



Author: Tim Maylone – Managing member of Cherry Capital Connection and primary investor. Cherry Capital Connection is a member of WISPA, a MI director of WISPA and is a member of the WISPA legislative committee. Mr. Maylone is considered an expert in tower siting and has presented on this subject at WISPA sponsored and local WISP events. As a MI Director Mr. Maylone has served on Broadband committees associated with the MPSC (Michigan Public Service Commission). The impact on the telecommunication industry was demonstrated when a WISPA member, Elizabeth Bowles, was appointed chair of the FCC Broadband Committee. Mr. Maylone is also a contributor to WISPPAC.

Cherry Capital Connection, LLC DBA: Cherry Capital Communications, delivers High Speed Internet access and telephone services throughout rural/remote Northern Michigan communities. We are a member of the fixed WISP (Wireless Internet Service Provider) industry that delivers reliable, affordable High-Speed internet access (broadband) to customers in fixed locations such as residences, businesses, and schools. Fixed wireless is the fastest-growing sector of the broadband industry, characterized by cost-effective deployment, rapid technology innovation, and many credible new entrants. Networks can be built and upgraded rapidly – at a fraction of the cost – of those based on DSL, fiber, cable or satellite technologies. To date, the industry has served mostly rural and suburban areas where telephone and cable broadband deployments are often not cost-effective. WISPs are key to closing the urban-rural digital divide. Most WISPs are small and medium-sized businesses led by entrepreneurs who live in the communities they serve. Most have built their networks with private, at-risk capital, and are profitable and sustainable without government subsidies or incumbent-protecting regulations. WISPs employ local staff.

U.S. WISP Industry Fast Facts

- More than 2,000 providers
- More than 4 million customers
- Operators in all 50 states
- Average of 1,200 customers and <10 employees each
- Typical download speeds are 5 to 50 Mbps residential, up to 1 Gbps business

<http://www.wispa.org/About-Us/What-Is-A-WISP>

Cherry Capital Connection started servicing Leelanau County in 2005. CCC services over 275 locations. Based on barriers presented in 2005 we were forced to focus our investment in communities in counties and townships that presented significantly fewer barriers. Under new ownership since 2010, we have applied for over three dozen Special Use Permits (SUP) to construct towers in the following counties: Cheboygan, Emmet, Charlevoix, Antrim, Otsego, Crawford, and Grand Traverse. In each case we met the criteria outlined by the ordinances and were issued zoning approval 100% of the time. Our Centerville township SUP application was approved by the planning commission on January 23, 2018. Our application met all criteria of the ordinance. However, we still do not have a signed SUP which is required to receive a building permit from the county. We were denied our SUP on January 25, 2018 by the appointed ZBA board. The denial was based on the planning commission not documenting their discussion regarding one point in the SUP process. This does not meet the criteria for denying a tower. Additionally, it is CCC legal counsel opinion, that the Centerville township ordinance does not explicitly state that the ZBA has the authority to override a SUP decision that is required by the Michigan zoning enabling act. Therefore, the Centerville township ZBA did not have the authority to rule on this matter. See timeline below for further details of the events that have occurred.

