure to Electromagnetic Fields." *Electromagnetic field, health and environment: proceedings of EHE'07*: 105.

iv. Surcel, D., D. Dabala, et al. (2009). "Free Radicals, Lipid Peroxidation and Immune Response in Experimental Exposure to Electromagnetic Fields." *Epidemiology* **20**(6): S118.

**Conclusions**

33. To understand the seriousness of this Agent of PM RF/MW radiation in interaction with populations and individuals, we need to consider some basic facts in addition to the many relevant and reliable studies above. For example, where shortwave, AM, FM, TV and cell phone infrastructure frequencies are demonstrated to be harmful, as they consistently are shown to be at low intensities with long duration, then, all other factors being equal, MW radiation at 2.45 GHz will likely be more harmful yet, due to its higher absorption-per-exposure and water molecule resonance. Increasing the constancy and length of exposure toward the maximum of occupational and 24-7 durations will lower the threshold for effects in populations and individuals. Complex radiation microenvironments with pulse-modulated wave and multiple sources, such as are deployed in WI-FI-equipped schools, are more harmful than a single, isolated MW radiation exposure at the same power density and duration. There are only a few of the many studies of RF/MW radiation infrastructure such as base stations that fail to show their studied effect. However, even were the reverse true, i.e., if there existed greater number than those that do show adverse effects, it is the case that positive studies (those that show adverse effects) hold more weight than negative studies (those that show no effect).

34. The FCC-appointed guideline-setting Commission, ASTM-IEEE, in 1991 referred in its conclusions to RF/MW radiation, the Agent, as a ‘Hazard,’ specifically setting a ‘Hazard Threshold.’ It has been discovered that, even amongst the 120 studies chosen by the Committee to prove the validity of its Hazard Threshold, there were 15 studies that concluded adverse effects at levels *lower* than the Hazard Threshold, thus disproving its validity. Three of these studies actually showed adverse effects at less than 10 percent of the Hazard Threshold. Thus the guidelines have no credibility.

35. The large body of scientific literature moreover redundantly proves this Agent to be a hazard. The media-promulgated notion that the relevant scientific studies are inconsistent and inconclusive is false and misleading. Chronic exposure to PM MW radiation harms every individual in a population in some ways, even if these are not always detectable by the individual or consciously attributed to the responsible RF/MW radiation sources. This Agent injures some individuals into a condition in which symptoms will be more easily retriggered with subsequent exposure. And for *a priori* susceptible individuals and those using electronic medical devices, it can respectively exacerbate the extant medical conditions and disrupt medical device operation, even to the point of death. Bassen 1997 discusses the hundreds of excess deaths, even at that time, from wireless communications radiation. See also *Radiofrequency Interference with Medical Devices*, IEEE Engineering in Medicine and Biology Magazine 17(3):111-114(1998), <http://ewh.ieee.org/soc/embs/comar/interfer.htm>.

36. For these reasons, WI-FI must be banned from school deployment.

37. I will receive no compensation for my testimony beyond out-of-pocket expenses.

Dated this 20<sup>th</sup> day of December, 2011.




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- 2/73-3/80 Chairman, Neurobiology Department Armed Forces Radiobiology Research Institute, Defense Nuclear Agency, Bethesda, MD
- 3/80-9/85 Director, Wadsworth Center for Laboratories and Research, New York State Department of Health, Albany, NY
- 9/85-1/98 Dean, School of Public Health, University at Albany
- 9/85-Pres. Professor, Departments of Environmental Health Sciences and Biomedical Sciences, School of Public Health, University at Albany.
- 9/85-7/98 Research Physician, Wadsworth Center for Laboratories and Research, New York State Department of Health, Albany, NY
- 1/98-1/05 Adjunct Professor in the Center for Neuropharmacology & Neuroscience, Albany Medical College, Albany, NY
- 2001-Pres. Director, Institute for Health and the Environment, University at Albany, SUNY, Rensselaer, NY. The Institute was named a Collaborating Center of the World Health Organization in 2011.
- 2005-Pres. Senior Fellow, Alden March Bioethics Institute, Albany Medical College/Center, Albany, New York

**Editor-in-Chief:** Cellular and Molecular Neurobiology, 1981 - 1987

**Editorial Advisor:** Cellular and Molecular Neurobiology, 1987 - Present

**Editorial Boards:** Journal of Public Health Management and Practice, 1995 - 2002  
International Journal of Occupational Medicine & Environmental Health  
1996 - Present

Journal of Alzheimer's Disease – Associate Editor, 2007-2009  
Reviews in Environmental Health; 2008-present  
International Archives of Occupational and Environmental Health; 2009-present.  
Journal of Environmental and Public Health, 2009-present.  
Environmental Health Perspectives, 2010-present

**National and International Committees:**

- 1978, 1981 Physiology Study Section (Ad hoc member)
- 1979-1985 NIH International Fellowship Study Section
- 1974-1981 Member, Steering Committee of the Section on the Nervous System, American Physiological Society (Chairman of the Committee, 9/76-4/80)
- 1981-1989 Member, USA National Committee for the International Brain Research Organization
- 1985-1986 Committee on Electric Energy Systems of the Energy Engineering Board, National Research Council
- 1986-1987 Member, Neurophysiology Peer Panel for the National Aeronautics and Space Administration
- 1987-1989 Member, Science Advisory Council of the American Paralysis Association
- 1987-1990 Advisory Panel for the Electric Energy System Division, U.S. Department of Energy
- 1985-1993 Committee #79, National Council on Radiation Protection and Measurements
- 1986-1997 Member, Legislative and Education Committees, Association of Schools of Public Health
- 1989-1994 Member, Neuroscience Discipline Working Group, Life Sciences Division of the NASA
- 1994, 1995 Federation of American Societies for Experimental Biology Consensus Conference on FY 1995 Federal Research Funding
- 1994-1997 Member, Legislative Committee of the Association of Schools of Public Health
- 1997 Member, Executive Committee of the Association of Schools of Public Health
- 1997-2000 National Advisory Environmental Health Sciences Council of the National Institutes of Health
- 1998-Pres. Member, U.S. Section of the Great Lakes Science Advisory Board of the International Joint Commission
- 2000-Pres. Member, Board of Directors, Pacific Basin Consortium for Hazardous Waste Health and Environment; Treasurer, 2001-2004, 2008-pres; Chair, 2004-2008
- 2001-2008 United States Co-Chair, Workgroup on Ecosystem Health of the Science Advisory Board of the International Joint Commission
- 2002-2003 Member, Committee on the Implications of Dioxin in the Food Supply, The National Academies, Institute of Medicine
- 2003-2008 Member, United States Environmental Protection Agency, Children's Health Protection Advisory Committee
- 2003-Pres. Chair, Advisory Committee to the World Health Organization and National Institute of Environmental Health Sciences on collaborative activities.
- 2007-2011 Chair, Workgroup on Risks vs. Benefits of Fish Consumption, Science Advisory Board, International Joint Commission.

**State and Local Committees:**

- 1980-1987 Executive Secretary, New York State Power Lines Project
- 1985-1989 Board of Scientific Advisors, Institute of Basic Research, OMRDD, N.Y.
- 1986-1989 Member, Steering Committee, Health Policy and Administrative Consortium of the Capital District
- 1991-1992 Member, Connecticut Academy of Sciences and Engineering Committee on Electromagnetic Field Health Effects
- 1991-1992 Member, Board of Directors of the Capital District Chapter of the Alzheimer's Disease and Related Disorders Association, Inc.
- 1991-1992 Member, State Task Force for the Reform of Middle Level Education in NY State
- 1992-1993 Member, State Needs Task Force on Health Care and Education
- 1987-1998 Delegate-at-Large, New York State Public Health Association
- 1991-1995 Member, Board of Directors of the Capital District Amyotrophic Lateral Sclerosis Association
- 1994 Chair, Council of Deans, University at Albany, SUNY
- 1997-2008. Member, Board of Directors, (Chair 1998-2004) Albany-Tula Inc.: A Capital Region Alliance
- 2000-Pres. Member, Board of Directors, Healthy Schools Network, Inc.
- 2000-2003 Member, Medical Advisory Board, Hepatitis C Coalition, New York
- 2000-2004 Member, Environmental Protection Agency /National Association of State Universities and Land Grant Colleges Task Force
- 2001-2008 Member, Board of Directors, Environmental Advocates of New York
- 2004-2007 Member, Ad Hoc Advisory Group on Brownfield Cleanup Standards
- 2005-Pres. Member, Schooling Chefs Curriculum Advisory Board
- 2005-2008 Member, Board of Directors, Citizens Environmental Coalition
- 2006-2009 Member, Board of Directors, Marine Environmental Research Institute
- 2007-2009 Member, New York State Renewable Energy Task Force

**Honors, Awards and Fellowships:**

- 1959 B.A. awarded magna cum laude. Thesis entitled "Metamorphosis of visual pigments: A study of visual system of the salamander, *Ambystoma tigrinum*" (Thesis advisor, Professor George Wald)  
Elected to Phi Beta Kappa and to Sigma Xi
- 1964 M.D. awarded cum laude for a thesis in a special field. Thesis entitled "Electrophysiological observations on the importance on neuron size in determining responses to excitation and inhibition in motor and sensory systems" (Thesis advisor, Dr. Elwood Henneman)
- 1964 Awarded the Leon Resnick Prize given to a Harvard Medical School graduate showing promise in research
- 1970 Awarded the Moseley Traveling Fellowship for study in England (Fellowship declined)
- 1971 Invited as Visiting Professor of Physiology, Centro de Investigacion y de Estudios Avanzados, del Institute Politecnico Nacional, Mexico 14, D.F., Mexico, for 3 months

- 1982, 1986 Visiting Professor of Physiology, Department of Physiology, Kyushu University, Fukuoka, Japan, for a period of three months each
- 1987
- 1989 Awarded Jacob Javits Neuroscience Investigator Award from the National Institute of Neurological and Communicative Diseases and Stroke
- 1999 Awarded Homer N. Calver Award from the American Public Health Association for studies in environmental health.
- 2001 Awarded 2001 Academic Laureate from the University at Albany Foundation.
- 2010 Awarded the Albion O. Bernstein, M.D. Award in recognition of an outstanding contribution to public health and the prevention of disease through lifelong research of environmental health hazards and for limitless devotion to medical education by the Medical Society of the State of New York.

**Federal Grants Held: (Principal Investigator Only)**

- 1980-1983 United States Air Force, "Mechanisms of Radiation-Induced Emesis in Dogs", \$76,847 total direct costs.
- 1982-1988 National Institute of Health, "Mechanisms of Desensitization at Central Synapses", \$464,786 total direct costs.
- 1984-1986 Defense Nuclear Agency, "Mechanisms of Radiation-Induced Emesis in Dogs", \$330,504 total direct costs.
- 1986-1996 National Institute of Health, "Mechanisms of Excitatory Amino Acids Actions and Toxicity", 1986-1989 \$231,848 total direct costs; 1990-1996 \$562,926 total direct costs.
- 1989-1993 National Institute of Health, "Mechanisms of Lead Neurotoxicity" \$373,576 total direct costs
- 1990-1995 National Institute of Environmental Health Sciences, Superfund Basic Research Program, "Multidisciplinary Study of PCBs and PCDFs at a Waste Site", D.O. Carpenter, P.I. \$5,783,419 total direct costs.
- 1995-2001 Fogarty International Center, National Institutes of Health, International Training Program in Environmental and Occupational Health. A Central/Eastern European Environ/Occup Training Program, D.O. Carpenter, P.I. \$657,520 total costs.
- 1995-2001 National Institute of Environmental Health Sciences, Superfund Basic Research Program, "Multidisciplinary Study of PCBs," D.O. Carpenter, P.I. \$12,653,709 total direct costs.
- 1998-1999 Environmental Protection Agency, A Indoor Air Risk at Akwesasne - Pilot Project, D.O. Carpenter, P.I. \$9,996 total costs.
- 2000-2002 Association Liaison Office for University Cooperation in Development, A Cooperative Program in Environmental Health between the Institute of Public Health at Makerere University, Kampala, Uganda and the School of Public Health, University at Albany, USA, D.O. Carpenter, P.I. \$96,432 total costs.
- 2001-2007 Fogarty International Center, National Institutes of Health, International Training Program in Environmental and Occupational Health. A Multidisciplinary Environmental Health Training, D.O. Carpenter, P.I. \$850,000 total costs.
- 2006-2011 Pakistan-US Science and Technology Cooperative Program (US National Academy of Sciences). "Association of particulate matter with daily morbidity in

- an urban population,” D.O. Carpenter, P.I., \$391,104 total costs.
- 2009-2013 Exploratory Center on Minority Health and Health Disparities in Smaller Cities. Project 2: Environmental contaminants and reproductive health of Akwesasne Mohawk women. \$387,825 for year 1. D.O. Carpenter, Co-PI.
- 2010-2013 Department of the Army, “Gulf War Illness: Evaluation of an Innovative Detoxification Program: D.O. Carpenter, P.I., \$636,958 total costs.
- 2010-2013 Higher Education for Development of the United States Agency for International Development, “Drinking Water Supply, Sanitation, and Hygiene Promotion : Health Interventions in Two Urban Communities of Kampala City and Mukono Municipality, Uganda”. D. O. Carpenter, P.I., \$299,736 total costs.
- 2011-2016 National Institute of Environmental Health Sciences (1R01ES019620), “Protecting the health of future generations: Assessing and preventing exposures.” PK Miller, FA von Hippel, CL Buck and DO Carpenter, Co-P.I.s, \$471,521 for the period 8/08/11-4/30/12, \$2,354,871 for the period 2011-2016.

**Research Interests:**

- Exposure to persistent organic pollutants and risk of diabetes, cardiovascular disease, and hypertension.
- Cognitive and behavioral effects of environmental contaminants on children (IQ, ADHD) and older adults (dementias, Parkinson’s Disease and ALS).
- Ionizing and non-ionizing radiation biology.
- Effects of air pollution on respiratory and cardiovascular function.

**Other Professional Activities:**

Host, The Public Radio Health Show (a 30 min public health information show carried on 170+ stations nationwide), plus the Armed Forces Radio Network and Voice of America, 1985-2001. Authored a biweekly health column in The Troy Record, a local newspaper, 1997-1999.

**Major Peer-Reviewed Publications:**

1. Carpenter, D.O., Lundberg, A. and Norrsell, U. Effects from the pyramidal tract on primary afferents and on spinal reflex actions to primary afferents. Experientia, 18:337, 1962.
2. Carpenter, D.O., Engberg, I. and Lundberg, A. Presynaptic inhibition in the lumbar cord evoked from the brain stem. Experientia, 18:450, 1962.
3. Carpenter, D.O., Lundberg, A. and Norrsell, U. Primary afferent depolarization evoked from the sensorimotor cortex. Acta Physiol Scand., 59:126-142.
4. Carpenter, D.O., Engberg, I., Funkenstein, H. and Lundberg, A. Decerebrate control of reflexes to primary afferents. Acta Physiol. Scand., 59:424-437, 1963.
5. Carpenter, D.O., Engberg, I. and Lundberg, A. Differential supraspinal control of inhibitory and excitatory actions from the FRA to ascending spinal pathways. Acta Physiol. Scand., 63:103-110, 1965.

6. Henneman, E., Somjen, G.G. and Carpenter, D.O. Excitability and inhibibility of motoneurons of different sizes. *J. Neurophysiol.*, 28:599-620, 1965.
7. Henneman, E., Somjen, G.G. and Carpenter, D.O. Functional significance of cell size in spinal motoneurons. *J. Neurophysiol.*, 28:560-580, 1965.
8. Somjen, G.G., Carpenter, D.O. and Henneman, E. Selective depression of alpha motoneurons of small size by ether. *J. Pharmacol.*, 148:380-385, 1965.
9. Somjen, G., Carpenter, D.O. and Henneman, E. Response of motoneurons of different sizes to graded stimulation of supraspinal centers of the brain. *J. Neurophysiol.*, 28:958-965, 1965.
10. Carpenter, D.O., Engberg, I. and Lundberg, A. Primary afferent depolarization evoked from the brain stem and the cerebellum. *Arch. Ital. Biol.*, 104:73-85, 1966.
11. Carpenter, D.O. and Henneman, E. A relation between the threshold of stretch receptors in skeletal muscle and the diameter of axons. *J. Neurophysiol.*, 29:353-368, 1966.
12. Carpenter, D.O. Temperature effects on pacemaker generation, membrane potential, and critical firing threshold in *Aplysia* neurons. *J. Gen. Physiol.*, 50:1469-1484, 1967.
13. Chase, T.N., Breese, G., Carpenter, D., Schanberg, S. and Kopin, I. Stimulation-induced release of serotonin from nerve tissue. *Adv. Pharmacol.*, 6A:351-364, 1968.
14. Carpenter, D.O. and Alving, B.O. A contribution of an electrogenic Na<sup>+</sup> pump to membrane potential in *Aplysia* neurons. *J. Gen. Physiol.*, 52:1-21, 1968.
15. Olson, C.B., Carpenter, D.O. and Henneman, E. Orderly recruitment of muscle action potentials. *Arch. Neurol.*, 19:591-597, 1968.
16. Carpenter, D.O. Membrane potential produced directly by the Na<sup>+</sup> pump in *Aplysia* neurons. *Comp. Biochem. Physiol.*, 35:371-385, 1970.
17. Carpenter, D.O. and Gunn, R. The dependence of pacemaker discharge of *Aplysia* neurons upon Na<sup>+</sup> and Ca<sup>++</sup>. *J. Cell. Physiol.*, 75:121-127, 1970.
18. Kraus, K.R., Carpenter, D.O. and Kopin, I. R. Acetylcholine-induced release of norepinephrine in the presence of tetrodotoxin. *J. Pharmacol. Exp. Therap.*, 73:416-421, 1970.
19. Barker, J.L. and Carpenter, D.O. Thermosensitivity of neurons in the sensorimotor cortex of the cat. *Science*, 169:597-598, 1970.
20. Carpenter, D.O., Hovey, M.M. and Bak, A. Intracellular conductance of *Aplysia* neurons and squid axon as determined by a new technique. *Intl. J. Neurosci.*, 2:35-48, 1971.
21. Carpenter, D.O., Breese, G., Schanberg, S. and Kopin, I. Serotonin and dopamine: Distribution and accumulation in *Aplysia* nervous and non-nervous tissues. *Intl. J. Neurosci.*, 2:49-56, 1971.
22. Hovey, M.M., Bak, A.F. and Carpenter, D.O. Low internal conductivity of *Aplysia* neuron somata. *Science*, 176:1329-1331, 1972.
23. Carpenter, D.O. Electrogenic sodium pump and high specific resistance in nerve cell bodies of the squid. *Science*, 179:1336-1338, 1973.
24. Carpenter, D.O. and Rudomin, P. The organization of primary afferent depolarization in the isolated spinal cord of the frog. *J. Physiol. (Lond.)*, 229:471-493, 1973.
25. Shain, W., Green, L.A., Carpenter, D.O., Sytkowski, A.J. and Vogel, Z. *Aplysia* acetylcholine receptors: Blockage by and binding of  $\alpha$ -bungarotoxin. *Brain Res.*, 72:225-240, 1974.
26. Pierau, Fr.-K., Torrey, P. and Carpenter, D.O. Mammalian cold receptor afferents: Role of an electrogenic sodium pump in sensory transduction. *Brain Res.*, 73:156-160, 1974.

