



WOODBURY COUNTY BOARD OF ADJUSTMENT

Monday, October 7, 2024 at 6:00 PM

The Woodbury County Board of Adjustment will hold a public meeting on **Monday, October 7, 2024 at 6:00 PM** in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, IA. Please use the 7th St. entrance. Public access to the conversation of the meeting will also be made available during the meeting by telephone. Persons wanting to participate in the public meeting may attend in person or call: **(712) 454-1133** and enter the **Conference ID: 742 346 123#** during the meeting to listen or comment. It is recommended to attend in person as there is the possibility for technical difficulties with phone and computer systems.

AGENDA

1	CALL TO ORDER
2	ROLL CALL
3	PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA
4	APPROVAL OF PREVIOUS MEETING MINUTES
5	ITEM(S) OF ACTION / BUSINESS
»	<p>PUBLIC HEARING: CONDITIONAL USE PERMIT APPLICATION (ACTION ITEM): FOR THE INSTALLATION AND USE OF THREE 100' WIND TURBINES (PARCEL #884420300005). SUMMARY: Consideration of the Conditional Use Permit application by L & K Tabke Holdings, LLC (Kathy Tabke) for the installation and use of three (3) 100' wind turbines to reduce the electrical costs on the farm. The property is designated as Parcel #884420300005 and is located in T88N R44W (Wolf Creek Township) in Section 20 in the N ½ of the SW ¼. The proposed location is about 5.2 miles southeast of Moville, IA which is on the south side of 195th Street and east of Jasper Avenue. The property is located in the Agricultural Preservation (AP) Zoning District and "Electric wind generator (Private use)" is classified as a "conditional use" in Section 3.03.4 of the Woodbury County Zoning Ordinance. Applicant(s)/Owner(s): L & K Tabke Holdings, LLC (Kathy Tabke), 3112 195th St., Moville, IA 51039.</p>
»	<p>PUBLIC HEARING: CONDITIONAL USE PERMIT APPLICATION (ACTION ITEM): FOR THE INSTALLATION AND USE OF A 250' SELF-SUPPORT WIRELESS COMMUNICATIONS TOWER TO REPLACE AN EXISTING TOWER (PARCEL #874720400004). SUMMARY: Consideration of the Conditional Use Permit application by Andrew Bobrytzke on behalf of American Tower LLC and the Bradley J. Kobold Trust who have filed the conditional use permit application to request to construct a 250' self-support wireless communications tower to replace an existing tower from the area. The property is designated as Parcel #874720400004 in T87N R47W (Liberty Township) in Section 20 in the SE ¼ of the SE ¼. The proposed location is about one (1) half mile west of the Salix, IA which is on the north side of 260th Street and west of Barker Avenue. The property is located in the General Industrial (GI) Zoning District and "Telecommunication towers" are classified as a "conditional use" in Section 3.03.4 of the Woodbury County Zoning Ordinance. Applicant(s)/Owner(s): Andrew Bobrytzke on behalf of American Tower LLC, 10 Presidential Way, Woburn, MA 01801 / Bradley J. Kobold Trust, 211 7th Street, Sergeant Bluff, IA 51054.</p>
»	<p>INFORMATION ITEM: CONSIDERATION OF A RECOMMENDATION CONTEMPLATING DECOMMISSIONING REQUIREMENTS AS PART OF A NEW ORDINANCE REGARDING CARBON PIPELINES. SUMMARY: The Woodbury County Board of Supervisors at their meeting on August 27, 2024 voted to direct the Planning and Zoning Director to work with Planning and Zoning, the Board of Adjustment, and Legal Counsel in order to make a recommendation contemplating decommissioning requirements as part of a new ordinance regarding carbon pipelines.</p>

»	<p>INFORMATION ITEM: POTENTIAL PERMITTING OF NUCLEAR ENERGY FACILITIES TO BE INCLUDED AS PART OF THE WOODBURY COUNTY ZONING ORDINANCE.</p> <p>SUMMARY: Consideration the addition of Nuclear Energy Facilities as a land use option in the Woodbury County Zoning Ordinance. The hearing will include topics of how to approach the permitting of nuclear energy facilities. Possible options include to amend the Land Use Summary Table of Allowed Uses (Section 3.03.4) by adding Nuclear Energy Facilities as a permitted allowed use or a conditional use in all or select the county zoning districts. Amendments may also be discussed pertaining to the addition of new sections pertaining to nuclear energy facilities, definitions, the renumbering, and reorganization of content within the zoning ordinance.</p>
6	PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA
7	STAFF UPDATE
8	BOARD MEMBER COMMENT OR INQUIRY
9	ADJOURN

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Minutes - Woodbury County Board of Adjustment Special Meeting – September 4, 2024

The Board of Adjustment meeting convened on the 4th of September 2024 at 6:00 PM in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse. The meeting was also made available for public access via teleconference.

Meeting Audio:

For specific content of this meeting, refer to the recorded video on the Woodbury County Board of Adjustment "Committee Page" on the Woodbury County website:

- County Website Link:
 - o https://www.woodburycountyiowa.gov/committees/board_of_adjustment/
- YouTube Direct Link:
 - o <https://www.youtube.com/watch?v=hge9GmQB2WA>
 - A YouTube generated "unofficial" transcript can be accessed on a PC:
 - Open YouTube by visiting the referenced website above.
 - Click the three dots (...More) below the video title.
 - Select "Show Transcript" from the menu to view the transcript.
 - o The transcript will appear on the right of the screen.

BA Members Present:

Daniel Hair, Doyle Turner, Pam Clark, Tom Thiesen, Ashley Christensen

County Staff Present:

Dan Priestley, Dawn Norton

Public Present:

William Gary Wilcox, Venita Wilcox, Kathy Bernard, Larry Fixsel, Judy Fixsel, Ron Fixsel, Bruce Sadler, Shelly McCoy Sadler, Karen Heidman, Rex Rundquist, Maria Rundquist, Austin Wilcox, Braden Wilcox, Bob Fritzmeier, Heather Dixon, Heather Dixon, Braden Wilcox, Gayle Palmquist, Patricia Barth, Rosanne Plante, John Herrig, Tony Ashley, Jordan German, Madonna Nitzke, Tina Manker, Greg Manker, Deb Main, Eric Wissing, Alan McGaffin, Terry McGaffin, Jeremy Lane, Linda Waugh, Terry Waugh, Ty Roberson, Gabriel Diaz, Jared Barnes, Lexi McKee-Hemenway, Jan Olson, Kourtney Wilcox

Call to Order

Chair Daniel Hair formally called the meeting to order at 6:02 PM.

Public Comment on Matters Not on the Agenda

None

Approval of Minutes

The August 5, 2024 minutes were approved. Motion by Christensen to approve; Second by Clark. Motion passed 5-0.

Action Item: Public hearing – Consideration of a Conditional Use Permit Application: Data Processing Business on Parcel #884403400009.

Hair opened the public hearing; Priestley read item summary into record. The consideration of a Conditional Use Permit application from AUR Correctionville LLC (Applicant) and property owners Ashley Acres Family Limited Partnership who have filed for a Conditional Use Permit application "to place a demand response load resource next to the substation in conjunction with local electric utility to support grid resiliency" for the proposed use to operate a data processing business. The proposed site is on Parcel #884403400009 in T88N R44W (Wolf Creek Township) in Section 3 in the SE ¼ of the SE ¼. The property is located around 6.2 miles southeast of Merville and around 7.7 miles southwest of Correctionville. The property is located in the Agricultural Preservation (AP) Zoning District and is not

located in the floodplain. Owner(s)/Applicant(s): Ashley Acres Family Limited Partnership, 3356 170th St., Correctionville, IA 51016 (Owners) and AUR Correctionville LLC, 15988 230th St., Grundy Center, IA 50638.

The following submitted written comments to Planning & Zoning Staff to be entered into the record after meeting material was prepared: Tony Ashley, Jordan German, Dr. BA Huculak, Vicki Hulse, Alan Lucken, Jana Martens, Autin Mitchell, Jayme Huber, Carl Palmquist, David Hoferer, Erick Vera, Charles White. Applicant (AUR) also submitted additional information. Motion to receive into record by Christensen. Second by Thiesen. Carried 5-0. Copies of submissions are available at in the appendix.

Jeremy Lane from AUR discussed the proposed CUP application.

The following provided comment: David Hoferer, Shelly McCoy Sadler, Bob Fitzmeier, Bruce Sadler, Rosanne Plante, Lexi McKee-Hemenway, Gary Wilcox, Jordan German, Venita Wilcox, Gayle Palmquist, Heather Dixon, Tony Ashley, Tyler Roberson, Jan Olson, Greg Manker, Gabriel Diaz. JohnPaul Baric from AUR spoke via telephone.

Motion by Hair to receive material from Bob Fritzmeyer. Second by Clark. Carried 5-0.

Motion by Hair to receive material from Lexi McKee-Hemenway. Second by Christensen. Carried 5-0.

Motion by Hair to receive material from Gary Wilcox. Second by Turner. Carried 5-0.

Motion by Turner to hear additional comments from the Sadler family. Second by Thiesen. Carried 5-0.

An article was received by the Sadler family and included in the appendix.

JohnPaul Baric from AUR spoke by phone regarding project and addressed questions previously asked.

JohnPaul, by phone, requested Jeremy Lane to add additional information into record. Motion by Clark. Second by Thiesen. Carried 5-0.

Motion to close public hearing by Christensen. Second by Thiesen. Carried 5-0.

Deliberation by Board members. Motion by Christensen to deny the application due to the application and testimony not clearly addressing the impact upon adjacent property, the character of the neighborhood and the public health, safety, and general welfare of the community. Second by Thiesen. Carried 5-0.

Hair stated applicant could file an appeal within 30 days of the Board's decision with the Woodbury County Planning and Zoning department.

Information Item: Consideration of a Recommendation Contemplating Decommissioning Requirements As Part of a New Ordinance Regarding Carbon Pipelines. Summary: The Woodbury County Board of Supervisors at their meeting on August 27, 2024 voted to direct the Planning and Zoning Director to work with Planning and Zoning, the Board of Adjustment, and Legal Counsel in order to make a recommendation contemplating decommissioning requirements as part of a new ordinance regarding carbon pipelines. Staff continues research and asks board members to investigate options.

Information Item: Board Of Supervisors' Consideration of Changes to the Commercial Wind Energy Conversion Systems (C-WECS) Ordinance #56. Summary: Following the Woodbury County Fair (2024), the Board of Supervisors (BoS) received a petition from the public to revisit the regulations contained within the C-WECS ordinance (Ordinance #56) on August 6, 2024. Subsequently, the Board

of Supervisors directed county staff to review the ordinance and to make recommendations for changes. This discussion item will include information about the process ahead for the BoS's review and consideration of potential changes. The C-WECS ordinance is a stand-alone ordinance that was originally approved under the home rule provisions of Iowa Code and is not part of the Zoning Ordinance. Staff exploring options. Board asked to provide input.

Information Item: Planning Process for Nuclear Energy to be Considered for Addition To Woodbury County Zoning Ordinance. Summary: The Woodbury County Board of Supervisors at their meeting on July 2, 2024 voted to direct the Zoning Commission to begin the process of exploring nuclear energy as a potential energy option in Woodbury County. This agenda item is an update about the process. Staff researching information.

No Public Comments on matters not on the agenda.

Staff Update: Staff will continue gathering information on information items. There will be upcoming meetings discussing these issues. Public input is encouraged. Informational meetings will keep harvest in mind when scheduling meetings.

No Board Member Comment or Inquiry

Motion To Adjourn

Christiansen motioned. Second by Clark. Carried 5-0. Meeting adjourned at 8:44 PM

APPENDIX – RECEIVED MATERIALS

Daniel Priestley

From: Tony Ashley <farmertony44@yahoo.com>
Sent: Wednesday, September 4, 2024 12:45 PM
To: Daniel Priestley
Subject: Data center

CAUTION: This email originated from OUTSIDE of the organization. Please verify the sender and use caution if the message contains any attachments, links, or requests for information as this person may NOT be who they claim. If you are asked for your username and password, please call WCCOC and DO NOT ENTER any data.

Everyone except those who hate traditional energy or just do not like Bitcoin have two simple questions. Is there a solid plan and will there be too much noise. If these two boxes are checked everyone except the haters of traditional energy and/or Bitcoin say the same thing to me. That this is a win/win.

I also had these two concerns. My family has more at risk by far than anyone else. Almost everyone who lives within 1/2 mile of this project is in my family. This includes 5 school aged children and my mother who is in her 80s. Ten of us in total.

This company got around 10 pages of questions from the board of adjustment where they gave comprehensive answers to solidify their plans to fulfill the qualifications for the conditional use permit. There are detailed plans explaining how things will work from set up to decommissioning. This company has a solid track record in Iowa and right here in Woodbury County where their facility that is years in operation and got easy approval by the board of adjustment has received zero complaints or violations.

This company is putting a much more expensive system in for this project than there is in the current system already operating in Woodbury County that has zero violations. That system is air cooled while the one for this project is a water cooled loop system. You can see from the packet that the noise tests are well below any noise concern parameters. Houses within 1/2 mile of this project which are mostly my families should not hear noise above normal according to these readings.

This facility will provide much needed revenue to the Woodbury County REC which should allow them to mitigate the large energy price increases many are experiencing. This helps the pocket book of all in Woodbury County using the REC. This project will provide property tax revenue to Woodbury County along with income tax to the state estimated to be over 70 thousand dollars per year. Two new good paying tech jobs will also be created here locally. A nice win/win.

Tony Ashley
General Partner Ashley Acres

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Daniel Priestley

From: Jordan German <germjord@gmail.com>
Sent: Tuesday, September 3, 2024 4:46 PM
To: Daniel Priestley
Subject: Data Processing Proposal - Yes Vote

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To the Board of Adjustment,

I am writing to you to encourage a yes vote on this data processing proposal. It is Important to support businesses that hire local workers, increases reliability of power, and can lower overall power costs for consumers.

Thank you for your careful consideration of this.

Regards,
Jordan German

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Daniel Priestley

From: Woodbury County Website <no_reply@woodburycountylewa.gov>
Sent: Friday, August 30, 2024 2:26 PM
To: Daniel Priestley
Subject: Email from the Woodbury County Website

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Email from the Woodbury County Website

Name: Dr BA Hucuiak
Email: kilchicki@yahoo.com

Comments:

Bitcoin, the most popular cryptocurrency, has concerning impacts on climate, water, and land. Bitcoin price and energy use for Bitcoin mining are highly correlated. A 400% increase in Bitcoin's price from 2021 to 2022 triggered a 140% increase in the energy consumption of the worldwide Bitcoin mining network. Oct 24, 2023 The noise pollution from Bitcoin mining can pose significant health risks to nearby communities. The constant hum and roar of the high-powered computers running day and night are being linked to sleep disturbances, increased stress levels, and other health problems.

<https://time.com/6982015/bitcoin-mining-texas-health/>

<https://www.texastribune.org/2024/07/10/texas-bitcoin-mine-noise-power-grid-cryptocurrency/>

<https://www.nbcdtv.com/news/local/noise-pollution-from-bitcoin-farm-in-hood-county-causing-health-concerns-for-neighbors/3456364/?amp=1>

Residents report ailments like migraines, hypertension, and vertigo since the Bitcoin mine started operating. The mine's noise levels regularly exceed legal limits, causing sleep disturbances and stress. Marathon Digital Holdings, the mine's owner, plans to reduce noise by transitioning to quieter cooling systems. <https://www.sciencedirect.com/science/article/abs/pii/S0013935124007023>

The deleterious impact far outweighs the economic benefits. Say No.

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Daniel Priestley

From: Vicki <hruemer56@hotmail.com>
Sent: Wednesday, September 4, 2024 1:06 PM
To: Daniel Priestley
Subject: Bit coin mine

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Here are my thoughts on the subject of the bitcoin farming that will be discussed tonight at the board of adjustment meeting. I am unable to attend, so I hope this counts as my opinion and vote. It would use huge amounts of energy that I am not in favor of. Also the noise is the second big issue. Please deny the bitcoin farm.

Vicki Huse Woodbury County.
Sent from my iPhone

1

Daniel Priestley

From: alan lucken <alan.lucken@gmail.com>
Sent: Tuesday, September 3, 2024 11:13 AM
To: Daniel Priestley
Subject: Crypto mining proposal

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To the board of adjustment, I am writing to you to encourage a no vote on this crypto proposal. My background has been the Plymouth County Zoning Administrator (recently retired) and 28 years in the electric utility business as I served many years as Board President for Nipco which is a transmission cooperative in Northwest Iowa who many of you may be familiar with. From a supply point of view, the generation of electricity is in a rather precarious situation as the supply is very tight and the demand is growing at an alarming rate with all the data centers and data centers for artificial intelligence being proposed. Also the charging stations for the increase in electric vehicles will be substantial. Consequently the nation simply does not have the generation and transmission capability for all this growth. These crypto miners provide absolutely no benefit to society other than make profits for the owner. Their main operating expense is for the electricity that runs the servers and the air conditioning to keep them cool. Naturally they try to go where the electric rates are the lowest. This increase in demand will drive up our rates without benefiting our society so I am encouraging you to vote no on this proposal. Alan Lucken

1

Daniel Priestley

From: Jana <janamartens55@gmail.com>
Sent: Wednesday, September 4, 2024 8:00 AM
To: Daniel Priestley
Subject: Bitcoin mine

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I'm unable to make the meeting tonight so I would like to give my thoughts. After researching this, many are using geo thermal energy. The massive energy it will use is a big no for me. Also I would not want to live by something that has a constant humming noise why would I wish that on my neighbors. The sound will travel differently with weather conditions in Iowa. I ask that you deny this request. Sincerely Jana martens- Woodbury County Sent from my iPhone

1

Daniel Priestley

From: Austin Mitchell <AMitchel@synata.io>
Sent: Wednesday, September 4, 2024 1:25 AM
To: Daniel Priestley
Subject: Support for data processing facility in Woodbury County

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Dear Zoning Board,

I am writing to express my support for the application to develop a data processing site in the county. As someone with a PhD focused on the environmental, economic, and health impacts of energy development, and having worked for multiple energy companies, I understand the significance of projects like these for the future of our energy system. Currently, I serve as the CEO of a software company that helps energy companies manage customers like data processors more efficiently while reducing financial risk.

This proposed site would provide economic benefits to the community by increasing local tax and business revenue. More importantly, data processing facilities like this are flexible and responsive to electricity prices, making them essential for modernizing the electricity grid. They help stabilize the grid, support the integration of renewable resources, and inspire innovation in the energy sector.

By supporting this development, you are positioning your community to remain relevant in the evolving energy landscape and enabling future technological advancements that will benefit us all. I strongly urge the zoning commission to approve this application.

Thank you for your consideration.

Sincerely,

Austin Mitchell PhD
Co-founder, CEO
419.283.9858 | Mitchel@synata.io

synAa

1

Daniel Priestley

From: Jayme Huber <jhuber@nipco.coop>
Sent: Friday, August 30, 2024 9:28 AM
To: Daniel Priestley
Subject: Response from NIPCO regarding Conditional Use Permit AUR Correctionville LLC (Applicant)
Attachments: Conditional Use Permit response from NIPCO 83024.pdf

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Daniel,

Attached is the conditional use permit letter NIPCO received on 8/15/2024 regarding the AUR Correctionville LLC (Applicant). I have highlighted the description of this facility in the first paragraph of this letter. NIPCO does not object to this conditional use permit but NIPCO objects to the title of the facility as highlighted. It should be edited to say instead the following:

to place a new bitcoin load using system capacity that will be interrupted during peak times.

Reasons:

- This load will not contribute to grid resiliency, in fact, it uses up available capacity from the system in this area.
They are not doing their own demand resource response but will be interrupted by the utility during peak times.

Please let me know if you have any follow up questions.

Regards

Jayme

Jayme Huber
V.P. Engineering & Operations
NIPCO
Northwest Iowa Power Cooperative
PO Box 240
31002 County Road C38
Le Mars, IA 51031
jhuber@nipco.coop
Office - 712-546-3509
Cell - 319-457-0976
Receptionist - 712-546-4141



A Totchizone Energy Cooperative You & Me

RECEIVED

AUG 19 2024

NIPCO
LE MARS, IA



WOODBURY COUNTY PLANNING & ZONING

620 Douglas Street, 8th Floor, Sioux City, Iowa 51101

712.279.6608 - 712.279.6530 Fax

Daniel J. Priestley, MPA - Zoning Coordinator Dawn Horton - Senior Clerk
dp.priestley@woodburycountyia.gov dhorton@woodburycountyia.gov

Northwest Iowa Power Cooperative
PO Box 240
Le Mars, IA 51031

DATE: August 16, 2024
TO: Property Owners Within 500 Feet
FROM: Daniel J. Priestley, MPA - Zoning Coordinator
RE: CONDITIONAL USE PERMIT REQUEST - Data Processing Business

This notice is to advise you that AUR Correctionville LLC (Applicant) and property owners Ashley Acres Family Limited Partnership have filed for a Conditional Use Permit application "to place a demand response load resource next to the substation in conjunction with local electric utility to support grid resiliency" for the proposed use to operate a data processing business. The proposed site is on Parcel #684403400008 in T88N R44W (Wolf Creek Township) in Section 3 in the SE 1/4 of the SE 1/4. The property is located around 6.2 miles southwest of Moviile and around 7.7 miles southwest of Correctionville. The property is located in the Agricultural Preservation (AP) Zoning District and is not located in the floodplain. Owner(s)/Applicant(s): Ashley Acres Family Limited Partnership, 3356 170th St., Correctionville, IA 51016 (Owners) and AUR Correctionville LLC, 15368 230th St., Grundy Center, IA 50638.

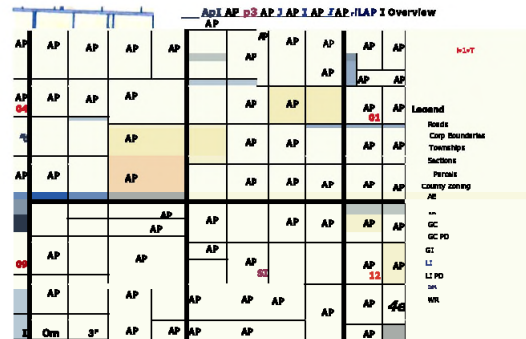
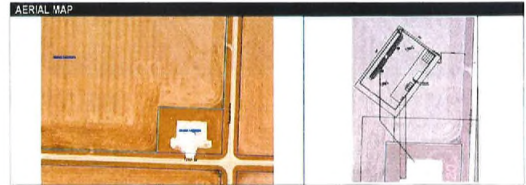
To learn more about this conditional use permit request and how it may affect you and the character of your neighborhood, you may call the Woodbury County Community and Economic Development (Planning and Zoning) office at 712-279-6608, attend the Board of Adjustment public hearing, and/or send in written comment.

The Woodbury County Board of Adjustment public hearing will be held on Wednesday, September 4, 2024 during their special meeting which begins at 6:30 PM in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, Iowa. Please enter through the 7th Street entrance. Security procedures are in place when entering the building. Persons wanting to participate in

the public hearing may attend in person or call: 712-454-1133 and enter the Conference ID: 729 498 3538 during the meeting to listen or comment. It is recommended to attend in person as there is the possibility for technical difficulties with phone and computer systems.

You may forward your written comments by mail or email to: Woodbury County Community and Economic Development, 8th Floor, Woodbury County Courthouse, 620 Douglas St., Sioux City, IA 51101; Email should be sent to Dan Priestley at: dpriestley@woodburycountyia.gov. Only signed comments will be considered and should be received no later than 10:00 AM on Wednesday, September 4, 2024.

If you have questions, please call the Woodbury County Community and Economic Development (Planning and Zoning) office at 712-279-6608. If you wish to be heard regarding this item, please attend the meetings and/or forward written comment.



Parcel ID: 004403400008
Sub/Township: 0300 44
Property Address: 3356 170th St
Owner: Ashley Acres Family Limited Partnership
City: A
Acreage: 79.63
Address: 3356 170th St
CORRECTIONVILLE IA 51016
WOLF CREEK TOWNSHIP C 1.2 OF SE 1.4 OF 31 88 44 1/4 T88N R44W SEC 3 OF E 1/4 OF SE 1/4 BEING 330 FT BY 200 FT AND (OR AN OTHER TCT DESCRIBED AS COR AT NE COR OF E 1/4 OF SE 1/4 T88N R44W SEC 3 OF E 1/4 OF SE 1/4

8/20/2024 7:28:20AM
Last Built: 1981, 1984, 1985, 1987, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024

WCLCC 2023 04/11/23

Daniel Priestley

From: Cari Palmquist <cpalmqu@arm@gmail.com>
Sent: Wednesday, September 4, 2024 1:13 PM
To: mathew@woodburycountynh.gov; Jeremy Taylor; Keith Radt; Daniel Biringer; Mark Nelson; Daniel Priestley; Joshua Waldman
Subject: Inside the 'Nightmare' Health Crisis of a Texas Bitcoin Town

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A Bitcoin mine moved to a small town in Texas. One by one, the residents fell ill.