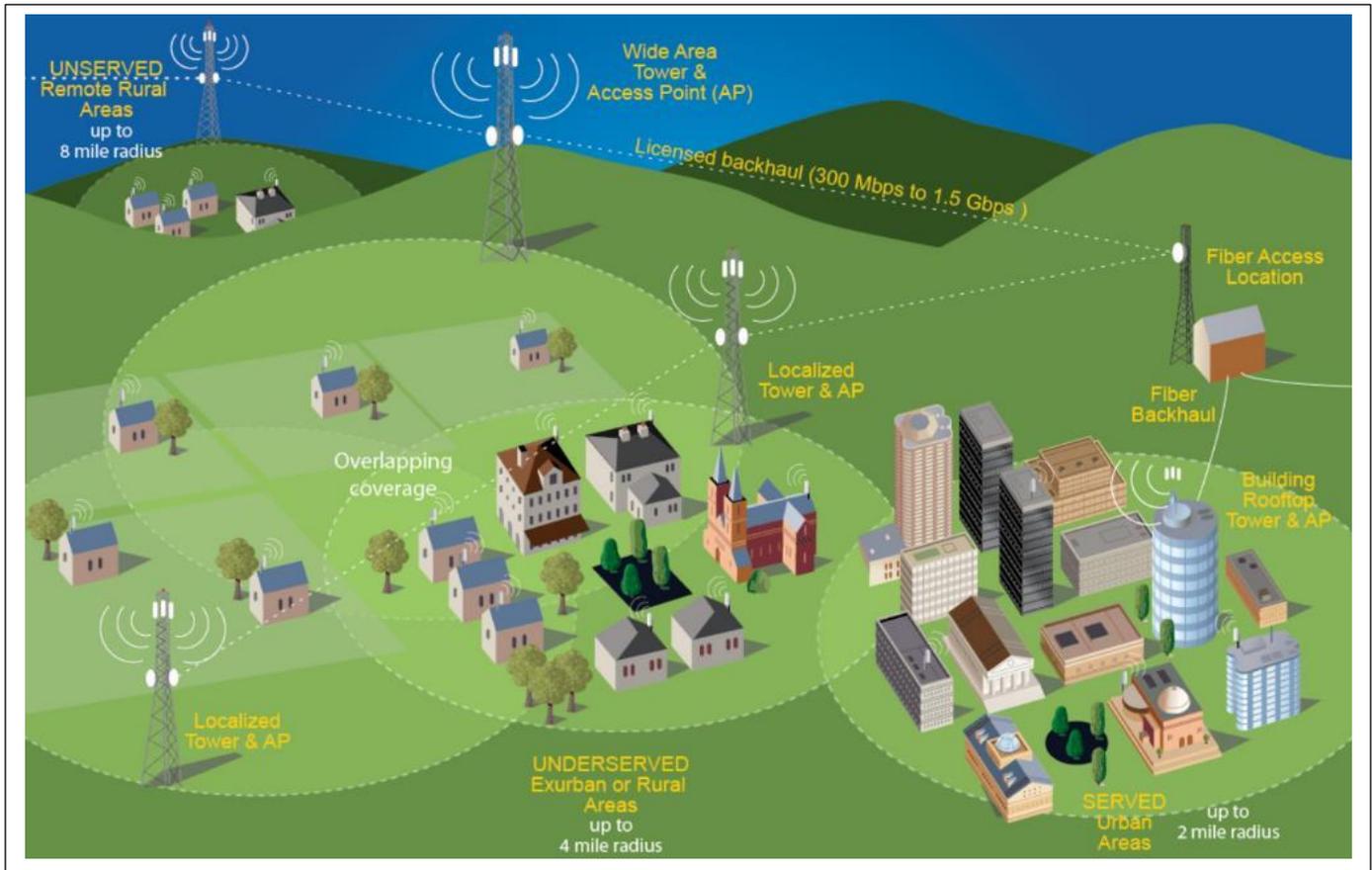
The propagation maps provided to the planning commission defined the following:

1. The Pitt road tower (we have leased for over 10 years) does not allow us the ability to service the areas targeted by the S French Road tower
2. The American tower in Centerville township does not meet our needs
3. The Maple City county tower does not meet our needs for the targeted service area.
4. The S French road tower will
 - a. 600+ Centerville township households can be serviced
 - b. 1,200+ un-served and under-served households in the county can be serviced

Additional data associated with the placement of the tower and general deployment:

5. Micro neighborhood towers will be utilized to reduce the need for taller towers
6. CCC continues to work with the County on solution and plans on leasing all county assets
7. The demand has been defined
8. The property owner desires better quality internet access. The S French Road tower will allow the property owner the service they are requesting. Without the tower at this ridge we cannot provide the land owner with his requested service level.

A typical Fixed Point wireless deployment:





Since 2015 we have introduced two dozen micro network neighborhood towers. These smaller towers in most cases do not require a SUP. The results have been 1,800 locations served in 12 counties and 11 families with highly skilled and high paying employment. 2018 CCC is hiring 2 additional team members. In 2016 we began a training program for the installation of fiber and this year we have initiated our first Fiber from the tower to the home project in the Gills Pier area of northern Leelanau County. There are newly established barriers to the deployment of fiber in the Leelanau County roadways, so we have modified our plans to include easement agreements on private land. We will begin the process of working with the Leelanau County road commission to change the language associated with their road way application to include the needs of the WISP industry.