27. Saavedra, J.M., Brownstein, M.J., Carpenter, D.O. and Axelrod, J. Octopamine: Presence in single neurons in *Aplysia* suggests neurotransmitter function. *Science*, 185:364-365, 1974.
28. Willis, J.A., Gaubatz, G.L. and Carpenter, D.O. The role of the electrogenic sodium pump in modulation of pacemaker discharge of *Aplysia* neurons. *J. Cell. Physiol.*, 84:463-472, 1974.
29. Brownstein, M.J., Saavedra, J.M., Axelrod, J., Zeman, G.H. and Carpenter, D.O. Coexistence of several putative neurotransmitters in single identified neurons of *Aplysia*. *Proc. Natl. Acad. Sci. (USA)*, 71:4662-4665, 1975.
30. Carpenter, D.O. and Gaubatz, G.L. Octopamine receptors on *Aplysia* neurons mediate hyperpolarization by increasing membrane conductance. *Nature*, 252:483-485, 1974.
31. Pierau, Fr.-K., Torrey, P. and Carpenter, D.O. Afferent nerve fiber activity responding to temperature changes of the scrotal skin of the rat. *J. Neurobiol.*, 38:601-612, 1975.
32. Carpenter, D.O. and Gaubatz, G.L. H<sub>1</sub> and H<sub>2</sub> histamine receptors on *Aplysia* neurons. *Nature*, 254:343-344, 1975.
33. Carpenter, D.O., Hovey, M.M. and Bak, A.F. Resistivity of axoplasm. II. Internal resistivity of giant axons of squid and *Myxicola*. *J. Gen. Physiol.*, 66:139-148, 1975.
34. Zeman, G.H. and Carpenter, D.O. Asymmetric distribution of aspartate in ganglia and single neurons of *Aplysia*. *Comp. Biochem. Physiol.*, 52C:23-26, 1975.
35. Pierau, Fr.-K., Torrey, P. and Carpenter, D.O. Effect of ouabain and potassium-free solution on mammalian thermosensitive afferents *in vitro*. *Pflugers Arch.*, 359:349-356, 1975.
36. Swann, J.W. and Carpenter, D.O. The organization of receptors for neurotransmitters on *Aplysia* neurons. *Nature*, 258:751-754, 1975.
37. Yarowsky, P.J. and Carpenter, D.O. Aspartate: distinct receptors on *Aplysia* neurons. *Science*, 192:806-809, 1976.
38. Foster, K.R., Bidinger, J.M. and Carpenter, D.O. The electrical resistivity of aqueous cytoplasm. *Biophys. J.*, 16:991-1001, 1976.
39. Carpenter, D.O., Greene, L.A., Shain, W. and Vogel, Z. Effects of eserine and neostigmine on the interaction of  $\alpha$ -bungarotoxin with *Aplysia* acetylcholine receptors. *Mol. Pharmacol.*, 12:999-1006, 1976.
40. Saavedra, J.M., Ribas, J., Swann, J. and Carpenter, D.O. Phenylethanolamine: A new putative neurotransmitter in *Aplysia*. *Science*, 195:1004-1006, 1977.
41. Carpenter, D.O., Swann, J.W. and Yarowsky, P.J. Effect of curare on responses to different putative neurotransmitters in *Aplysia* neurons. *J. Neurobiol.*, 8:119-132, 1977.
42. Yarowsky, P.J. and Carpenter, D.O. GABA mediated excitatory responses on *Aplysia* neurons. *Life Sci.*, 20:1441-1448, 1977.
43. Willis, J.A., Myers, P.R. and Carpenter, D.O. An ionophoretic module which controls electroosmosis. *J. Electrophysiol. Tech.*, 6:34-41, 1977.
44. Yarowsky, P.J. and Carpenter, D.O. Receptors for gamma-aminobutyric acid (GABA) on *Aplysia* neurons. *Brain Res.*, 144:75-94, 1978.
45. Carpenter, D.O., Gaubatz, G., Willis, J.A. and Severance, R. Effects of irradiation of *Aplysia* pacemaker neurons with 20 MeV electrons. *Rad. Res.*, 76:32-47, 1978.
46. Yarowsky, P.J. and Carpenter, D.O. A comparison of similar ionic responses to gamma-aminobutyric acid and acetylcholine. *J. Neurophysiol.*, 41:531-541, 1978.
47. Blum, B., Auker, C.R. and Carpenter, D.O. A head holder and stereotaxic device for the rattlesnake. *Brain Res. Bull.*, 3:271-274, 1978.

48. Swann, J.W., Sinback, C.N. and Carpenter, D.O. Dopamine-induced muscle contractions and modulation of neuromuscular transmission in *Aplysia*. *Brain Res.*, 157:167-172, 1978.

49. Swann, J.W., Sinback, C.N. and Carpenter, D.O. Evidence for identified dopamine motor neurons to the gill of *Aplysia*. *Neurosci. Lett.*, 10:275-280, 1978.

50. Keabian, P.R., Keabian, J.W. and Carpenter, D.O. Regulation of cyclic AMP in heart and gill of *Aplysia* by the putative neurotransmitters, dopamine and serotonin. *Life Sci.*, 24:1757-1764, 1979.

51. Carpenter, D.O. Interchangeable association of neurotransmitter receptors with several ionophores. *Brain Res. Bull.*, 4:149-152, 1979.

52. Pellmar, T.C. and Carpenter, D.O. Voltage-dependent calcium current induced by serotonin. *Nature*, 277:483-484, 1979.

53. Ruben, P.C., Swann, J.W. and Carpenter, D.O. Neurotransmitter receptors on gill muscle fibers and the gill peripheral nerve plexus in *Aplysia*. *Canad. J. Physiol. Pharmacol.*, 57:1088-1097, 1979.

54. Pellmar, T.C. and Carpenter, D.O. Serotonin induces a voltage-sensitive calcium current in neurons of *Aplysia californica*. *J. Neurophysiol.*, 44:423-439, 1980.

55. Parver, L.M., Auker, C. and Carpenter, D.O. Choroidal blood flow as a heat dissipating mechanism in the macula. *Am. J. Ophthalmol.*, 89:641-646, 1980.

56. Mell, L.D., Jr. and Carpenter, D.O. Fluorometric determination of octopamine in tissue homogenates by high-performance liquid chromatography. *Neurochem. Res.*, 5:1089-1096, 1980.

57. Braitman, D.J., Auker, C.R. and Carpenter, D.O. Thyrotropin-releasing hormone has multiple actions in cortex. *Brain Res.*, 194:244-248, 1980.

58. Meszler, R.M., Auker, C.R. and Carpenter, D.O. Fine structure and organization of the infrared receptor relay, the lateral descending nucleus of the trigeminal nerve in pit vipers. *J. Comp. Neurol.*, 196:571-584, 1981.

59. Auker, C.R., Parver, L.M., Doyle, T. and Carpenter, D.O. Choroidal blood flow: I. Ocular tissue temperature as a measure of flow. *Arch. Ophthalmol.*, 100:1323-1326, 1982.

60. Parver, L.M., Auker, C., Carpenter, D.O. and Doyle, T. Choroidal blood flow: II. Reflexive control in the monkey. *Arch. Ophthalmol.*, 100:1327-1330, 1982.

61. Hori, N., Auker, C.R., Braitman, D.J. and Carpenter, D.O. Lateral olfactory tract transmitter: Glutamate, aspartate or neither? *Cell. Mol. Neurobiol.*, 1:115-120, 1981.

62. Scappaticci, K.A., Dretchen, K.L., Carpenter, D.O. and Pellmar, T.C. Effects of furosemide on neural mechanisms in *Aplysia*. *J. Neurobiol.*, 12:329-341, 1981.

63. Pellmar, T.C. and Carpenter, D.O. Cyclic AMP induces a voltage-dependent current in neurons of *Aplysia californica*. *Neurosci. Lett.*, 22:151-157, 1981.

64. Parver, L., Auker, C. and Carpenter, D.O. Stabilization of macular temperature: The stabilizing effect of the choroidal circulation on the temperature environment of the macula. *Retina*, 2:117-120, 1982.

65. Green, R.W. and Carpenter, D.O. Biphasic responses to acetylcholine in mammalian reticulospinal neurons. *Cell. Molec. Neurobiol.*, 1:401-405, 1981.

66. Hori, N., Auker, C.R., Braitman, D.J. and Carpenter, D.O. Pharmacologic sensitivity of amino acid responses and synaptic activation of *in vitro* prepyriform neurons. *J. Neurophysiol.*, 48:1289-1301, 1982.

67. Slater, N.T. and Carpenter, D.O. Blockade of acetylcholine-induced inward currents in *Aplysia* neurons by strychnine and desipramine: effect of membrane potential. *Cell. Molec. Neurobiol.*, 2:53-58, 1982.



68. Swann, J.W., Sinback, C.N., Pierson, M.G. and Carpenter, D.O. Dopamine produces muscle contractions and modulates motoneuron-induced contractions in *Aplysia* gill. Cell Molec. Neurobiol., 2:291-308, 1982.
69. Swann, J.W., Sinback, C.N., Keabian, P.R. and Carpenter, D.O. Motoneurons which may utilize dopamine as their neurotransmitter. Cell Molec. Neurobiol., 2:309-324, 1982.
70. Aufer, C.R., Meszler, R.M. and Carpenter, D.O. Apparent discrepancy between single unit activity and <sup>14</sup>C-deoxyglucose labelling in the optic tectum of the rattlesnake. I. Neurophysiol., 49:1504-1516, 1983.
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72. French-Mullen, J.M.H., Hori, N., Nakanishi, H., Slater, N.T. and Carpenter, D.O. Assymmetric distribution of acetylcholine receptors and M channels on prepyriform neurons. Cell Molec. Neurobiol., 3:163-182, 1983.
73. Carpenter, D.O., Briggs, D.B. and Strominger, N. Responses of neurons of canine area postrema to neurotransmitters and peptides. Cell Molec. Neurobiol., 3:113-126, 1983.
74. Slater, N.T. and Carpenter, D.O. Blocking kinetics at excitatory acetylcholine responses on *Aplysia* neurons. Biophys. J., 45:24-25, 1984.
75. Chesnut, T.J. and Carpenter, D.O. Two-component desensitization of three types of responses to acetylcholine in *Aplysia*. Neurosci. Lett., 39:285-290, 1983.
76. Haas, H.L., Jeffreys, J.G.R., Slater, N.T. and Carpenter, D.O. Modulation of low calcium induced field bursts in the hippocampus by monoamines and cholinomimetics. Pflugers Arch., 400:28-33, 1984.
77. Parvar, L.M., Aufer, C.R. and Carpenter, D.O. Choroidal blood flow. III. Reflexive control in human eyes. Arch. Ophthalmol., 101:1604-1606, 1983.
78. Slater, N.T., Haas, H.L. and Carpenter, D.O. Kinetics of acetylcholine-activated cation channel blockade by the calcium antagonist D-600 in *Aplysia* neurons. Cell Molec. Neurobiol., 3:329:344, 1983.
79. McCreery, M.J. and Carpenter, D.O. Modulation of neuronal responses to L-glutamate in *Aplysia*. Cell Molec. Neurobiol., 4:91-95, 1984.
80. Carpenter, D.O., Briggs, D.B. and Strominger, N. Peptide-induced emesis in dogs. Behav. Brain Res., 11:277-281, 1984.
81. French-Mullen, J.M.H., Hori, N. and Carpenter, D.O. N-methyl-D-aspartate and L-aspartate activate distinct receptors in prepyriform cortex. Cell Molec. Neurobiol., 4:185-189, 1984.
82. Slater, N.T. and Carpenter, D.O. A study of the cholinolytic actions of strychnine using the technique of concentration jump relaxation analysis. Cell Molec. Neurobiol. 4:263-271, 1984.
83. Slater, N.T., Hall, A.F. and Carpenter, D.O. Kinetic properties of cholinergic desensitization in *Aplysia* neurons. Proc. Roy. Soc. Lond. B., 223:63-78, 1984.
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94. French-Mullen, J.M.H., Hori, N. and Carpenter, D.O. Receptors for the excitatory amino acids on neurons in rat pyriform cortex. *J. Neurophysiol.*, 55:1283-1294, 1986.
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96. Leung, M.K., S.-Rozsa, K., Hall, A., Kuruvilla, S., Stefano, G.B. and Carpenter, D.O. Enkephalin-like substance in *Aplysia* nervous tissue and actions of leu-enkephalin on single neurons. *Life Sci.*, 38:1529-34, 1986.
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100. Briggs, D.B. and Carpenter, D.O. Excitation of neurons in the canine area postrema by prostaglandins. *Cell. Molec. Neurobiol.*, 6:421-426, 1986.
101. Chesnut, T.J., Carpenter, D.O. and Strichartz, G.R. Three effects of venom from *Conus striatus* on the delayed rectifier potassium current of molluscan neurons. *Toxicon*, 25:267-278, 1987.
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104. Hori, N., Galeno, T. and Carpenter, D.O. Responses of pyriform cortex neurons to excitatory amino acids: Voltage dependence, conductance changes and effects of divalent cations. *Cell. Molec. Neurobiol.*, 7:73-90, 1987.

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# FILE COPY

Sarah Sullivan  
138 Wagmans Ridge Rd  
Saratoga Springs, NY 12866

To the Town of Saratoga Planning Board:

I have lived on Wagman's Ridge for four years and I chose to move there to enjoy the scenery and the quiet neighborhood setting.

Please do not place a cell tower on Wagman's Ridge and vote no on the application. I am concerned that an 80 to 120 foot cell tower near houses and near no other tall structures will look ridiculous and out of place with the character of the neighborhood.

I am also concerned about the negative health effects that I and my neighbors would be exposed to.

Thank you,



Sarah Sullivan

# FILE COPY

11/28/12

To: Town of Saratoga Planning Board

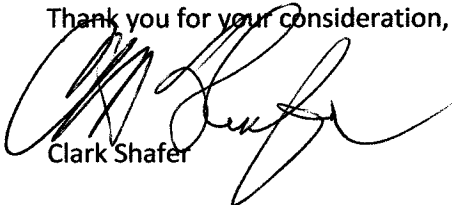
From: Clark Shafer

Subject: Proposed transmission tower

I request that the request for new cell tower construction on Wagmans Ridge be denied.

This commercial construction is not compatible with existing land use in the immediate area, and will adversely affect the viewshed. There is no compelling need for the construction.

Thank you for your consideration,



Clark Shafer

246 Cty Rt 67, Saratoga, NY

File Copy 11/28/12  
Fr. Kim Auster (102)

# McNamee, Lochner, Titus & Williams, P.C.

**FILE COPY**  
11/28/12

ATTORNEYS AT LAW

JACOB F. LAMME

Direct Dial  
(518) 447-3348

lamme@mltw.com

November 28, 2012

## VIA HAND-DELIVERY

Ian Murray, Chairman  
and Planning Board Members  
Town of Saratoga  
12 Spring Street  
Schuylerville, NY 12871

### **RE: Verizon Wireless Cell Tower – Application for Special Permit**

Dear Chairman Murray and Planning Board Members:

Please accept this letter on behalf of John and Barbara Murphy (148 Wagman's Ridge Road), Tim and Jenn Gerber (144 Wagman's Ridge Road), David and Kimberley Austin (142 Wagman's Ridge Road), Eric and Nicole Dalzell (138 Wagman's Ridge Road) and Todd Fiorentino and Clarisse Kilyako (138 Wagman's Ridge Road) (collectively "Wagman's Ridge Road Neighbors"), all of whom live on Wagman's Ridge Road near the Peck Farm (178 Wagman's Ridge Road), which is a proposed site for a telecommunication tower owned by CellCo Partnership / Verizon Wireless ("Verizon").