Source: TIME
<https://search.ap.pixt.dfyhTYpgKRLAU>

Sent from my iPhone

1

• The conditional use will not adversely impact natural, scenic or historic features — There is no evidence that any meaningful assessment was conducted to determine if this requirement is met.

• The conditional use is necessary or desirable to provide a service in the public interest or will contribute to the general welfare — The only issue addressed by the planning and zoning commission was an alleged increase in the tax base. But the ordinance clearly evinces a broader consideration than just the tax base.

• All possible efforts have been taken to minimize adverse impacts — The only issues noted by the planning and zoning commission are noise and security (fencing and lighting). There was no consideration of minimizing the impacts of the issues presented above.

As a general observation, it is apparent that the zoning administrator and the planning and zoning commission simply took all of AUR's representations at face value, without any questioning or further investigation. Consideration of a conditional use permit application requires more than that.

On behalf of Iowa Chapter Sierra Club, and the Northwest Iowa Group of Sierra Club, we request that you please turn down the conditional use request.

David Hofner

Executive Committee Co-Chair

Northwest Iowa Group of Sierra Club

2

Daniel Priestley

From: Northwest Iowa Group of Sierra Club <nwis@sierragroup@gmail.com>
Sent: Wednesday, September 4, 2024 11:24 AM
To: Daniel Priestley
Cc: David Hofner
Subject: Per proposed data mining center proposal

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Dear Mr Priestley,

Thank you in advance for reading this letter per the proposed data mining center proposal.

AUR Corcoranville has filed for a conditional use permit to construct a data mining center for cryptocurrency. AUR refers to this facility as a "demand response load resource" to operate a data processing business. That is an attempt by AUR to give a benign description to a facility that actually has a significant adverse impact.

Cryptocurrency data mining centers use an extraordinary amount of energy. AUR claims that the electricity for the facility will come from local rural electric cooperatives. Are the REC's capable of providing the required electricity and still service its regular customers? Will the additional load on the REC's result in higher utility costs for customers? If the REC's need to obtain extra electricity from other sources, will the additional power come from renewable sources?

In order to obtain a conditional use permit, an applicant must satisfy the requirements of the county's zoning ordinance for a conditional use. This project does not satisfy those requirements.

First, the zoning administrator and the planning and zoning commission admit that a data mining center does not come within the description of any use listed as a conditional use in an agricultural district. So AUR and the planning and zoning commission created a false equivalent of claiming the data center is a research and development laboratory. That borders on the absurd. A research and development laboratory does not require the massive amount of energy required by a data center. Nor is there any other valid comparison between a research laboratory and a data center. The law does not allow this sort of manipulation of the conditional use ordinance. The purpose of a conditional use ordinance is to specify certain uses that can be compatible with the existing zoning district.

Second, the proposed data center does not comply with the requirements for a conditional use permit. The ordinance lists 6 requirements and 2 limitations.

• The conditional use is authorized in the zoning district — As noted above, a data center is not authorized in an agricultural district.

• The conditional use is compatible with the zoning ordinance and the general plan — Zoning staff contend that the project will encourage diversification of the county's economy. But there is no evidence that the project will benefit the economy. AUR admits that the data center will only employ two people. While the project may increase the tax base, the Board must also consider the costs and adverse impacts. There is no indication that the planning and zoning commission did that.

• The conditional use will not substantially or unduly impact adjacent property and other attributes of the surrounding property or the general welfare — AUR makes an inconsistent claim that on one hand it will somehow provide a benefit by using excess power from the REC substation, and on the other hand, can somehow provide excess power back to the community. How is it a benefit to use excess power? Does the REC actually produce excess power? Why not put any excess power back on the grid to benefit the public? If the data center is using power, how can it have excess power to provide back to the community? The Board must do its due diligence and obtain answers to these questions.

• The conditional use will be compatible with the surrounding neighborhood — The only point that the planning and zoning commission addressed was the noise. A much broader consideration is required.

• Public services will adequately serve the conditional use — There is no showing that the REC can adequately provide the massive amount of power required for a data center. That issue must be investigated before any decision on a conditional use permit.

1

Daniel Priestley

From: Erick Vera <erick@luxor.tech>
Sent: Tuesday, September 3, 2024 10:56 PM
To: Daniel Priestley
Cc: jo@miningstore.com; Ethan Vera
Subject: Support for Bitcoin Mining in Woodbury County

CAUTION: This email originated from OUTSIDE of the organization. Please verify the sender and use caution if the message contains any attachments, links, or requests for information as this person may NOT be who they claim. If you are asked for your username and password, please call WCCOC and DO NOT ENTER any data.

Dear Woodbury County Representatives, I hope you all are well. We are writing to express our support on behalf of MiningStore for the potential Bitcoin mining operations in Woodbury County. As a leading Bitcoin mining company in the US, we have seen how it has impacted communities positively as per the following: **Job Creation:** Bitcoin mining can create diverse employment opportunities, from IT specialists to operational roles, engineers and logistics as security staff. This would not only increase employment rates but also stimulate local economic growth with good paying jobs. **Increased Tax Revenue:** The infrastructure required for mining operations would increase income and other taxes, providing new revenue streams that can be reinvested into public services and infrastructure improvements. **Grid Stability:** Bitcoin mining can enhance your electric grid by consuming excess energy during low demand periods and reducing usage during peak times. This flexibility supports grid stability and the integration of renewable energy sources without major footprint to the current landscape. All major grids are looking at using Bitcoin mining as a way to improve their stability. **Positioning Iowa as a Tech Hub:** Embracing Bitcoin mining can position Woodbury County as a leader in blockchain technology, attracting more tech companies and setting Iowa on the map as a technology and energy hub. In summary, Bitcoin mining offers a unique opportunity to boost your economy, stabilize the energy grid, and elevate your region's technological profile. We fully support and trust MiningStore efforts to bring this industry to Woodbury County. Best regards, Erick Vera Business Development Lead, Luxor Technology erick@luxor.tech

1

Daniel Priestley

From: Charles White <cwhite2001@gmail.com>
Sent: Tuesday, September 3, 2024 4:54 PM
To: Daniel Priestley
Subject: Bitcoin/data center

CAUTION: This email originated from **OUTSIDE** of the organization. Please verify the sender and use caution if the message contains any attachments, links, or requests for information as this person may NOT be who they claim. If you are asked for your username and password, please call WCCICC and **DO NOT ENTER** any data.

Hello, I am writing to support the proposed new data center for the county of Woodberry. It should bring in lots of money developing the site and instead of supporting an old outdated infrastructure, we are modernizing it with a purpose. I understand it will also bring a few full-time jobs, and I'm sure there will be some tax revenue to the county and state, from the jobs and the electricity used. These are also tech jobs this area badly needs to keep the higher-paying jobs locally and provide positions to our younger people with degrees so they aren't moving to larger cities. Thank you for taking the time to read this.

Sincerely,

Charles White

• All possible efforts have been taken to minimize adverse impacts. The only issues noted by the planning and zoning commission are related to noise and security (fencing and lighting). There was no consideration of minimizing the impacts of the issues presented above.

As a general observation, it is apparent that the zoning administrator and the planning and zoning commission simply took all of AUR's representations at face value, without any questioning or further investigation. Consideration of a conditional use permit application requires more than that.

On behalf of Iowa Chapter Sierra Club, and the Northwest Iowa Group of Sierra Club, we request that you please turn down the conditional use request.

David J. Jester
Executive Committee Co-Chair
Northwest Iowa Group of Sierra Club

Subject: Per proposed data mining center proposal

Dear Board of Adjustment: Committee members,

I thank you in advance for reading this letter per the proposed data mining center proposal.

AUR Correctionville has filed for a conditional use permit to construct a data mining center for cryptocurrency. AUR refers to this facility as a "demand response load resource" to operate a data processing business. That is an attempt by AUR to give a benign description to a facility that actually has a significant adverse impact.

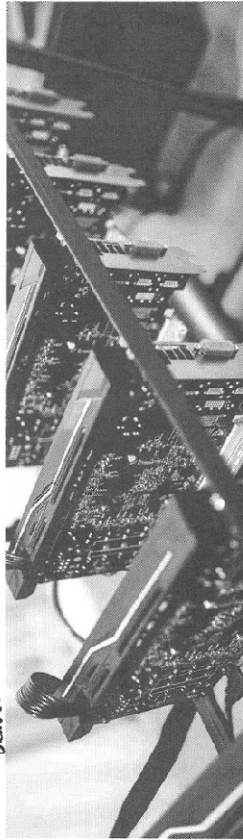
Cryptocurrency data mining centers use an extraordinary amount of energy. AUR claims that the electricity for the facility will come from local rural electric cooperatives. Are the RECs capable of providing the required electricity and still service its regular customers? Will the additional load on the RECs result in higher utility costs for customers? If the RECs need to obtain extra electricity from other sources, will the additional power come from renewable sources?

In order to obtain a conditional use permit, an applicant must satisfy the requirements of the county's zoning ordinance for a conditional use. This project does not satisfy those requirements.

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- The conditional use will be compatible with the surrounding neighborhood – The only point that the planning and zoning commission addressed was the noise. A much broader consideration is required.
- Public services will adequately serve the conditional use – There is no showing that the REC can adequately provide the massive amount of power required for a data center. That issue must be investigated before any decision on a conditional use permit.
- The conditional use will not adversely impact natural, scenic or historic features – There is no evidence that any meaningful assessment was conducted to determine if this requirement is met.
- The conditional use is necessary or desirable to provide a service in the public interest or will contribute to the general welfare – The only issue addressed by the planning and zoning commission was an alleged increase in the tax base. But the ordinance clearly envisions a broader consideration than just the tax base.



Iowa Environmental Council

CRYPTOCURRENCY MINING - FINANCIAL & ENVIRONMENTAL RISKS TO IOWANS

August 2024

Cryptocurrency, such as Bitcoin, is a cutting-edge technological development that has some people chasing short-term profits. Proponents make big claims about the value and potential of this technology as an alternative to traditional money and finance. However, current processes for creating cryptocurrency are wasteful, can create a nuisance for their neighbors, and can drive up bills for other ratepayers.

What is a Cryptocurrency mine?

The creation of new cryptocurrencies is a complicated computing process referred to as *mining*. Bitcoin, like other cryptocurrencies, exists only on a digital network that is distributed across millions of computers around the world. This network (called the *blockchain*) generates new Bitcoins through a competitive program that requires users to solve a complex equation by racing their computer systems against others on the network. The first user to solve the equation receives new Bitcoin. This process repeats over and over again, 24 hours a day. This competition is winner-take-all for each Bitcoin and requires a fast, powerful system of computers to compete. This fast, powerful computer system is called a *cryptocurrency mine*, and these mines consume massive amounts of electricity and water, while generating considerable electronic waste.

Cryptocurrency and noise pollution

Keeping the computers in a crypto mine temperature-controlled requires powerful air conditioning, and that means noise. The roar of fans in cooling systems can reach 95 decibels, as loud as standing next to a revving motorcycle, and the noise runs all day and night.¹ Noise complaints from residents has been a major factor in multiple rejections of new crypto mines throughout Iowa, including proposed operations in Black Hawk County and Grundy County.²

¹ https://www.fox13.com/story/news/2023/05/16/neighborhood-objection-cryptocurrency/7023100001/

² https://www.fox13.com/story/news/2023/05/16/neighborhood-objection-cryptocurrency/7023100001/

CRYPTOCURRENCY MINING - FINANCIAL & ENVIRONMENTAL RISKS TO IOWANS

How much electricity does crypto mining use?

According to the Energy Information Administration, cryptocurrency consumes over 2% of U.S. electricity. US Bitcoin production alone consumes roughly the same amount of energy as Cressco or Globally, crypto mining uses, conservatively, 204.5 TWh of electricity, as much energy as Cressco or Australia, with a carbon footprint (1088.94 kgCO₂) of the oil nation, Kuwait.³ Crypto activity in the United States is estimated to result in CO₂ emissions similar to those from diesel fuel used in railroads in the United States. A crypto mine in Grundy Center, Iowa uses as much electricity as 4,900 homes, more electricity than all the residential customers in Grundy Center, population 2,800, combined.⁵

Expansion of electric generation to allow for crypto mining will lead to higher rates for all customers as the cost of expansion is eventually rolled up into the rates we all pay. If the crypto mines are in Mid-American or Alliant service territory, the mines can also benefit from demand-response programs that pay them to be willing to interrupt their electricity service during peak energy use hours, whether they actually ever shut down or not.⁴

How much water does crypto mining use?

A massive amount of water is needed to cool the computer rigs that process and maintain the Bitcoin blockchain and to cool the fossil fuel power plants that supply the crypto mines power, as a result, the global water footprint is 16,279 liters per transaction as of 2022.⁶ That's equivalent to flushing over 4,300 toilets for each and every transaction. The total water footprint of US Bitcoin miners is approximate to the average annual water consumption of 300,000 US households, comparable to a city like Washington, DC.⁷

How much electronic waste does crypto mining create?

Discarded computers, circuit boards, cables, and other electronic waste from crypto mining contributes to electronic waste. Without standards and enforcement of proper disposal methods, electronic waste can cause air and water pollution, expose workers to toxic substances, and damage public health. Lead and mercury are the most common toxic elements in electronic waste.⁸ In June 2022, Bitcoin mining activity produced electronic waste at an estimated rate of 35,000 tons per year, equivalent to the annual electronic waste of the Netherlands.⁹ A phenomenon driving all this waste is the pace of innovation in mining ASICs, or application-specific integrated circuits, the dedicated computer units for crypto mining. Improvements in technology can double computer processing speeds of new ASICs every eight or ten months, requiring constant upgrading to remain competitive.¹⁰

³ https://www.eia.com/energyexplained/cryptocurrency.php

⁴ https://www.eia.com/energyexplained/cryptocurrency.php

⁵ https://www.eia.com/energyexplained/cryptocurrency.php

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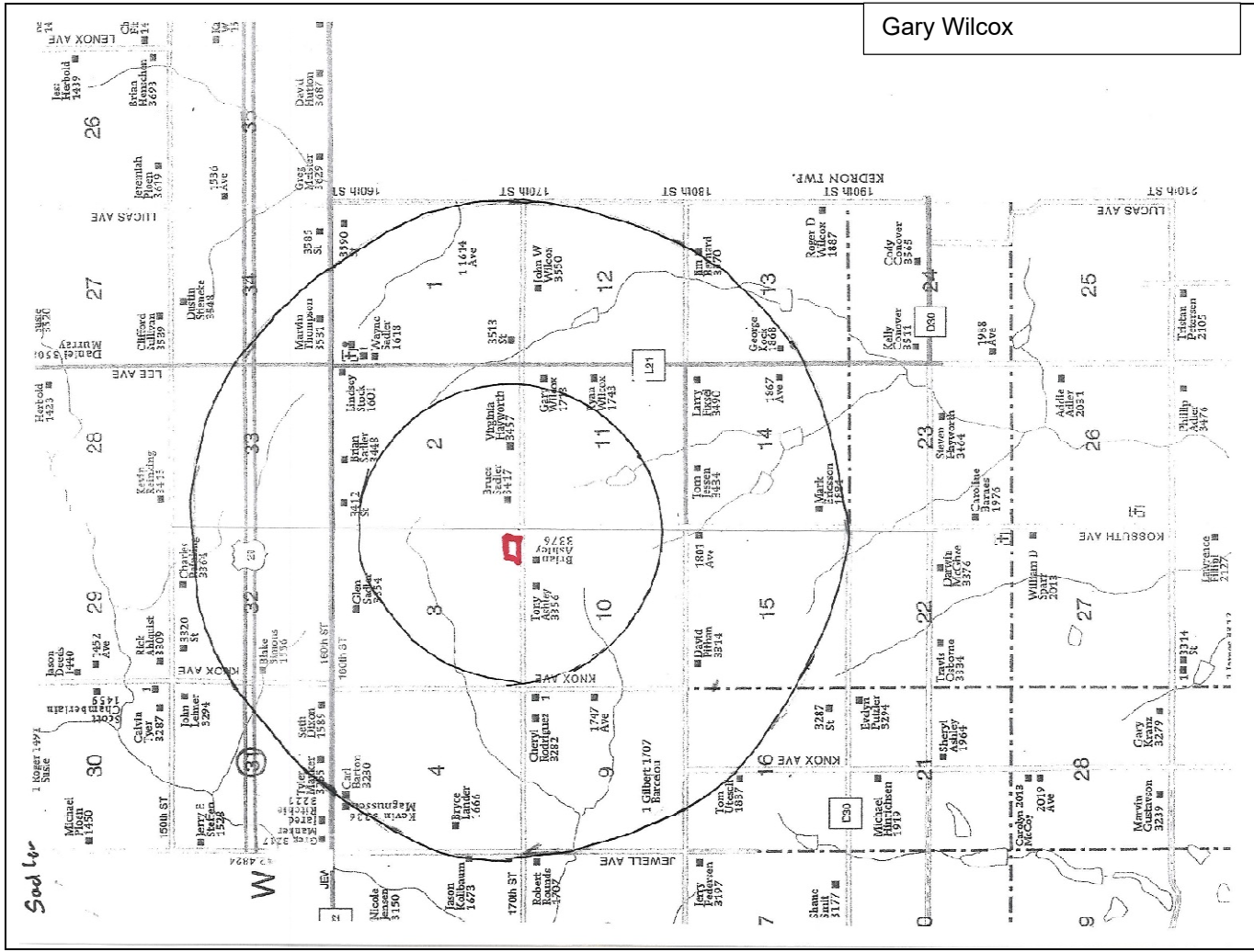
⁸ https://www.eia.com/energyexplained/cryptocurrency.php

⁹ https://www.eia.com/energyexplained/cryptocurrency.php

¹⁰ https://www.eia.com/energyexplained/cryptocurrency.php

Lexi McKee-Hemenway

Gary Wilcox



Time Magazine

UPDATED, JULY 16, 2024 12:27 PM EDT | ORIGINALLY PUBLISHED: JULY 1, 2024 12:00 PM EDT
22 MINUTE READ

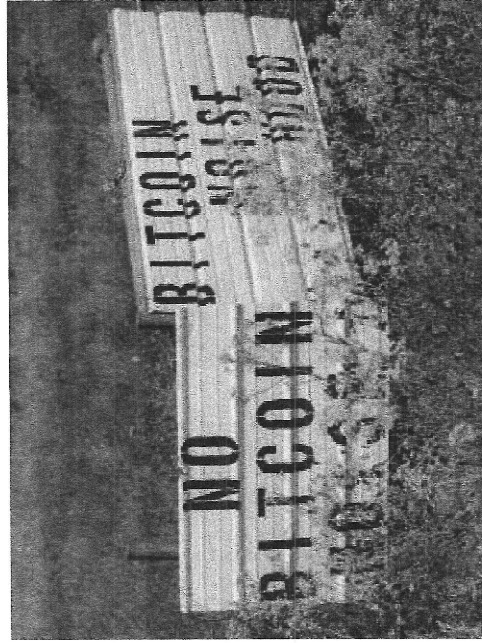
On an evening in December 2023, 43-year-old small business owner Sarah Rosenkranz collapsed in her home in Graubury, Texas and was rushed to the emergency room. Her heart pounded 200 beats per minute; her blood pressure spiked into hypertensive crisis; her skull throbbed. "It felt like my head was in a pressure vise being crushed," she says. "That pain was worse than childbirth."

Rosenkranz's migraine lasted for five days. Doctors gave her several rounds of IV medication and painkiller shots, but nothing seemed to knock down the pain, she says. This was odd, especially because local doctors were similarly vexed when Ludwig, Rosenkranz's 5-year-old daughter, was taken to urgent care earlier that year, screaming that she felt a "red beam behind her eardrums."

It didn't occur to Sarah that these symptoms could be linked. But in January 2024, she walked into a town hall in Graubury and found a room full of people whom thin from strange, debilitating illnesses. A mother said her 8-year-old daughter was losing her hearing and fluids were leaking from her ears. Several women said they experienced fainting spells, including while driving on the highway. Others said they were wracked by debilitating vertigo and nausea, waking up in the middle of the night mid-vomit.

None of them knew what, exactly, was causing these symptoms. But they all shared a singular grievance: a dull aural hum had crept into their lives, which growled or roared depending on the time of day, rattling their windows and rendering them unable to sleep. The hum, local law enforcement had learned, was emanating from a Bitcoin mining facility that had recently moved into the area—and was exceeding legal noise ordinances on a daily basis.

Over the course of several months in 2024, TIME spoke to more than 40 people in the Graubury area who reported a medical ailment that they believe is connected to the arrival of the Bitcoin mine: hypertension, heart palpitations, chest pain, vertigo, tinnitus, migraines, panic attacks. At least 10 people went to urgent care or the emergency room with these symptoms. The development of large-scale Bitcoin mines and data centers is quite new, and most of them are housed in extremely remote places. There have been no major medical studies on the impacts of living near one. But there is an increasing body of scientific studies linking prolonged exposure to noise pollution with cardiovascular damage. And one local doctor—ears, nose, and throat specialist Salim Bhaloo—says he sees patients with symptoms potentially stemming from the Bitcoin mine's noise on an almost weekly basis.



Cheryl Shaider's homemade signs on her property across the street from the mine.

2

Bruce & Shelly Sadler

"I'm sure it increases their cortisol and sugar levels, so you're getting headaches, vertigo, and it snowballs from there," Blaloo says. "This thing is definitely causing a tremendous amount of stress. Everyone is just miserable about it."

Not all data centers make noise. And industry insiders say they have a technical fix for the ones that do, which involves replacing their facilities' loud air fans with much quieter liquid-based cooling solutions. But some of their touted methods, including "immersion cooling" in oil, are expensive and untested on a large scale.

A representative for Marathon Digital Holdings, the company that owns the mine, did not answer questions about health impacts, but told TIME that it is working to remove the noisy fans from the site. "By the end of 2024, we intend to have replaced the majority of air-cooled containers with immersion cooling, with no expansion required. Initial source readings on immersion containers indicate favorable results in sound reduction and compliance with all relevant state noise ordinances," they wrote in an email.

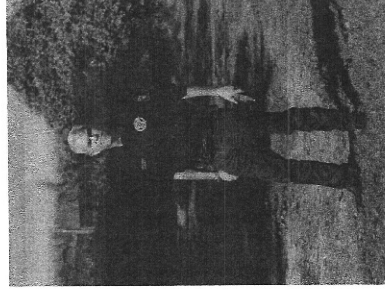
The number of commercial-scale Bitcoin mining operations in the U.S. has increased sharply over the last few years: there are now at least 137. Similar medical complaints have been registered near facilities in Arkansas and North Dakota. And the Bitcoin mining industry is urgently trying to push bills through state legislatures, including in Indiana and Missouri, which would exempt Bitcoin mines from local zoning or noise ordinances. In May, Oklahoma governor Kevin Stitt signed a "Bitcoin Rights" bill to protect miners and prevent any future attempts to ban the industry.

While some Granbury residents are fiercely protesting the mine, many others feel powerless to alter the will of a company with legal, political, and financial might. And the data center industry at large is only growing more dominant, thanks to the twin forces of Bitcoin mining and AI, the latter which spends a vast amount of energy training generative models to find patterns in data sets. According to a recent report, data centers will use 8% of total U.S. power by 2030, up from 3% in 2022. And if operators continue to locate the centers near existing communities, and prioritize profits above all else, then the story of Granbury could become the story of countless small towns across America.

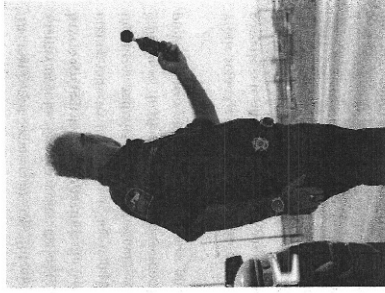
3

Granbury sits about an hour southwest of Fort Worth in Hood County, which houses a mostly rural and Republican population of about 65,000 people. About a 15-minute drive south of Granbury's charming historic town center—which includes a 19th-century opera house—lies a gas plant called Wolf Hollow II. Driving toward the plant on a windy, predawn morning in May, it rises out of the sky like an oil rig in a pitch-black ocean, lights ablaze.