Up until recently the economic conditions in the region were not adequate to justify further investment in Leelanau county and the barriers to deployment still existed. However, multiple factors played a role in encouraging our renewed commitment to developing additional coverage in Leelanau county (our goal is 100% coverage) and to work with local leadership on reducing the barriers. Those factors are:

1. CCC designed and engineered a low cost, low profile guy tower that meets all safety requirements and allows for deployment without creating new road ways or the need for structural concrete. The visual impact is reduced by incorporating the 12-inch triangular galvanized tower referred to by the industry as a Rohn25. At 400 feet these small towers with no coaxial cable quickly blends into the landscape. Our design is supported with structural engineering documents that include 115 Mph winds with ice and snow. Our towers meet all safety requirements outlined by the state building code.
2. Low power high capacity electronics have been developed by the vendors in response to the industry needs. Radios today are the equivalent of a 40-watt light bulb and in many cases use lower power output settings than most home Wi-Fi systems.
3. 2012 the federal government removed many of the barriers associated with constructing towers: Zoning is now restricted to only safety and historic reasons when reviewing an application. This language excludes environmental concerns. Language was incorporated that requires all decisions regarding an application to construct a tower to be acted upon within 90 days. If no action is taken on the application, it is considered approved. If a zoning body decides to deny an application, then this denial must be accompanied by significant data and written documents of facts.
4. The Michigan Zoning enabling act was updated to include the federal language and enforced their language associated with both collocation and new construction. The definition of collation in the State of Michigan is that multiple antennas can be mounted on the tower. All CCC towers are collocated.
5. Leelanau county defined the need for High-Speed internet access as a top priority for the county.
6. A committee that included multiple private companies, citizens, not-for-profits, government officials and county commissioners was formed. This group is referred to as LIFT (Leelanau Internet Futures Team). During their inquiries regarding High Speed Internet access input from Cherry Capital Connection was provided. LIFT has encouraged continued investment by the private sector, identified zoning as the number one barrier to deployment and recognized the high cost associated with deployment in the mostly rural areas of Leelanau County.
7. Through conversations with the LIFT committee, Leelanau County emergency management and Leelanau County administration we were able to modify the lease rates associated with the three Leelanau County controlled towers. Previous rates were based on the cell phone industry needs and assumed CCC and the WISP industry utilized 6 and 8-foot antennas. With many months of discussion,



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Leelanau county modified the rates to be based on a per foot factor. They understood that our typical antenna used by CCC and the WISP industry was only 1 foot. Additionally, they developed a rate that favored lower elevations on the tower. It is worth noting that these elevation levels are usually not leased by commercial providers, such as the cell industry, enabling attractive terms for the WISP (CCC) and extra revenue for the tower owner (County). These rates and conditions were approved last month by the Leelanau county commissioners.

Our business model in Leelanau County includes continued leasing of all County controlled towers, improving existing privately held towers and constructing additional CCC owned towers. We currently utilize County controlled towers located on Pitt Rd and near the Government Center. Based on the approval of the Leelanau County commissioners we will be adding the Maple City tower to our current lease.