As you know, Verizon has submitted a special permit application to the Planning Board seeking permission to construct an 84-foot telecommunication tower on the Peck Farm. Pursuant to Verizon's initial special permit application package, the proposed new tower is designed to provide fourth-generation (4G) coverage to the area.

Despite the existence of numerous other suitable locations for the proposed tower, Verizon has proposed to build the tower a mere 200 hundred feet from several of the Wagman's Ridge Road Neighbors' homes (144 and 148 Wagman's Ridge Road) and in very close proximity to the other Wagman's Ridge Road Neighbors.

While the Wagman's Ridge Road Neighbors do not oppose the existence of a properly sited tower in the community in the general vicinity of their homes, they are greatly concerned about the proposed design and location of this tower and, therefore, hereby oppose Verizon's application.

Ian Murray, Chairman  
and Planning Board Members  
November 28, 2012  
Page 2 of 7

The Wagman's Ridge Road Neighbors are compelled to write because the Planning Board has not been provided with all of the information necessary to make a proper determination on Verizon's special permit application. Therefore, please accept this letter and attachments in supplementation of the Planning Board's administrative record for this matter.

**A. Verizon Has Not Complied With The Town Code**

Verizon is obliged to follow the Saratoga Town Code, which contains supplemental regulations pertaining to telecommunication towers. [See Town Code § 400-13]. The Town created these regulations in order to, among other things, minimize the number of towers in the community, encourage the use of existing tall structures and minimize adverse visual effects caused by towers. Indeed, the Town's regulations are so keen on protecting the health, safety and general welfare of the Town residents that they require a preference for utilizing existing towers and tall structures over the construction of new towers. [See Town Code § 400-13(C)].

Thus, the Planning Board may only consider an application for a new tower where the applicant has provided "an adequate report inventorying all existing tall structures and existing or approved towers within a reasonable distance of the proposed site." [See Town Code § 400-13(D) (emphasis added)]. Here, it does not appear that Verizon has met this threshold requirement because its inventory report does not list the Hanehan Farm, which contains large industrial barns and a pre-existing 50-60 foot silo, as a possible location for the tower. Surely, that silo qualifies as an "existing tall structure" under the Town Code. Significantly, the Hanehan Farm is only about a quarter of a mile from Verizon's current proposed location on the Peck Farm. However, Verizon states only that "[t]here are no existing telecommunication towers or other tall structures within or near the Burgoyne II search area." (See Verizon's Statement of Intent, dated April 5, 2012, pg. 3). This is incorrect.

In addition, the Wagman's Ridge Road Neighbors do not believe that Verizon has adequately fulfilled the requirement that it demonstrate that the use of existing towers is found to be impractical. [See Town Code § 400-13(E)]. Indeed, the Hayes Road dump houses a 190-foot monopole tower and is in close proximity to the proposed site on the Peck Farm. The Town Code requires Verizon to attempt to co-locate on the existing tower prior to building a new tower. [Id.]. However, Verizon has failed to make the requisite showing and merely states that its next phase of expansion will be at the Hayes Road dump, subject to funding. (See Verizon's Statement of Intent, dated April 5, 2012, pg. 4). Verizon makes a general statement that vegetation and terrain in the community make the Hayes Road dump site less than ideal, but there is no indication that that site will not work to provide a significant portion of the sought after coverage, and no studies were offered to show that the Hayes Road dump location is impractical for current purposes. Nevertheless, the Town Code requires Verizon to first utilize that location,

Ian Murray, Chairman  
and Planning Board Members  
November 28, 2012  
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especially since Verizon has already indicated that the Hayes Road dump location is ideal for a tower in its next phase of expansion.

Accordingly, the Planning Board is not authorized to act on Verizon's application until Verizon properly investigates the shared usage of the existing Hayes Road dump monopole and inventories "all existing tall structures...within a reasonable distance of the proposed site" and demonstrates its "good faith efforts to secure shared use from the owner of each existing tall structure". [See Town Code § 400-13(D) and (E)].

**B. Verizon Has Not Proven A Need For The New Tower**

"A telecommunications provider is not...granted carte blanche authority to dictate the number and location of its facilities." Site Acquisitions, Inc. v. Town of New Scotland, 2 A.D.3d 1135, 1137 (3d Dep't 2003) (internal quotations and citations omitted). Rather, New York State law requires telecommunications providers seeking a variance for a proposed facility to "establish that there are gaps in service, that the location of the proposed facility will remedy those gaps and that the facility presents a minimal intrusion on the community." Id.; see also Indep. Wireless One Corp. v. City of Syracuse, 12 A.D.3d 1085, 1086 (4th Dep't 2004); SBA, Inc. v. Schwarting, 299 A.D.2d 940 (4th Dep't 2002).

Indeed, a town is well within its rights to reject construction of a new telecommunication tower "if there is evidence establishing that a service gap can be closed by a less intrusive means." Site Acquisitions, Inc., 2 A.D.3d at 1137, *citing* Sprint Spectrum, L.P. v. Willoth, 176 F.3d 630, 643 (2d Cir. 1999).

Here, it does not appear that Verizon has adequately established gaps in service. Rather, in seeking to upgrade its 4G wireless service, Verizon claims that "technological changes, increasing wireless usage patterns, a rapidly expanding Verizon Wireless subscriber base and other factors" provide the basis for the new tower. (See Verizon's Statement of Intent, dated April 5, 2012, pg. 2). However, no compelling Verizon signal propagation studies have been offered to show service gaps in 4G or 4G LTE service. To the contrary, a review of Verizon's own coverage maps ([www.verizonwireless.com](http://www.verizonwireless.com)) shows full 4G and 4G LTE coverage for Wagman's Ridge Rd. and the Burgoyne II proposed coverage area. (Copies of screen shot images of Verizon's coverage map are attached hereto as **Exhibit "A"**).

Additionally, Verizon has not demonstrated how the proposed cell tower will coordinate service coverage with the three current Radar Road towers, which are clearly within the line of site from the Wagman's Ridge properties. It is my belief and understanding that Verizon also currently has an application pending before the Town of Stillwater Planning Board to add a fourth tower on or near the Radar Road towers. This begs the question as to why the proposed Burgoyne II cell tower is needed at all.



Accordingly, the Wagman's Ridge Road Neighbors request that the Planning Board obtain the requisite dropped call reports from Verizon to substantiate any service gaps and require Verizon to identify and explain its plans at the nearby Radar Road location(s) such that a determination can be made about true coverage need in the area.

**C. The Proposed Cell Tower Will Cause Decreases In Property Values And Negatively Affect Future Assessments**

It is well-settled that cell towers have detrimental effects on surrounding property values. (See e.g., *A Pushback Against Cell Towers*, Marcelle S. Fischler, NEW YORK TIMES, Aug. 27, 2010, available at [http://www.nytimes.com/2010/08/29/realestate/29Lizo.html?\\_r=2&ref=realestate](http://www.nytimes.com/2010/08/29/realestate/29Lizo.html?_r=2&ref=realestate)).

The Wagman's Ridge Road Neighbors have retained an expert real estate appraiser (Accent Associates, LLC, Joseph Nailor, NYS Certified Real Estate Appraiser # 45-45441), who has formulated a report stating that the construction and installation of the cell tower, as proposed, at the Peck Farm would negatively impact the value of the Wagman's Ridge Road Neighbors' homes by up to 15%. A copy of Accent Associate's Advisory Opinion Report is attached hereto as **Exhibit "B"**.

Should the cell tower be built as proposed, the Town will face a host of tax assessment challenges pursuant to Article 7 of the Real Property Tax Law from the Wagman's Ridge Road Neighbors and other affected property owners.

**D. The Planning Board Must Consider Alternative Designs**

If the Planning Board determines that Verizon has discharged its duties under the Town Code and a new tower must be permitted, the Town Code requires the Planning Board to consider alternative designs for all new towers. [See Town Code § 400-13(K)]. This requirement bolsters the Town's stated policy to minimize the adverse visual effects caused by towers. To this end, the Town Code requires new towers to "have a finish...that minimizes its degree of visual impact" and "maximize[s] the use of building materials, colors and textures designed to blend with the natural surroundings". [See Town Code § 400-13(K)(2) and (5)].

Based on the rural and agricultural nature of the area, the *only* tower design that makes sense—regardless of where it is ultimately located—is a "silo" tower (i.e., a tower designed to look like a traditional farm silo). Silo towers are not a new concept to Upstate New York. Indeed, the City of Saratoga Springs required this "stealth" design for a tower back in 2002. (See [http://poststar.com/news/local/article\\_f3c65794-1595-5c97-b770-30572250fbdd.html](http://poststar.com/news/local/article_f3c65794-1595-5c97-b770-30572250fbdd.html)). Therefore, it is not unreasonable to require this kind of disguise for cell towers.

Ian Murray, Chairman  
and Planning Board Members  
November 28, 2012  
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According to Sollenberger Silos, LLC, a leading manufacturing of silos and the manufacturer of the Fort Edward silo tower, silo towers can be built at least 140 feet tall (see <http://www.sollenbergersilos.com/cell.html>).<sup>1</sup> Sollenberger Silos' website describes the silo towers as follows:

We are now building concrete tower silos for the wireless communications industry. They are "cast-in-place" silos, designed by P.E. with a minimum 6" wall thickness, and steel reinforcing bars inside the wall. They are also equipped with an OSHA ladder or ladder with fall-arrest system, and openings in the wall as needed. The antennas can be mounted on the outside of the wall, or inside (near the top), and hidden by specially designed "stealth" panels. The silo towers can be self-contained with the antennas hidden and the equipment rooms inside the silo. We are also building these silos for farm feed storage with companies mounting antennas on the outside of the multi-functional silos. The silo towers are strong to withstand storm and wind damage, and are able to support many carriers. We build these silo towers on site in the following diameters: 16', 18', 20', 24' and 30' inside diameters.

(See <http://www.sollenbergersilos.com/cell.html>). This description fits perfectly into the Town Code's requirement that any new tower "must be designed to accommodate future shared use by other telecommunications providers." [See Town Code § 400-13(K)(1)]. A picture of a silo tower built by Sollenberger Silos in Upstate New York is attached hereto as **Exhibit "C"**.

It is worth noting that in Matter of Village of Honeoye Falls v. Town of Mendon Zoning Board of Appeals, et al., 237 A.D.2d 929 (4th Dep't 1997), the Appellate Division upheld a planning board's conditional special use permit approval that required the construction of a silo tower in lieu of a 150-foot monopole cell tower. There, the reviewing board found that the silo tower blended with the rural and agricultural nature of the area and mitigated the substantial visual impact that would have been caused by the 150-foot monopole cell tower. The court upheld the requirement that a silo tower be constructed and declined to substitute its judgment for that of the board.

Here, if Verizon is to construct a cell tower on or near Wagman's Ridge at all, the Planning Board must adhere to the alternative design requirements set forth in the Town Code and require Verizon to construct a shorter silo tower instead of the proposed 84-foot monopole tower a mere 200-300 feet from some of the Wagman's Ridge Road Neighbors. In addition, wherever the silo tower is ultimately located (e.g., closer to the

<sup>1</sup> Verizon's contention that a 120-foot silo tower at the Alternative #2 location "is not feasible from this location" is simply not accurate. (See Verizon's Notice of Public Hearing, dated October 16, 2012, pg. 2).

Ian Murray, Chairman  
and Planning Board Members  
November 28, 2012  
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Peck Farm (Alternative #2), on the Hanehan Farm, or on some other location), it should be placed near other agricultural structures so that it blends in with the agricultural nature of the area.

In 2010, Verizon was directed to construct a silo tower in lieu of a monopole tower in Baltimore, Maryland, so it is very familiar with the concept. (See [http://articles.baltimoresun.com/2010-01-14/news/1001130111\\_1\\_cell-tower-phone-tower-silo](http://articles.baltimoresun.com/2010-01-14/news/1001130111_1_cell-tower-phone-tower-silo)).

For all of these reasons, we submit the above information for your consideration and to develop a full administrative record prior to the Planning Board's determination of Verizon's special permit application to construct the proposed telecommunication tower.

Unless the proposed telecommunication tower is proven to be required, located away from the immediate vicinity of the Wagman's Ridge Road Neighbors' properties and adequately disguised as a silo tower, the Wagman's Ridge Road Neighbors respectfully request that Verizon's application be denied.

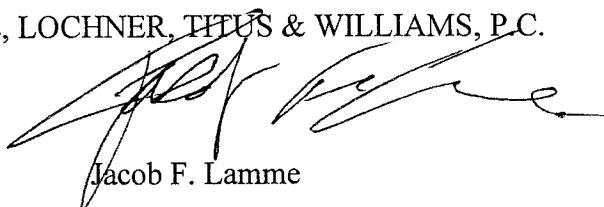
**E. The Health And Safety Aspects Of The Proposed New Tower**

Finally, although it is not a basis upon which to deny Verizon's application under the Telecommunications Act of 1996, the Wagman's Ridge Road Neighbors rely on the research and opinions of Dr. David O. Carpenter, M.D. (Director of Institute for Health and the Environment at the University at Albany, Professor of Environmental Health Sciences and public health physician) and have great concern about the possible health risks posed by the electromagnetic field and radiofrequency emissions of a cell tower so close to their homes. (For more information regarding Dr. Carpenter's concerns about EMF and RF issues, see <http://www.wirelesswatchblog.org/wp-content/uploads/2001/11/Amended-Declaration-of-Dr-David-Carpenter.pdf>).

In conclusion, the Wagman's Ridge Road Neighbors thank the Planning Board members for their careful attention to this matter.

Very truly yours,

McNAMEE, LOCHNER, TITUS & WILLIAMS, P.C.



Jacob F. Lamme

Attachments

Ian Murray, Chairman  
and Planning Board Members  
November 28, 2012  
Page 7 of 7

cc: Laurie Griffen – Board Member  
Paul Griffen – Board Member  
Patrick Hanehan – Board Member  
Jennifer Koval – Board Member  
Joe Lewandowski – Board Member

# Verizon coverage map from www.Verizonwireless.com

These Coverage Locator depictions apply to the following calling plans:  
**Share Everything, Nationwide Calling Plans, Mobile Broadband and Prepaid.**

- \* Access the 4G LTE network within the Coverage Area.
- \*\* Access the 4G LTE network within the Verizon Extended Coverage Area; certain conditions may cause your service to connect to 3G in this Area.
- \*\*\* Access the 4G LTE network within the Extended Coverage Area; Some of the Coverage Areas include networks run by other carriers, the coverage depicted is based on their information and public sources, and we cannot ensure its accuracy.

Verizon Wireless Coverage Map | Verizon Wireless | Windows Internet

http://www.verizonwireless.com/b2c/CoverageLocatorController?requestType=NEWREQUEST&zip=12866&city=Saratoga Springs&state=NY

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Search Share More

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Verizon Wireless Cover... X Google

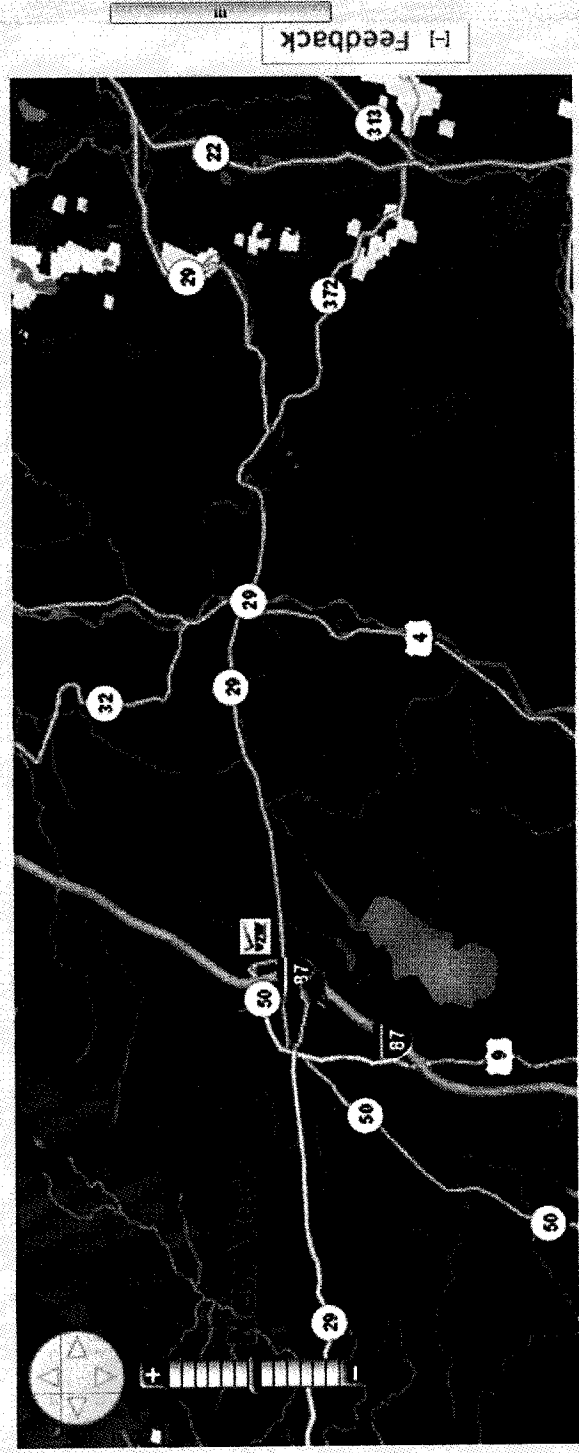
Map Legend

- Verizon 4G LTE
- Extended 3G
- Verizon 4G LTE Extended
- Canada/Mexico 3G
- Verizon 3G
- Extended 4G LTE
- No Service
- VZW Store

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Verizon Wireless Coverage Map | Verizon Wireless | Windows Internet Explorer

http://www.verizonwireless.com/b2c/CoverageLocatorController?requestType=NEWREQUEST&zip=12866&city=Saratoga\_Springs&state=NY

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Map Legend

- Verizon 4G LTE \*
- Verizon 4G LTE Extended \*\*
- Verizon 3G
- Extended 3G

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11/17/2009



11/28/12

File No. 121133339



6 Brower Ave  
Saratoga Springs, NY 12866

1.866.530.2944 Toll Free  
1.866.867.1730 Fax

November 25<sup>th</sup>, 2012

Kimberly Austin  
142 Wagmans Ridge Rd  
Saratoga Springs, NY 12866

Re: Advisory Opinion of Value Impact  
Verizon Cell Tower

Dear Mrs. Austin;

Pursuant to your request I have reviewed the information you provided and did a site inspection this morning. This was to address your concern over the placement of a cell tower some 500' feet from your home and what the impact on value would be.