But the glowing gas plant never caused substantial issues for the local residents. Rather, the problems started when Constellation Energy, which operated the plant, signed a deal in 2021 to power a new Bitcoin mining facility that would sit directly on its lot. The new facility consisted of 163 squat metal boxes resembling shipping containers, which housed a total of over 30,000 computers. These computers started running in the summer of 2022, and seemed to be switched on all day and night. As of December 2023, the Granbury mine is owned by Marathon, one of the largest Bitcoin holders in the world.



Constable John Shirley, a former Oath Keeper, has been focused on keeping the mine unprofitable.



Shirley takes sound readings near the Wolf Hollow data site on May 20, 2024.

The computers power a process called proof-of-work mining. Rather than relying on a central bank or governmental agency, Bitcoin is created, maintained, and guarded by

4

watchdogs around the world known as miners, who prevent tampering through a complex cryptographic process and are rewarded with bitcoin for doing so. Bitcoin's first supporters hoped that this new system would support a global digital currency that would bring freedom, financial fairness, and wealth to its adopters.

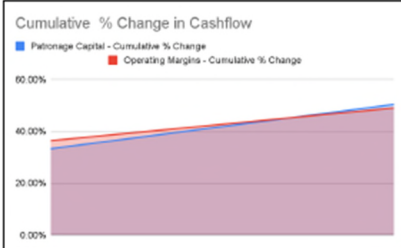
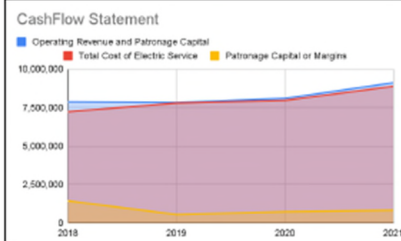
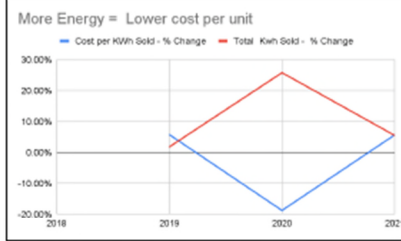
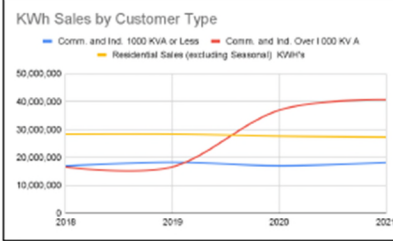
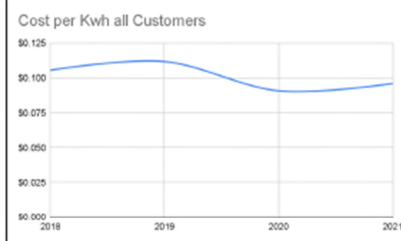
But the system also requires an immense and ever-increasing amount of electricity. While Bitcoin's first miners were solo operators often working out of their bedrooms, the industry is now dominated by a handful of billion-dollar corporations who operate industrial-size server farms across the globe. In the month of March 2024 alone, the Bitcoin mining industry generated a record \$2 billion in revenue.

Much of the American Bitcoin mining industry can now be found in Texas, home to giant power plants, lax regulation, and crypto-friendly politicians. In October 2021, Governor Greg Abbott hosted the lobbying group Texas Blockchain Council at the governor's mansion. The group insisted that their industry would help the state's overtaxed energy grid; that during energy crises, miners would be one of the few energy customers able to shut off upon request, provided that they were paid in exchange. After meeting with the lobbyists, Abbott tweeted that Texas would soon be the "#1 [state] for blockchain & cryptocurrency." The following month, the Commissioners Court of Hood County approved the development of a cryptocurrency operation at Wolf Hollow. The owners promised local jobs and said that they would mostly use "stranded energy" that would otherwise go unused.

For months during 2022, Granbury residents Nick and Virginia Browning sat in their front yard watching the new metal boxes of the massive facility be installed in the dirt across the road. "It layered our houses with dust. We haven't gotten it all out yet," Nick Browning, 82, says.

The dust, it turns out, was just a prelude to the noise. In order to cool the machines, the site's operators attached thousands of fans to the containers, which churned constantly, emitting a vicious buzz. As more machines were switched on, the noise sounded like a ceiling fan, then a leaf blower, then a jet engine. It consumed afternoon dog walks and revved through cloudless nights, vibrating the trailer homes of many of the low-income residents who live blocks from the facility. The noise floated miles down the winding Brazos river, through the lush golf courses in the gated community Pecan Plantation and past county lines.

At first, residents responded to the intrusion by vacating their porches, retreating inside, and turning up their fans and air conditioners to the max. But many still felt tremors in their beds—including Larry Potts, a 77-year-old retired pastor who lives up the road from the plant. Potts says he stopped sleeping and started losing hearing in both ears. In February, his heart gave out after another sleepless night. He was rushed to the hospital and kept alive by an external pacemaker. There, he was diagnosed with third degree atrioventricular block, hypertension, and depression.



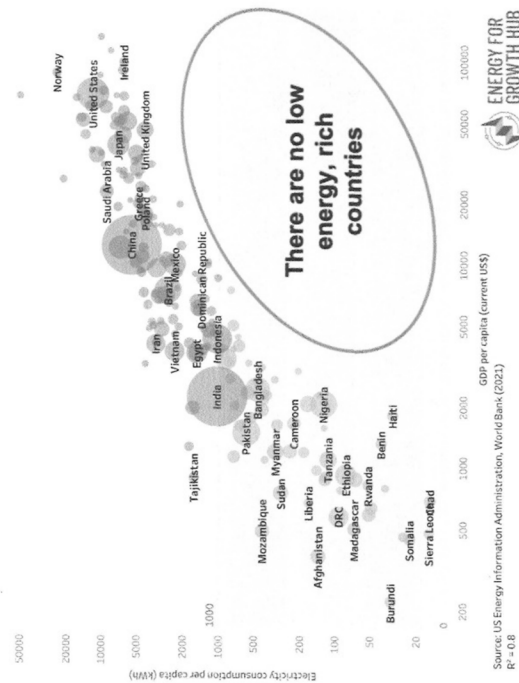
In 2020, an Iowa based electric cooperative welcomed a significant new industrial load customer, marking a transformative moment for the cooperative and its members. This new partnership not only brought in additional revenue but also optimized the cooperative's operational efficiency. With the increase in electricity consumption by the industrial customer, the cost per kWh sold began to decrease steadily. This shift was a direct result of the cooperative's ability to distribute fixed costs over a larger volume of energy sales, reducing the per-unit cost for all members.

By 2021, the impact of this strategic addition became even more pronounced. Operating revenue and patronage capital saw a substantial rise, reaching over \$9 million, up from just over \$7.8 million in 2019. Meanwhile, the total cost of electric service, though slightly increased due to higher demand, was offset by the improved margins. The cooperative's operating margins showed a positive cumulative percentage change, jumping from 33.29% in 2020 to an impressive 50.37% by 2021. This significant improvement underscored the cooperative's enhanced financial stability and its capacity to reinvest in infrastructure and services, benefiting all cooperative members.

The addition of the new industrial customer thus served as a catalyst for growth and sustainability. It enabled the cooperative to reduce overall costs for its members, ensuring more affordable rates while maintaining high service standards. This strategic move not only strengthened the cooperative's financial health but also fostered a more resilient and robust community, where members could enjoy the dual benefits of reduced costs and improved service quality. The success story of integrating a new industrial load customer became a model for future growth, inspiring confidence in the cooperative's ability to adapt and thrive in a competitive energy market.

The drop in kwh price(Cost of energy) to all members was 19% with no other major loads added.

Lans





WOODBURY COUNTY PLANNING & ZONING

620 Douglas Street, Sixth Floor, Sioux City, Iowa 51101
712.279.6609 – 712.279.6530 (Fax)

Daniel J. Priestley, MPA – Zoning Coordinator
dpriestley@woodburycountyiowa.gov

Dawn Norton – Senior Clerk
dnorton@woodburycountyiowa.gov

REPORT – SEPTEMBER 24, 2024

THREE PRIVATE WIND TURBINES – CONDITIONAL USE PERMIT PROPOSAL

APPLICATION DETAILS	
Applicant(s)/Owner(s):	L & K Tabke Holdings LLC
Application Type:	Conditional Use Permit
Zoning District:	Agricultural Preservation (AP)
Total Acres:	76.02
Current Use:	Agricultural
Proposed Use:	Agricultural (Wind Power)
Pre-application Meeting:	August, 2024
Application Date:	September 1, 2024
Legal Notice Date:	September 21, 2024
Neighbor(s) Notice Date:	September 18, 2024
Stakeholder(s) Notice Date:	September 4, 2024
Zoning Commission Review:	September 23, 2024
Board of Adjustment Public Hearing:	October 7, 2024

PROPERTY DETAILS	
Parcel(s):	884420300005
Township/Range:	T88N R44W (Wolf Creek)
Section:	20
Quarter:	N ½ of the SW 1/4
Zoning District:	Agricultural Preservation (AP)
Floodplain:	Zone X (Not in floodplain)
Property Address:	3112 195 th St., Moville, IA 51039 (Abutting Parcel)

CONTENTS	
Summary	
Aerial Map / Site Plan Excerpt	
Review Requirements	
Review Criteria	
Application Materials	
Legal Notification	
Public Comments	
Stakeholder Comments	
Supporting Information	

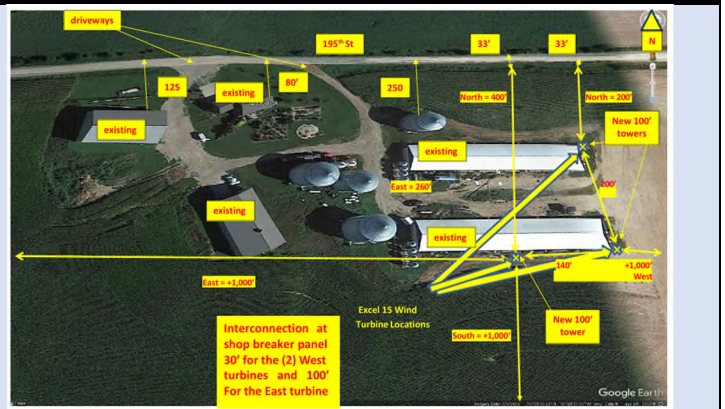
SUMMARY

L & K Tabke Holdings, LLC (Kathy Tabke) has filed a conditional use permit application for the installation and use of three (3) 100' wind turbines to reduce the electrical costs on the farm. The proposed locations are around 5.2 miles southeast of Moville which is on the south side of 195th Street and east of Jasper Avenue. The property is located in the Agricultural Preservation (AP) Zoning District and "Electric wind generator (Private use)" is classified as a "conditional use" in Section 3.03.4 of the Woodbury County Zoning Ordinance which is eligible for review by the Zoning Commission and for consideration for approval by the Board of Adjustment for a conditional use permit. This proposal has been properly noticed in the Sioux City Journals legal section on September 21, 2024. The neighbors within 500 FT were duly notified via a September 18, 2024 letter about the October 7, 2024 Board of Adjustment public hearing. Appropriate stakeholders including government agencies, utilities, and organizations have been requested to comment. Based on the information received and the requirements set forth in the Zoning Ordinance, the proposal can meet the criteria for approval of the conditional use permit. The Zoning Commission voted 4-0 to recommend approval to the Board of Adjustment following their review session on September 23, 2024.

AERIAL MAP



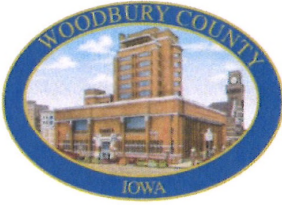
SITE PLAN EXCERPT



ZONING COMMISSION AND STAFF RECOMMENDATION

Based on the information received and the requirements set forth in the Zoning Ordinance, it is the opinion of staff that the proposal can meet the criteria for approval of the conditional use permit.

The Zoning Commission voted 4-0 to recommend approval to the Board of Adjustment following their review session on September 23, 2024.



**WOODBURY COUNTY
ZONING COMMISSION**

WOODBURY COUNTY COURTHOUSE
620 DOUGLAS STREET
SIOUX CITY, IA 51101

Woodbury County Board of Adjustment
620 Douglas Street
Sioux City, Iowa 51101

RE: Zoning Commission Recommendation to the Board of Adjustment:

CONDITIONAL USE PERMIT APPLICATION DETAILS:

Applicant(s)/Owner(s):	L & K Tabke Holdings LLC
Application Type:	Conditional Use Permit
Zoning District:	Agricultural Preservation (AP)
Total Acres:	76.02
Current Use:	Agricultural
Proposed Use:	Agricultural (Wind Power)
Parcel(s):	884420300005
Township/Range:	T88N R44W (Wolf Creek)
Section:	20
Quarter:	N ½ of the SW 1/4
Zoning District:	Agricultural Preservation (AP)
Floodplain:	Zone X (Not in floodplain)
Property Address:	3112 195th St., Moville, IA 51039 (Abutting Parcel)


Dear Board of Adjustment:

This letter is to inform you that the Woodbury County Zoning Commission reviewed the conditional use permit application submitted by L & K Tabke Holdings, LLC (Kathy Tabke) for the installation and use of three (3) 100' wind turbines to reduce the electrical costs on the farm on the property as referenced above on September 23, 2024.

The Commission voted 4-0 with the recommendation to approve the conditional use permit application.

Please refer to the draft copy of the Zoning Commission minutes for details about the Commission's recommendation.

Dated this 23 day of Sept, 2024


 Christine Zellmer Zant, Chair
 Woodbury County Zoning Commission

SEE ENCLOSED ZONING COMMISSION DRAFT MINUTES

Minutes - Woodbury County Zoning Commission – September 23, 2024

The Zoning Commission (ZC) meeting was held on September 23, 2024 at 5:00 PM in the Board of Supervisors' meeting room, located in the basement of the Woodbury County Courthouse at 620 Douglas Street, Sioux City, IA. The meeting was also accessible via teleconference.

Meeting Audio:

For specific content of this meeting, refer to the recorded video on the Woodbury County Zoning Commission "Committee Page" on the Woodbury County website:

- County Website Link:
 - o https://www.woodburycountyiowa.gov/committees/zoning_commission/
- YouTube Direct Link:
 - o <https://www.youtube.com/watch?v=1mQWufHt3x0>

ZC Members Present:

Corey Meister, Chris Zellmer Zant, Tom Bride, Jeff Hanson

County Staff Present:

Dan Priestley, Dawn Norton

Public Present:

Dan Bittinger, Andy Bobrytzke, Joel Vos, Elbert Baker, Kathy Tabke, Brad Tabke, Jimmie Colyer

CALL TO ORDER:

Chair Chris Zant called the meeting to order at 5:00 p.m. Barb Parker was absent.

PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA:

Priestley presented material about grain bins received from MidAmerican Energy. Bride made a motion to accept the material into the record, which Hanson seconded. The motion passed 4-0. See appendix.

APPROVAL OF MINUTES:

Bride and Hanson were absent at the previous meeting and abstained from the vote. Bride moved to defer the approval of the August 26, 2024 minutes, with Meister seconding. The motion passed 4-0.

PUBLIC HEARING (ACTION ITEM): ZONING MAP AMENDMENT (REZONE) FROM AGRICULTURAL PRESERVATION (AP) TO AGRICULTURAL ESTATES (AE) ZONING DISTRICT (PARCEL #884726200002):

Priestley read the staff report into the record. The Sandra K. Baker Revocable Trust (Applicant: Sandra K. Baker) and Jimmie L. and Renee T. Colyer (Owners) submitted an application to rezone a 1.14-acre portion of property (Parcel #884726200002) from the Agricultural Preservation (AP) District to the Agricultural Estates (AE) District. This portion will be combined with Lot 1 of the Baker Acres subdivision through the Woodbury County Assessor's combination process. A survey conducted by Al Fagan Land Surveying P.C. provides the legal description of the land to be conveyed to the Sandra K. Baker Revocable Trust. This triangular 1.14-acre portion is not eligible for development as a standalone lot, as it does not meet the requirements of the Zoning and Subdivision Ordinance. In the purchase agreement, Baker acknowledges that the property being acquired is "not a legal lot for building purposes" and must be combined with the adjacent parcel, Lot One (1) of Baker's Acres. The rezoning is requested to match the zoning of Lot 1, facilitating the combination into a single parcel for tax purposes. This proposal was properly noticed in the Sioux City Journal Legals Section on September 12, 2024. Neighbors within 1000 feet were notified via a September 9 letter about the public hearing on September 23, 2024, and stakeholders including government agencies, utilities, and organizations have been requested to comment. No objections were received. Staff recommends approval as the proposal meets the criteria for approval. Bride moved to close the public hearing, seconded by Hanson. The motion carried 4-0. Hanson then moved to approve the zoning ordinance map amendment from AP to AE, with the condition that the portion be combined with Lot 1 of Baker's Acres subdivision, seconded by Meister. The motion carried 4-0, and the application will be forwarded to the Board of Supervisors.

PUBLIC HEARING (ACTION ITEM): CONSIDERATION OF NUCLEAR ENERGY FACILITIES IN THE WOODBURY COUNTY ZONING ORDINANCE:

At the request of the Board of Supervisors, the Commission held a public hearing to discuss the potential incorporation of nuclear energy facilities into the zoning ordinance. No public comments were offered. This follows the Board's directive on July 2, 2024, to explore nuclear energy as a county option. No formal proposals have been submitted by companies, and few public comments have been received up to this point. Bride suggested seeking input from MidAmerican Energy regarding future power sources, and a town hall meeting after the harvest season was proposed to discuss nuclear energy with residents. Bride moved to revisit this topic next month, seconded by Hanson. The motion was approved 4-0.

REVIEW OF CONDITIONAL USE PERMIT APPLICATION (ACTION ITEM): INSTALLATION OF THREE 100-FOOT WIND TURBINES (PARCEL #884420300005):

Priestley read the staff report into the record. L & K Tabke Holdings, LLC (Kathy Tabke) submitted a conditional use permit application to install three 100-foot wind turbines to reduce electrical costs on the farm. The proposed locations are approximately 5.2 miles southeast of Merville, on the south side of 195th Street and east of Jasper Avenue. The property is located in the Agricultural Preservation (AP) Zoning District, where "Electric wind generator (Private use)" is classified as a conditional use eligible for review by the Zoning Commission and consideration by the Board of Adjustment. This proposal was properly noticed in the Sioux City Journal's legal section on September 21, 2024. Neighbors within 500 feet were notified via a September 18, 2024 letter about the October 7, 2024 Board of Adjustment public hearing. Stakeholders have been requested to comment. Based on the information received and the requirements of the Zoning Ordinance, the proposal meets the criteria for approval. Bride emphasized that the turbines are for private use. Priestley discussed setback concerns from other structures on the premises per the zoning ordinance. The property owner assumes all risks for any malfunctions or tower collapses. Meister moved to close the public hearing, seconded by Bride. The motion carried 4-0. Based on the information provided and zoning criteria, Meister moved to recommend approval of the conditional use permit, seconded by Hanson. The motion carried 4-0, and the application will be forwarded to the Board of Adjustment.

REVIEW OF CONDITIONAL USE PERMIT APPLICATION (ACTION ITEM): INSTALLATION OF 250-FOOT WIRELESS COMMUNICATIONS TOWER (PARCEL #874720400004):

Priestley read the staff report into the record. Andrew Bobrytzke, on behalf of American Towers LLC and the Bradley J. Kobold Trust, has filed a conditional use permit application to construct a 250-foot self-support wireless communications tower to replace an existing tower on Parcel #874720400004. The proposed location is about half a mile west of Salix, on the north side of 260th Street and west of Barker Avenue. The parcel is located in the General Industrial (GI) Zoning District, where "telecommunication towers" are classified as conditional uses eligible for review by the Zoning Commission and for consideration by the Board of Adjustment. This proposal was noticed in the Sioux City Journal's legal section on September 21, 2024. Neighbors within one mile were notified via a September 18, 2024 letter about the October 7, 2024 Board of Adjustment public hearing. Appropriate stakeholders have been requested to comment. Based on the information received and zoning requirements, the proposal meets the criteria for approval. Staff recommends approval. Hanson moved to close the public hearing, seconded by Bride. Bride then moved to recommend approval of the tower construction and use on the specified parcel, seconded by Meister. The motion carried 4-0, and the application will be forwarded to the Board of Adjustment.

INFORMATION ITEM: CONSIDERATION OF DECOMMISSIONING REQUIREMENTS FOR CARBON PIPELINES:

Priestley provided an update on the Board of Supervisors' August 27, 2024, decision to direct county staff to explore decommissioning requirements for carbon pipelines as part of a new ordinance. While federal regulations govern pipeline decommissioning, staff are reviewing local regulations from other counties and states. The Zoning Commission and Board of Adjustment will be involved in researching and offering recommendations. Bride noted that pipeline easements remain in place even if a pipeline is no longer in use.

STAFF UPDATE:

Priestley updated the Commission on the proposed amendments to Ordinance 56, which regulates Commercial Wind Energy Conversion Systems. He discussed the three-step public hearing process and referenced safety information obtained from safety data sheets for a Nordex system submitted to the Ohio Public Utilities Commission.

PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA:

None.

COMMISSIONER COMMENT OR INQUIRY:

None.

ADJOURNMENT:

Meister moved to adjourn the meeting, seconded by Hanson. The meeting adjourned at 6:02 p.m.

APPENDIX:

Received from MidAmerican Energy (September 13, 2024)



September 13, 2024

WOODBURY COUNTY
PLANNING AND ZONING COMMISSION
620 DOUGLAS ST
SIOUX CITY IA 51101

Dear WOODBURY COUNTY:

MidAmerican Energy is committed to the safety of our customers and to its staff's working within our service territory. The enclosed brochure provides facts and useful information to consider when issuing permits or long-range planning involving grain storage, grain bin modification. This information is drawn from the Iowa Administrative Code, American National Standards Institute, and the National Electrical Safety Code. If you, or the residents of your city, have additional questions, please contact us at 888-427-5632. Note information about farming and working safely around electricity and natural gas lines is available online at MidAmericanEnergy.com/farm-safety.

Sincerely,
Shawn Emerton
General Manager, Electric Distribution Engineering
MidAmerican Energy

Attachment

MidAmerican Energy Company
P.O. Box 997
Des Moines, IA 50324-0997

YOUR SAFETY MATTERS GRAIN BIN CLEARANCE

MidAmerican Energy is committed to providing important information to help ensure that safety when working near overhead facilities. From poles, substations, and farm structures, power lines, transformers, and utility and electric working practices of the boards and standards in jurisdiction or that affect your overhead power lines.

The Iowa Administrative Code (IAC) Section 199.25 (23b) requires that specific safety clearance be maintained between grain bins and electrical lines in accordance with American National Standards Institute (ANSI) C2 2017 National Electrical Safety Code (NESC) Part 2004. Photo diagrams show the minimum clearance envelopes for electrical lines. To avoid the you are aware of these clearance requirements, because conducting or operating a structure could create a hazardous condition that may result in a fire, injury, death or destruction.

If you or your customer are planning a build or modify grain bin, please contact us at 888-427-5632 to discuss the specific location and to determine if MidAmerican can assist in any possible utility safety concerns. Building, your structure and attention are provided and will help ensure that projects are properly positioned and safe to operate. For more information about farming and working safely around electricity and natural gas lines, visit MidAmericanEnergy.com/farm-safety.

Sincerely,

Shawn Emerton
General Manager, Electric Distribution Engineering
MidAmerican Energy Company



888-427-5632 | MidAmericanEnergy.com



ZONING ORDINANCE CRITERIA FOR BOARD APPROVAL

Conditional Use Permits are determined by a review of the following criteria by the Zoning Commission (ZC) and Board of Adjustment (BOA). The ZC makes a recommendation to the BOA which will decide following a public hearing before the Board.

APPLICANT'S DESCRIPTION OF THE PROPOSED CONDITIONAL USE:

Applicant wishes to install (3) 100' wind turbine towers to reduce the electrical costs on his farm.

MAP DRAWN TO SCALE, SHOWING THE SUBJECT PROPERTY, ALL STRUCTURES AND OTHER IMPROVEMENTS, WITH THE PROPOSED CONDITIONAL USE IDENTIFIED PER STRUCTURE OF IMPROVEMENT, PROVIDED BY ATTACHMENT

Attached.

CRITERIA 1: The conditional use requested is authorized as a conditional use in the zoning district within which the property is located and that any specific conditions or standards described as part of that authorization have been or will be satisfied (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

The land is zoned Ag and the applicant is surrounded by several hundred acres of his own farm land as can be seen from the abstract. The closest turbine is 200' from the nearest road and it appears that it meets the standard for approval of a conditional use permit.