Even with all Leelanau County towers under lease we cannot service the targeted area of Centerville township without a new tower. Many attempts have been made to service Centerville township without success. After years of study and analysis by our engineering group, that included analyzing all available private and county owned towers, we determined a new tower was required to service a significant area of Centerville township that we have been unable to service. Our deployment and design for Centerville township relies on multiple 128-foot towers and additional micro neighborhood towers to create the ideal service environment. This engineered deployment model delivers the greatest speeds and reliability using available technology. In addition, the tower will enable deployment of fiber to the home for the surrounding neighborhood. The lower elevation (128 foot) is based on a widely used line of sight deployment model that services a 3-mile radius and low power access points (see image on page 2). Too high an elevation and you shoot the signal over the top of the target. Too low an elevation and you hit soil before the signal arrives. Too large a radius and you degrade throughput capacity. Consumer demand or consumption has increased 100% each year since 2015. **With 18 years of deployment experience in 12 counties, 150 active towers and 1,800 service end points, the ideal service elevation has been determined to be 130 feet plus or minus 20 feet with a service radius of ½ to 3 miles.** Based on the various topography challenges there are still gaps in service. Therefore, we have engineered a micro-neighborhood tower. These 38 – 58-foot towers will be deployed to address the gaps. In areas with no hills and limited trees it is possible to use an 8-mile radius. However Northern Michigan is considered an extremely difficult environment for wireless as demonstrated by the spotty cellular service most experience. Rarely do we experience large areas of no hill and limited trees.

Centerville township SUP application process:

1. On October 23, 2017, Cherry Capital Connection (CCC) filed an application request a special land use from Centerville Township for the construction of a tower at 2020 South French Road as required by Section 4.20 of Centerville Township's Zoning Ordinance. The property where the tower is to be constructed is owned by Ronald and Jean Schaub (Schaub) and is used as dairy farm. CCC has sustainable lease terms with the Schaub's for a portion of their property to construct the tower. The lease has been recorded with the Leelanau County Register of Deeds and the property has been assigned an address of 2100 S. French Rd (the Property).
2. The Centerville Township Planning Commission after a public hearing on December 16, 2017, unanimously approved the CCC tower and imposed conditions of approval on January 22, 2018.



3. The Planning Commission's determination to grant the special use permit (point 2) was appealed to the Zoning Board of Appeals by Dan Mathies on December 16, 2017.
4. On January 26, 2018, the Zoning Board of Appeals reversed the Planning Commission. As evidenced by the Minutes from the January 26, 2018, Zoning Board of Appeals meeting, the Zoning Board of Appeals expressed a few issues with the Planning Commission's review of the special use permit for CCC's siting of an antenna at the Property.
 - a. The Zoning Board of Appeals expressed concerns regarding the Planning Commission's analysis of whether there were other suitable locations or existing towers for CCC's antenna and the safety aspects of the proposed tower.
 - i. The primary issue raised at the Zoning Board of Appeals hearing in connection with the proposed tower however was the Zoning Board of Appeals' concern with the impact of the proposed tower on Chateau Fontaine Vineyards and Winery, LLC's (CF) intended future use of its property for events on the hill adjacent to the location of the tower on the Schaub property.
 - ii. This concern centered around the concern over the visual impact the tower would have on this proposed use.
5. Following the Zoning Board of Appeals reversal of the Planning Commission's approval, CCC filed an appeal with the Leelanau County Circuit Court.
6. At a meeting open to the public and including CF and CCC, the Centerville Township Board discussed terms to settle the appeal and to address the concerns of the Zoning Board of Appeals including the visual impact of the proposed tower on the Intervening Appellees' use of their adjacent property. Pursuant to the discussion at the public meeting, a settlement term sheet was negotiated and agreed to by the Township and CCC. The settlement includes terms intended to address the concerns of the Zoning Board of Appeals and particularly includes terms to address the visual impact of the tower on the adjoining land uses.
7. The settlement was presented to the Circuit Court in connection with CCC's appeal. The Circuit Court has remanded the settlement terms back to the Zoning Board of Appeals for the Zoning Board of Appeals to determine whether the settlement terms addressed its concerns.
 - a. The purpose of the Zoning Board of Appeals' July 18, 2018: is "to determine whether the settlement terms address the Zoning Board of Appeals' concerns regarding the Planning Commission's granting Cherry Capital Connection's subject Special use Permit." Leelanau County Circuit Court Order, paragraph 3.
 - b. The settlement terms, which are set forth in the term sheet attached to the Circuit Court's Order, require several items. The table below identifies these items along with the Zoning Board of Appeals' concern addressed by the item.

ITEM	CONCERN ADDRESSED	STATUS
Location, Height, and Materials for Fencing.	Visual impact of use and safety. Required by Section 4.20.C.q.	Provided.
Significant Views.	Meet significant views requirement. Section 13.B.b.23.	Provided.
Lease and Maintenance Requirements.	Avoid potential damage to adjacent property due to tower failure.	Provided.