This opinion only addresses the impact of the proposed site and not any alternative sites included with the documents provided. It is my opinion that the construction and installation of an 80' or 100' tower would have a negative impact on value on the following homes;

- 148 Wagmans Ridge Rd – 12%-15%
- 144 Wagmans Ridge Rd – 10%-12%
- 142 Wagmans Ridge Rd - 10%-12%
- 138 Wagmans Ridge Rd - 5%-7%
- 134 Wagmans Ridge Rd - 2%-5%

There were additional homes with potential impacts on value within a 1/4 mile from the subject. These homes were outside the scope of work request of the client.

This determination is based on research of market trends and sales of similar properties impacted in the same way. A recent lawsuit in Saratoga County over free standing solar panels located in the front yard of a Seelye Estates home showed a 10% decline in value of homes on the street.

File No. 121133339

Studies have shown that the average home buyer makes their decision to buy within 6 to 7 seconds of seeing it, (from the curb). The tower structure will be visible for approximately ¼ mile before approaching these homes, being one of the first things you see. See Exhibit 1 attached.

A 2007 article published in the fall issue of the Appraisal Journal states that the average impact on value is between 1%-10%. Noting that these are averages where some value impacts may be higher and some lower.

*"These impacts are not easily measurable. Research shows that the effects of HVTL on residential properties are varied and are determined by five interplaying factors: proximity to towers and lines; the view of towers and lines; the type and size of HVTL structures; the appearance of easement landscaping; and surrounding topography.....*

*....negative impacts can extend up to a quarter of a mile. If the HVTL structures are at least partially screened from view by trees, landscaping, or topography, any negative effects are reduced considerably. Value diminution attributable to tower line proximity is temporary and usually decreases over time, disappearing entirely in 4 to 10 years.*

*Research also has found that the negative impacts on lots adjacent to or with a direct view of a tower or pylon may be slightly greater than impacts on lots further from the tower. This is most likely because the visual obstruction from a tower is more substantial than that from the lines themselves. The value diminution on lots adjacent to or with direct views on a tower may not decrease with time."*

Power Lines and Property Values Revisited (with J. Pitts), The Appraisal Journal, 2007, Vol. 75, No. 4, 323-325.

It is my opinion that the value diminution would remain for these homes as well. Market perception of potential health risk associated with cell towers can also be a factor in negatively impacting the value of these homes.

Power line towers and cell towers are reasonably interchangeable.

In closing it is recommended that a bench mark appraisal be completed now. Ideally by an appraiser that is unaware of the recent proposal for development of the cell tower. Getting 3 separate appraisals similar would not be unreasonable either.

Best Regards,



Joseph Nailor  
Accent Associates, LLC  
New York State Certified  
Real Estate Appraiser 45-45441

### Photograph Addendum

Borrower/Client				
Property Address 142 Wagmans Ridge Rd				
City Saratoga (T)		County Saratoga		State NY
Lender N/A		Zip Code 12866		



Exhibit #1

Wagmans Ridge Road - Approaching the Homes Impacted - Heading North



Approaching 148 Wagman's Ridge

See Exhibit #2 for Imposed Tower View



144 Wagmans Ridge Rd  
Recently purchased for \$248,000  
in July of 2012

This Home was Re-Listed Recently  
for \$249,000 and the Offer Withdrawn

See Exhibit #3 for Imposed Tower  
View

### PHOTOGRAPH ADDENDUM

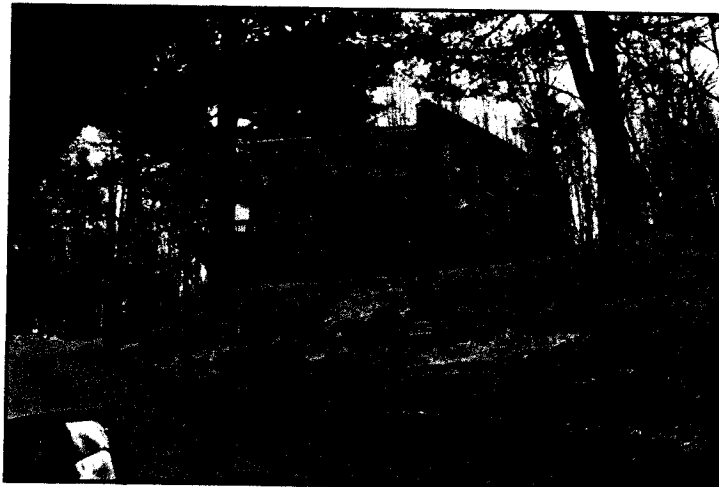
Borrower/Client				
Property Address 142 Wagmans Ridge Rd				
City Saratoga (T)		County Saratoga		State NY Zip Code 12866
Lender N/A				



142 Wagmans Ridge Rd



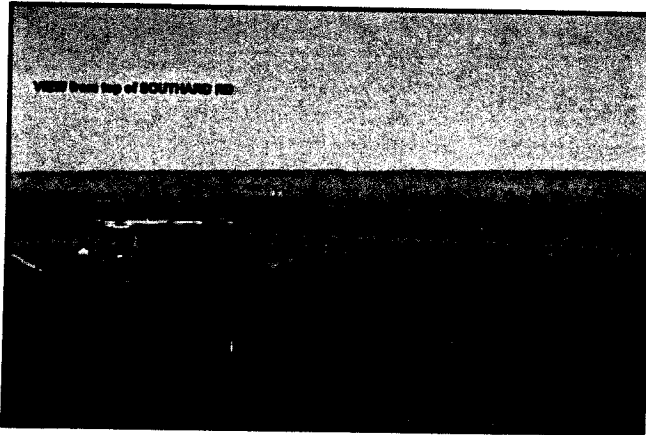
138 Wagmans Ridge Road



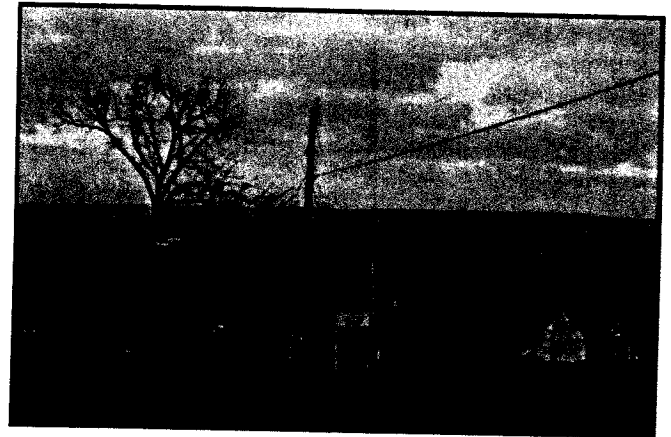
134 Wagmans Ridge Road

### Photograph Addendum

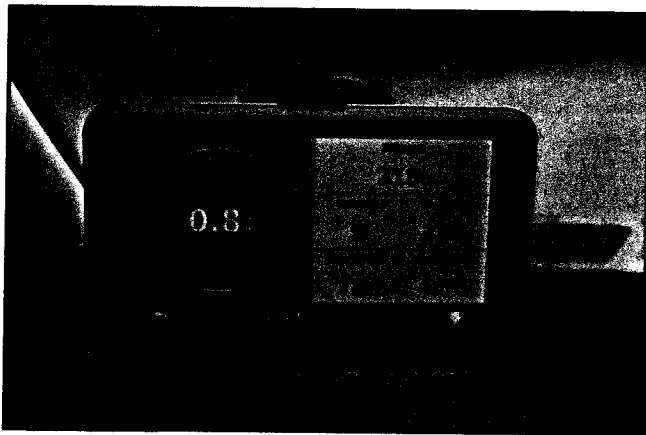
Borrower/Client				
Property Address 142 Wagmans Ridge Rd				
City	Saratoga (T)	County	Saratoga	State NY Zip Code 12866
Lender	N/A			



Verizon Balloon Flight Photo Provided by Client



Similar Photo Taken 11/25/2012 - Aprox. 1 Mile Away



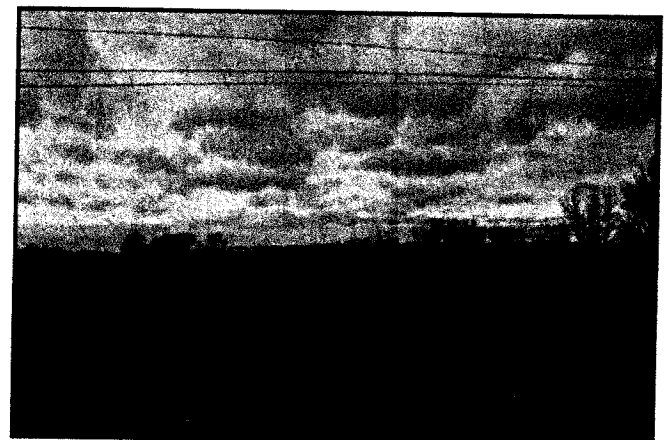
142 Wagman's Rd. Elev. at Curb is 335' - The Tower Site is 413'



Total Elevation of the Tower from the Curb is 178' +/-

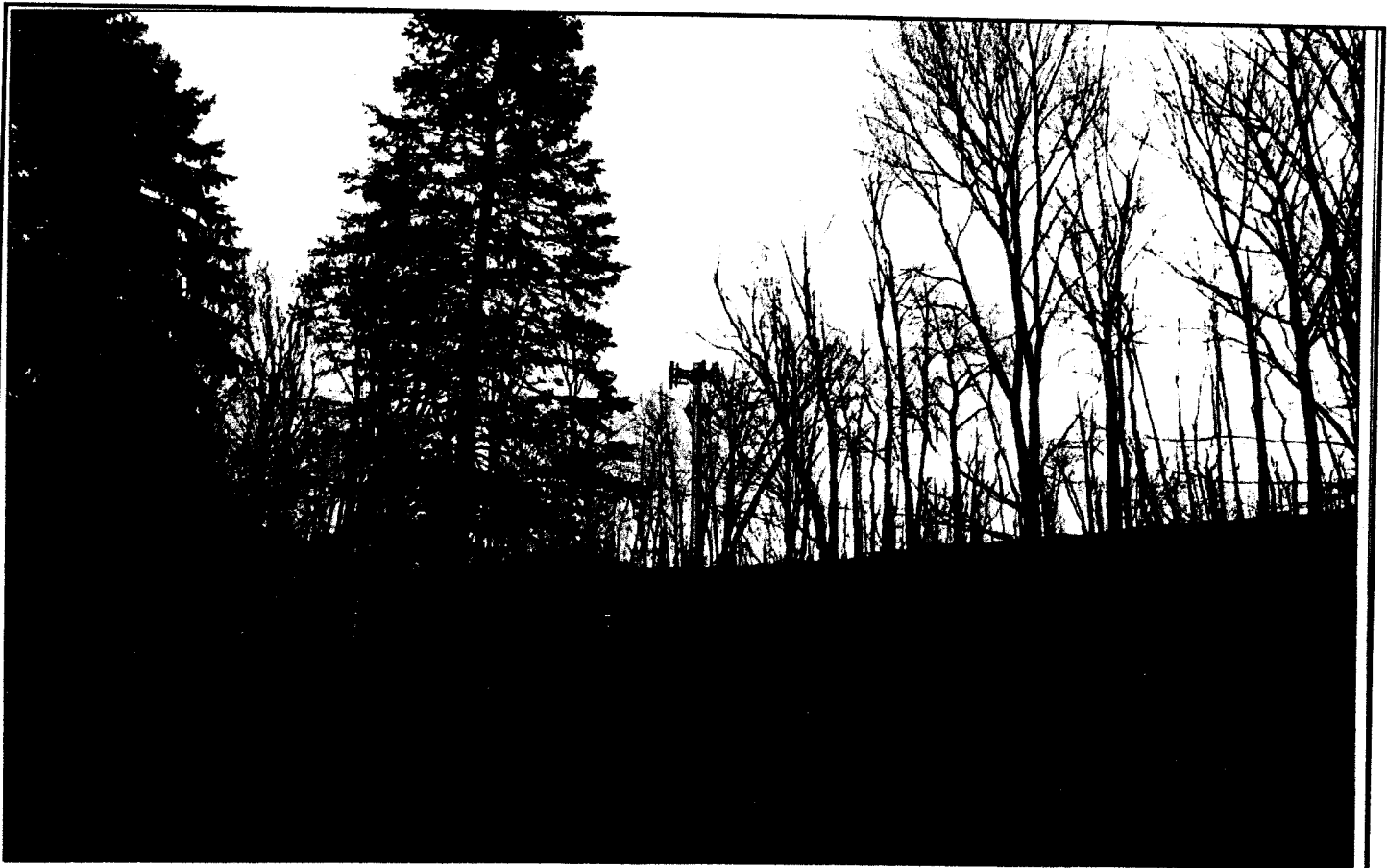



View from Wagmans Ridge Road Facing West



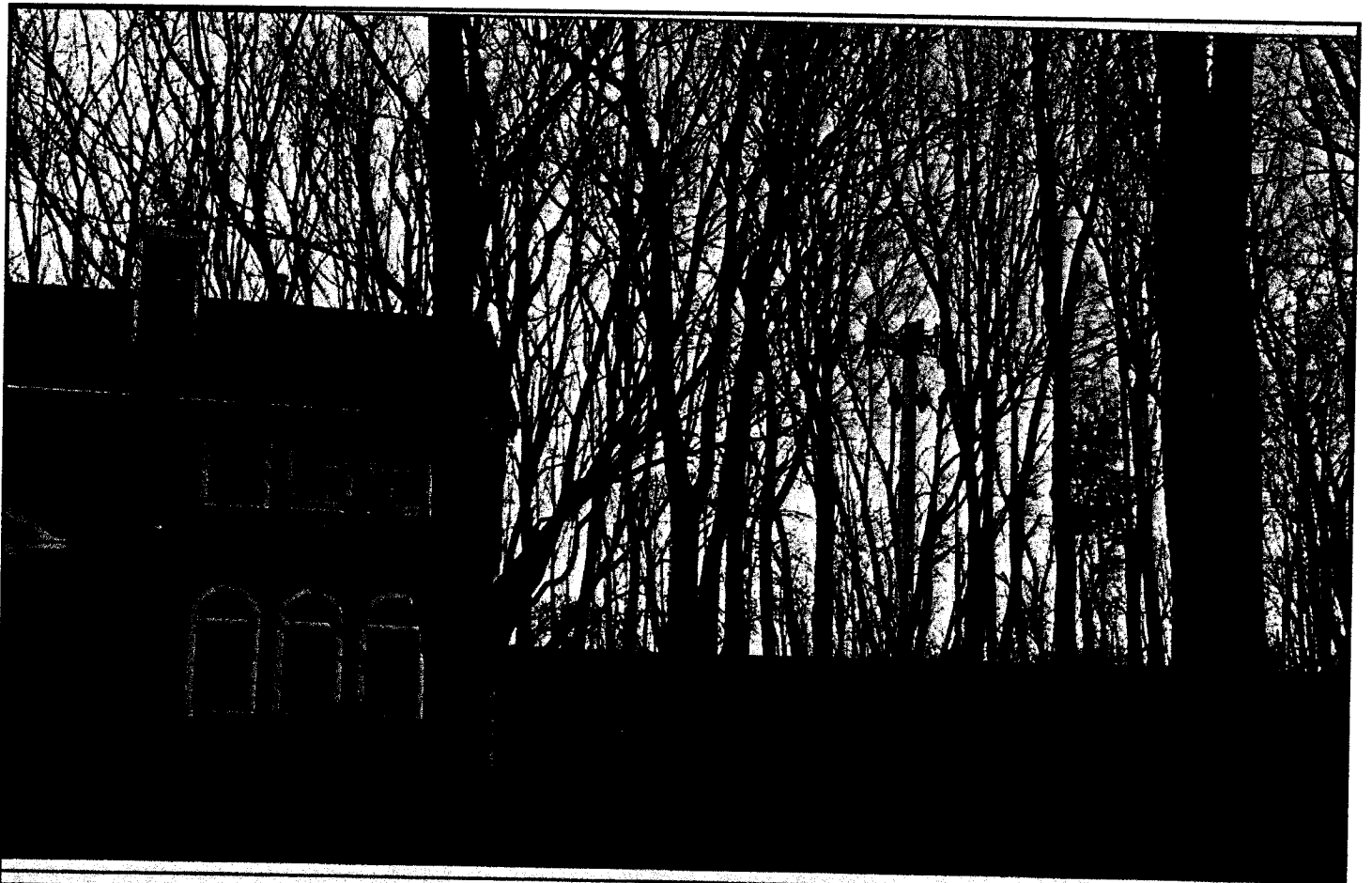
View from Wagmans Ridge Road Facing West