STAFF ANALYSIS:

The Land Use Summary Table (Section 3.03.4) of the Woodbury County Zoning Ordinance includes the Agricultural Preservation (AP) Zoning District as a location authorized for a conditional use pending review by the Zoning Commission and approval by the Board of Adjustment.

CRITERIA 2: The proposed use and development will be in harmony with the general purpose and intent of this ordinance and the goals, objectives and standards of the general plan (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

This use and development promotes the use of renewable energy and helps us protect our environment for future generations without imposing any burden on surrounding neighbors.

STAFF ANALYSIS:

The proposed use of the three (3) wind turbines on the 100 FT support tower is compatible with the Woodbury County's Comprehensive Plan 2040 including to "support landowners' individual choices to implement renewable energy infrastructure for personal and private use" (p. 127).

(https://www.woodburycountyiowa.gov/files/community_economic_development/woodbury_county_comprehensive_plan_2040_89417.pdf)

CRITERIA 3: The proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

Due to the rural location and the sparse population nearby the project will have no adverse affect on public health, safety and general welfare.

STAFF ANALYSIS:

Based on the site plan and information presented, this project does not appear to have significant impacts on adjacent properties including the character of the neighborhood, traffic conditions, parking, utilities facilities, and other factors affecting public health, safety, and the general welfare of the public.

CRITERIA 4: The proposed use and development will be located, designed, constructed and operated in such a manner that it will be compatible with the immediate neighborhood and will not interfere with the orderly use, development and improvement of surrounding property (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

By locating the turbines on 100' towers they are able to take advantage of the higher winds aloft and also avoid turbulence from any nearby buildings or trees and will not interfere with the surrounding property.

STAFF ANALYSIS:

There does not appear to be significant impacts to the immediate neighborhood including impacts to the orderly use, development and improvement of surrounding property.

CRITERIA 5: Essential public facilities and services will adequately serve the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

The towers and turbines do not consume any public services and will actually offset approximately 100,000 gallons of water annually that would otherwise be used in the generation of electricity that the turbines will save.

STAFF ANALYSIS:

The property owner(s) will need to work out the details with the local utility in terms of their respective interconnection agreement.

CRITERIA 6: The proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic or historic features of the subject property or adjacent properties (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

There are no nearby natural, scenic or historic features

STAFF ANALYSIS:

There does not appear to be any significant impact determined.

OTHER CONSIDERATION 1: The proposed use or development, at the particular location is necessary or desirable to provide a service or facility that is in the public interest or will contribute to the general welfare of the neighborhood or community (Woodbury County Zoning Ordinance, Sec. 2.02-9).

STAFF ANALYSIS:

This proposed conditional use is an optional feature that has been added to the property for the benefit of the property owner(s).

OTHER CONSIDRATION 2: All possible efforts, including building and site design, landscaping and screening have been undertaken to minimize any adverse effects of the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).

STAFF ANALYSIS:

The appearance of a private wind turbine tower speaks for itself. At a height of 100 FT, there likely is no level of building, site design, landscaping, and screening available to conceal its effects.

PER SECTION 2.02(9)(C)(2 (d) PROVIDE A SPECIFIC DESCRIPTION OF THE PROPOSED CONDITIONAL USE: (Tab at the end of each line to continue)

Applicant wishes to install (3) 100' wind turbine towers to reduce the electrical costs on his farm.

PER SECTION 2.02(9) (C)(2)(e) PROVIDE A MAP DRAWN TO SCALE, SHOWING THE SUBJECT PROPERTY, ALL STRUCTURES AND OTHER IMPROVEMENTS, WITH THE PROPOSED CONDITIONAL USE IDENTIFIED PER STRUCTURE OR IMPROVEMENT . PROVIDE BY ATTACHMENT. [Attached](#)

PER SECTION 2.02(9) (C)(2)(e) PROVIDE A STATEMENT IN RESPONSE TO EACH OF SIX BELOW CRITEREA AND STANDARDS FOR APPROVAL OF CONDITIONAL USES AS LISTED IN SECTION 2.02(9)F OF THE ORDINANCES. (Tab at the end of each line to continue)

- (a) Provide a statement to why you feel the conditional use requested is authorized as a conditional use in the zoning district within which the property is located and that any specific conditions or standards described as part of that authorization have been or will be satisfied.

The land is zoned Ag and the applicant is surrounded by several hundred acres of his own farm land as can be seen from the abstract. The closest turbine is 200' from the nearest road and it appears that it meets the standard for approval of a conditional use permit.

- (b) Provide a statement to why the proposed use and development will be in harmony with the general purpose and intent of this ordinance and the goals, objectives and standards of the general plan.

This use and development promotes the use of renewable energy and helps us protect our environment for future generations without imposing any burden on surrounding neighbors.

- (c) Provide a statement to why the proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare. **Due to the rural location and the sparse population nearby the project will have no adverse affect on public health, safety and general welfare.**

- (d) Provide a statement to why the proposed use and development will be located, designed, constructed and operated in such a manner that it will be compatible with the immediate neighborhood and will not interfere with the orderly use, development and improvement of surrounding property. **By locating the turbines on 100' towers they are able to take advantage of the higher winds aloft and also avoid turbulence from any nearby buildings or trees and will not interfere with the surrounding property.**

(e) Provide a statement to why essential public facilities and services will adequately serve the proposed use or development.

The towers and turbines do not consume any public services and will actually offset approximately 100,000 gallons of water annually that would otherwise be used in the generation of electricity that the turbines will save.

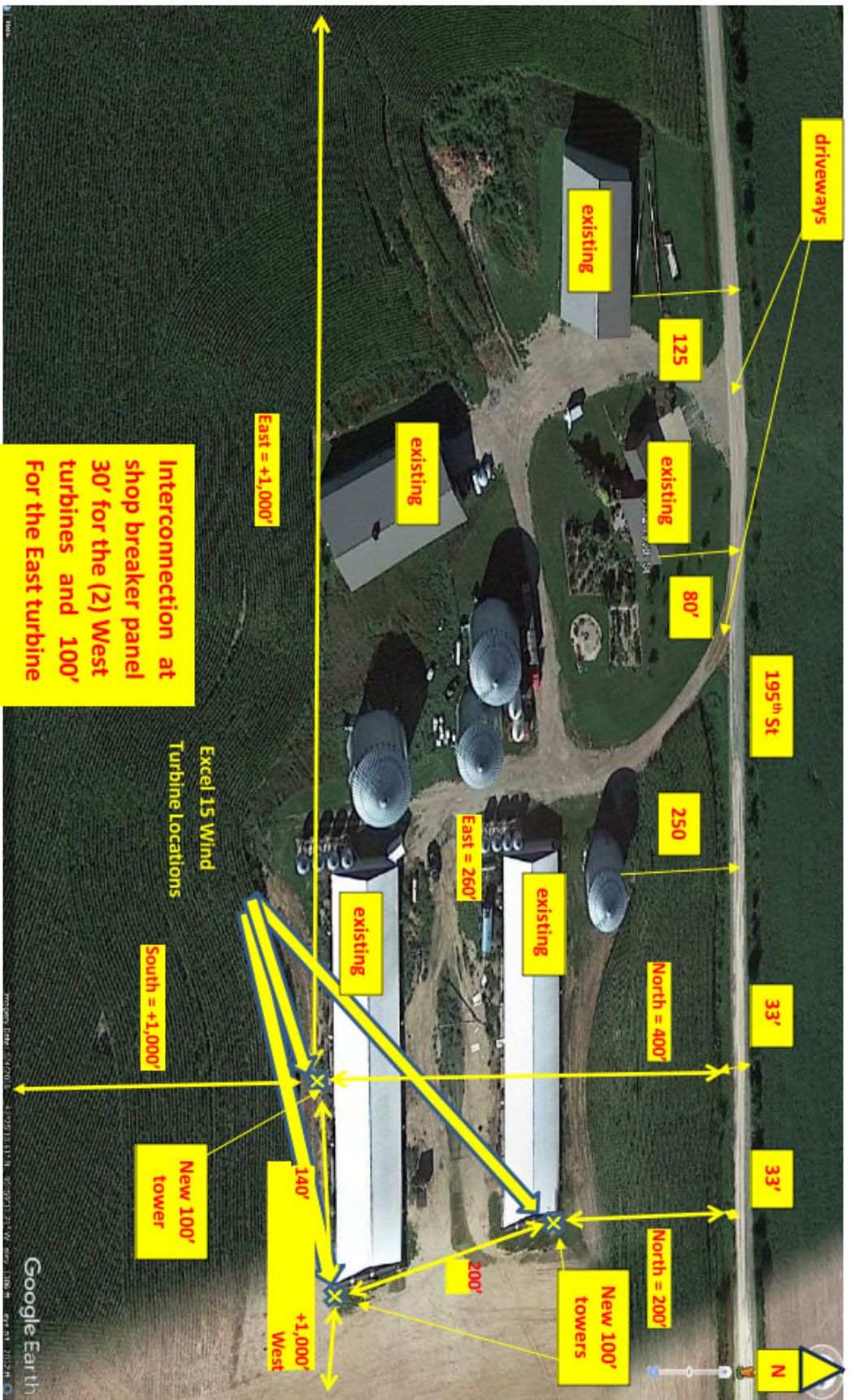
(f) Provide a statement to why the proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic or historic features of the subject property or adjacent properties.

There are no nearby natural, scenic or historic features

L&K Tabke Farms LLC Wind Turbine Locations
3112 195th St., Merville, IA



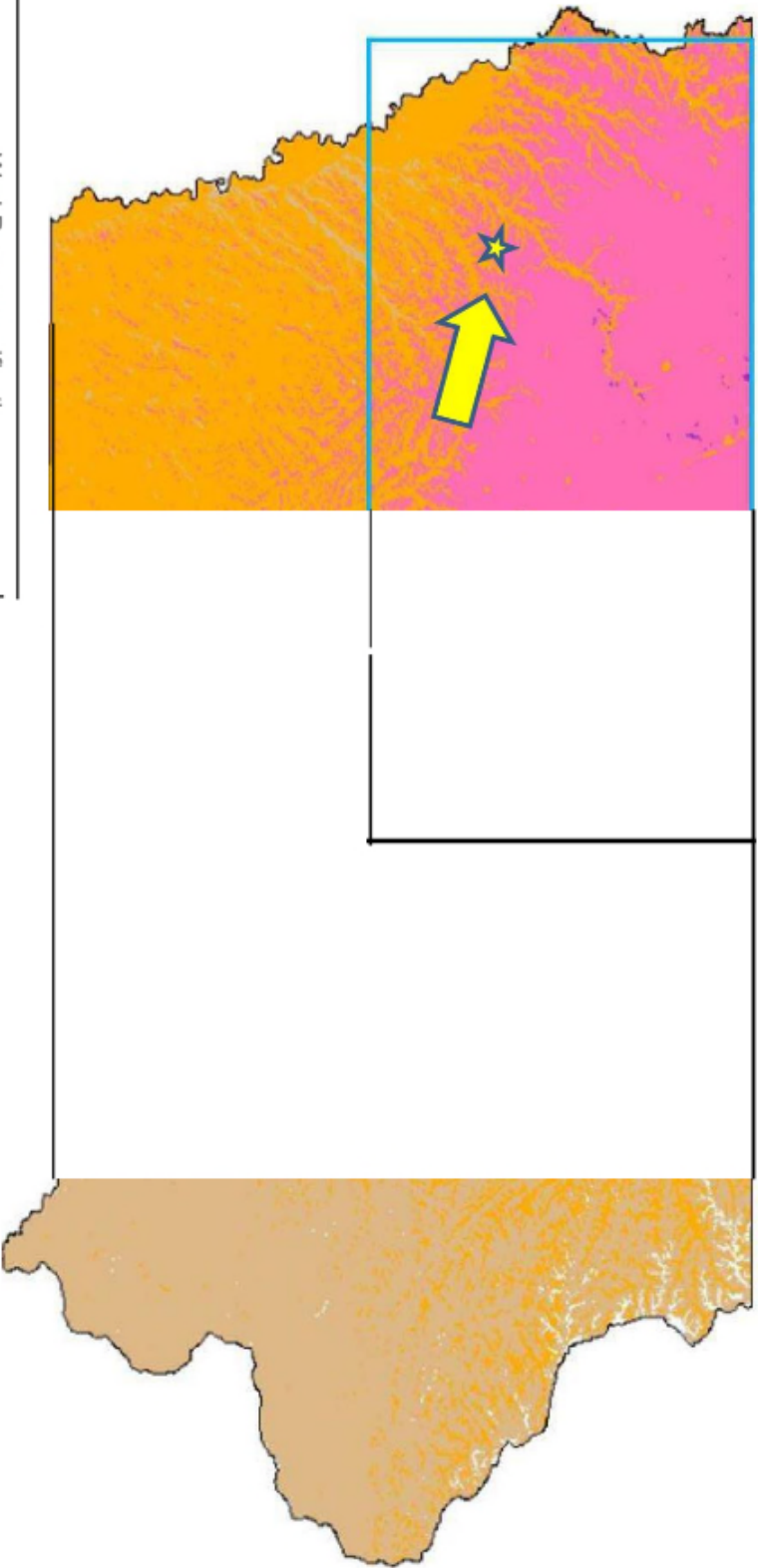
The turbine locations are ideal with wide open unobstructed space in all directions. In particular, the prevailing winds from the North and South are wide-open for miles. The Iowa 50m wind map indicates the area is in the range of 7-7.5 m/s or 15.7-16.8 mph, which for a small turbine like the Excel 15 is an excellent wind resource. This map was compiled by NREL using historical data. The turbine site analysis was performed by Cody Buhrman with American Windpower. Cody has sighted hundreds of wind turbines in his +10-year wind energy career and is acknowledged as a small wind turbine expert.



Approximately 200' from the North property line (road) and 260' +1,000' from the West, East and South property lines

The Wind Turbine is the Excel 15 manufactured by Bergey Windpower. It has a rated output of 15KW in an 11 m/s wind speed. The underground electrical wiring is approximately 100', 30' and 30' from the tower bases to the synchronous inverters located in the barns as indicated on the drawing. At the barns the wiring will enter the inverter and then exit into an accessible, lockable disconnect and then into the utility electric meter. The Electric Utility is Woodbury County REC in Merville, IA.

Iowa - Annual Wind Power at 50-m Height



Wind Power Classification

Wind Power Class	Resource Potential	Wind Power Density at 50m W/m ²	Wind Speed at 50m ft	Wind Speed at 50m ft
1	0.0-2000	0.0-5.6	0.0-12.5	0.0-12.5
2	2000-3000	5.6-6.4	12.5-13.3	12.5-13.3
3	3000-4000	6.4-7.0	14.3-15.7	14.3-15.7
4	4000-5000	7.0-7.5	15.7-16.8	15.7-16.8
5	5000-6000	7.5-8.0	16.8-17.9	16.8-17.9
6	6000-8000	8.0-8.8	17.9-19.7	17.9-19.7
7	> 8000	> 8.8	> 19.7	> 19.7

Wind Power Classification

Wind Power Classification





NORTH

Turbine 1



EAST

Turbine 1

SOUTH



Turbine 1

WEST



Turbine 1

NORTH



Turbine 2

EAST



Turbine 2

SOUTH

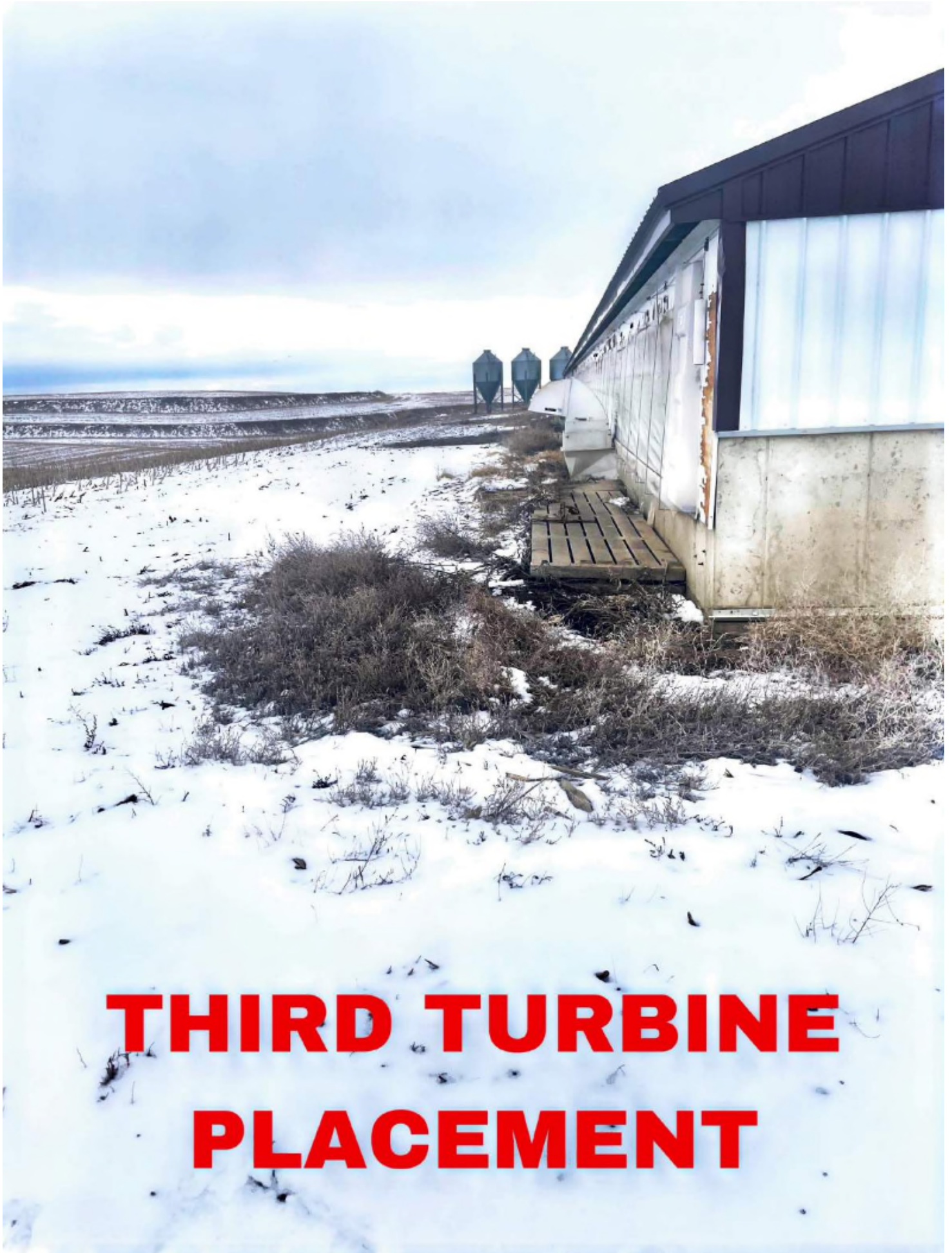


Turbine 2

WEST



Turbine 2



THIRD TURBINE PLACEMENT



WOODBURY COUNTY, IOWA APPLICATION FOR BUILDING PERMIT

For Office Use:		Case No. _____	
Zoning District <u>AP</u>	Date Approved _____	Denied _____	By _____
Floodplain District <u>X</u>	Map # _____	Fee _____	Ck/Rct # _____
GIS # <u>88442030005</u>	Mail _____	Pick up _____	

In accordance with the Woodbury County Zoning Ordinance, the undersigned hereby applies for a building permit:

L+K Tabke Holdings, L.L.C. (Kathy Tabke)

Landowner's name: Lane Tabke Phone: _____

Mailing Address: 3112 195th St City: Moville Zip: 51039

Structure will be built at (address): same

Occupied by: Lane Tabke

N1/2 SW 1/4(EX COMM NW COR THEC E1272' TO POB THEC E210',S207. 43' W210,& N 207.43')

Quarter/quarter _____ Section _____ Civil Township _____

or

Subdivision _____ Block _____ Lot(s) _____

Name of Contractor: American Windpower Phone: 833-464-9463

Address of Contractor: PO Box 1760 Great Bend, KS 67530

Anticipated start date of construction: (month/day/year): June 15, 2024

Type of structure: Wind Turbine -3 Will this be used for business purposes? Yes

Structure's Value: \$300,000 Size of parcel in acres: 160

Remarks: Towers take up an 11' triangle

PLEASE READ CAREFULLY.

I, the undersigned, hereby understand and state that the land and building listed herein SHALL NOT BE OCCUPIED OR USED in whole or in part for any purpose whatsoever until the structure has been completed and reported as such to the County Office of Planning and Zoning; and to do so constitutes a violation of the Woodbury County Zoning Ordinance subject to misdemeanor charges. I further state that I have read the foregoing application and attachments and know the contents therein, and the facts contained are true and accurate.

Signature Lane Tabke Kathy Tabke
This _____ day of _____, 20____.

L+K Tabke Holdings, L.L.C

9/4/24

Notary Public in and for Woodbury County, Iowa

AFTER THE APPLICATION HAS BEEN APPROVED AND THE PERMIT ISSUED, THE PERMIT BECOMES NULL AND VOID IF CONSTRUCTION HAS NOT COMMENCED WITHIN 120 DAYS AND IN ANY EVENT ONE YEAR.

Sioux City Journal

AFFIDAVIT OF PUBLICATION

Sioux City Journal
2802 Castles Gate Drive
Sioux City 51106
(712) 293-4250

State of New Jersey, County of Hudson, ss:

Laquansay Nickson Watkins, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Sioux City Journal, printed and published by Journal Communications, in Sioux City in Woodbury County and issued daily and Sunday and that this affidavit is Page 1 of 1 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Sep. 21, 2024

NOTICE ID: wKhGCoFU7NPROrbSsrau
PUBLISHER ID: COL-IA-500806
NOTICE NAME: BOA_Tower_Turbine_10-7-24
Publication Fee: \$50.97

(Signed) Laquansay Nickson Watkins

VERIFICATION

State of New Jersey
County of Hudson

SHANNEA H HOLMES
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires August 1, 2026

Subscribed in my presence and sworn to before me on this: 09/23/2024

Shanea H. Holmes

Notary Public
Notarized remotely online using communication technology via Proof.

NOTICE OF PUBLIC HEARINGS
BEFORE THE WOODBURY
COUNTY BOARD OF
ADJUSTMENT

The Woodbury County Board of Adjustment will hold public hearings on the following items hereafter described in detail on October 7, 2024 at 6:00 PM or as soon thereafter as the matters may be considered. Said hearings will be held in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, Iowa. Copies of said items may now be examined at the office of the Woodbury County Community and Economic Development, on the 8th Floor of said courthouse by any interested persons. All persons who wish to be heard in respect to the matters should appear at the aforesaid hearings in person or call: 712-454-1133 and enter the Conference ID: 742-346-129# during the meeting to listen or comment. However, it is recommended to attend in person as there is the possibility for technical difficulties with phone and computer systems. Questions or comments can be directed to Daniel Priestley, Woodbury County Zoning Coordinator, 6th Floor, Woodbury County Courthouse, 620 Douglas St., Sioux City, IA 51101 or at 712-279-8608 or via email at: dpriestley@woodburycounty.iowa.gov

Item One (1)
Pursuant to Section 335 of the Code of Iowa, the Woodbury County Board of Adjustment will hold a public hearing to consider the Conditional Use Permit application by L & K Tabke Holdings, LLC (Kathy Tabke) for the installation and use of three (3) 100' wind turbines to reduce the electrical costs on the farm. The property is designated as Parcel #684420300005 and is located in T89N R44W (Wolf Creek Township) in Section 20 in the N 1/2 of the SW 1/4. The proposed location is about 5.2 miles southeast of Moulvle, IA which is on the south side of 195th Street and east of Jasper Avenue. The property is located in the Agricultural Preservation (AP) Zoning District and "Electric wind generator (Private use)" is classified as a "conditional use" in Section 3.03.4 of the Woodbury County Zoning Ordinance. Applicant(s)/Owner(s): L & K Tabke Holdings, LLC (Kathy Tabke), 3112 195th St., Moulvle, IA 51036.