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Approvals of Road Commission, Construction Code, Soil Erosion, FCC and State, and all other applicable regulatory agencies.	Required by Ordinance. Section 4.20.C and Section 13.1.	All approvals have been applied for/received and paid for.
Plant ten, 6-foot-tall conifer trees along the common property line.	Visual impact to neighboring property.	Completed.
Coverage Area Map Showing Areas not Covered by Existing Towers and Coverage from New Tower	Addressed siting and availability of other towers concerns. Other sites are not available in the Township to provide the coverage area of the proposed tower and existing towers do not provide the services provided by the proposed tower. Section 4.20.C.	Provided.
Provide Explanation with Respect to Difficulty of Co-Locating on American Towers	Other limiting factors rendering existing towers unsuitable. Section 4.20.C.	Provided.

8. The settlement terms address all of the issues raised by the Zoning Board of Appeals. In particular, the terms address the primary concern of the Zoning Board of Appeals – the visual impact of the tower on the adjoining land use.

- a. Additionally, as the primary concern of the Zoning Board of Appeals was the impact of the tower on the adjacent land use of CF, the following items are submitted demonstrating further that the proposed tower will have little impact and will not impede the development of CF's property.
- b. Attachment 1. Minutes of the May 29, 2018, Centerville Township Planning Commission Regular Meeting. Planning Commission determined that the event venue approved for the Chateau Fontaine property may have to co-exist with the tower. The adjoining property's use as an event venue will not impede the use of the neighboring property for a tower use. The event venue's use will not interfere with or impede the ability of the adjacent use to be used as a tower.**
- c. Attachment 2. 360° photos of views from common property line between Chateau Fontaine and Schaub property. Tower location visible in only 60° of view line or 16.6% of view. Further, tower is visible in only the most insignificant views from CF's event venue site. Completely unobstructed views of the quintessential Leelanau County vistas from the CF site remain.
- d. Attachment 3. Vista from Rising Hope Equestrian Center in Harbor Springs with many towers. CCC tower designated by blue arrow. Tower is almost invisible. As demonstrated by the vista from Rising Hope Equestrian Center, even when there are several towers in the view line, the impact on the beauty or nature of an impressive vista is minimal.
- e. Attachment 4. Photos demonstrating that a tower's dominance in a sight line diminishes the further the viewer is from the tower. At 400 feet, which is the distance between the tower and the adjoining property line, the tower is an insignificant feature in the view line. At 600 feet, the tower is even less significant. Further, the tower in these photos is an older tower. As towers age the "shininess" of the tower dulls allowing the tower to blend into the view line even more.

9. The items provided and completed by CCC have been provided and completed to meet the Zoning Board of Appeals concerns. The Zoning Board of Appeals expressed concerns regarding whether the issue of whether there were other, more appropriate sites or existing sites available that could provide

similar services as the Property. These concerns have been addressed by the coverage maps that have been provided demonstrating the significant difference in coverage between existing sites and the Property's site as well as addressing the impossibility of locating upon another providers' existing sites. Safety concerns were also raised in connection with the security fencing and the maintenance of the tower. These have been addressed by providing the fencing specifications as well as the maintenance requirements under the lease.