# Exhibit #2 148 Wagmans Ridge Rd With Cell Tower Imposed



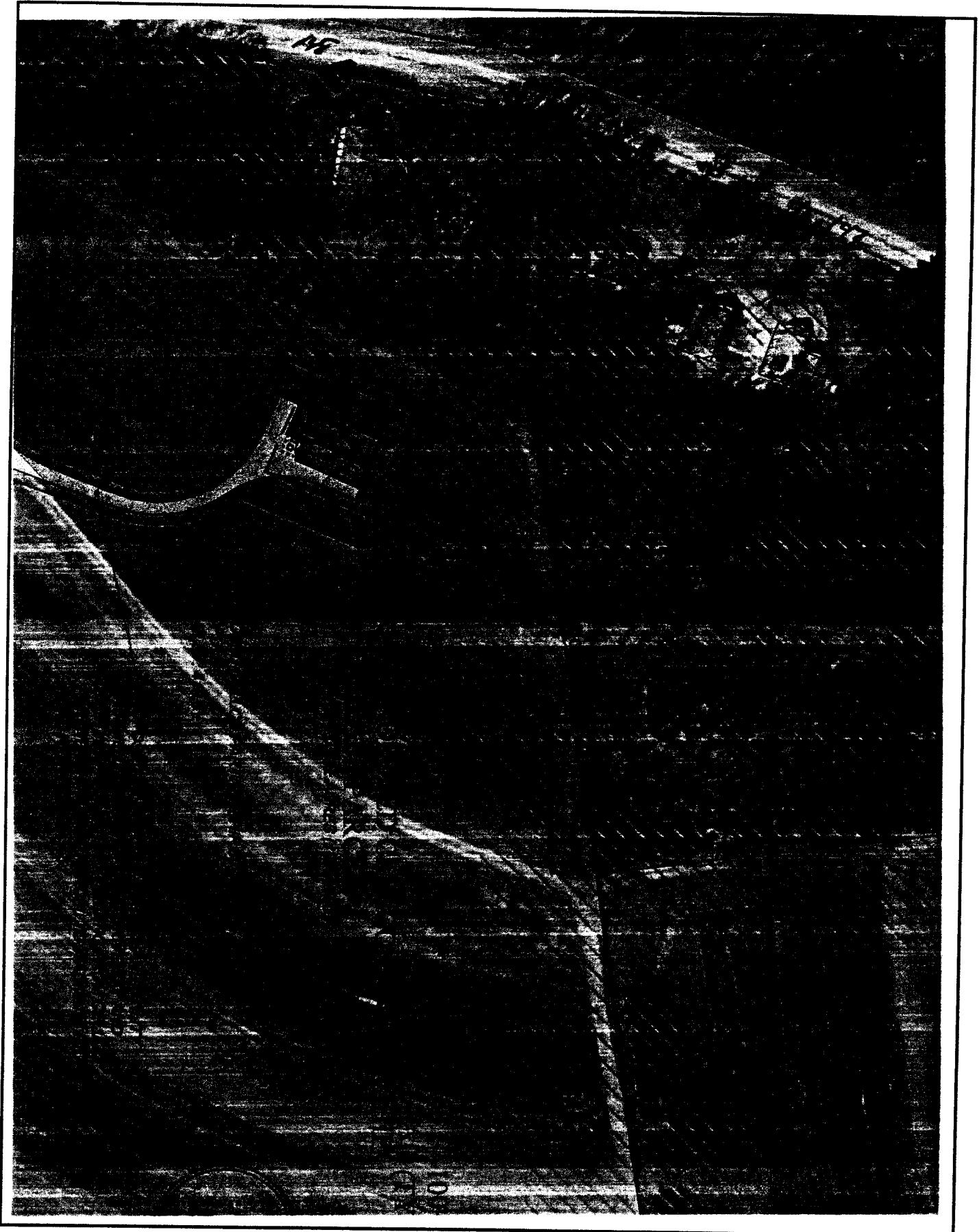
 <p><b>CIVIL ENGINEERING</b> SURVEYING LAND PLANNING 217 LAKE AVENUE ROCHESTER, NY 14608 <b>COSTICH ENGINEERING</b> (585) 458-3020</p>	<p>PROJECT NAME <b>BURGOYNE II</b></p>	<p>PHOTO DESCRIPTION <b>SIMULATION OF PROPOSED 80' MONOPOLE TOWER</b></p>	<p>DATE OF PHOTO <b>4/2/2012</b></p>
	<p><b>PHOTO - 02 - 55mm</b></p>	<p>PHOTO LOCATION <b>VIEW EAST FROM #148 WAGMANS RIDGE RD. 490ft. FROM SITE</b></p>	<p>C.E. JOB# <b>4511.01</b></p>
	<p>PHOTO COORDINATES <b>N 43d-04"-24.1" W 073d-40'-51.2"</b></p>	<p>VZW JOB# <b>2008313316</b></p>	

### Exhibit #3 Imposed Tower View of 144 Wagmans Ridge



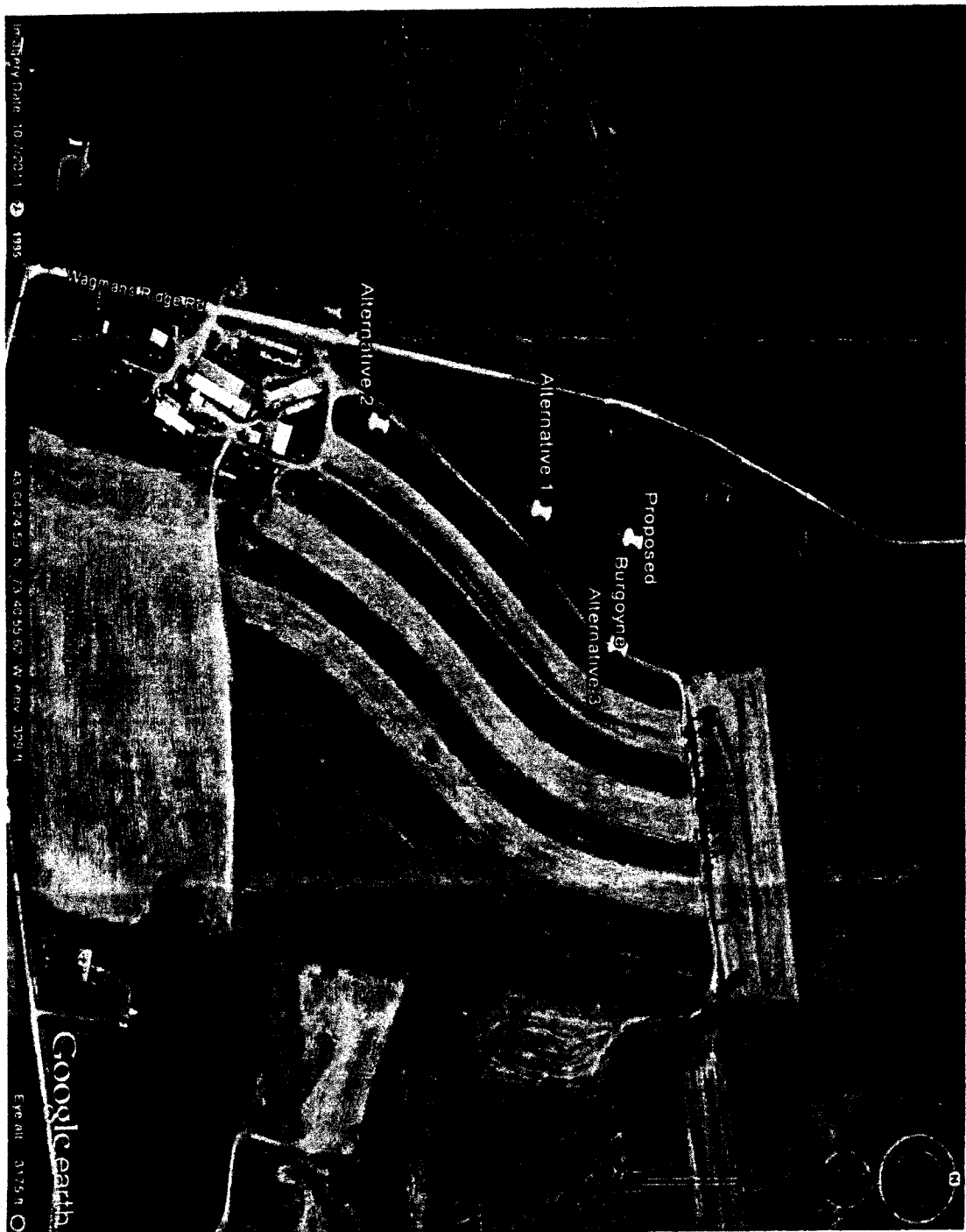
 <p><b>CIVIL ENGINEERING</b> SURVEYING LAND PLANNING 217 LAKE AVENUE ROCHESTER, NY 14608 (585) 458-3020</p>	<p>PROJECT NAME <b>BURGOYNE II</b></p>	<p>PHOTO DESCRIPTION <b>SIMULATION OF PROPOSED 80' MONOPOLE TOWER</b></p>	<p>DATE OF PHOTO <b>4/2/2012</b></p>
	<p><b>PHOTO - 03 - 85mm</b></p>	<p>PHOTO LOCATION <b>VIEW S.E. FROM #144 WAGMANS RIDGE RD. 450R. FROM SITE</b></p>	<p>C.E. JOB# <b>4511.01</b></p>
	<p>PHOTO COORDINATES <b>N 43d-04"-27.2" W 073d-40'-50.0"</b></p>	<p>V2W JOB# <b>2008313316</b></p>	

### Aerial Photo with Cell Tower Overlay

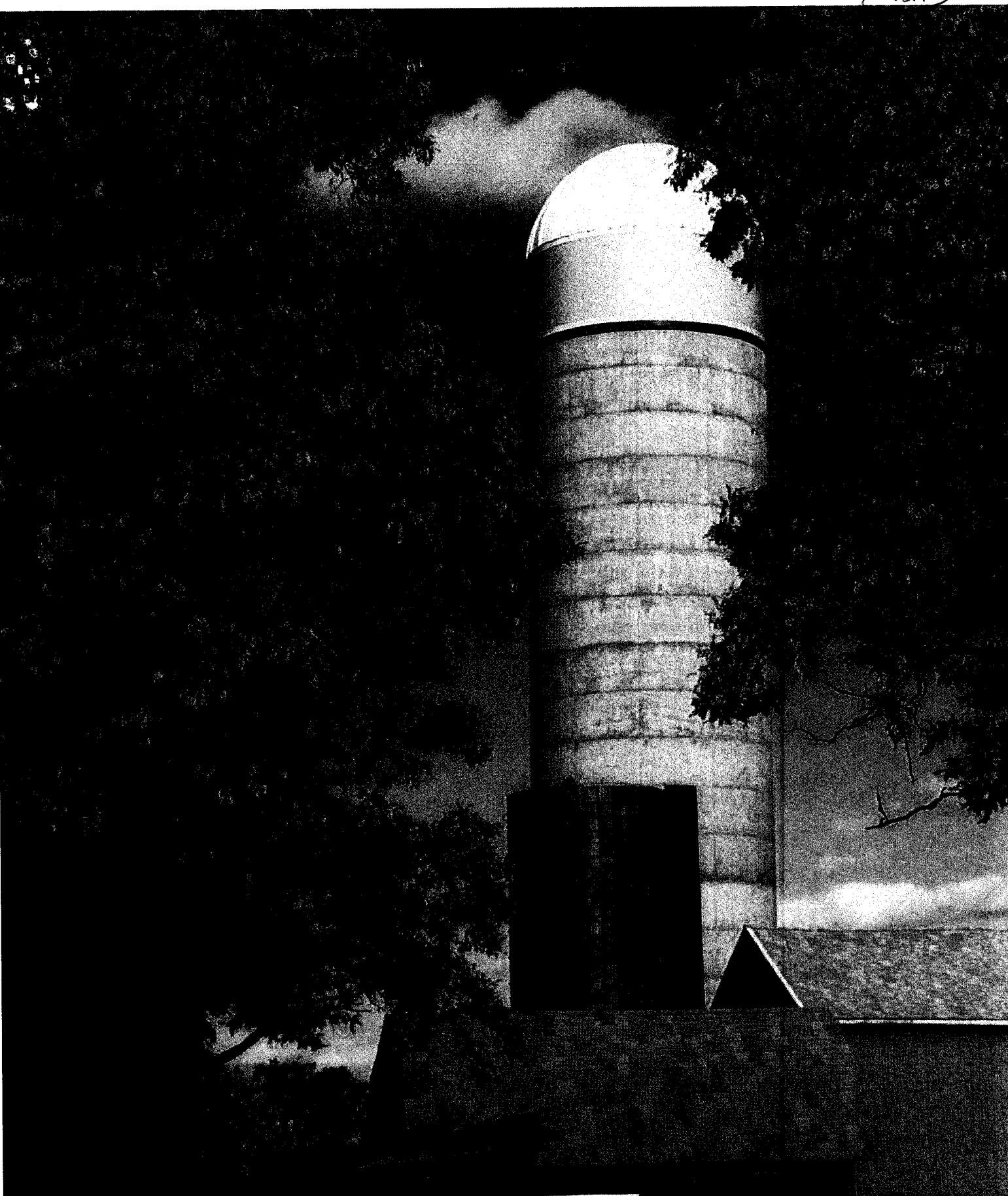




### Google Earth with Site Push Pins



(1d1)



**THE OLD AND THE NEW.**

**WHO WOULD BELIEVE THAT THE NEW, TALLER SILO  
WAS BUILT TO HOUSE ANTENNAS AND EQUIPMENT FOR  
MULTIPLE CARRIERS?**

**[www.sollenbergersilos.com](http://www.sollenbergersilos.com)**

C

# Petition to STOP the placement of a cell tower on Wagman's Ridge Road

We, the undersigned, oppose the placement of a cell tower on Wagman's Ridge Road. We believe this will have a significant negative impact on ourselves, our property, and our community.

My signature serves as my statement of opposition to this project and will serve to speak for me if I can not attend a public planning board meeting on this subject.

- | Name:                   | Address:               | Signature:                |
|-------------------------|------------------------|---------------------------|
| 1: Kim Austin           | 142 Wagman's Ridge     | Saratoga                  |
| 2: Charles B. Zettler   | 138 Hillandale Farm Rd |                           |
| 3: Patricia Casey       | 104 Dan's View Rd      | Saratoga Springs 12866    |
| 4: CW Watt              | 100 Southard Rd        | Saratoga Springs NY 12866 |
| 5: Julia S. Stojan      | 173 Burke Rd           | Saratoga Springs NY 12866 |
| 6: Joseph A. Stojan     | 173 Burke Rd           | Saratoga Springs NY 12866 |
| 7: [Signature]          | 157 Walsh Rd           | SS, NY, 12866             |
| 8: Mary Ellen Cassidy   | 157 Walsh Rd.          | SS, NY, 12866             |
| 9: Victoria A. Corrigan | 207 Walsh Rd.          | SS, NY 12866 292-8969     |
| 10: Ben Sullivan        | 139 Walsh Rd           | SS NY 12866               |
| 11: [Signature]         | 136 Walsh Rd           | Saratoga Spg. NY 12866    |

- 12: Kenya Rogers 406 County Rt 68 Saratoga Springs NY 12866
- 13: Shirley Reuther 137 Burke Rd Saratoga Springs NY
- 14: Richard J. Reuther 137 Burke Rd Saratoga Springs NY
- 15: Jisa Ribus (Ribus) 104 Dams Views Saratoga Springs 12866
- 16: Elizabeth Pizer 109 Southard Ave Saratoga Springs 12866
- 17: Barbara Barber 146 South Rd
- 18: Sharon Barber (Sharon Barber) 178 Walsh Rd
- 19: Thomas E. Barber (THOMAS BARBER) 178 WALSH RD SARATOGA NY
- 20: Rosanne Kaplan 191 Walsh Rd, Saratoga Springs, NY
- 21: Richard Price 209 Burke Rd Saratoga
- 22: Jodee Price 209 Burke Rd Saratoga Springs, NY
- 23: David B. Watts (DAVID B. WATTS) 100 Southard Rd. Saratoga Springs
- 24: Laura Waldinger (Laura Waldinger) 147 Southard Rd. Saratoga Springs
- 25: Briston Green (BRISTON GREEN) 168 Southard Rd Saratoga Springs
- 26: Tiffany Green (TIFFANY GREEN) 168 Southard Rd Saratoga Springs
- 27: Anthony Erceff (ANTHONY ERCEFF) 155 Southard Rd Saratoga Springs 12866
- 28: David Astin (David Astin) 142 Wagman Ridge Rd Saratoga Springs 12866
- 29: Richard Vaccaro (Richard Vaccaro) 209 County Rt. 68, Saratoga Springs 12866

30: Patricia Ludwig (Pludwig) 209 County Route 68 Saratoga Springs NY

31: Joseph Nemer 134 Wagnans Ridge Rd Saratoga, NY 12866

32: PETER NEMER 134 WAGMANS RIDGE RD SARATOGA NY 12866

33: Clansse Kilayko 134 Wagnans Ridge Rd Saratoga Springs NY 12866

34: Todd Fiorentino 134 Wagnans Ridge Rd Saratoga Springs, NY 12866

35: Nicole Dalzell 138 Wagnans Ridge Rd Saratoga Springs NY 12866

36: Eric Dalzell 138 Wagnans Ridge Rd Saratoga Springs NY 12866

37: Jay Gamaq, 226 County Rt. 67, Saratoga Springs NY 12866

38: Alvin F. Gamaq 226 County Rd " " "

39: Ed McConnell 144 Wagnans Ridge Rd

40: Linda McConnell 144 Wagnans Ridge Rd

41: Judith Madison 120 Wagnan's Ridge Road

42: Sarah Sullivan 138 Wagnan's Ridge Rd

43: Clark Dalzell 242 Co Rd 67, SARATOGA SPRINGS

44: General M. Dalzell 242 Co-Rt-67, Saratoga Springs

45: Debra Stark 229 Southard Rd Saratoga Springs





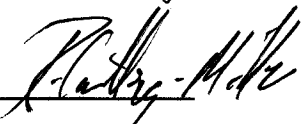
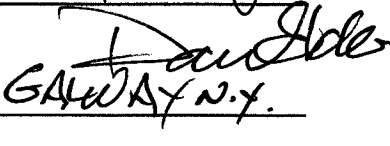
46: Bye Stark 229 Southard Rd Saratoga Springs


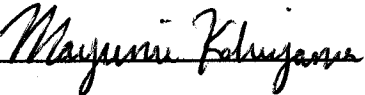
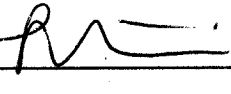




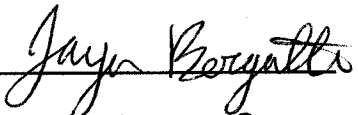
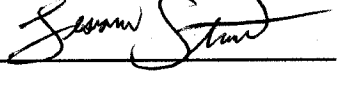


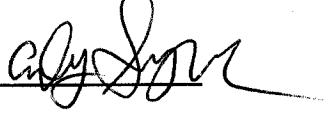
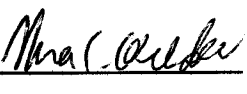
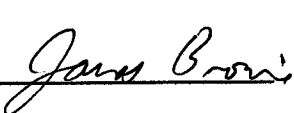
47: Kent D Hulka 201 Southard Rd Saratoga N.Y. 12866 <sup>Edout D Hulka</sup>

48: Diane Hulka 21 Southard Rd Saratoga N.Y.  
<sub>Rawson Garage</sub>

49: Ron Image 177 Wagmans Ridge Rd Saratoga N.Y.