Item Two (2)
Pursuant to Section 335 of the Code of Iowa, the Woodbury County Board of Adjustment will hold a public hearing to consider the Conditional Use Permit application by Andrew Bobryzkie on behalf of American Tower LLC and the Bradley J. Kobold Trust who have filed the conditional use permit application to request to construct a 250' self-support wireless communications tower to replace an existing tower from the area. The property is designated as Parcel #674720400004 in T87N R47W (Liberty Township) in Section 20 in the SE 1/4 of the SE 1/4. The proposed location is about one (1) half mile west of the Salix, IA which is on the north side of 280th Street and west of Barker Avenue. The property is located in the General Industrial (GI) Zoning District and "Telecommunication towers" are classified as a "conditional use" in Section 3.03.4 of the Woodbury County Zoning Ordinance. Applicant(s)/Owner(s): Andrew Bobryzkie on behalf of American Tower LLC, 10 Presidential Way, Woburn, MA 01801 / Bradley J. Kobold Trust, 211 7th Street, Sergeant Bluff, IA 51054.
COL-IA-500806

PROPERTY OWNER(S) NOTIFICATION

Property Owners within 500 Feet:	7
Notification Letter Date:	September 18, 2024
Public Hearing Board:	Board of Adjustment
Public Hearing Date:	October 7, 2024, 6:00 PM
Phone Inquiries:	2 (Anthony Ashley, Jeanette M. Kummer)
Written Inquiries:	0
The names of the property owners are listed below.	
When more comments are received after the printing of this packet, they will be provided at the meeting.	



PROPERTY OWNER(S)	MAILING ADDRESS				COMMENTS
Kathy J. Tabke Revocable Trust & Lane D. Tabke Revocable Trust	3112 195th Street	Moville	IA	51039-8120	No comments received.
L & K Tabke Holdings LLC	3112 195th St.	Moville	IA	51039-8120	No comments received.
Delbert D. Spink Revocable Trust	16796 Birchview Road	Park Rapids	MN	56470	No comments received.
2B, LLC C/O Greg Brandt	839 Meadow Dr.	Moville	IA	51039	No comments received.
Jeanette M. Kummer	1977 Jasper Ave.	Moville	IA	51039-8191	Phone inquiry: asked about location of the turbines relative to her propriety and height. Had no objections (9/24/24).
Todd Tabke	34679 C70	Kingsley	IA	51028	No comments received.
Anthony Ashley	3346 170th St.	Correctionville	IA	51016	Phone Inquiry: question about the CUP process for private turbine. (9/16/24).

STAKEHOLDER COMMENTS

911 COMMUNICATIONS CENTER:	No comments received.
FIBERCOMM:	No comments received.
IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR):	No comments received.
IOWA DEPARTMENT OF TRANSPORTATION (IDOT):	No comments received.
LOESS HILLS NATIONAL SCENIC BYWAY:	No comments received.
LOESS HILLS PROGRAM:	No comments received.
LONGLINES:	No comments received.
LUMEN:	No comments received.
MAGELLAN PIPELINE:	No comments received.
MIDAMERICAN ENERGY COMPANY (Electrical Division):	I have reviewed the attached proposal for MEC electric and we have no conflicts. – Casey Meinen, 9/4/24.
MIDAMERICAN ENERGY COMPANY (Gas Division):	No comments received.
NATURAL RESOURCES CONSERVATION SERVICES (NRCS):	No comments received.
NORTHERN NATURAL GAS:	No comments received.
NORTHWEST IOWA POWER COOPERATIVE (NIPCO):	Have reviewed this zoning request. NIPCO has no issues with this request. – Jeff Zettel, 9/10/24.
NUSTAR PIPELINE:	No comments received.
SIOUXLAND DISTRICT HEALTH DEPARTMENT:	No comments received.
WIATEL:	No comments received.
WOODBURY COUNTY ASSESSOR:	No comments received.
WOODBURY COUNTY CONSERVATION:	No comments received.
WOODBURY COUNTY EMERGENCY MANAGEMENT:	No comments received.
WOODBURY COUNTY EMERGENCY SERVICES:	No comments received.
WOODBURY COUNTY ENGINEER:	No comments received.
WOODBURY COUNTY RECORDER:	No comments received.
WOODBURY COUNTY RURAL ELECTRIC COOPERATIVE (REC):	No comments received.
WOODBURY COUNTY SOIL AND WATER CONSERVATION DISTRICT:	The WCSWCD has no comments regarding this application. – Neil Stockfleth, 9/5/24.
WOODBURY COUNTY TREASURER:	No comments received.

PICTOMETRY



Woodbury County, IA / Sioux City

Summary

Parcel ID: 884-020300035
 Alternate ID: 799 737
 Property Address: N/A
 Section: 20-88-44
 Township: MOOREHEAD TOWNSHIP N 25W 14 E EXCT COMM NW COR THICK 12 22 FT THICK, THICK E 210 FT 5 20 7 2 31 FT W 210 FT 5 4 20 7 4 21 FT
 The Description: 20-88-44 (Note: Not to be used on legal documents)
 Deed Book/Page: 262 28 56 07 2 0 131
 Gross Acres: 76.02
 Adjusted CSR Pct: 428.705
 Zone: AP - AGRICULTURAL PRESERVATION
 District: 003 AVOID CREEK/WD-C
 School District: WOODBURN CENTRAL
 Neighborhood: N/A

Owner

Deed Holder: L & K VAIKRE HOLDINGS LLC
 ATTENTION:
 MONTELE BRIDGES
 3112 195TH ST
 MOBILE IA 51039 8120

Land

Lot Area: 76.02 Acres: 3,311,431 SF

Agricultural Buildings

Plot #	Type	Description	Width	Length	Year Built	Building Count
1	Struct/Utility Building	MACH SHED	70	120	2014	1
2	Struct/Utility Building		54	105	2014	1
3	Concrete-Cur beam Bluff		50	200	2014	2
4	Bluff - (Gran Storage Bluff)		48	34	2014	2
5	Bluff - (Gran Storage Bluff)		42	34	2014	2
6	Concrete Pier - 4' Dia Spth		50	200	2014	2
7	Struct/Utility Bluff		8	0	2015	8

Yard Extras

#1 - (2)Hooper Bluff/Wedged Steel, 0 Bluff, 12' Diameter, 35' Top, Built 2014

Permits

Permit #	Date	Description	Amount
5696	06/20/2013	New Blg	100,000
5459	08/22/2011	New Blg	6,000
4460	06/21/2004	New Dwg	0
0211 1001 224 121	09/20/2002	New Blg	0
	07/24/2000	New Blg	0

Valuation

Class caton	2004	2023	2022	2021	2020
+ Assesed Land Value	\$142,100	\$143,100	\$111,170	\$11,170	\$103,100
+ Assesed Building Value	\$374,640	\$374,640	\$290,790	\$270,790	\$26,510
+ Assesed Dwellng Value	\$0	\$0	\$0	\$0	\$0
* Gross Assesed Value	\$517,740	\$517,740	\$401,960	\$401,960	\$370,610
- Exempt Value	\$0	\$0	\$0	\$0	\$0
* NET Assesed Value	\$517,740	\$517,740	\$401,960	\$401,960	\$370,610

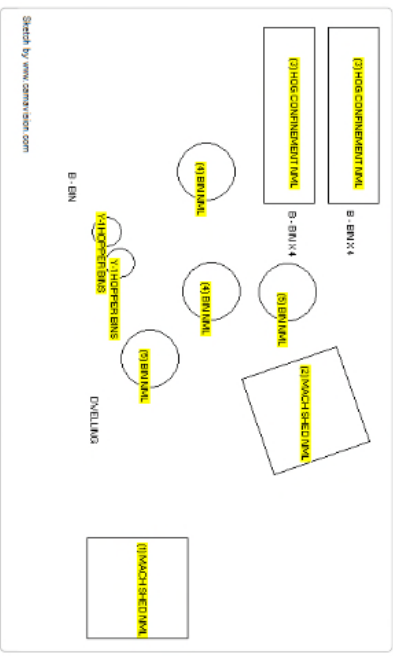
Sioux City Special Assessments and Fees

[Click here to view special assessment information for this parcel.](#)

Woodbury County Tax Credit Applications

Apply for Homestead, Military or Business Property Tax Credits

Sketches



Sketch by www.compass.com

No data available for the following models: Residential Dwellings, Commercial Buildings, Sales, Sioux City Tax Credit Applications, Sioux City Board of Review Petition Process

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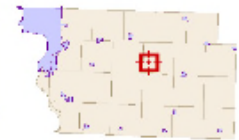
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BeaconTM Woodbury County, IA / Sioux City



Overview



Legend

- Roads
- ▭ Corp Boundaries
- ▭ Townships
- ▭ Sections
- ▭ Parcels
- County Zoning
- AE
- AP
- GC
- GC-PD
- GI
- LI
- LI-PD
- SR
- WR

Parcel ID	884420300005	Alternate ID	799757	Owner Address	L & K TABKE HOLDINGS LLC
Sec/Twp/Rng	20-88-44	Class	A		3112 195TH ST
Property Address		Acres	76.02		MOVILLE, IA 51039
District	0056				
Brief Tax Description	WOLFCREEK TOWNSHIP N 1/2 SW 1/4 (EX TCT COMM NW COR THEC E 1272 FT TO POB; THEC E 210 FT, S 207.43 FT, W 210 FT, & N 20 7.43 FT) 20-88-44				
	<i>(Note: Not to be used on legal documents)</i>				

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 GEOSPATIAL

SPECIAL FLOOD HAZARD AREA (SFHA) MAP



Overview



Legend

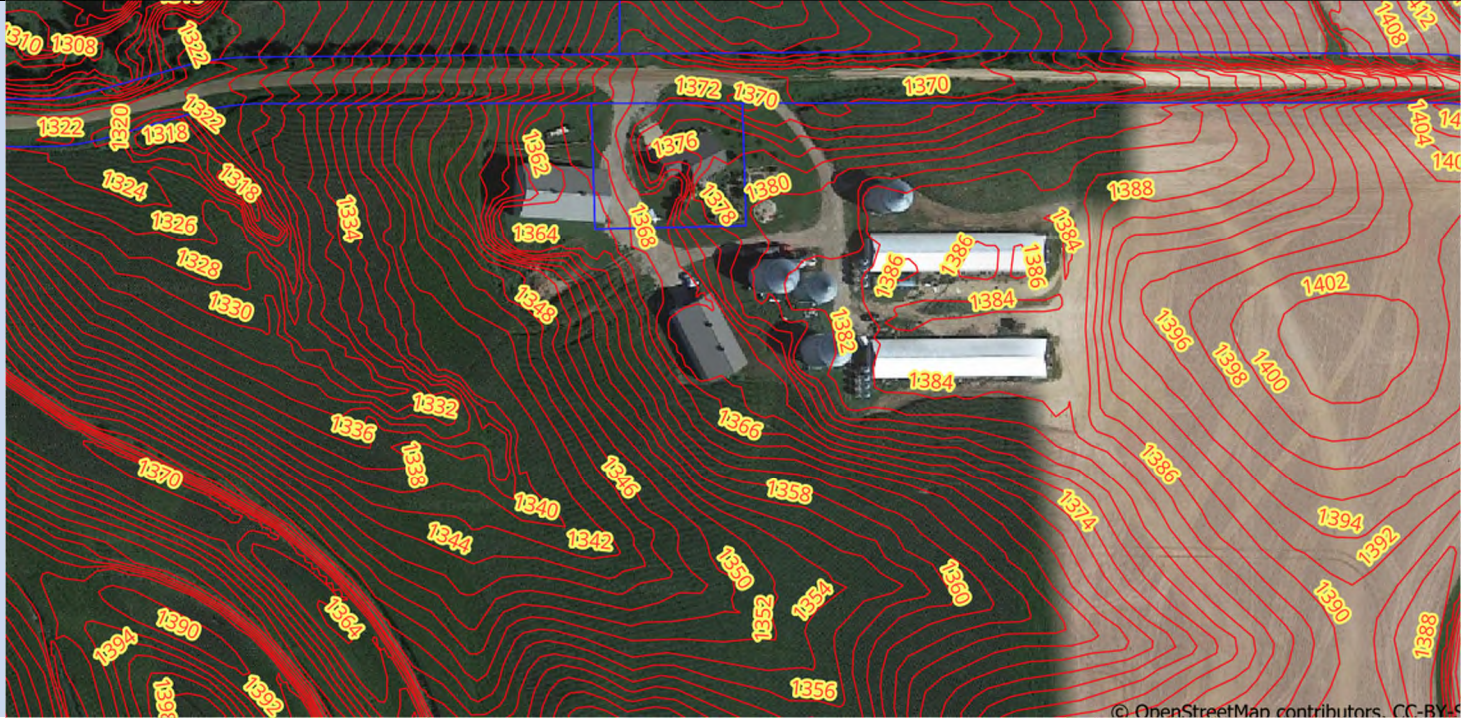
- Roads
- Corp Boundaries
- Townships
- Parcels

Parcel ID	884420300005	Alternate ID	799757	Owner Address	L & K TABKE HOLDINGS LLC
Sec/Twp/Rng	20-88-44	Class	A		3112 195TH ST
Property Address		Acres	76.02		MOVILLE, IA 51039
District	0056				
Brief Tax Description	WOLFCREEK TOWNSHIP N 1/2 SW 1/4 (EX TCT COMM NW COR THEC E 1272 FT TO POB; THEC E 210 FT, S 207.43 FT, W 210 FT, & N 20 7.43 FT) 20-88-44				
	<i>(Note: Not to be used on legal documents)</i>				

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ELEVATION MAP



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SOIL REPORT(S)

Woodbury County, IA / Sioux City

Summary

Parcel ID	884420300005
Gross Acres	76.02
ROW Acres	0.00
Gross Taxable Acres	76.02
Exempt Acres	0.00
Net Taxable Acres	76.02 (Gross Taxable Acres - Exempt Land)
Average Unadjusted CSR2	59.86 (4550.3 CSR2 Points / 76.02 Gross Taxable Acres)

Agland Active Con g 2017 CSR2

Sub Parcel Summary

Description	Acres	CSR2	Unadjusted CSR2 Points	Adjusted CSR2 Points
100% Value	71.01	58.85	4,179.02	4,179.02
Non-Crop	5.01	74.11	371.28	211.46
Total	76.02		4,550.30	4,390.48

Soil Summary

Description	SMS	Soil Name	CSR2	Adjusted Acres	Unadjusted CSR2 Points	Adjusted CSR2 Points
100% Value	8C	JUDSON SILTY CLAY LOAM, 5 TO 9 PERCENT SLOPES	86.00	8.76	753.36	753.36
100% Value	100C2	MONONA SILTY CLAY LOAM, 5 TO 9 PERCENT SLOPES, MODERATELY ER	85.00	13.74	1,167.90	1,167.90
100% Value	100D2	MONONA SILTY CLAY LOAM, 9 TO 14 PERCENT SLOPES, MODERATELY E	60.00	10.69	641.40	641.40
100% Value	1C3	IDA SILT LOAM, 5 TO 9 PERCENT SLOPES, SEVERELY ERODED	58.00	15.62	905.96	905.96
100% Value	1D3	IDA SILT LOAM, 9 TO 14 PERCENT SLOPES, SEVERELY ERODED	32.00	22.20	710.40	710.40
Non-Crop	100C2	MONONA SILTY CLAY LOAM, 5 TO 9 PERCENT SLOPES, MODERATELY ER	85.00	3.88	329.80	174.76
Non-Crop	100D2	MONONA SILTY CLAY LOAM, 9 TO 14 PERCENT SLOPES, MODERATELY E	60.00	0.19	11.40	7.32
Non-Crop	1D3	IDA SILT LOAM, 9 TO 14 PERCENT SLOPES, SEVERELY ERODED	32.00	0.94	30.08	29.38
Total				76.02	4,550.30	4,390.48

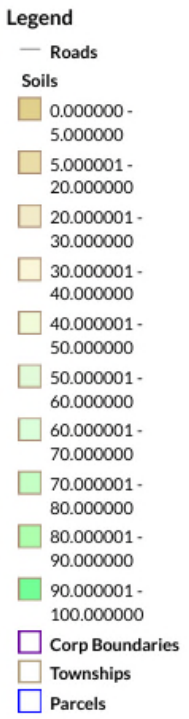
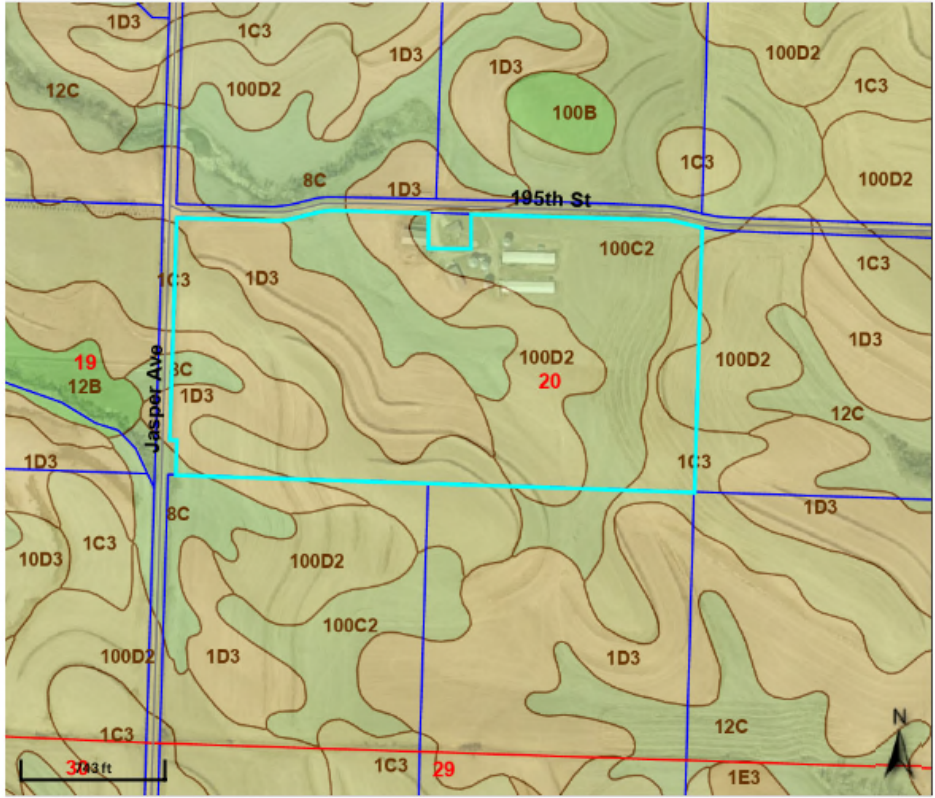
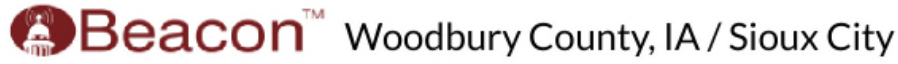
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SOIL MAP(S)



Parcel ID	884420300005	Alternate ID	799757	Owner Address	L & K TABKE HOLDINGS LLC
Sec/Twp/Rng	20-88-44	Class	A		3112 195TH ST
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	(Note: Not to be used on legal documents)				

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**OWNERS MANUAL RECEIVED ON SEPTEMBER 25, 2024 AFTER A
STAFF REQUEST – NOT INCLUDED WITH ORIGINAL ZONING
COMMISSION MATERIALS**

Owner's Manual

BWC EXCEL 15

Wind Turbine &
Powersync III
Grid-Intertie Inverter

Rev. 0
August 2018



Bergey Windpower Co.
2200 Industrial Blvd.
Norman, OK 73069 USA
TEL: 405-364-4212
FAX: 405-364-2078
E-mail: sales@bergey.com
Web Site: www.bergey.com

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I. INTRODUCTION

This manual contains important information concerning your Bergey EXCEL 15 wind turbine system and its operational characteristics. We strongly recommend that you read and familiarize yourself with its contents.

At several points in this manual items of special interest or significant impact are highlighted by one of the following indicators:



DANGER:

Hazards or unsafe practices that could cause personal injury or death.



WARNING:

Hazards or unsafe practices which could cause product damage.

NOTE

Significant points of interest.

Serial Numbers

Each Bergey EXCEL 15 wind turbine has a serial number located on the tower adapter. The turbine serial number can also be found on the outside of the shipping crate and on the warranty registration card. The blade serial numbers are located on the root pad and also the shipping crate. We recommend that the serial number be copied to this manual for possible future reference.

Bergey EXCEL 15 Serial No.: _____

Bergey EXCEL 15 Blades Serial Numbers: _____

The Powersync III inverter has a serial number label on its right side. We recommend that this serial number also be copied to this manual.

Powersync III Serial No.: _____

II. EXCEL 15 SPECIFICATIONS

PERFORMANCE

START-UP WIND SPEED	9 mph (4 m/s)
CUT-IN WIND SPEED	6 mph (2.5 m/s)
RATED WIND SPEED	24.6 mph (11 m/s)
AWEA RATED POWER (at 11 m/s or 25 mph)	15.6 kW
AWEA ANNUAL ENERGY (at 5 m/s average)	29,800 kWh
CUT-OUT WIND SPEED	none
MAXIMUM DESIGN WIND SPEED	134 mph (60m/s)
MAXIMUM POWER	22.6 kW
ROTOR SPEED	0-150 RPM

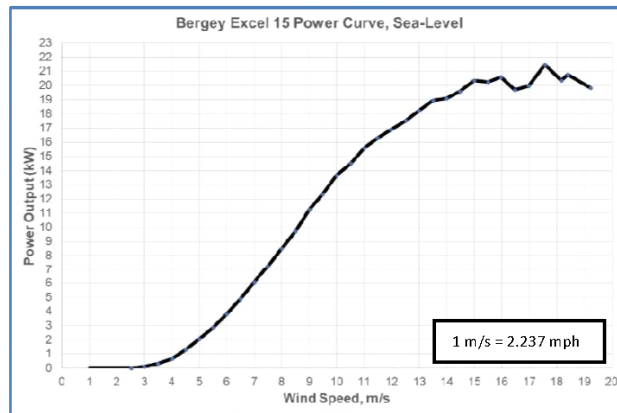
MECHANICAL

TYPE	3-Blade Upwind, Horizontal-Axis
ROTOR DIAMETER	31.5 ft. (9.2 m)
WEIGHT	1,400 lb. (636 kg)
GEARBOX	none
BLADE PITCH CONTROL	none
OVERSPEED PROTECTION	Blade stall
TEMPERATURE RANGE	-40 to 140 deg. F (-40 to 60 deg. C)

ELECTRICAL

OUTPUT FORM	240VAC, 1-Phase, 60Hz
GENERATOR	Permanent Magnet Alternator
POWER PROCESSOR	Powersync III Inverter

Power Output (AC kW)

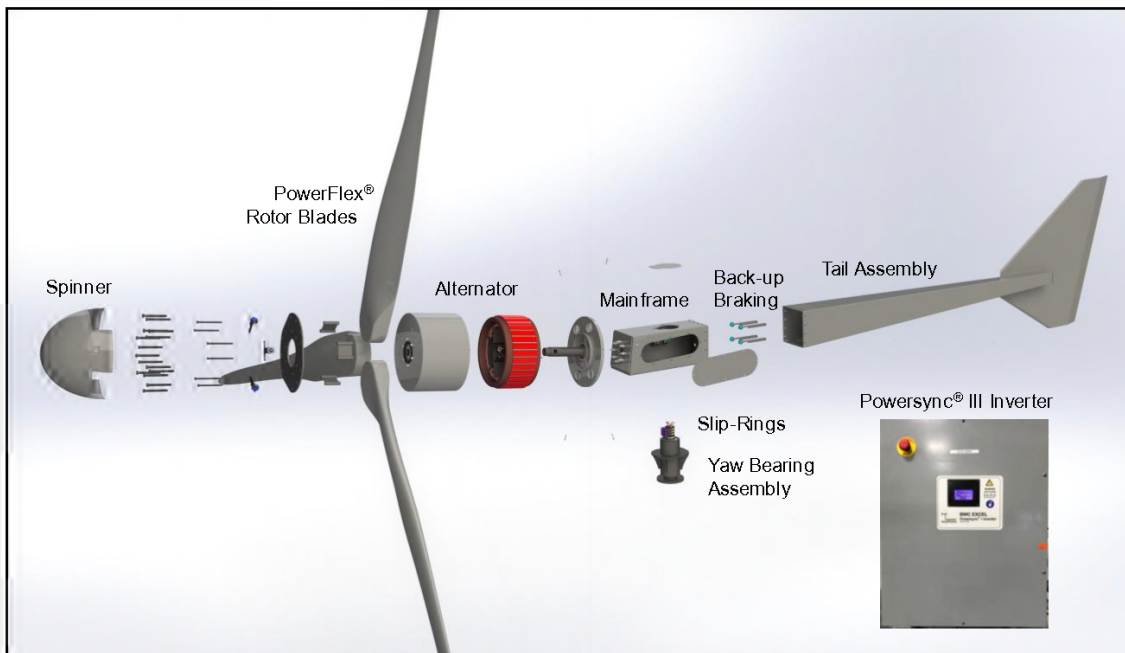


Wind Speed (m/s) at Hub Height

III. SYSTEM DESCRIPTION

The Bergey EXCEL 15 is an upwind horizontal-axis wind turbine designed for distributed generation applications, connected to the power grid on the customer's side of the utility meter. The complete unit consists of the following major components, as shown in the figure below:

- | | |
|----------------------------|--------------------------------|
| 1. Spinner | 6. Tail Assembly |
| 2. PowerFlex® Rotor Blades | 7. Slip-Rings |
| 3. Alternator | 8. Yaw Bearing Assembly |
| 4. Mainframe | 9. Powersync® III Inverter |
| 5. Back-up Braking | 10. Auxiliary Load (not shown) |



A. SPINNER

The spinner (nose cone) is purely cosmetic.