10. Finally, and most significantly, the Zoning Board of Appeals expressed concerns regarding the impact of the tower on CF's event venue use, particularly with respect to the impact on the views. The impact on the views from CF's event venue use has been ameliorated by the planting of conifer trees along the property line between CF's property and the Schaub property. As will be seen at the Zoning Board of Appeals' site visit, this provides a block now and will provide an even more significant block as the trees grow. Additionally, as will be demonstrated by the Zoning Board of Appeals' site visits, and the attachments to this memorandum, the impact of the tower on CF's view from its event venue site is minimal. And clearly, as determined by the Planning Commission, both uses can co-exist.
11. Therefore, CCC respectfully requests that the Zoning Board of Appeals provide an unqualified approval of the tower. Thank you, and both Mr. Maylone and I will be available at the July 18, 2018, meeting to answer any questions the Zoning Board of Appeals may have.
 - a. At the July 18, meeting CCC was not asked any questions from the ZBA board even though statements were made regarding a lack of understanding our propagation maps.
12. Based on the primary concern being visual Cherry Capital Connection was asked by Centerville township to construct the tower at the location approved by the SUP application. (note permission was not granted by the county building department, although CCC did contact them). CCC moved the tower 76 feet farther north and 50 feet closer to the tree line to address the visual impact of the fencing around the tower and around the guy wires. This location moved the tower base 476 feet from the CF property line and utilized a small ridge that further blocked the first 25 feet of the tower and ground fencing from the CF property.
13. On July 18, 2018 (Wednesday) the ZBA board rejected the settlement. Additionally, the ZBA did not provide any conditions that would satisfy their concerns. The statements were made that provided the impression that no conditions would satisfy their concerns now or in the future.
 - a. Consideration of Mr. Schaub's rights to use his property were noted.
 - b. The ZBA further noted that they could not determine what 16% of the view was critical or impeded CF from conducting special events.
 - i. We argued that the special events are not impeded by the tower and referenced the special events permit approved by the planning commission.
14. On July 19, 2018 CCC asked for permission to delay deconstructing the tower based on staffing availability and other safety concerns. We were denied any delay by the township.
15. 360 degrees of the view have been taken from various advantage points. Less than 16% of the vista was affected. It is our understanding that a property owner only has the rights to a view that is within their own property lines.
16. On July 20, 2018 with wind gusts estimated at 45-mile per hour (unsafe) we requested permission to delay safe deconstruction of the tower until Saturday or Monday at 5:00pm. We received no response.



- a. Having no choice but to comply with the township wishes, keeping to our agreement and not being fined we were forced to execute an extremely dangerous maneuver and allowed the tower to collapse under the force of its own weight with the help of wind forces.
 - i. This involves cutting the legs and webbing at the base of the tower and
 - ii. Slowly removing the wind side guy wires.
 - iii. The tower collapsed in less than 10 seconds.
 - iv. It is fortunate that no one was hurt in the process of the maneuver and
 - v. The tower was successfully dropped and fell into the tree tops.
 - vi. A less risky maneuver was required to evacuate the tower and guy wires from the tree.
 - vii. The guy wires and tower had to be removed for the safety of the cows that graze.
 - b. The event has been recorded.
17. The FCC has been petitioned to rule on a denial based on the visual impact. At this time, we have not received feedback from the federal agency.

Our county level permits are waiting on the township to issue a SUP. Legal fees and extra ordinary labor to comply with Centerville township is exceeding \$20,000. This amount is the equivalent of constructing three towers that would address the lack of High Speed Internet access in Leelanau county. These are the facts as they exist.

Changing strategy to meet the demand

Based on the strategy outlined by LIFT and the leadership in Leelanau County to limit towers yet expanding High Speed Internet access we must change the approach.

Cherry Capital Connection has been one of the targets in this discussion.

Our strategy, as outlined above, was to design low profile towers to minimize the number of 60 foot individual family towers required to meet the topographical challenges. We estimate thousands will be required.

A farmer that required a 60-foot tower, protected by OTARD, to get better internet and TV asked if we could construct a 128-foot tower so that his needs and his neighbors needs could be met. The township has rejected this notion and we are heading back to circuit court. I want people to be reminded they are protected by OTARD. Here is a helpful link:

<https://www.fsbrlaw.com/Resources/Articles/ID/160/2013-Regulating-Receiving-Antennas-Under-The-OTARD-Rule>

It would appear in Leelanau county thousands of small individual towers will need to be constructed rather than a few dozen low profile network neighborhoods. This seems to be the strategy Centerville township has embraced. **This will increase the cost for 1,000 households by an aggregate amount of \$750,000. – \$1,000,000.**



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Recently the Centerville township supervisor has provided a good recap of the process. This recap was in response to question asked by a Centerville township resident and current customer of Cherry Capital Connection.

From: James Schwantes

Subject: Re: Internet

Date: July 24, 2018 at 7:40:09 PM EDT

To: P..... M.....