50: Kristina Image 177 Wagmans Ridge Rd, Saratoga N.Y. 12866

- | Name                                      | Address  | Signature  |
|---|--|--|
| 51. <del>Pete Michel</del><br>Erin Michel | 1286<br>251 county rt 67                                   |                             |
| 52. <del>Erin Michel</del>                | 251 County Route 67  | <br>3iramicheline@gmail.com |
| 53. Inger B. Capalbo                      | 122 Hughes Rd<br>Schuylerville NY 12871                    | Inger Capalbo  |
| 54. <del>Roy Lance</del>                  | 363 County Rd 68<br>Saratoga Springs                       |                             |
| 55. Ed Metz                               | 100 Southard Rd  |                             |
| 56. <del>Steph Miller-Miller</del>        | STEPHEN M CUTTING @ PARAGON.COM<br>106 Southard Rd         | Stephen Cutting-Miller   |
| 57. RICHARD R. CUTTING-MILLER             | 106 SOUTHARD RD  |                            |
| 58. Jeff Dolfi                            | 111 Southard Rd  | Rabbit 777555 @ AOL.COM  |
| 59. <del>Don Eiden</del>                  | 6025 GREENS CORNER RD.<br>GALWAY N.Y.<br>406 County Rd. 68 |                           |
| 60. Sylvia E. Rogers                      | 'Saratoga Springs, N.Y. 12866                              | Lmitzen@paragon<br>homebans.com  |
| 61. <del>L. Mitzen</del>                  | 100 Southard Road  | Lisa Mitzen  |
| 62. <del>John Miller</del>                | 7 Jacobie Rd. S.G.F. N.Y.                                  |  |
| 63. <del>Lyn Fehr</del>                   | 378 Gensevoort Rd, Fort Edward                             |  |
| 64. Devin Stark                           | 224 Southard Rd  | Devin Stark  |
| 65. John Ben's                            | 104 COUNTY RT 68 SARATOGA SPRINGS, N.Y.                    |  |

Name	Address	Signature
66. James Vattel	155 Southland Ave.	
67. Mayumi Kohiyama	815 N. Broadway	
68. Laura Mindlin	815 N. Broadway	
69. Juliana O'Brien	815 N. Broadway	
70. Margaret Pfeffer	815 N Broadway	
71. Ceanna Vanyelder	104 Woodlawn Ave.	
72. Margot Reisner	235 Maple Ave	
73. Candace Wygel	815 N Broadway	CANDACE WYGEL
74. Jaya Borgatta	815 N Broadway	
75. Jessica Street	815 N Broadway	
76. Riley Johnson	815 N. Broadway	
77. Grace Fairchild	815 N. Broadway	
78. Emily Singer	815 North Broadway	
79. Nina Orlando	815 North Broadway	
80. James Brownie	815 North Broadway	



Name	Address	Signature
81.	Kate Bruttigman 815 N. Broadway	<i>Kate Bruttigman</i>
82.	Lauren Reilly 815 N Broadway	<i>Lauren Reilly</i>
83.	Evan Nathan 815 N. Broadway	<i>Evan Nathan</i>
84.	Sally Dermagan-Smith 815 N. Broadway	<i>Sally Dermagan-Smith</i>
85.	Joseph Morea 210 County Rd 67 Saratoga Springs	<i>Joseph Morea</i>
86.	Roberta Y. Shaper 246 Cty Rt 67 Saratoga	<i>Roberta Y. Shaper</i>
87.	Bill Shaper 246 Cty Rt 67 Saratoga	<i>Bill Shaper</i>
88.	Barbara Murphy 148 Wayman Ridge Rd	<i>Barbara Murphy</i>
89.	John J. Murphy 148 Wayman Ridge Rd	<i>John J. Murphy</i>
90.	Mark Lynett 16 Lancaster PL, B-Spr 12020	<i>Mark Lynett</i>
91.		
92.		
93.		
94.		
95.		

I would offer more, less, the same, or would NOT buy the house for sale with a cell tower in its view:

Name:	Resides:	More	Less	Same	Would NOT Buy
1 Carol Goody	Quansby, NY		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 Colleen Kelly	Johnstown, NY	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
3 Bernand Pasindelo	Saratoga Springs, NY	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
4 Cindy Evans	Saratoga Springs, NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
5 DAN ELDEEN	GALWAY, N.Y.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 MARILEYN JOHNSON	SALEM NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
7 JAMES FIVE	HARLES NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
8 Jim Munster	SS NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
9 MACC SEESTALER	HARTFORD NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
10 Andrew Heko	Clifton Park NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
11 HARRY BURTON	SARATOGA NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
12 Thomas G. Jr	WILTON, NY 12831	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
13 Donald BROWN	WILTON NY 12831	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
14 Kay [Signature]	Gloversville NY 12078	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
15 Judy [Signature]	Saratoga Springs NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
16 Michelle [Signature]	Porter Corners, NY	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
17 Delores Walker	Saratoga Springs N.Y.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

I would offer more, less, the same, or would NOT buy the house for sale with a cell tower in its view:

Name:	Resides:	More	Less	Same	Would NOT Buy
1 Wendy Gaudin	Manchester Ctr VT	More	Less	Same	Would NOT Buy
2 Joe Goulik	Manchester VT	More	Less	Same	Would NOT Buy
3 <del>Frank</del> <del>John</del>	Concord NH	More	Less	Same	Would NOT Buy
4 The Park	Concord, NH	More	Less	Same	Would NOT Buy
5 Sarah Gold	Albany, NY	More	Less	Same	Would NOT Buy
6 Kelly August	Norwich, CT	More	Less	Same	Would NOT Buy
7 Samuel Ogilvie	Fitchburg MA	More	Less	Same	Would NOT Buy
8 Gwen Kinnear	Monticue Spgs NY	More	Less	Same	Would NOT Buy
9 Neal Ogilvie	Guilford, NY	More	Less	Same	Would NOT Buy
10 <del>Al</del> <del>Russ</del>	Wartigh NY	More	Less	Same	Would NOT Buy
11 Ramshak	Latham, NY	More	Less	Same	Would NOT Buy
12 Brian Gabriel	Guilford NY	More	Less	Same	Would NOT Buy
13 Seth Schroder	Wilton, NY	More	Less	Same	Would NOT Buy
14 Dimitry B...	Saratoga Sp, NY	More	Less	Same	Would NOT Buy
15 Nurcan Atakan Helice	Saratoga Sp, NY	More	Less	Same	Would NOT Buy
16 Stephanie Palmstros	Porter Corners NY	More	Less	Same	Would NOT Buy


I would offer more, less, the same, or would NOT buy the house for sale with a cell tower in its view:

Name:	Resides:	More	Less	Same	Would NOT Buy
1 Bruce Burrell	Edinburg, TX				
2 Joan Davis	Edinburg	More	Less	Same	Would NOT Buy
3 Robert Berens	Saratoga Springs	More	Less	Same	Would NOT Buy
4 Tim Durbin	Delton, GA	More	Less	Same	Would NOT Buy
5 Thomas Spiker	Saratoga	More	Less	Same	Would NOT Buy
6 Shig Sun	Saratoga	More	Less	Same	Would NOT Buy
7 - Michael D. Kulla	Saratoga	More	Less	Same	Would NOT Buy
8 Chikah M. Mullen	Saratoga Springs	More	Less	Same	Would NOT Buy
9 Leewick Meier	Saratoga Springs	More	Less	Same	Would NOT Buy
10 Zach Schwartz	B Spa	More	Less	Same	Would NOT Buy
11 Diana Ryan	Jupiter, FL	More	Less	Same	Would NOT Buy
12 Mrs Taylor	Saratoga Springs	More	Less	Same	Would NOT Buy
13 Mike Andrews	Mechanicville	More	Less	Same	Would NOT Buy
14 Andy Chillrud	Saratoga Springs	More	Less	Same	Would NOT Buy
15 Jen Chillrud	Saratoga Springs	More	Less	Same	Would NOT Buy
John Hewitt	Cansewett	More	Less	Same	Would NOT Buy

Ken Auster  
File Copy

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 <b>COSTICH ENGINEERING</b> 217 LAKE AVENUE ROCHESTER, NY 14608 (585) 458-3020	<b>CIVIL ENGINEERING</b> SURVEYING LAND PLANNING	<b>PROJECT NAME</b> <b>BURGOYNE II</b>	<b>PHOTO - 03 - 55mm</b> <b>PHOTO COORDINATES</b> N 43d-04"-27.2" W 073d-40'-50.0"	<b>PHOTO DESCRIPTION</b> VIEW TOWARDS PROPOSED SITE BALLOONS @ 60', 80', & 100' <b>VIEW S.E. FROM #144 WAGMANS RIDGE RD.</b> 450ft. FROM SITE	<b>DATE OF PHOTO</b> 4/2/2012
	<b>FILE COPY</b>		<b>C.E. JOB#</b> 4511.01	<b>VZW JOB#</b> 2008313316	

11/28/12



<b>CIVIL ENGINEERING</b> SURVEYING LAND PLANNING 217 LAKE AVENUE ROCHESTER, NY 14608 (585) 458-3020	<b>PROJECT NAME</b> <b>BURGOYNE II</b> <b>PHOTO - 03 - 55mm</b> PHOTO COORDINATES N 43d-04"-27.2" W 073d-40'-50.0"	<b>PHOTO DESCRIPTION</b> <b>SIMULATION OF PROPOSED</b> <b>80' MONOPOLE TOWER</b> PHOTO LOCATION VIEW S.E. FROM #144 WAGMANS RIDGE RD. 450ft. FROM SITE	<b>DATE OF PHOTO</b> 4/2/2012 <b>C.E. JOB#</b> 4511.01 <b>VZW JOB#</b> 2008313316
	<b>COSTICH ENGINEERING</b>		

# FILE COPY

George Rogers  
406 County Route 68  
Saratoga Springs, NY 12866

November 23, 2012

To The Town of Saratoga Planning Board:

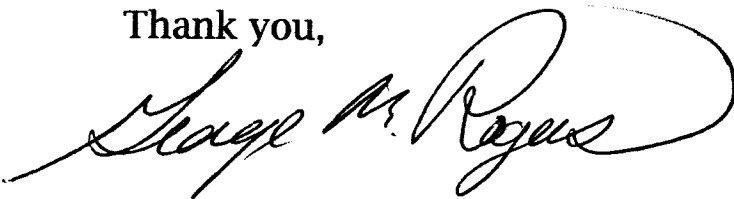
This letter is to express my opposition to the proposed cellular tower that is being proposed on the Peck property.

A cell tower in this location is not in keeping with the natural beauty of our community, and would be detrimental to how much my family and I enjoy living here. The Southard Rd/Walsh Rd viewshed is a natural resource and would be ruined if you were to approve this application. The value of many homes in this area is supported by their beautiful, natural view. Reducing the quality of the view will reduce their home values.

Also, it is my understanding that Verizon agreed to us the Hayes Road Cell Tower location, so I question why they are not building there? That would improve cell service along Route 29 and Burgoyne Rd.

In closing, I again want to state, for the record, that I am opposed to this cell tower, and I urge the Board to deny this application.

Thank you,



George Rogers

# FILE COPY

November 24, 2012

Kyle and Debra Stark  
229 Southard Rd  
Saratoga Springs, NY 12866

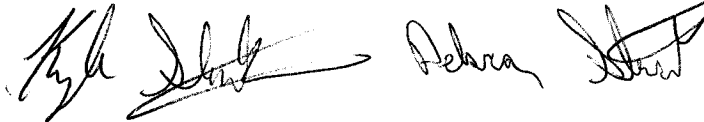
Dear Town of Saratoga Planning Board Members:

We urge you to deny the application for Verizon to locate a cell tower on the Peck Farm on Wagman's Ridge Road. Our property will be significantly and negatively impacted. All locations considered would have a huge negative impact on the enjoyment of our property. As a result, we strongly feel that this will also reduce the value of our property.

The planning board should consult with Verizon to find more suitable locations that are not as close to homes to minimize impact on property values and negative health effects.

We thank you for addressing our concerns about the proposed cell tower. We urge you to vote No on this application.

Cordially,

Handwritten signatures of Kyle Stark and Debra Stark. Kyle's signature is on the left, and Debra's is on the right. Both are written in black ink.

Kyle and Debra Stark





July 26, 2011 01:00 PM Eastern Time

## FCC Must Update Cell Tower Safety Regulations, Say Health and Environmental Advocates

**Health & Environmental Advocates Ask Members of Congress to Request the U.S. Federal Communications Commission (FCC) to Update Its Obsolete Cell Tower Safety Regulations**

WASHINGTON--(BUSINESS WIRE)--Citizen-activists are being urged by Citizens for Health, the American Academy of Environmental Medicine and the EMF advocacy group, ElectromagneticHealth.org, to contact their representatives in Congress to request the Federal Communications Commission (FCC) to update its obsolete cell tower safety regulations.

The FCC's cell tower safety regulations need to be revised immediately because:

1. WHO'S International Agency for Research on Cancer has classified RF Radiation as a "Possible Carcinogen"
2. Current Regulations Have Long Overlooked the Harm from RF Radiation's "Non-Thermal" Biological Effects
3. Biological and Health Effects from RF Radiation Are Widely Occurring In Both Adults and Children
4. Evidence for RF Damage to the Ecosystem is Mounting

To protect the public from risks from radiofrequency radiation (RF) the FCC must establish new safety guidelines for cell towers, Wi-Fi and cell phones that reflect the current science showing harm to human health, wildlife and nature.

**David Carpenter, MD**, Director of the Institute for Health and Environment, and former Dean, School of Public Health, State University of New York, Albany, states,

*"Beyond the strong evidence for an association between wireless radiation with cancer, there is increasing evidence for effects on the brain and behavior—effects on memory ability, on IQ, on learning ability. This is an urgent public health issue and citizens must insist government respond to the present evidence in an expedited manner to protect the public health."*

**Whitney North Seymour, Jr., Esq.**, former New York State Senator, former U.S. Attorney and a co-founder of the Natural Resources Defense Council, says,

*"In 1996, Congress directed the FCC to adopt safety regulations for cell transmission antennas. These FCC standards were based on earlier studies created almost twenty years ago using even older data. They are obsolete. The substantive evidence of harm from wireless radiation is overwhelming. It is imperative Members of Congress request the FCC update the obsolete cell tower safety guidelines to reflect the current science."*

**Robin Bernhoft, MD**, President of the American Academy of Environmental Medicine, says,

---

**"People who live near cell towers and antennas are in jeopardy. The science is increasingly clear that there are biological effects from both acute and chronic exposures to non-thermal microwave radiation. It is essential we have a government that puts the public's health above commercial interests."**

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***"People who live near cell towers and antennas are in jeopardy. The science is increasingly clear that there are biological effects from both acute and chronic exposures to non-thermal microwave radiation. It is essential we have a government that puts the public's health above commercial interests."***

The appeal to citizens to become engaged with this issue references the **Seletun Scientific Statement** (<http://electromagnetichealth.org/electromagnetic-health-blog/the-seletun-statement/>) issued by international scientists in February 2011, which stated that given the existing potential for global health risks from ongoing radiation from electromagnetic fields, governments should educate and warn the public, implement measures balanced in favor of the Precautionary Principle, monitor compliance with directives promoting alternatives to wireless, and fund research and policy development geared toward prevention of exposures and development of new public safety measures, as well as new, safer communications technologies. (Watch Video)

**Camilla Rees, MBA** of ElectromagneticHealth.org says,

***"We encourage all citizens to write Congress about the widespread, unchecked, non-stop proliferation of radiofrequency radiation in our midst and the inaction of the FCC to revise its safety regulations to protect the public's health. Citizens must become involved for the sake of our health, genetic code and the environment."***

**READ THE FULL ANNOUNCEMENT HERE**

<http://electromagnetichealth.org/electromagnetic-health-blog/take-action/>  
**Instructs Citizens How to Contact Congress on this Matter**

Photos/Multimedia Gallery Available: <http://www.businesswire.com/cgi-bin/mmg.cgi?eid=6804477&lang=en>

## Contacts

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or

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Camilla Rees, 415-992-5093 or 917-359-8450

[crg@comcast.net](mailto:crg@comcast.net) or [Emily@electromagnetichealth.org](mailto:Emily@electromagnetichealth.org)

or

**David O. Carpenter, MD**, 518-525-2660

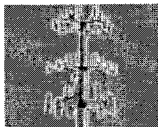
Director, Institute for Health & the Environment

University at Albany, SUNY

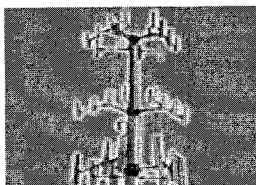
[Carpent@uamail.albany.edu](mailto:Carpent@uamail.albany.edu)

**Note to Media:** For access to other scientists, physicians, attorneys or other experts on this issue, please contact

[Emily@ElectromagneticHealth.org](mailto:Emily@ElectromagneticHealth.org).