B. ROTOR SYSTEM

The rotor system consists of three high-technology carbon-fiber PowerFlex[®] blades. Acting like aircraft wings, the blades convert the energy of the wind into rotational forces that drive the alternator. The PowerFlex[®] blades are rigidly attached to the alternator and they are fixed pitch. The Excel 15 rotor blades have proprietary airfoils, which were custom designed to provide high efficiency and low noise.

Each blade has a serial number inscribed on its root pad at the inboard end.

C. ALTERNATOR

The alternator converts the rotational energy of the rotor into electricity. The alternator utilizes permanent magnets and has an inverted configuration in that the outside housing rotates, while the internal windings are stationary. It was specifically designed for the Bergey EXCEL 15 and produces power at low speeds, eliminating the need for a speed-increasing gearbox. Since it uses permanent magnets, the alternator is generating voltage whenever the rotor is turning.



DANGER

The output wiring of the EXCEL 15 presents a shock hazard whenever the rotor is turning. Caution must be exercised at all times to avoid electrical shock.

D. MAINFRAME

The mainframe is the structural backbone of the wind turbine. It serves as the attachment point for the rotor/alternator assembly, the tail assembly, the yaw bearing assembly. It also houses the yaw-axis slip-ring assembly and the controls for the back-up braking system.

E. BACK-UP BRAKING

The back-up braking system is an added safety system that prevents rotor overspeed in the event of a failure of the primary speed control system (inverter and dump load).

F. TAIL ASSEMBLY

The tail assembly keeps the rotor aligned into the wind.

G. SLIP-RING ASSEMBLY

The slip-rings and brushes conduct the electricity generated in the alternator from the moving (as it orients with the direction) wind turbine to the fixed tower wiring. The slip-rings are enclosed in the steel mainframe housing to help protect them from the weather and lightning.

H. YAW BEARING ASSEMBLY

The yaw bearing assembly allows the turbine to freely align itself to the wind direction.

I. POWERSYNC III INVERTER

The Powersync III inverter converts the "variable AC" from the Bergey EXCEL 15 turbine into utility grade electricity so that it can be connected to the wiring in your home or business. This conversion requires sophisticated electronics and is designed to operate automatically. The Powersync III has a digital display that provides information on the status of the system, its current output power, and its cumulative energy production.

The system also includes an auxiliary load bank that absorbs excess wind energy during strong wind gusts.

IV. SYSTEM OPERATION

A. NORMAL OPERATION

The Bergey EXCEL 15 produces utility compatible power in the form of 240VAC, 60 Hz, single phase electricity (other voltage options are available). It is connected through the Powersync® III inverter to the utility distribution network in the same manner as household appliances or electrical machinery. When the wind speed is too low to operate the wind turbine, all of the electrical power needed for the home or business will be supplied by the utility company. During these idle periods the Powersync® III will consume approximately 0.3 kilowatt-hours of electricity per day.

When the system begins producing power, the amount of power which must be purchased from the utility is reduced by an amount equal to the output of the wind system. From the perspective of the utility company the wind system output reduces the electrical load they have to supply, just as if you turned off lights and appliances. The output of the wind system fluctuates with the speed of the wind so the instantaneous amount of electricity being saved will be constantly changing. Quite often your home will be served simultaneously by the utility and your Bergey wind turbine.

When the output of the wind system exceeds the power requirements of the house the excess electricity is sent back to the utility. Both the consumer's right to interconnect a wind system and the utilities obligation to purchase excess power are prescribed by federal law (PURPA, Section 210). The amount you will be credited or paid for this excess production varies state-to-state and sometimes utility-to-utility. If your utility company offers "net metering" then your meter is allowed to turn backwards so that you essentially bank energy, at full value, for less windy periods. This banking can be done over a month or over a year depending on the policy of your state or your utility. If you do not get "net metering" then you will have a second utility meter to register excess production and your utility will pay or credit you for this, typically at less than the rate you pay when you purchase their electricity.

If your utility experiences an outage (blackout) the wind system will cease to produce power so that it does not present an electrical safety hazard to utility repair crews. During a power outage the Excel 15 turbine will come to a stop. When utility power is restored, the Powersync III will automatically return the wind system to full working status following a five minute delay and then a two minute countdown. These time delays are dictated in the UL standards required by the utilities.

The rotor of the EXCEL 15 should begin to rotate when the wind speed reaches approximately 9 mph (4 m/s). Once started, the rotor may continue to turn in winds below 5 mph (2.2 m/s), but the system will not be producing power below this wind speed.

NOTE All operational wind speeds given assume steady winds, sea-level conditions and moderate temperatures. Hot weather, high altitude, turbulence and gusting winds will reduce system performance.

NOTE The Excel 15 may exhibit poor start-up performance in light steady winds. The design of the blades is optimized for efficiency and storm protection, which necessitated some sacrifice in start-up characteristics.

The rotor speed will increase with increasing wind speed and the system will produce a higher output. This output increases rapidly because the energy available in the wind varies as the third power (cube) of the wind speed. For example, if the wind speed increased from 5 mph to 10 mph, a factor of two, the energy in the wind would increase from one unit to eight units, a factor of eight (2 to the 3rd power). One result of this relationship is that there is very little energy available in light winds. For the average site, winds in the range of 12-20 mph (5.5 – 9 m/s) will provide most of the system's energy production on an annual basis.

The Excel 15 will operate at variable speed up to about 20 mph (9 m/s) and about 150 RPM. The speed of the rotor is controlled to limit at about 150 RPM.

B. HIGH WINDS

Unlike previous Bergey wind turbines, the Excel 15 does not furl (rotor turned away from the wind). The Excel 15 controls speed and protects itself from high winds by stalling the rotor progressively as wind speeds increase. In sustained high winds the rotor speed is reduced to limit power surges during strong gusts.

C. PROBLEMS WITH POWER GRID

If an abnormal condition occurs on the utility line, such as a voltage fluctuation or a complete interruption, the Powersync III inverter will automatically disconnect the wind turbine from the power grid and bring the rotor to a stop.

D. EMERGENCY SHUTDOWN

The Bergey EXCEL 15 is designed for unattended operation over an extended period of time. Exceptional situations may occur, however, in which the wind turbine should be shutdown. These situations include:

1. **EXCESSIVE VIBRATION** - Uneven ice build-up, ice shedding, or blade damage may cause the wind turbine to experience excessive vibration. Always shut the turbine down as soon as an increase in vibration is detected. Any new or excessive vibration in the turbine when ice is not present should be investigated immediately.
2. **UNUSUAL SOUND** - If the turbine begins making clinking, growling, or other unusual sound it

should be shut down and fully inspected as soon as possible.

- 3. INSPECTION AND MAINTENANCE** - Whenever someone must climb the tower the wind turbine must be shut down.

Shut down of the EXCEL 15 is accomplished by operating (pressing) the red Emergency Stop button on the Powersync III inverter.



To release the Emergency Stop, turn the red button clockwise until it snaps outward. This will resume automatic operation of the wind turbine.



WARNING:

Do not open the disconnect switch on the tower during shutdown. This would allow the turbine to restart and if the turbine tried to overspeed it would trigger the back-up braking system.

E. BACK-UP BRAKING SYSTEM

If the primary overspeed protection system fails, the Excel 15 has a back-up braking system located on the wind turbine. It detects an overspeed situation and applies a dynamic brake to bring the rotor to a near stop. You can tell this has occurred if the Powersync III display says "Waiting for wind" and there's plenty of wind [greater than 15 mph (6.7 m/s)], but the rotor does not turn.

It will automatically reset if the wind drops below 2 m/s (4.5 mph). Otherwise, you can manually restart the turbine by activating and then restoring the Emergency Stop button on the Powersync III inverter.

If activation of the Back-up Brake occurs repeatedly we strongly recommend that you contact your dealer or the Service Department at BWC.

V. POWERSYNC III INVERTER

The Powersync III inverter is connected to the household or building electrical circuits through a dedicated circuit breaker. Before opening the Powersync III enclosure, the breaker must be turned off and the turbine Emergency Stop must be activated, to avoid electrical shock.



DANGER

Electric Shock Hazard. Failure to comply will result in death or serious injury. Disconnect all power to the inverter before servicing. Wait at least 5 minutes before opening the inverter door.

Using the utility grid as a reference, the Powersync III inverter converts the output of the wind turbine into utility-compatible power (AC). The Powersync III inverter has been designed for automatic, unattended operation and it is programmed to provide maximum performance from your Bergey EXCEL 15 wind turbine. It is also programmed to safely disconnect the wind turbine in the event of a problem with the utility power and to automatically reconnect the turbine after the problem is remedied.

The LCD digital display on the front of the Powersync III provides information on the status of your Bergey EXCEL 15 wind turbine. The contrast can be adjusted UP or DOWN using hidden buttons on the right side of the display.



In normal operation the Powersync III will show the status as "Running" and will display the instantaneous Output Power in Watts.

A. INVERTER SPECIFICATIONS

Input – From Turbine

Input Voltage Maximum (3 Phase Input)	480 VAC
Input Start Voltage Minimum	270 VAC
Input Operating Voltage Range	270 to 480 VAC
Input Frequency Maximum	47 Hz
Input Current Maximum	34 Amps

Output – To Utility



Model	PSIII-240	PSIII-208
Continuous Output Power Maximum	22600 W	18800 W
Continuous Output Power Tolerance	±10%	
Output Voltage Nominal (Single Phase) Line-Line	240 VAC	208 VAC
Operating Voltage Range Line-Line	212-264	184-228
Output Voltage Nominal (Single Phase) Line-Neutral	120 VAC	
Operating Voltage Range Line-Neutral	106-132 VAC	
Continuous Output Current Maximum	90 Amps	
Continuous Output Current Tolerance	± 10%	
Voltage Measurement Tolerance	± 10 VAC	
Operating Frequency Nominal	60 Hz	
Operating Frequency Range	59.3 to 60.5 Hz	
Operating Frequency Measurement Tolerance	± 0.5 Hz	
Output Power Factor	0.95 ± 0.05	
Temperature Range Normal Operation	-4°F to 113°F (-20°C to 45°C)	
Output Over-Current Protection Maximum	100 Amps	
Synchronization In-Rush Current Maximum	6.3 Amps	
Utility Interconnection Trip Time	100 msec	
Time Measurement Tolerance	± 85 msec	

B. Other Specifications

Dimensions	32.2"H x 24.3"W x 9" D 817 x 607 x 230 mm
Weight	153 lbs. / 64 Kg
Enclosure	NEMA Type 1

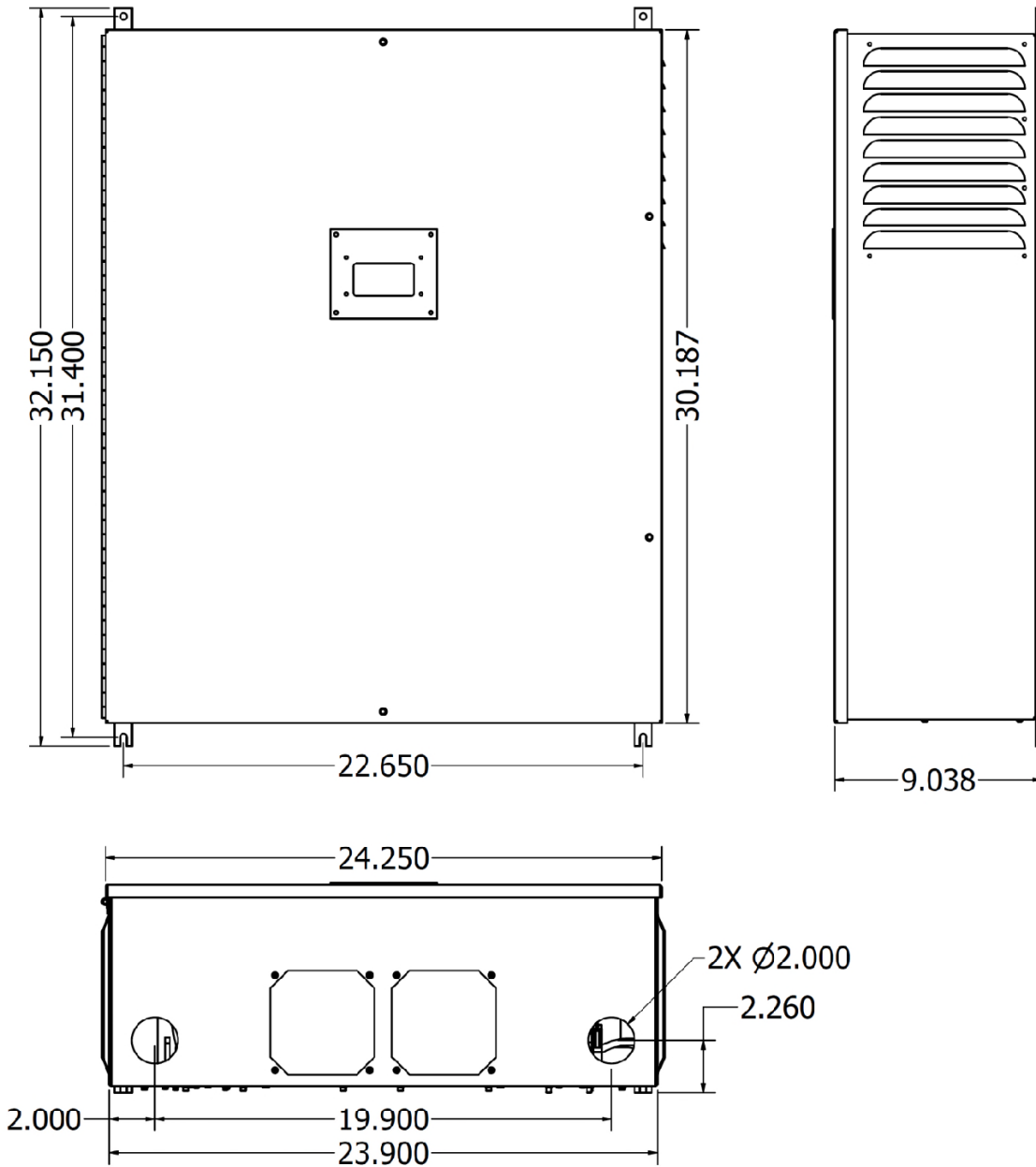
NEMA 1 indicates that the enclosure is constructed for indoor use only. It provides protection to personnel against incidental contact with the enclosed equipment.

C. Important Inverter Safety Instructions

<p>SAVE THESE INSTRUCTIONS</p> <p>This manual contains important instructions for Models PSIII-240 and PSIII-208 that shall be followed during installation and maintenance of the inverter.</p>	
<p>The output field wiring terminal can be used for connection of a maximum of: One 1/0 AWG wire per terminal (1 wire for each line)</p>	
<p>The input field wiring terminal can be used for connection of a maximum of: One 2 AWG wire per terminal (1 wire per phase per terminal provided).</p>	
<p>The field-wiring terminals shall be connected using the following wire types:</p> <p style="text-align: center;">Copper Conductors Only (Input connection) Use No. 8 - 2 AWG, 90 °C copper wire only</p> <p style="text-align: center;">Copper, Aluminum or Copper-Clad Aluminum Conductors Only (Output connection)□ Use No. 6 – 1/0 AWG, 90 °C Copper Conductors Use No. 4 – 1/0 AWG, 90 °C Copper Clad Aluminum, or Aluminum Conductors.</p>	
<p>The following symbols are used as markings on this product with the following meanings:</p> <p>Equipment grounding conductor – </p>	
<p>This inverter is intended for operation in an indoor NEMA 1 compatible environment having a maximum ambient temperature of 45° C (113° F).</p>	
<p>This unit or system is provided with fixed trip limits and shall not be aggregated above 30 kW on a single Point of Common Connection</p>	
<p>CAUTION</p> <p>To reduce the risk of fire, connect only to a circuit provided with 100 amperes maximum branch-circuit over-current protection in accordance with the National Electrical Code, ANSI/NFPA 70.</p>	
	<p>Hot surfaces – To reduce the risk of burns – Do not touch The enclosure and the rear heatsink can exceed 70° C (150° F).</p>
<p>Note that the input and output circuits are isolated from the enclosure. In accordance with Clause 15.2.1.1 of CAN/CSA-C22.2 No. 107.1, system grounding, when required by the <i>Canadian Electrical Code, Part I</i>, is the responsibility of the installer.</p>	

D. Installation

1. Dimensions



2. Locating

- The inverter must be installed in a weather protected environment.
- The inverter emits audible noise when operating. Do not locate the inverter in living spaces or on walls directly connected to living spaces.
- For maximum energy production, avoid installing in direct sunlight or in locations that are likely to exceed 45°C (113°F) local ambient temperature.

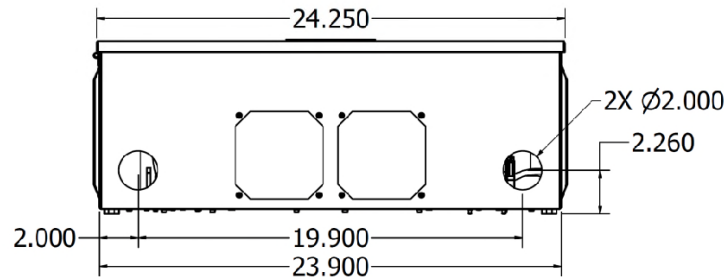
- The inverter will automatically shut down if the temperature is below -20°C (-4°F). Protect from extreme cold exposure if this is undesirable.
- Enclosure ventilation is to be provided such that the following guidelines are satisfied.
 - Provide a minimum of 12 inches clearance to the bottom air inlet filters.
 - Provide a minimum of 6 inches clearance to the outlet side vents.
 - Use in a well-ventilated area within the maximum ambient temperature rating.
- If the inverter is installed in a small structure or out building, the structure must be provided with top and bottom venting of at least 100 square inches at each opening.

3. Mounting

- The enclosure, having a NEMA 1 rating, is designed for indoor installation.
- The enclosure is provided with four mounting feet with 0.281" dia. mounting holes.
- For mounting to a 0.10" thick metal surface, use M6, ¼-20 or ¼-28 bolts grade 3 or higher with nuts and flat washers.
- For mounting to concrete, use M6 or ¼" bolts using concrete anchors with an 800 pound or greater tension rating.
- The required bolt length is such that the internal threads need to be 100% engaged.
- The enclosure is to be oriented with the conduit openings facing toward the floor.

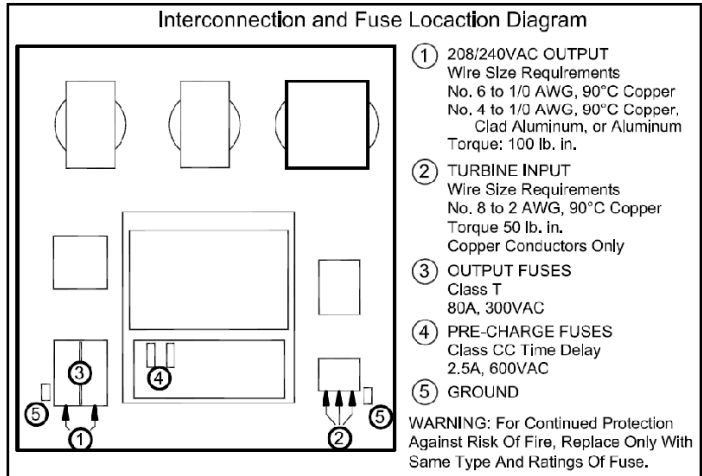
4. Electrical Connections

- Connections are made to the unit via the holes in the bottom of the enclosure.
- **Holes are sized for 1.5" rated conduit.** Wiring methods in accordance with the National Electrical Code, ANSI/NFPA 70 are to be used.
- It is recommended that at least 12" of flexible conduit be used below the inverter to make alignment easier.
- Cutting additional holes in the enclosure is not recommended and voids the warranty on the enclosure against corrosion and water damage. Any damage to the electronics caused by the modification will be **your** responsibility.



5. AC Output Connection

- The AC output is single phase and not bonded to ground.
- Connect the two single phase 240VAC or 208VAC wires from the distribution panel to the dual fuse block located on the lower left side of the enclosure.
- Tightening torque, allowable wire size, and type, for the Field-Wiring Terminals:
- 6 AWG to a maximum of 1/0 AWG for Copper Conductors Only
- 4 AWG to a maximum of 1/0 AWG for Aluminum Or Copper-Clad Aluminum Conductors Only
- Wire rated 90°C minimum
- 100 lbf-in tightening torque maximum



6. AC Input Connection (Turbine)

- Connect the three phase turbine wires to the terminal block located on the lower right side of the enclosure.
- The inverter's wind turbine input must be connected to a 3-phase "delta" or "wye" connection with the neutral not connected to earth ground (left floating).
- The inverter must be provided with 3, UL listed fuses rated, 400 VAC minimum, 50 Amp maximum for proper protection from the wind turbine input to the unit as well as an appropriate UL listed fuse holder to accommodate the fuses.
- Tightening torque, allowable wire size, and type, for the Field-Wiring Terminals:
- 50 lbf-in tightening torque
- 8 AWG - to a maximum of 2 AWG for Copper Conductors Only
- Wire rated 90°C minimum.

7. Earth Ground Connection

- Earth ground is to be connected to the two terminals provided inside the enclosure indicated by the earth ground equipment marking.
- Allowable wire size range is 8 AWG – 4 AWG.
- 50 lbf-in tightening torque
- The inverter's earth ground connections available on both the input and output terminals must be bonded directly to the service entrance's earth ground which in turn is bonded to neutral. With a second bond, the inverter's earth ground



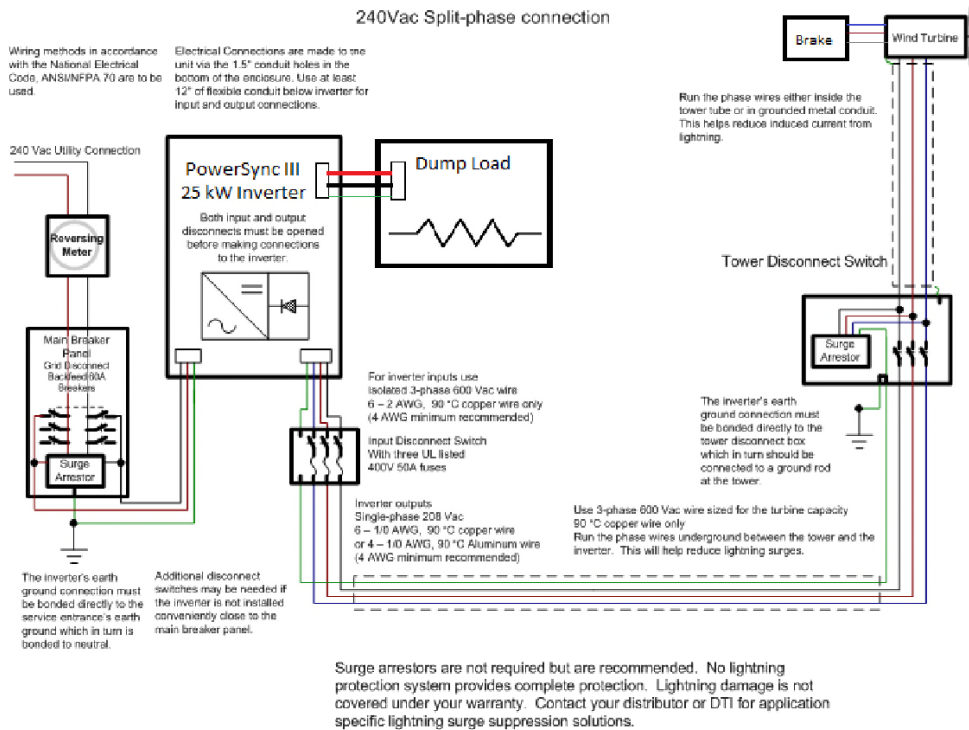
connection must be bonded directly to the tower disconnect ground lug which in turn is bonded to the tower's ground rod.