Cc: Dan Hubbell , David Wurm, Ron Schaub, Tim Cypher

Good evening Ms. M.....,

I appreciate your sharing your thoughts with me and the board. The township board is aware of the need for improved internet services in the township. I have Centurylink DSL and share your lack of satisfaction with that option. That being said, the Cherry Capital Connection (CCC) proposal was certainly worth consideration.

To erect a tower on French Road, the company needed to acquire a special land use permit (SLUP). Our Planning Commission did review a site plan for the tower for compliance with our zoning ordinance in considering authorizing the issuing of a SLUP, including public hearings, and did approve issuing a permit. Chateau Fontaine, however, disagreed with their findings, and, as is their right, appealed to our Zoning Board of Appeals (ZBA) and that put issuing the permit on hold. The ZBA stated concerns they had with the Planning Commission's decision and denied the issuing of the permit. CCC then appealed this ZBA decision in Circuit Court. The township board decided to try to settle this through the court and avoid an actual trial. Chateau Fontaine was included in this effort. A settlement agreement was reached with CCC, though Chateau Fontaine was not satisfied. Judge Power's decision in this matter was to remand it back to the township ZBA to decide if the settlement terms answered the concerns of the ZBA. In their meeting last Wednesday, the ZBA decided it did not meet their concerns and the issuing of a permit for the tower was therefore denied. The tower that was erected and subsequently taken down, was done at the request of Cherry Capital Communications, so that the ZBA could see the actual impact of the tower. The township agreed to let them do this and the timeline for the erection and removal of this temporary tower was that proposed by CCC. The township did not tell CCC to put up the tower nor force them to take it down. So, at this point no permit to erect a tower has been issued. The decisions for this were made by fellow Centerville residents who serve on these two appointed bodies to administer the township zoning ordinances which tries to reflect the values of our community.

Regarding improved internet service, I can report to you that a county wide solution to this issue is becoming a reality. The Leelanau Internet Futures Team of the Leelanau Peninsula Economic Foundation, who did those surveys your referenced, has gotten the County Commission to authorize the use of the 5 county towers to host internet providers for wireless broad band. A rate system is in place and some of the providers, including CCC, are preparing to place equipment on those towers and will be seeking customers. Your County Commissioner, Patricia Soutas-Little, has been instrumental in getting this accomplished. You can contact her if you would like more information about this.



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I hope that I have given you a better idea of the process the township has followed regarding the current tower, though the outcome is not what you would have like to have seen. We have also been in communication with Ms. Soutas-Little on the LIFT effort to create a county wide solution.

Finally, I have added you to our email list so you will receive regular meeting agendas and minutes and be able to keep up on what is going on at the township hall.

Sincerely,
Jim Schwantes – Township supervisor

On Tue, Jul 24, 2018 at 3:34 PM P.... M.... wrote:
Gentlemen,

I was very disappointed when I read that the tower on French Road that would provide affordable internet to that area was removed. We have tried for the eight years we have lived here to get a good internet service. We were forced to go with Century Link which was awful. Spectrum was not affordable. They wanted eleven thousand dollars to run the line down our drive.

We are lucky that we have line of sight across the lake or the French Road tower would have been our only option. How do you justify allowing one business to ruin it for everyone that would benefit from that tower? I believe it was Leelanau County that sent out the survey asking about internet service in the county. We answered that survey by saying that internet was and is a top priority. When Cherry Capital can provide that service you don't allow it. It is my understanding that the permit for a wedding venue at Chateau Fontaine came after the fact that you gave a permit to Cherry Capital to construct the tower. This county has been saturated with wedding venues. Chateau Fontaine should have taken into consideration that the tower was going to be there before they applied for their permit. If they thought it would impact couples planning their wedding there they shouldn't have invested in making it a venue for a wedding.

I am so disappointed that our township trustees are not taking into consideration the good of the whole rather than the good of one business. It ranks right up there with point of sale septic inspections. Lets pollute the lake with failed systems so nobody can enjoy the lakes. We can all pay in the future to have the lakes cleaned up.

P..... M.....
Centerville township address
Cedar MI

The customer name has been changed to protect her privacy.