## Smart Multimedia Gallery





Whitney North Seymour, Jr.,  
Esq.



11/28/12 file copy

"It is not just a matter of being within a close distance of the tower, it's being able to view the tower," he added.

Heffernan said he was able to study properties around the county that are similar to those in the Green Knoll area of Bridgewater, but with lattice towers, water tanks and other similar towers nearby.

This was based, Heffernan said, on the section of Bridgewater near the firehouse, with homes selling for between \$325,000 and \$725,000. The average sale price, he said, is \$417,989, with 10 percent of the existing supply being marketed in any one period.

The one structure most similar to that which is being proposed, Heffernan said, is a lattice structure in Franklin. Heffernan discussed the different aspects of two properties near the structure to discuss their property values, and compared the value of the home in view of the tower to the one that is not.

The first, on Valley Wood Drive in Franklin, is a single family residence that sold in 2010 for \$700,000, or \$174.91 per square foot. The house, Heffernan said, sits on 0.517 acres, and is 4,002 square feet, with four bedrooms, three full baths, one half bath, one basement, a three-car garage, two fireplaces, a paver block driveway and more.

The house, Heffernan said, has a winter view of the monopole, which stands about 120 feet high, from the rear yard.

From there, Heffernan said, he also looked at a comparable property on Renoir Way, which has no view of that same cell tower, but is in the Woodlands community in Franklin with the Valley Wood Drive home.

The Renoir Way home sold in 2010 for \$685,000, or \$182.08 per square foot.

Heffernan accounted for several price differentials, including the fact that the Renoir Way home sold first, it is in an inferior location, it has vinyl siding instead of brick like the Valley Wood Drive home and other conditional information about the house.

Based on those adjustments, to make the Renoir Way home comparable in structure to the Valley Wood Drive home, Heffernan said, the former would actually sell for \$774,800.

"The difference in price is \$74,800, which reflects a difference of 10.7 percent," he said. "I can only attribute that to the fact that the Valley Wood Drive home has a clear view of the cellular tower."

All of this, Heffernan said, including many other examples, are based on a negative externality, which causes the house closest to the structure to be lower in value than the one farther away.

In addition, Heffernan said, his study determined that the structure being proposed for the firehouse is unlike anything in the neighborhood.

"I understand it is a flagpole at 130 feet, which is not typical of flagpoles," he said. "It is a 130-foot structure in a neighborhood that only allows 30-foot structures. It will obviously be notable from a large range in the area."

Heffernan said that, in his experience, people do not choose to live near similar structures.

"Or if they do choose to live there, they do so only when there is a reasonable price difference that makes it acceptable to live there," he said. "Properties that are approximately close to the tower will suffer substantial degradation to their value based on the nature of the unusual feature in the residential neighborhood."

Heffernan, also a licensed real estate agent, said he would also feel obligated to mention to any potential buyer that there is a 130-foot cell tower proposed for the area.

In answer to a question from board member Donald Sweeney, Heffernan said he has never seen a case where a tower of some sort has not had some affect on nearby residential real estate, whether through lack of appreciation of value or sale price.

"These externalities clearly have negative impacts," Sweeney said.

"Location location location seems to be important in real estate," Heffernan said. "People look for the best location they can afford, and they have to balance that with size and style of the house. It starts with the neighborhood."

Board member Evans Humenick said the one other factor he is interested in is whether, in properties studied, the tower or the houses came first.

Heffernan said that, in most cases, the tower actually came first.

"I would think the tower would have an affect on the original buyer," Humenick said. "What is the relevance of the original sale?"

Heffernan said there is no real way to determine that.

"When you go back and find data, it is hard to establish what was the base of that home," he said. "The home may not be what it was when it was first built."

Humenick maintained that this was something to consider.

"People in the community deserve the best we can give them, and it is refreshing to find out that people did buy homes with towers already on the property," he said. "Our most important thing is to balance everything and protect the community."

Just before the meeting ended, Sweeney also questioned about a roaming agreement he had heard discussed after T-Mobile and AT&T discontinued its recent plans to merge the companies. He said he had heard that people with a lapse in service from one provider in an area could be picked up by another.

But Meese said he has been instructed to move forward with the application and that that possible agreement should have no bearing on it.

"I would say that is irrelevant," he said, citing the telecommunications act, which allows cellular communications companies to move forward with improving their coverage. "If the board took the position that roaming is there, they could never give you a place to build. T-Mobile wants to build a site there, they need a site there, and we believe we have the rights of the telecommunications act to build out regardless of roaming."

Although Heffernan had finished his own testimony by the end of the meeting, the hearing was continued for Meese to continue his questioning and bring his own expert in, in addition to comments from the public concerning property values.

The hearing will be continued to March 27, with another meeting already scheduled for April 3.

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2 Comments

**Mike Umbris**

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7:31 am on Wednesday, February 22, 2012

Very sad that the firefighters of Green Knoll continue to put the residents thru this fiasco. Why is Pushpavati Amin always pushing for cell towers in Bridgewater? Her voting record is abysmal and listening to her questions last night demonstrates her clear bias FOR cell towers no matter the damage to the surrounding neighborhood. I am told her voting record is 4-0 for cell towers in Bridgewater. I hope someone investigates why she is so repeatedly voting for these eye sores in our township.

Reply

**Joseph Kirk**

Flag as inappropriate

11:03 am on Friday, February 24, 2012

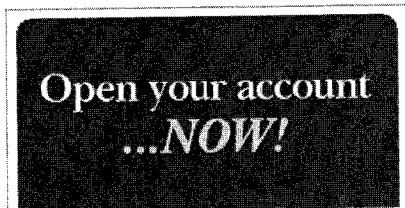
My wife and I wanted to express our gratitude to the many Bridgewater residents who have kindly and generously donated to support our effort to bring Mr. Heffernan to testify regarding the financial impact of building a cell tower at the GKVFD. I would also like to thank all the residents that came to the February 27 meeting to show their support. I hope to see all of you at the March 27 meeting as well.

Reply

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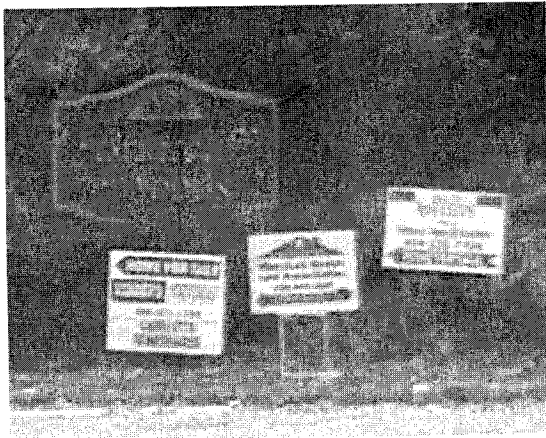
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2nd August **Yes, a Cell Tower Will Lower Property Values. And, Yes, Lower Property Values Result in Less Money for the Operating Fund of Our Public Schools**



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[<http://1.bp.blogspot.com/>-

846iAK2xfVw/TsQDbaCnRwl/AAAAAAAAANc/SXuVm8v\_1\_M/s1600/briarcliff.woods.jpg]

We have been talking about the many, many reasons why there might be some upset people when they wake up in DeKalb County, after an overwhelming majority of voters sent a clear message that we do not want T-mobile towers on our school grounds... only to see a giant cell tower going up right outside their window.

One good reason they might be concerned is that their property values, already taking a beating, might get even worse. And, they would probably be justified in thinking that way.

**Who would want to live right next to one of these things, seriously?**

The DeKalb County School Board Chairman Dr. Eugene Walker said he would take one in his front yard, but that was *before* a cell tower in Lilburn caught fire and fell over. He probably had second thoughts after he saw that happen.

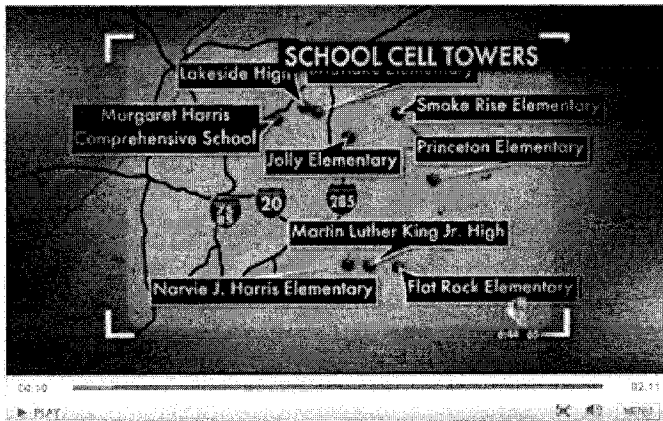
And imagine what it's like for people who purchase or build their dream home or neighborhood, only to later have an unwanted cell tower installed just outside their window?

This negative effect can also contribute to **urban blight**, a deterioration of neighborhoods and school districts that can happen when residents move away or pull their children out of school because they do not want to spend so much time near urban health hazards, like cell towers.

People don't want to live next to one not just because of health concerns, but also due to aesthetics and public safety reasons. Cell towers become eyesores, obstructing or tarnishing cherished views, and also can attract crime, are potential noise nuisances, and fire and fall hazards. There is also concern for injuries to people and property on the ground below a cell tower in winter as ice and debris often accumulate up top, then fall to the ground as the weather gets warmer throughout the day.

DeKalb County News

News, videos, photos and more from neighborhoods in DeKalb County.



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[[http://4.bp.blogspot.com/-](http://4.bp.blogspot.com/-hoobqrfqgmaA/T_7Ic3RqmI/AAAAAAAAA44/VMck6h4cFlo/s1600/schools.with.towers.11.29.11.jpg)

[hoobqrfqgmaA/T\\_7Ic3RqmI/AAAAAAAAA44/VMck6h4cFlo/s1600/schools.with.towers.11.29.11.jpg](http://4.bp.blogspot.com/-hoobqrfqgmaA/T_7Ic3RqmI/AAAAAAAAA44/VMck6h4cFlo/s1600/schools.with.towers.11.29.11.jpg)]

These points underscore why wireless facilities are commercial / industrial facilities that don't belong in residential areas, parks and schools. In addition, your county officials have the power to regulate the placement and appearance of cell towers, as long as such discrimination is not unreasonable, and especially if you show them that you already have coverage in your area.

A recent map of the U.S. was released by the FCC to show the areas deficient in 3G wireless coverage and guess what... DeKalb County, GA, was not on it! So even the FCC has your back on this one, DeKalb... we are NOT considered to be deficient in our current coverage. These towers are simply not needed. They are just an attempt to gain closer proximity to our homes and to push their 4G coverage products on us without consumer demand for them. This mindset is the opposite of safe cell siting procedures. The FCC clearly defines the "need" for a tower as something that must come before the approval to build. That's why T-mobile wants to go around the standard process and use our schools as their accomplice. They don't care about the fact that children will lose playground space or that their health might be at risk. They care about profit and nothing else.

**Putting cell towers near residential properties is just bad business.**

- \* For residential owners, it means decreased property values.
- \* For local businesses (realtors and brokers) representing and listing these properties, it will create decreased income.
- \* For county governments, it results in decreased revenue (property taxes).
- \* For state and local school boards, it results in abandonment of schools and distrust of elected officials.

**Read this New York Times news story, "A Pushback Against Cell Towers," published in the paper's Real Estate section, on August 27, 2010:**

[http://www.nytimes.com/2010/08/29/realestate/29Lizo.html?\\_r=1&ref=realestate](http://www.nytimes.com/2010/08/29/realestate/29Lizo.html?_r=1&ref=realestate)  
[[http://www.nytimes.com/2010/08/29/realestate/29Lizo.html?\\_r=1&ref=realestate](http://www.nytimes.com/2010/08/29/realestate/29Lizo.html?_r=1&ref=realestate)].

**A number of organizations and studies have documented the detrimental effects of cell towers on property values.**



File Copy (142)

1. **The Appraisal Institute**, the largest global professional membership organization for appraisers with 91 chapters throughout the world, spotlighted the issue of cell towers and the fair market value of a home and educated its members that a cell tower should, in fact, cause a decrease in home value.

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[http://2.bp.blogspot.com/-

MIMuzHsY/T9CxYgukn0I/AAAAAAAAA2M/wkDMBgDzxxE/s1600/knollwood.high.cell.tower.photo.mcps.jpg]

The definitive work on this subject was done by Dr. Sandy Bond, who concluded that "media attention to the potential health hazards of [cellular phone towers and antennas] has spread concerns among the public, resulting in increased resistance" to sites near those towers.

Percentage decreases mentioned in the study range from 2 to 20% with the percentage moving toward the higher range the closer the property.

Towers Negatively Affect Real Estate Values

These are a few of her studies:

- a. "The effect of distance to cell phone towers on house prices" by Sandy Bond, Appraisal Journal, Fall 2007, see attached. Source, Appraisal Journal, found on the Entrepreneur website, [http://www.prrs.net/papers/Bond\\_Squires\\_Using\\_GIS\\_to\\_Measure.pdf](http://www.prrs.net/papers/Bond_Squires_Using_GIS_to_Measure.pdf) [http://www.prrs.net/papers/Bond\_Squires\_Using\_GIS\_to\_Measure.pdf]
- Sandy Bond, Ph.D., Ko-Kang Wang, "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods," The Appraisal Journal, Summer 2005; see attached. Source: Goliath business content website, [http://goliath.ecnext.com/coms2/gi\\_0199-5011857/The-impact-of-cell-phone.html](http://goliath.ecnext.com/coms2/gi_0199-5011857/The-impact-of-cell-phone.html) [http://goliath.ecnext.com/coms2/gi\_0199-5011857/The-impact-of-cell-phone.html]
- Sandy Bond also co-authored, "Cellular Phone Towers: Perceived impact on residents and property values" University of Auckland, paper presented at the Ninth Pacific-Rim Real Estate Society Conference, Brisbane, Australia, January 19-22, 2003; see attached. Source: Pacific Rim Real Estate Society website, [http://www.prrs.net/Papers/Bond\\_The\\_Impact\\_Of\\_Cellular\\_Phone\\_Base\\_Station\\_Towers\\_On\\_Property\\_Values.pdf](http://www.prrs.net/Papers/Bond_The_Impact_Of_Cellular_Phone_Base_Station_Towers_On_Property_Values.pdf) [http://www.prrs.net/Papers/Bond\_The\_Impact\_Of\_Cellular\_Phone\_Base\_Station\_Towers\_On\_Property\_Values.pdf]

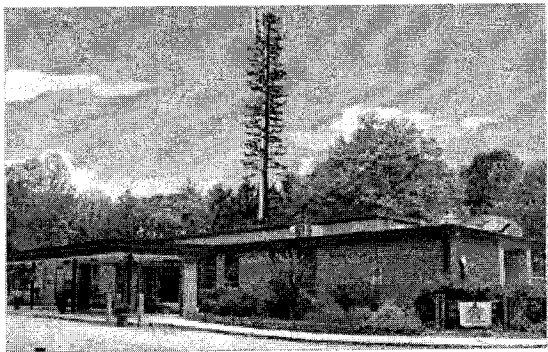
2. Industry Canada (Canadian government department promoting Canadian economy), "Report On the National Antenna Tower Policy Review, Section D — The Six Policy Questions, Question 6. What evidence exists that property values are impacted by the placement of antenna towers?"; see attached. Source: Industry Canada <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08353.html> [http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08353.html] website,

3. New Zealand Ministry for the Environment, "Appendix 5: The Impact of Cellphone Towers on Property Values"; see attached. Source: New Zealand Ministry for the Environment website, <http://www.mfe.govt.nz/publications/rma/nz->

Study In Assess How The Value of 12 Homes falling Consider of Cell Tower

telecommunications-section32-aug08/html/page12.html  
section32-aug08/html/page12.html]

[http://www.mfe.govt.nz/publications/rma/nes-telecommunications-



[http://3.bp.blogspot.com/-

\_h3LyT9cSQ0/T4hTcA0A6zI/AAAAAAAAAyg/3wv9rTDmHJA/s1600/briarlake.tower.placement.jpg]

**On a local level, taxpayers have informed local school board, county government and administrative offices and state legislative officials.**

1. **Santa Cruz, CA:** Also attached is a story about how a preschool closed up because of a cell tower installed on its grounds; "Santa Cruz Preschool Closes Citing Cell Tower Radiation," Santa Cruz Sentinel, May 17, 2006; Source, EMFacts website: <http://www.emfacts.com/weblog/?p=466> [<http://www.emfacts.com/weblog/?p=466>].