- The input and output circuits are isolated from the enclosure. System grounding when required by the *Canadian Electrical Code, Part I*, is the responsibility of the installer.

8. Fuse replacement

- **Warning:** For continued protection against risk of fire, replace only with same type and ratings of fuse.
- Two output fuses are located in the dual fuse block on the lower left side of the enclosure.
- Class T 80A, 300VAC
- Two pre-charge fuses are located on the Input/Output PCB board.
- Class CC Time Delay, 2.5A, 600VAC
- Three input fuses are located in a separate fuse box provided by the installer. Fuse type may vary, but must be UL listed fuses rated, 400 VAC minimum, 50 Amp maximum

9. Connection example



As typically the tallest structure in the area, lightning damage is a concern to most inverter customers; especially those customers in areas with frequent cloud to ground lighting. BWC's warranty does not cover lightning damage to the inverter. A direct lightning strike can easily be in excess of 100kV at 100kA. Proper grounding of the turbine to the tower and running the input wires down the tower in grounded metal

conduit will take care of most of this energy. The standard inverter is capable of withstanding input line to ground surges of about 6kV at 3kA. Contact your distributor or BWC for application specific lightning surge suppression solutions.

E. Inverter Operation

This equipment is a UL 1741 certified¹ Utility Interactive Inverter and complies with the requirements of IEEE1547 which is the standard for interconnecting distributed resources with electric power systems. It will not operate in an off-grid or backup power configuration.

The normal operation of the inverter is as follows: When single phase utility power is applied to the output of the inverter, the display will power up and a message stating that the unit is initializing is shown. If there are no faults, i.e. grid voltage and frequency are in tolerance, a countdown timer set for 5 minutes (300 seconds) starts before the inverter is ready to transfer power to the utility grid. The inverter will automatically transfer power to the utility when AC voltages in the range of 30VAC to 600VAC are present at the Turbine input.

As the heatsink heats up after exporting significant power for a period of time the internal cooling fans will activate. The inverter is able to operate at full power continuously if provided with adequate ventilation and the local ambient temperature stays below 45°C (113°F). If the ventilation is compromised or the heatsink temperature exceeds 60°C, the inverter will automatically reduce its output power.

F. Touch Screen Display

The touch screen display located on the front panel of the enclosure provides manual over-ride and status of the inverter's operation. The touch screen display also provides a Stop and a Reset button. The Stop button is used when it is desired to disconnect the inverter from the power grid and the wind turbine. After Stop is pressed the inverter will remain in a powered-up stand-by mode until Reset is pressed or Grid voltage is removed. When Reset is pressed the inverter will resume normal operation.

The status of the inverter's operation is shown on the lines one and two of the display. The following table lists the status messages that may appear.

Status Message	Description
Waiting Initializing	The inverter has been reset or that the 5 minute countdown delay is in progress
Waiting For Wind	The voltage from the turbine is lower than the factory set auto-start voltage threshold
AC Running	The active rectifier is regulating the internal DC Boost voltage
Running	The inverter is transferring power to the utility grid
Fault	A fault has occurred. See fault messages

¹ Pending

Manual Stop Press Reset	The manual stop button has been pressed
Fault Limit Press Reset	Three faults have occurred in an hours time
Disconnected	Indicates that a communication problem exists between the display and the inverter. Check for bad cable connection.
OV Power Limit	The inverter has detected that the output voltage is approaching the over voltage limit and is reducing its output to compensate for the less than ideal current carrying ability of grid connection.

Using the Up and DOWN arrows you can scroll through the additional Powersync III information available, as shown below.

Parameter	Description
Grid Voltage	Magnitude of the connected single phase grid voltage
Grid Frequency	Frequency of the connected single phase grid voltage
Bus Voltage	Magnitude of the DC link bus voltage
DC Current	Averaged value of the DC current
Turbine Volts	Averaged value of the rectified DC voltage from the Input
Output Power	Output power displayed in Watts
Accumulated Energy	Output Energy (kW hours) accumulated over time of operation
VREF	Used for factory/installer setup
IREF	Used for factory/installer setup
Last Fault	Displays the last fault that occurred since the inverter was powered up along with a fault code that may be useful when troubleshooting.
Unit Code Rev	Indicates the firmware revision of the control DSP
Disp Code Rev	Indicates the firmware revision of the LCD display DSP

A hidden feature of the display is the contrast adjustment. The right side of the display has invisible up and down arrows that can be used to increase and decrease the contrast of the display.

Grid Voltage

This the voltage measured line to line on the output of the inverter. The voltage must be between 212 to 264Vac (184 to 228Vac for 208V units) for the inverter to operate. The line to neutral voltage is important as well, although it is not reported on the LCD screen. It must be between 106 and 142Vac for both 240V and 208V units.

Grid Frequency

This is the frequency of the grid and determined by the utility. The frequency must be between 59.4 and 60.4 Hz for the inverter to operate.

Bus Voltage

This is the voltage of the boosted DC link bus that is used to generate the output sine wave. This voltage should stay between 200 and 570 Vdc but will not trip off until it reaches 680Vdc.

Auxiliary Load Current

This is the current going to the auxiliary load to control the speed of the turbine.

Turbine Volts

This is the DC voltage of the input measured after the 3-phase AC input is rectified. The inverter will begin exporting power when this voltage exceeds 85Vdc. This voltage should never exceed 690Vdc.

$$V_{dc} = V_{ac} * 1.41$$

Output Power

This is how much real power in Watts the inverter is currently producing or consuming if it is waiting for wind. Standby power while waiting for wind is about -10W. This measurement is not completely accurate and may not agree with an external meter.

Accumulated Power

This is how much real power the inverter has produced or consumed since it was last calibrated at BWC. This measurement is not completely accurate and may not agree with an external meter.

VREF

VREF is the input rectified voltage as a raw value. $V_{REF} = V_{dc} * 2.52$.

Vref is used as an index look-up into a virtual table used for a customizable 32 point power curve table.

IREF

IREF is the current request in counts for a given DC input voltage tracked by VREF. Using this configuration the inverter can be adjusted to provide any power curve required. $IREF = I_{dc} * 9$

Last Fault

Fault messages are displayed when a fault occurs and when the last fault parameter is selected. The following table is a list of possible faults that may be displayed.

G. Inverter Fault Codes

Fault Message	Fault Code	Description
INTERNAL ERROR	10	IGBT or control logic fault. An occurrence of this fault requires that the unit be completely powered down to reset it. Frequent code 10 faults indicate that the unit should be returned to BWC for service.
DC OVER VOLT 1	1000	The DC Bus voltage has exceeded its maximum threshold. This occurs if the input power exceeds the output power. This may occur in exceptionally high winds especially if the OV Power limit is active or temperature throttling is occurring.
DC OVER VOLT 2	1500	The DC Input voltage has exceeded its maximum threshold. This may occur in exceptionally high wind conditions.
DC UNDER VOLT	1250	The internal DC Boost voltage has dropped below its minimum threshold. This usually indicates a configuration problem and is normally never seen.
AC OVER VOLT	2030	The AC line voltage has exceeded its maximum threshold. This occurs if OV limiting was not able to influence the high grid voltage. If this happens routinely consider increasing the output wire gage or making arrangements with the utility to upgrade their distribution transformer.
AC UNDER VOLT	2280	The AC line voltage has dropped below its minimum threshold. It is normal to see this when the inverter has been disconnected from the grid. It may also occur momentarily when large equipment is turned on nearby.
TURBINE PHASE	2500	Indicates that there is a problem with one or more of the turbine input phases. Bad connection, shorted or missing phase. When the inverter detects excessive ripple on the DC input, it shuts down to protect the turbine from destructive vibration.
OVER CURRENT	3000	Phase A line current sensed by the converter module has exceeded its maximum current threshold. This may indicate that current is returning on the earth ground wire.
OVER CURRENT	3020	Phase C line current sensed by the converter module has exceeded its maximum current threshold. This may indicate that current is returning on the earth ground wire.
OVER CURRENT	3050	The DC Boost phase of the converter module has exceeded its maximum current threshold. Indicates a loss of boost control.

OVER TEMP	4000	The internal high temperature threshold has been exceeded. Check that unit has adequate ventilation, that the intake and exhaust vents are not obstructed, and that the cooling fans are operating.
UNDER TEMP	4250	The internal low temperature threshold has been exceeded. Avoid exposing the unit to temperatures below -20°C (-4°F).
GROUND FAULT	7000	An input phase appears to be shorted to chassis ground. It may require a high voltage measurement device such as a Megger to confirm the fault.
AC OVER FREQ	8000	The frequency of the utility grid voltage went out of range. The upper range threshold was crossed. If supported (Unit Rev 1005 or greater) this code is also used to indicate that the ROCOF threshold was reached. ROCOF might occur when large equipment is switched on or off.
AC UNDER FREQ	8100	The frequency of the utility grid voltage went out of range. The lower range threshold was crossed.

+++++

When the Powersync III is starting up after initialization, or after the RESET button has been pushed, or after a power outage, it will go through a 300 second (5 minute) countdown that is required by UL 1741. This UL standard also dictates high and low limits for utility voltage and frequency, outside of which the inverter is required to shut down until they return to the acceptable range. This is called a FAULT condition.

There are a number of possible FAULT conditions during which the Powersync III will be protecting itself or the power grid. When a FAULT occurs the Powersync II will shut down (no power production) and a Fault Code will be displayed on the digital display. A list of the Fault Codes can be found in the detailed instructions for the Powersync II inverter provided in the Appendix. FAULTS will reset themselves automatically; assuming the underlying cause of the fault has been cleared, unless the inverter experiences three (3) FAULTS of any type in a one hour period. In this case a manual RESET is required on the digital display.



CAUTION

If a manual reset is required we highly recommend that you check the FAULT CODE list for indications that there is an equipment or wiring problem that needs addressing.

One unique feature of the Powersync III inverter is its Soft Grid power limiting capability that can reduce the number of nuisance FAULTS on weak power lines during periods of high turbine power output. On a weak power line the EXCEL 15 wind turbine can, on a

windy day, raise the local utility voltage above the UL 1741 threshold, causing a FAULT. The Soft Grid feature tries to prevent these FAULTS by reducing power output from the wind turbine. When the Powersync II is in this mode the digital display will show "Soft Grid".

The STOP pad on the digital display will shut down the Powersync III inverter. Press the RESET pad to restart (which will start the 300 sec. countdown).

If the circuit breaker in your home or business load center (circuit breaker panel) trips, it should be reset by first switching it to the OFF position and then to the ON position. If the breaker trips again immediately, or if it continues to trip after brief periods of normal operation, switch the breaker OFF and contact your Bergey dealer for assistance.

The following recommendations will help ensure the safe operation of the Powersync III inverter:

1. Keep all sources of moisture away from the Powersync III enclosure.
2. Do not work near the Powersync III with gasoline, paint thinner, or any material which produces flammable vapor. Do not store flammable materials near the Powersync III enclosure.
3. Do not open the Powersync III enclosure unless the circuit breaker and Accessible Disconnect Switch (ADC) at the base of the tower have been switched OFF. **Note that even with the circuit breaker and ADC switched OFF, a shock hazard will still be present inside the Powersync III enclosure for approximately 15 minutes (as the capacitor voltage drains down).**
4. Do not block airflow around the Powersync III enclosure in any way. A six-inch clearance must be maintained around the sides, top, and bottom of the enclosure for adequate air circulation.

VI. TURBINE INSTALLATION

Please use the following instructions in assembling and commissioning your system. If you need any additional information, please contact us.

A. BWC EXCEL WIND TURBINE and TOWER

Please refer to the BWC EXCEL 15 Installation Manual, and any addendum for the specific tower design, for instructions on installing the wind turbine and tower.

B. FUSED DISCONNECT SWITCH

The electrical output of the wind turbine is a three-phase alternating current (AC). We strongly recommend the installation of a fused three-phase AC disconnect switch between the wind turbine and the Powersync II, as shown in the drawing on Page 26. This switch is commonly referred to as an Accessible Disconnect Switch (ADC) and most utilities will require one to be installed. A 60A weather-tight switch box with 45A fuses for the 240 VAC, 60Hz or 220VAC, 50Hz system is recommended. The fuses will help protect the alternator in the event of a wiring, controller, or load short circuit. The fused disconnect switch is normally installed at the base of the tower.



CAUTION

Do not install a permanent “short circuiting switch” that will provide dynamic braking of the alternator. These switches can be easily misused, leading to serious damage to the alternator. Such damage is not covered by the BWC warranty.

C. WIRE RUN AND WIRE SIZES

Please refer to the BWC EXCEL 15 Installation Manual for recommended wire and conduit sizes for the tower-to-Powersync III wire run. Refer to the row labeled “BWC Excel 15” for appropriate wire sizes.

D. POWERSYNC III INVERTER

The Powersync III inverter should be installed indoors, near the main breaker enclosure if possible. The Powersync III is designed to operate in a clean environment and should never be installed outdoors as it is not weatherproof and will be damaged by rain. A minimum of six inches of clearance is required on the top, bottom and sides of the Powersync III to ensure adequate air flow through the enclosure.

The Powersync III should be connected to a dedicated 125A two-pole breaker installed in the main breaker box. System grounding is accomplished by attaching a wire, # 8 AWG minimum, from the grounding lug inside the Powersync III enclosure to the panel ground inside the main breaker box. Additionally, the tower “bond” ground wire should be connected to the grounding lug inside the Powersync III enclosure. A typical system wiring schematic for the Bergey EXCEL 15 is shown below. The three AC connections from the wind turbine can be connected to the Powersync II terminals in any order; there is no required phase orientation.



DANGER

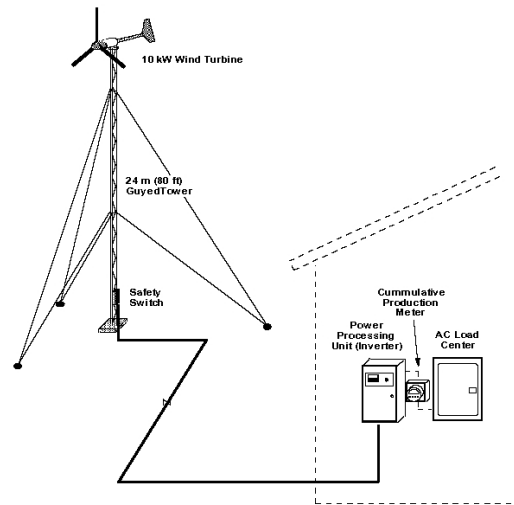
Do not attempt to make the Powersync III connections with energized leads. Always have the wind turbine fully disconnected and the circuit breaker switched to “off” before making the Powersync III connections.

All wiring should conform to the National Electric Code or other governing local electrical code. The use of electrical conduit for wiring between components is highly recommended. All terminations should be coated with an anti-oxidation compound to prevent corrosion.



CAUTION

All loads should be equipped with fuses or circuit breakers to avoid hazards from accidental short circuits.



VII. INSPECTIONS AND MAINTENANCE

The Bergey EXCEL 15 turbine and tower should be inspected once 90 - 180 days after installation to ensure that no hardware was missed and there are no issues with the turbine.

Following this post-installation inspection, the complete system should be inspected every four years and after any particularly severe weather. Inspections should be done on days when the wind is below 20 mph (9 m/s).

Check List for Inspections

1. On guyed towers inspect each of the anchor points. Ensure that all hardware is secure and the guy wires are properly tensioned. Check to ensure that no strands are broken and the turnbuckle safety cables are in place.



WARNING:

Loose guy wires or unsecured turnbuckles can lead to tower failure.

2. Disconnect the inverter at the breaker panel, which will bring the turbine to a stop. Climb the tower. Always use proper safety climbing gear and safe climbing practices.



DANGER

Only qualified personnel with proper safety equipment should climb the tower. Never climb the tower when the rotor is turning.

3. Inspect the blades for:
 - A. Cracks in the inner 4 ft. of each blade. This is the most highly stressed portion of the blade.
 - B. Leading or trailing edge damage. Pay particular attention to the leading edge near the tip of each blade.
 - C. Condition of the paint.
4. Remove the spinner and hang it from the machine. Check the marker lines on each of the blade attachment and torque plate bolts, retorquing and remarking any bolts that have loosened. Check the front bearing for seal integrity and excessive grease loss. Reattach the spinner and check that it is secure.
5. Open the cover plate on the mainframe. Inspect the slip-rings and brushes. Inspect the back-up brake circuit boards.

6. Check the rear alternator bearing for seal integrity and excessive grease loss.
7. Inspect the mainframe for cracks.
8. Check for cracks or loose hardware on the tail boom and fin.
9. Check for corrosion on the alternator. Clean and repaint as needed.
10. While descending the tower, inspect the following:
 - A. Check that the tower wiring is properly secure.
 - B. Check all fasteners.
 - C. Look for any cracks in the tower structure.
 - D. Check the condition of the guy wire attachment (guyed towers).
11. Check the connection on all ground rods and hardware.
12. Check the disconnect switch.
13. Inspect the wire run, particularly all electrical connections.
14. Check condition of all wiring connections into and out of the Powersync II.
15. Check the fan filters on the Powersync III.
16. Switch the turbine breaker in the breaker panel to ON. Move to a spot where you can observe the turbine. Listen to the sound of the machine as it speeds up. No mechanical sounds, such as a "clunking" or "banging," should be heard. Also watch for any new or significant vibration. The turbine operation should be smooth.

VIII. Trouble-Shooting Problems

The following guide can help to pin-point the cause of operational problems with the Bergey EXCEL 15 wind turbine and the Powersync III inverter. For problems or symptoms not found in the following listing please contact the Service Department at Bergey Windpower Co. at Tel. No. 1-405-364-4212, Telefax No. 1-405-364-2078, or E-mail: service@bergey.com

Problem	Cause(s)	Diagnosis	Remedy
Turbine makes an unusual blade sound, such as whistling or buzzing	<ol style="list-style-type: none"> 1. Damaged blade leading edge 2. Blade structural damage 	<ol style="list-style-type: none"> 1. Have leading edge inspected 2. Have blades inspected. <u>Cracks outboard of the hub can lead to blade failure.</u> 	<ol style="list-style-type: none"> 1. Consult Bergey Service Department 2. If blade damage is suspected, the turbine should be stopped until it is inspected. Contact your dealer.
Rotor is unbalanced, causing the turbine to move slightly back and forth as it spins	<ol style="list-style-type: none"> 1. Uneven ice build-up on blades 2. Blade damage 	<ol style="list-style-type: none"> 1. Ice on turbine and tower. Turbine ran smoothly before ice storm. Slow rotor speed. 2. No ice. Turbine ran smoothly before 	<ol style="list-style-type: none"> 1. Do nothing – ice will dislodge in a few days. No not approach the tower. 2. If blade damage is suspected, the turbine should be stopped until it is inspected. Contact your dealer.

Problem	Cause(s)	Diagnosis	Remedy
Turbine makes a banging or rattling sound once per revolution, particularly at low speeds	<ol style="list-style-type: none"> 1. Loose spinner 2. Alternator rear bearing ring fasteners loose or missing 3. Alternator bearings 	<ol style="list-style-type: none"> 1. Sound is once per revolution. Inspect spinner. 2. Sound is once per revolution. Inspect rear of alternator 3. Excessive grease leakage. Squeaking sounds at low speed. 	<ol style="list-style-type: none"> 1. Have spinner inspected 2. Have alternator inspected 3. Have alternator inspected
Turbine makes a "fog horn" sound at certain, typically low, wind speeds	Electro-mechanical interaction between alternator and inverter that causes transient vibrations in the turbine	Sound comes and goes, but occurs at the same wind speed(s)	This is normal, but contact your dealer or the Bergey Service Department if the noise is excessive
Turbine makes a continuous growling or rumbling sound, which reduces at higher wind speeds		Switch fused disconnect on tower to OFF. If growling disappears an electrical problem is indicated. If growling continues a mechanical problem is indicated	
	1. Wiring fault	1. Check fuses. Check wiring for continuity, phase-to-phase fault, or short to ground.	1. Repair or replace as needed
	2. Inverter fault	2. After completing the wiring check, disconnect the inverter and reconnect wiring to the turbine. If the noise disappears an inverter problem is indicated.	2. Contact your dealer
	3. Alternator bearings	3. Check for excessive grease loss	3. Have the alternator inspected

Problem	Cause(s)	Diagnosis	Remedy
Rotor turns slowly and does not speed up in higher winds	<ol style="list-style-type: none"> 1. Ice build-up on blades 2. Short circuit in wiring or inverter 3. Short circuit in tower wiring, slip-rings, or alternator 	<ol style="list-style-type: none"> 1. Check for ice 2. Open tower disconnect. If turbine spins freely an electrical system problem is indicated 3. The most likely problem is a shorted alternator. 	<ol style="list-style-type: none"> 1. Do nothing – ice will dislodge in a few days. No need to furl the turbine. 2. Contact your dealer 3. Contact your dealer
Rotor does not turn at all	Mechanical failure inside alternator	Rotor does not turn even when winds exceed 15 mph (6.7 m/s)	Contact your dealer
Powersync III display not functioning	<ol style="list-style-type: none"> 1. No power to inverter 2. Display or other inverter component not functioning properly 		<ol style="list-style-type: none"> 1. Turn off utility power to inverter, using the dedicated breaker in your breaker panel, for a minimum of 20 seconds. Then turn power back on using the breaker. Wait 300 seconds (5 minutes). <p>If inverter does not resume operation, with full display functionality, contact your dealer</p>

IX. Appendix

5 Year Limited Warranty

Excel 15 Wind Turbine

Bergey Windpower Company

Excel 15 wind turbines, their associated electronics and towers supplied by Bergey Windpower Company (BWC) are warranted against defects in design, material and workmanship under normal use for which intended. BWC Excel 15 wind turbines and blades carry a five (5) year warranty after date of installation. Electronic components and towers supplied by BWC also carry a five (5) year warranty after date of installation. During the warranty period BWC will repair or replace, at its discretion, defective components or assemblies. BWC will also pay one-way shipping charges. For customers not in the USA, shipping and insurance charges will be pre-paid to the port of entry into the customer's country. This limited warranty is transferable.

Warranty coverage is extended only to customers who have submitted a properly completed BWC Warranty Registration Form and acceptable proof of correct system installation as requested in the BWC Registration Form. Customer must also perform and document recommended inspections and any maintenance tasks that may be identified during inspections.

This limited warranty does not cover:

1. Normal wear and tear and corrosion;
2. Towers and equipment, materials or supplies not manufactured or supplied by BWC;
3. Damage or loss caused by installation errors or deficiencies;
4. BWC equipment that has been modified without prior factory approval;
5. Repairs performed by personnel not authorized by BWC;
6. Damage resulting from use of equipment not supplied by BWC;
7. Damage resulting from the use of towers not supplied or approved by BWC;
8. Equipment not installed within three (3) years of shipment from factory;
9. Damage or loss of function sustained during periods when wind speed exceeds 60 m/s (135 mph);
10. Acts of God (including lightning);
11. Incidental or consequential damages.

This limited warranty is in lieu of all other BWC guarantees or warranties expressed or implied. No employee, agent, dealer, or other person is authorized to offer warranties on behalf of BWC. BWC reserves the right to make design changes, improvements and additions to its products without obligation to install such in products previously manufactured.

RETURN THIS CARD TO BWC ALONG WITH PHOTOS DOCUMENTING INSTALLATION
 NOTE: DIGITAL PHOTOGRAPHS PREFERRED IF AVAILABLE)

Rev. 0 – 6.25.2018
 Return to: Bergey Windpower Company
 2200 Industrial Blvd.
 Norman, Oklahoma 73069
 (405) 364-4212

BWC EXCEL 15 WIND TURBINE WARRANTY REGISTRATION CARD

OWNER NAME _____
 Address _____
 City, State _____
 Postal Code, Country _____
 Phone (____) _____
 E-mail _____

Wind Turbine Model: **Excel 15**
 Serial No. (e.g. 2018-0012; near top of yaw tube)

 Controller: PowerSync III Other _____
 Controller Serial No. _____
 Blade Serial Numbers (e.g. 10080025; stamped on blade
 root pad)

DEALER NAME _____
 Address _____
 City, State _____
 Postal Code, Country _____
 Phone (____) _____

Tower Type _____ Height _____
 Anchor Type _____

LOCAL UTILITY COMPANY INFORMATION (if grid-
 connected system)
 Name of Utility _____
 Net Metering? Yes No

Wiring Run Length (Tower-to-Controller): _____ ft
 Wire Size _____ gauge
 Wire Type Copper Aluminum

HYBRID SYSTEM (if applicable)
 Is turbine part of hybrid wind-PV-diesel system? Yes
 No
 PV array? Yes No PV Power rating _____ kW
 Diesel Gen-set? Yes No Generator rating _____ kW

BATTERY BANK INFORMATION (if applicable)
 Battery Manufacturer & Model _____
 Battery Bank Voltage 24V 48V 120V 240V
 Battery Bank Amp Hours _____
 Number of Battery Strings _____
 Inverter Manufacturer and Model _____

OWNER'S or DEALER'S SIGNATURE _____
 DATE SYSTEM INSTALLED _____

WARRANTY REPAIR IS PERFORMED ONLY AFTER FACTORY AUTHORIZATION. PLEASE RETURN THIS CARD AND
 PHOTOGRAPHS OF INSTALLATION PROMPTLY IN ORDER TO ASSURE COVERAGE.