2. **Merrick, NY:** For a graphic illustration of what we don't want happening here in DeKalb County, just look at Merrick, NY, where NextG wireless facilities are being installed, resulting in declining home real estate values. Look at this Best Buyers Brokers Realty website ad from this area, "Residents of Merrick, Seaford and Wantagh Complain Over Perceived Declining Property Values: <http://www.bestbuyerbroker.com/blog/?p=86> [<http://www.bestbuyerbroker.com/blog/?p=86>].

3. **Burbank, CA:** As for Burbank, at a City Council public hearing on December 8, 2009, hillside resident and a California licensed real estate professional Alex Safarian informed city officials that local real estate professionals he spoke with agree about the adverse effects the proposed cell tower would have on property values:

*"I've done research on the subject and as well as spoken to many real estate professionals in the area, and they all agree that there's no doubt that cell towers negatively affect real estate values. Steve Hovakimian, a resident near Brace park, and a California real estate broker, and the publisher of "Home by Design" monthly real estate magazine, stated that he has seen properties near cell towers lose up to 10% of their value due to proximity of the cell tower... So even if they try to disguise them as tacky fake metal pine trees, as a real estate professional you're required by the California Association of Realtors: that sellers and licensees must disclose material facts that affect the value or desirability of a property including conditions that are known outside and surrounding areas."*

(See City of Burbank Website, Video, Alex Safarian comments @ 6:24:28, [http://burbank.granicus.com/MediaPlayer.php?view\\_id=6&clip\\_id=848](http://burbank.granicus.com/MediaPlayer.php?view_id=6&clip_id=848) [[http://burbank.granicus.com/MediaPlayer.php?view\\_id=6&clip\\_id=848](http://burbank.granicus.com/MediaPlayer.php?view_id=6&clip_id=848)])

Indeed, 27 Burbank real estate professionals in December 2009, signed a petition/statement offering their professional opinion that the proposed T-Mobile cell tower at Brace Canyon Park would negatively impact the surrounding homes, stating:



[http://3.bp.blogspot.com/-NoBpNXsxZeU/TsQDR-

L4OII/AAAAAAAAANU/UjgMqRc1TcU/s1600/ominouscelltower.jpg]

*"It is our professional opinion that cell towers decrease the value of homes in the area tremendously. Peer reviewed research also concurs that cell sites do indeed cause a decrease in home value. We encourage you to respect the wishes of the residents and deny the proposed T-Mobile lease at this location. We also request that you strengthen your zoning ordinance regarding wireless facilities like the neighboring city of Glendale has done, to create preferred and non preferred zones that will protect the welfare of our residents and their properties as well as Burbank's real estate business professionals and the City of Burbank. Higher property values mean more tax revenue for the city, which helps improve our city."*

(Submitted to City Council, Planning Board, City Manager, City Clerk and other city officials via e-mail on June 18, 2010. To see a copy of this, scroll down to bottom of page and click "Subpages" or go here: <http://sites.google.com/site/nocelltowerinourneighborhood/home/decreased-real-estate-value/burbank-real-estate-professionals-statement> [<http://sites.google.com/site/nocelltowerinourneighborhood/home/decreased-real-estate-value/burbank-real-estate-professionals-statement>]

4. And, of course, you can look at our website, [www.GETtheCELLoutATL.org](http://www.GETtheCELLoutATL.org) [<http://www.getthecelloutatl.org/>] for the long history we have had of fighting for the rights of our schools, children and neighborhoods here in DeKalb County, GA, a suburb area near Atlanta.

**Here is a list of additional articles on how cell towers negatively affect the property values of homes near them:**

- The Observer (U.K.), "Phone masts blight house sales: Health fears are alarming buyers as masts spread across Britain to meet rising demand for mobiles," Sunday May 25, 2003 or go here: <http://www.guardian.co.uk/money/2003/may/25/houseprices.uknews> [<http://www.guardian.co.uk/money/2003/may/25/houseprices.uknews>]
- "Cell Towers Are Sprouting in Unlikely Places," The New York Times, January 9, 2000 (fears that property values could drop between 5 and 40 percent because of neighboring cell towers)
- "Quarrel over Phone Tower Now Court's Call," Chicago Tribune, January 18, 2000 (fear of lowered property values due to cell tower)



[<http://3.bp.blogspot.com/>-

[ZE1MQlpX5ZU/TsQDjoJggel/AAAAAAAAANK/wlwtun\\_68tw/s1600/nobriarlaketowersignacrossthestreet.jpg](http://3.bp.blogspot.com/-ZE1MQlpX5ZU/TsQDjoJggel/AAAAAAAAANK/wlwtun_68tw/s1600/nobriarlaketowersignacrossthestreet.jpg)]

•"The Future is Here, and It's Ugly: a Spreading of Techno-blight of Wires, Cables and Towers Sparks a Revolt," New York Times, September 7, 2000

•"Tower Opponents Ring Up a Victory," by Phil Brozynski, in the Barrington [Illinois] Courier-Review, February 15, 1999, 5, reporting how the Cuba Township assessor reduced the value of twelve homes following the construction of a cell tower in Lake County, IL. See attached story: <http://spot.colorado.edu/~maziara/appeal&attachments/Newton-43-LoweredPropertyValuation/> [<http://spot.colorado.edu/~maziara/appeal&attachments/Newton-43-LoweredPropertyValuation/>]

•In another case, a Houston jury awarded 1.2 million to a couple because a 100-foot-tall cell tower was determined to have lessened the value of their property and caused them mental anguish: Nissimov, R., "GTE Wireless Loses Lawsuit over Cell-Phone Tower," Houston Chronicle, February 23, 1999, Section A, page 11. (Property values depreciate by about 10 percent because of the tower.)

**Read about other "Tools" that may help you and your fellow residents oppose a cell tower in your neighborhood:**

- Reasonable Discrimination Allowed
- We Already Have Good Coverage: Significant Gap and 911
- Alternative Locations and Supplemental Application forms
- Aesthetics and Safety
- Noise and Nuisance and notes about Clearwire
- Health Effects: Science & Research

Also print out this helpful article on court decisions from the communications law firm of Miller & Van Eaton (with offices in D.C. and San Francisco) that you can pull and read to realize what rights you may or may not have in opposing a wireless facility in your neighborhood: [http://www.millervaneaton.com/content.agent?page\\_name=HT%3A++IMLA+Article+Tower+Siting+Nov+2008](http://www.millervaneaton.com/content.agent?page_name=HT%3A++IMLA+Article+Tower+Siting+Nov+2008) [[http://www.millervaneaton.com/content.agent?page\\_name=HT%3A++IMLA+Article+Tower+Siting+Nov+2008](http://www.millervaneaton.com/content.agent?page_name=HT%3A++IMLA+Article+Tower+Siting+Nov+2008)] (click the link once you get to this page).



[http://3.bp.blogspot.com/-11saJ8MXVbU/TsPuBVlosjl/AAAAAAAAANA/0GyNctpqeUY/s1600/briarlake.trees.november.15.2011.outdoor.classroom.site.jpg]

**TALK TO LOCAL REALTORS**

When opposing the zoning or construction of a cell tower, it's important to talk to your local real estate professionals as early in the process as possible. Inform and educate them about the negative effects on local property values that cell towers have.

After all, they are required by law to disclose any known environmental hazards in the area of a home they are selling, either current or future, so they are well aware that the disclosures they make directly affect the price a homebuyer is willing to pay.

Ask for letters of support to be sent from the Realtor directly to the county Planning and Development officials and cc'ed to you and your local media so that you are educating and informing as many people as possible on this issue as early in the process as possible.

It's very important to have your local real estate professionals back up what the experts report in their studies to make your arguments relative to your specific community.

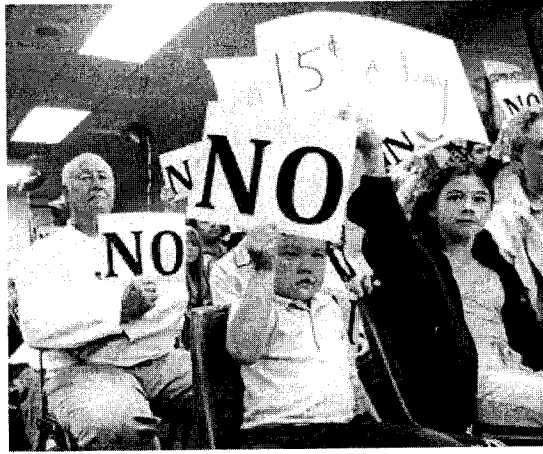
And, don't forget the importance of your neighborhood school on influencing your property value. Here's one local Realtor's take on it: [http://tucker.patch.com/blog\\_posts/whats-a-huge-factor-in-calculating-your-property-value](http://tucker.patch.com/blog_posts/whats-a-huge-factor-in-calculating-your-property-value) [http://tucker.patch.com/blog\_posts/whats-a-huge-factor-in-calculating-your-property-value]

**HOMEOWNERS' ASSOCIATIONS**

You can also educate your local homeowners' associations and neighborhood councils about the negative property value effects and have them submit letters.

They may also become great advocates for your cause, helping to spread word of mouth about the pitfalls of cell towers among the community and showing up in force whenever your group is called upon to present its side of the issue at a zoning hearing or in front of a committee that must decide about an application for special use of the land in an ordinarily residential-only zone.

**DON'T GIVE UP THE FIGHT**



[<http://1.bp.blogspot.com/-4oM3b-RMolE/Tujt2aBETFI/AAAAAAAAAQo/QlqeOO0ML30/s1600/no.eastvalleytower.jpg>]

This area of the law is still very new and it is expected that many of the cell tower battles will be over uncharted territory. You are expected to have to go to the judiciary system in some cases as there is no precedent to lead in either direction. So, do what you can to stand up for your rights! If you are fighting within the FCC "shot clock" window, you will likely have attorneys' fees refunded as well. You are not just fighting for yourself, but for all those who will travel the same path after you.

Don't give up. Be respectful, but take nothing at face value. Use the media to tell your story if you can get them on your side. But, focus on your issue, your case and get your neighbors to unite as it will affect everyone in some way. The more you can help educate others, the better off we will all be in the long run.

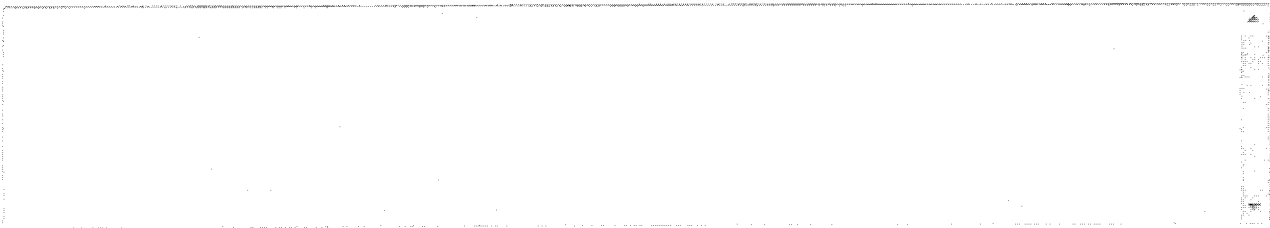
If you have any questions, feel free to email us at [sayno2celltowers@yahoo.com](mailto:sayno2celltowers@yahoo.com) [mailto:sayno2celltowers@yahoo.com]. We are not attorneys nor do we offer advice that should substitute for the advice from a qualified attorney in this area, but we have been working on this subject for more than a year and can offer practical input about our own experience that we are willing to share. Sometimes it helps just to know you are not alone and you have people in your corner.

And, here in DeKalb County, we started with no one in our corner and, as of July 31, 2012, 75,000 voters, a whopping 62%, voted "NO" to cell towers at our schools! Way to go DeKalb County!

Posted 2nd August by GETthe CELLoutATL

Labels: HAZMAT, DeKalb County, Georgia, human rights, Cell Tower, corruption, Property Value, Health Risk, Property Taxes, cell phones, vote

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# A Pushback Against Cell Towers

By MARCELLE S. FISCHLER  
Published: August 27, 2010

Wantagh

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Phi Marino for The New York Times

Jodi Turk Goldberg and her husband, Michael, with their son Charlie, near a school in Merrick, are among those concerned about cell antennas (center rear).

TINA CANARIS, an associate broker and a co-owner of RE/MAX Hearthstone in Merrick, has a \$999,000 listing for a high ranch on the water in South Merrick, one of a handful of homes on the block on the market. But her listing has what some consider a disadvantage: a cell antenna poking from the top of a telephone pole at the front of the 65-by-100-foot lot.

"Even houses where there are transformers in front" make "people shy away," Ms. Canaris said. "If they have the opportunity to buy another home, they do."

She said cell antennas and towers near homes affected property values, adding, "You can see a buyer's dismay over

the sight of a cell tower near a home just by their expression, even if they don't say anything."

By blocking, or seeking to block, cell towers and antennas over the course of the last year, Island homeowners have given voice to concerns that proximity to a monopole or antenna may not be just aesthetically displeasing but also harmful to property values. Many also perceive health risks in proximity to radio frequency radiation emissions, despite industry assertions and other evidence disputing that such emissions pose a hazard.

Emotions are running so high in areas like Wantagh, where an application for six cell antennas on the Farmingdale Wantagh Jewish Center is pending, that the Town of Hempstead imposed a moratorium on applications until Sept. 21. That is the date for a public hearing on a new town ordinance stiffening requirements.

At a community meeting on Aug. 16 at Wantagh High School, Dave Denenberg, the Nassau county legislator for Bellmore, Wantagh and Merrick, told more than 200 residents that 160 cell antennas had been placed on telephone poles in the area in the last year by NextG, a wireless network provider.

"Everyone has a cellphone," Mr. Denenberg said, "but that doesn't mean you have to have cell installations right across the street from your house." Under the old town code, installations over 30 feet high required an exemption or a variance. But in New York,

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wireless providers have public utility status, like LIPA and Cablevision, and they can bypass zoning boards.

Earlier this month in South Huntington, T-Mobile was ordered to take down a new 100-foot monotower erected on property deemed environmentally sensitive (and thus requiring a variance). Andrew J. Campanelli, a civil rights lawyer in Garden City, said a group of residents had hired him to oppose the cellular company's application.

"They were worried about the property values," Mr. Campanelli said. "If your home is near a cell antenna, the value of your property is going down at least 4 percent. Depending on the size of the tower and the proximity, it is going down 10 percent."

In January, in an effort to dismantle 50 cell antennas on a water tower across from a school in the village of Bayville, Mr. Campanelli filed a federal lawsuit that cited health risks and private property rights.

In a statement, Dr. Anna F. Hunderfund, the Locust Valley superintendent, said that in February 2009 the district had engaged a firm to study the cellphone installations near the Bayville schools, finding that the tower "posed no significant health risks," and she noted that the emission levels fell well below amounts deemed unsafe by the [Federal Communications Commission](#).

In June 2009, Sharon Curry, a psychologist in Merrick, woke up to find a cell antenna abutting her backyard, level to her 8-year-old son's bedroom window.

Puzzled by its presence, particularly because she lives next to an elementary school, she did research to see if there was cause for concern. What she learned about possible health impacts, she said, led her to seek help from civic associations and to form a group, Moms of Merrick Speak Out, to keep new cell towers out. She said she was seeking the "responsible" placement of cell antennas, away from homes and schools.

The Federal Communications Act of 1996 says health concerns are not a valid reason for a municipality to deny zoning for a cell tower or antenna. Property values and aesthetics, however, do qualify, according to the act.

Frank Schilero, an associate broker with RE/MAX Innovations in Wantagh, has a listing on a \$629,000 home down the street from the Farmingdale Wantagh Jewish Center, where the application is pending to put six cell antennas on the roof.

"People don't like living next to cell towers, for medical reasons or aesthetics," Mr. Schilero said. "Or they don't want that eyesore sticking up in their backyards." There is an offer on his listing, he added, but since the buyer heard about the possible cell antennas she has sought more information from the wireless companies about their size and impact.

Charles Kovit, the Hempstead deputy town attorney, said that under the proposed code change any new towers or antennas would have to be 1,500 feet from residences, schools, houses of worship and libraries.

The town recently hired a consultant, Richard A. Comi of the Center for Municipal Solutions in Glenmont, to review antenna applications.

Under the new ordinance, applications for wireless facilities would require technical evidence that they had a "gap" in coverage necessitating a new tower.

"If not, they will get denied," Mr. Kovit said. The wireless companies would also have to prove that the selected location had "the least negative impact on area character and property values." If another location farther away from homes can solve the gap problem, "they are going to have to move."

A version of this article appeared in print on August 29, 2010, on page RE9 of the New York edition.



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11/28/12

**FILE COPY**

Barbara Marshall  
146 Southard Rd.  
Saratoga Springs, NY 12866

To Chairman Murray and Town of Saratoga Planning Board:

I am writing to urge you to vote no on the Verizon application for a cell tower on Wagman's Ridge Road.

The placement of an 80 to 120 foot cell tower will diminish the agricultural character of the community. The 30 mile view-shed from Wagaman's Ridge, Southard Rd, and Walsh Rd is a beautiful aesthetic resource that should be protected.

Like other neighbors, I feel strongly that a cell tower will also hurt property values. The cell tower should not be only 200 feet from the inside of homes. There are likely other locations for a tower that will have less of a negative impact on this community.

Thank you for considering my thoughts on the matter.

Sincerely, *Barbara Marshall*