Required Photographs

1. Complete tower - turbine system view
2. Distance photos showing terrain and obstructions
3. Anchor photos including all anchor hardware
4. Photos showing all grounding connections
5. Turnbuckle photos showing safety cables
6. Controller location and environment
7. Controller interior showing wiring connections
8. Interior of tower-base disconnect switch showing fuses and wiring connections



WOODBURY COUNTY PLANNING & ZONING

620 Douglas Street, Sixth Floor, Sioux City, Iowa 51101
712.279.6609 – 712.279.6530 (Fax)

Daniel J. Priestley, MPA – Zoning Coordinator
dpriestley@woodburycountyiowa.gov

Dawn Norton – Senior Clerk
dnorton@woodburycountyiowa.gov

REPORT – SEPTEMBER 24, 2024

COMMUNICATIONS TOWER – CONDITIONAL USE PERMIT PROPOSAL

APPLICATION DETAILS

Applicant(s)/Owner(s):	Andrew Bobrytzke obo American Towers LLC / Bradley J. Kobold Trust
Application Type:	Conditional Use Permit
Zoning District:	General Industrial (GI)
Total Acres:	36.9
Current Use:	Farming
Proposed Use:	Farming w/ Wireless Tower
Pre-application Meeting:	April 23, 2024
Application Date:	August 23, 2024
Legal Notice Date:	September 21, 2024
Neighbor(s) Notice Date:	September 18, 2024
Stakeholder(s) Notice Date:	September 3, 2024
Zoning Commission Review:	September 23, 2024
Board of Adjustment Public Hearing:	October 7, 2024

PROPERTY DETAILS

Parcel(s):	874720400004
Township/Range:	T87N R47W (Liberty)
Section:	20
Quarter:	SE ¼ of the SE ¼
Zoning District:	General Industrial (GI)
Floodplain:	Portions in the Zone A
Property Address:	2593 Barker Ave., Salix, IA 51052

CONTENTS

Summary	
Aerial Map / Site Plan Excerpt	
Review Requirements	
Review Criteria	
Application Materials	
Legal Notification	
Public Comments	
Stakeholder Comments	
Supporting Information	

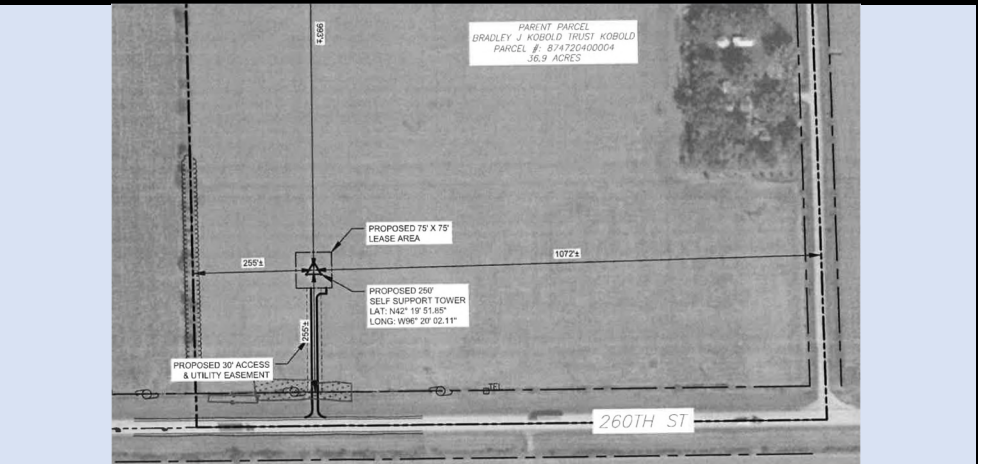
SUMMARY

Andrew Bobrytzke on behalf of American Towers LLC and the Bradley J. Kobold Trust have filed a conditional use permit application to request to construct a 250' self-support wireless communications tower to replace an existing tower from the area on Parcel #874720400004. The proposed location is about one (1) half mile west of the Salix which is on the north side of 260th Street and west of Barker Avenue. The parcel is located in the General Industrial (GI) Zoning District and "telecommunication towers" are classified as a "conditional use" in Section 3.03.4 of the Woodbury County Zoning Ordinance which is eligible for review by the Zoning Commission and for consideration for approval by the Board of Adjustment for a conditional use permit. This proposal has been noticed in the Sioux City Journals legal section on September 21, 2024. The neighbors within one (1) mile were duly notified via a September 18, 2024 letter about the October 7, 2024 Board of Adjustment public hearing. Appropriate stakeholders including government agencies, utilities, and organizations have been requested to comment. Based on the information received and the requirements set forth in the Zoning Ordinance, the proposal meets the appropriate criteria for approval of the conditional use request. It is the recommendation of staff to approve the proposal. The Zoning Commission voted 4-0 to recommend approval to the Board of Adjustment following their review session on September 23, 2024.

AERIAL MAP



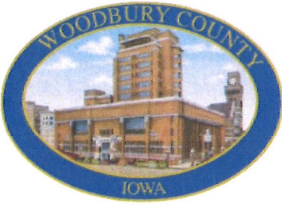
SITE PLAN EXCERPT



ZONING COMMISSION AND STAFF RECOMMENDATION

Based on the information received and the requirements set forth in the Zoning Ordinance, the proposal meets the appropriate criteria for approval of the conditional use request. It is the recommendation of staff to approve the proposal.

The Zoning Commission voted 4-0 to recommend approval to the Board of Adjustment following their review session on September 23, 2024.



WOODBURY COUNTY
ZONING COMMISSION
WOODBURY COUNTY COURTHOUSE
620 DOUGLAS STREET
SIOUX CITY, IA 51101

Woodbury County Board of Adjustment
620 Douglas Street
Sioux City, Iowa 51101

RE: Zoning Commission Recommendation to the Board of Adjustment:

CONDITIONAL USE PERMIT APPLICATION DETAILS:
Applicant(s)/Owner(s): Andrew Bobrytzke obo American Towers LLC / Bradley J. Kobold Trust
Application Type: Conditional Use Permit
Zoning District: General Industrial (GI)
Total Acres: 36.9
Current Use: Farming
Proposed Use: Farming w/ Wireless Tower
Parcel(s): 874720400004
Township/Range: T87N R47W (Liberty)
Section: 20
Quarter: SE ¼ of the SE ¼
Zoning District: General Industrial (GI)
Floodplain: Portions in the Zone A
Property Address: 2593 Barker Ave., Salix, IA 51052

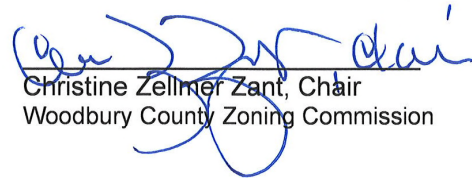
Dear Board of Adjustment:

This letter is to inform you that the Woodbury County Zoning Commission reviewed the conditional use permit application submitted by Andrew Bobrytzke on behalf of American Towers LLC and the Bradley J. Kobold Trust to construct a 250' self-support wireless communications tower to replace an existing tower from the area on Parcel #874720400004 on September 23, 2024.

The Commission voted 4-0 with the recommendation to approve the conditional use permit application.

Please refer to the draft copy of the Zoning Commission minutes for details about the Commission's recommendation.

Dated this 23 day of Sept, 2024


Christine Zellmer Zant, Chair
Woodbury County Zoning Commission

SEE ENCLOSED ZONING COMMISSION DRAFT MINUTES

Minutes - Woodbury County Zoning Commission – September 23, 2024

The Zoning Commission (ZC) meeting was held on September 23, 2024 at 5:00 PM in the Board of Supervisors' meeting room, located in the basement of the Woodbury County Courthouse at 620 Douglas Street, Sioux City, IA. The meeting was also accessible via teleconference.

Meeting Audio:

For specific content of this meeting, refer to the recorded video on the Woodbury County Zoning Commission "Committee Page" on the Woodbury County website:

- County Website Link:
 - o https://www.woodburycountyiowa.gov/committees/zoning_commission/
- YouTube Direct Link:
 - o <https://www.youtube.com/watch?v=1mQWufHt3x0>

ZC Members Present:

Corey Meister, Chris Zellmer Zant, Tom Bride, Jeff Hanson

County Staff Present:

Dan Priestley, Dawn Norton

Public Present:

Dan Bittinger, Andy Bobrytzke, Joel Vos, Elbert Baker, Kathy Tabke, Brad Tabke, Jimmie Colyer

CALL TO ORDER:

Chair Chris Zant called the meeting to order at 5:00 p.m. Barb Parker was absent.

PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA:

Priestley presented material about grain bins received from MidAmerican Energy. Bride made a motion to accept the material into the record, which Hanson seconded. The motion passed 4-0. See appendix.

APPROVAL OF MINUTES:

Bride and Hanson were absent at the previous meeting and abstained from the vote. Bride moved to defer the approval of the August 26, 2024 minutes, with Meister seconding. The motion passed 4-0.

PUBLIC HEARING (ACTION ITEM): ZONING MAP AMENDMENT (REZONE) FROM AGRICULTURAL PRESERVATION (AP) TO AGRICULTURAL ESTATES (AE) ZONING DISTRICT (PARCEL #884726200002):

Priestley read the staff report into the record. The Sandra K. Baker Revocable Trust (Applicant: Sandra K. Baker) and Jimmie L. and Renee T. Colyer (Owners) submitted an application to rezone a 1.14-acre portion of property (Parcel #884726200002) from the Agricultural Preservation (AP) District to the Agricultural Estates (AE) District. This portion will be combined with Lot 1 of the Baker Acres subdivision through the Woodbury County Assessor's combination process. A survey conducted by Al Fagan Land Surveying P.C. provides the legal description of the land to be conveyed to the Sandra K. Baker Revocable Trust. This triangular 1.14-acre portion is not eligible for development as a standalone lot, as it does not meet the requirements of the Zoning and Subdivision Ordinance. In the purchase agreement, Baker acknowledges that the property being acquired is "not a legal lot for building purposes" and must be combined with the adjacent parcel, Lot One (1) of Baker's Acres. The rezoning is requested to match the zoning of Lot 1, facilitating the combination into a single parcel for tax purposes. This proposal was properly noticed in the Sioux City Journal Legals Section on September 12, 2024. Neighbors within 1000 feet were notified via a September 9 letter about the public hearing on September 23, 2024, and stakeholders including government agencies, utilities, and organizations have been requested to comment. No objections were received. Staff recommends approval as the proposal meets the criteria for approval. Bride moved to close the public hearing, seconded by Hanson. The motion carried 4-0. Hanson then moved to approve the zoning ordinance map amendment from AP to AE, with the condition that the portion be combined with Lot 1 of Baker's Acres subdivision, seconded by Meister. The motion carried 4-0, and the application will be forwarded to the Board of Supervisors.

PUBLIC HEARING (ACTION ITEM): CONSIDERATION OF NUCLEAR ENERGY FACILITIES IN THE WOODBURY COUNTY ZONING ORDINANCE:

At the request of the Board of Supervisors, the Commission held a public hearing to discuss the potential incorporation of nuclear energy facilities into the zoning ordinance. No public comments were offered. This follows the Board's directive on July 2, 2024, to explore nuclear energy as a county option. No formal proposals have been submitted by companies, and few public comments have been received up to this point. Bride suggested seeking input from MidAmerican Energy regarding future power sources, and a town hall meeting after the harvest season was proposed to discuss nuclear energy with residents. Bride moved to revisit this topic next month, seconded by Hanson. The motion was approved 4-0.

REVIEW OF CONDITIONAL USE PERMIT APPLICATION (ACTION ITEM): INSTALLATION OF THREE 100-FOOT WIND TURBINES (PARCEL #884420300005):

Priestley read the staff report into the record. L & K Tabke Holdings, LLC (Kathy Tabke) submitted a conditional use permit application to install three 100-foot wind turbines to reduce electrical costs on the farm. The proposed locations are approximately 5.2 miles southeast of Merville, on the south side of 195th Street and east of Jasper Avenue. The property is located in the Agricultural Preservation (AP) Zoning District, where "Electric wind generator (Private use)" is classified as a conditional use eligible for review by the Zoning Commission and consideration by the Board of Adjustment. This proposal was properly noticed in the Sioux City Journal's legal section on September 21, 2024. Neighbors within 500 feet were notified via a September 18, 2024 letter about the October 7, 2024 Board of Adjustment public hearing. Stakeholders have been requested to comment. Based on the information received and the requirements of the Zoning Ordinance, the proposal meets the criteria for approval. Bride emphasized that the turbines are for private use. Priestley discussed setback concerns from other structures on the premises per the zoning ordinance. The property owner assumes all risks for any malfunctions or tower collapses. Meister moved to close the public hearing, seconded by Bride. The motion carried 4-0. Based on the information provided and zoning criteria, Meister moved to recommend approval of the conditional use permit, seconded by Hanson. The motion carried 4-0, and the application will be forwarded to the Board of Adjustment.

REVIEW OF CONDITIONAL USE PERMIT APPLICATION (ACTION ITEM): INSTALLATION OF 250-FOOT WIRELESS COMMUNICATIONS TOWER (PARCEL #874720400004):

Priestley read the staff report into the record. Andrew Bobrytzke, on behalf of American Towers LLC and the Bradley J. Kobold Trust, has filed a conditional use permit application to construct a 250-foot self-support wireless communications tower to replace an existing tower on Parcel #874720400004. The proposed location is about half a mile west of Salix, on the north side of 260th Street and west of Barker Avenue. The parcel is located in the General Industrial (GI) Zoning District, where "telecommunication towers" are classified as conditional uses eligible for review by the Zoning Commission and for consideration by the Board of Adjustment. This proposal was noticed in the Sioux City Journal's legal section on September 21, 2024. Neighbors within one mile were notified via a September 18, 2024 letter about the October 7, 2024 Board of Adjustment public hearing. Appropriate stakeholders have been requested to comment. Based on the information received and zoning requirements, the proposal meets the criteria for approval. Staff recommends approval. Hanson moved to close the public hearing, seconded by Bride. Bride then moved to recommend approval of the tower construction and use on the specified parcel, seconded by Meister. The motion carried 4-0, and the application will be forwarded to the Board of Adjustment.

INFORMATION ITEM: CONSIDERATION OF DECOMMISSIONING REQUIREMENTS FOR CARBON PIPELINES:

Priestley provided an update on the Board of Supervisors' August 27, 2024, decision to direct county staff to explore decommissioning requirements for carbon pipelines as part of a new ordinance. While federal regulations govern pipeline decommissioning, staff are reviewing local regulations from other counties and states. The Zoning Commission and Board of Adjustment will be involved in researching and offering recommendations. Bride noted that pipeline easements remain in place even if a pipeline is no longer in use.

STAFF UPDATE:

Priestley updated the Commission on the proposed amendments to Ordinance 56, which regulates Commercial Wind Energy Conversion Systems. He discussed the three-step public hearing process and referenced safety information obtained from safety data sheets for a Nordex system submitted to the Ohio Public Utilities Commission.

PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA:

None.

COMMISSIONER COMMENT OR INQUIRY:

None.

ADJOURNMENT:

Meister moved to adjourn the meeting, seconded by Hanson. The meeting adjourned at 6:02 p.m.

APPENDIX:

Received from MidAmerican Energy (September 13, 2024)



September 13, 2024

WOODBURY COUNTY
PLANNING AND ZONING COMMISSION
620 DOUGLAS ST
SIOUX CITY IA 51101

Dear WOODBURY COUNTY:

MidAmerican Energy is committed to the safety of our customers and to its staff's working within our service territory. The enclosed brochure provides facts and useful information to consider when issuing permits or long-range planning involving grain storage, grain bin modification. This information is drawn from the Iowa Administrative Code, American National Standards Institute, and the National Electrical Safety Code. If you, or the residents of your city, have additional questions, please contact us at 888-427-5632. Note: Information about farming and working safely around electricity and natural gas lines is available online at MidAmericanEnergy.com/farm-safety.

Sincerely,
Shawn Emmert
General Manager, Electric Distribution Engineering
MidAmerican Energy

Attachment

MidAmerican Energy Company
P.O. Box 897
Des Moines, IA 50324-0897

YOUR SAFETY MATTERS GRAIN BIN CLEARANCE

MidAmerican Energy is committed to providing important information to help ensure that safety when working near overhead facilities. From poles, substations, and farm structures, power lines, transformers, and utility and electric working vehicles of the roads and standards in jurisdiction or utility service overhead power lines.

The Iowa Administrative Code (IAC) Section 199.25 (23b) requires that specific safety clearance be maintained between grain bins and electrical lines in accordance with American National Standards Institute (ANSI) C2 2017 National Electrical Safety Code (NESC) Part 200. Photo diagrams show the minimum clearance envelopes for electrical lines. To allow for you are aware of these clearance requirements, because conducting or operating a vehicle in violation of these rules creates a hazardous condition that may result in a fire, injury, death, or destruction.

If you or your customer are planning a build or modify grain bin, please contact us at 888-427-5632 to discuss the specific location and to determine if MidAmerican can assist in any possible utility-related issues. Building, your assistance and attention are appreciated and will help ensure that grain bins are properly positioned and safe to operate. For more information about farming safely around electricity and natural gas lines, visit MidAmericanEnergy.com/farm-safety.

Sincerely,

Shawn Emmert
General Manager, Electric Distribution Engineering
MidAmerican Energy Company



888-427-5632 | MidAmericanEnergy.com



LOCAL GOVERNMENTS CANNOT:

In order to ensure uniformity across this state with respect to the consideration of every application, and notwithstanding any other provision to the contrary, an authority shall not do any of the following:

1. Require an applicant to submit information about, or evaluate an applicant's business decisions with respect to, the applicant's designed service, customer demand for service, or quality of the applicant's service to or from a particular area or site, but may require propagation maps solely for the purpose of identifying the location of the coverage or capacity gap or need for applications for new towers in an area zoned residential.
2. a. Evaluate an application based on the availability of other potential locations for the placement or construction of a tower or transmission equipment. b. Require the applicant to establish other options for collocation instead of the construction of a new tower or modification of an existing tower or existing base station that constitutes a substantial change to an existing tower or existing base station. c. Notwithstanding paragraph "b", an authority shall require an applicant applying for the construction of a new tower to provide an explanation regarding the reason for choosing the proposed location and the reason the applicant did not choose collocation. The explanation shall include a sworn statement from an individual who has responsibility over placement of the tower attesting that collocation within the area determined by the applicant to meet the applicant's radio frequency engineering requirements for the placement of a site would not result in the same mobile service functionality, coverage, and capacity, is technically infeasible, or is economically burdensome to the applicant.
3. Dictate the type of transmission equipment or technology to be used by the applicant or discriminate between different types of infrastructure or technology.
4. a. Require the removal of existing towers, base stations, or transmission equipment, wherever located, as a condition to approval of an application. b. Notwithstanding paragraph "a", the authority may adopt reasonable rules regarding removal of abandoned towers or transmission equipment.
5. Impose environmental testing, sampling, or monitoring requirements, or other compliance measures, for radio frequency emissions from transmission equipment that are categorically excluded under the federal communications commission's rules for radio frequency emissions pursuant to 47 C.F.R. §1.1307(b)(1).
6. Establish or enforce regulations or procedures for radio frequency signal strength or the adequacy of service quality.
7. Reject an application, in whole or in part, based on perceived or alleged environmental effects of radio frequency emissions, as provided in 47 U.S.C. §332(c)(7)(B)(iv).
8. Prohibit the placement of emergency power systems that comply with federal and state environmental requirements.
9. Charge an application fee, consulting fee, or other fee associated with the submission, review, processing, or approval of an application, unless the fee charged is in compliance with this section. Fees imposed by an authority or by a third-party entity providing review or technical consultation to the authority shall be based on actual, direct, and reasonable administrative costs incurred for the review, processing, and approval of an application. In no case shall total charges and fees exceed five hundred dollars for an eligible facilities request or three thousand dollars for an application for a new tower, for the initial placement or installation of transmission equipment on a wireless support structure, for a modification of an existing tower or existing base station that constitutes a substantial change to an existing tower or base station, or any other application to construct or place transmission equipment that does not constitute an eligible facilities request. An authority or any third-party entity shall not include within its charges any travel expenses incurred in the review of an application for more than one trip to the authority's jurisdiction, and an applicant shall not be required to pay or reimburse an authority for consultant or other third-party fees based on a contingency-based or result-based arrangement.
10. Impose surety requirements, including bonds, escrow deposits, letters of credit, or any other type of financial surety, to ensure that abandoned or unused towers or transmission equipment can be removed, unless requirements are competitively neutral, nondiscriminatory, reasonable in amount, and commensurate with the historical record for local facilities and structures that are abandoned.
11. Condition the approval of an application on the applicant's agreement to provide space on or near the tower, base station, or wireless support structure for authority or local governmental or nongovernmental services at less than the market rate for such space or to provide other services via the structure or facilities at less than the market rate for such services.
12. Limit the duration of the approval of an application, except that construction of the approved structure or facilities shall be commenced within two years of final approval, including the disposition of any appeals, and diligently pursued to completion.
13. Discriminate on the basis of the ownership, including ownership by the authority, of any property, structure, or tower when promulgating rules or procedures for siting wireless facilities or for evaluating applications.

ZONING ORDINANCE CRITERIA FOR BOARD APPROVAL

Conditional Use Permits are determined by a review of the following criteria by the Zoning Commission (ZC) and Board of Adjustment (BOA). The ZC makes a recommendation to the BOA which will decide following a public hearing before the Board.

APPLICANT'S DESCRIPTION OF THE PROPOSED CONDITIONAL USE:

In order to prevent a loss of wireless cellular phone coverage in the area, American Tower Corp (ATC) wishes to construct a new 250' Self Support Wireless Communications tower. This is a replacement tower for the tower located on the property to the immediate west. That lease is expiring, and ATC will be removing that tower once new tower is built and all equipment is operating on new tower.

MAP DRAWN TO SCALE, SHOWING THE SUBJECT PROPERTY, ALL STRUCTURES AND OTHER IMPROVEMENTS, WITH THE PROPOSED CONDITIONAL USE IDENTIFIED PER STRUCTURE OF IMPROVEMENT, PROVIDED BY ATTACHMENT

Attached

CRITERIA 1: The conditional use requested is authorized as a conditional use in the zoning district within which the property is located and that any specific conditions or standards described as part of that authorization have been or will be satisfied (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

Telecommunications Towers are allowed in GI with a Conditional Use per Woodbury Counting Zoning ordinances.

STAFF ANALYSIS:

This conditional use permit requested is authorized in the Agricultural Preservation (AP) Zoning District.

CRITERIA 2: The proposed use and development will be in harmony with the general purpose and intent of this ordinance and the goals, objectives and standards of the general plan (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

Telecommunications Towers are allowed in GI with a Conditional Use per Woodbury Counting Zoning ordinances.

There is an existing tower in the parcel to the west that will be removed once this tower is operational

STAFF ANALYSIS:

The granting of this request will assist with adding to the communication infrastructure of the surrounding area, it complies with the Woodbury County Comprehensive Plan 2040, Chapter 4: Public Infrastructure and Utilities (https://www.woodburycountyiowa.gov/files/community_economic_development/woodbury_county_comprehensive_plan_2040_89417.pdf)

CRITERIA 3: The proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

The area around this parcel are used for farming.

There is an existing tower in the parcel to the west that will be removed once this tower is operational

STAFF ANALYSIS:

The plans submitted comply with the parameters of Section 5.05 of the Zoning Ordinance. This proposal does not appear to adversely impact the neighborhood, traffic, parking, utility facilities, public health, safety and general welfare. The proposed tower meets the setbacks from the property lines with either meeting or exceeding 250 feet from the property lines (see site plan).

CRITERIA 4: The proposed use and development will be located, designed, constructed and operated in such a manner that it will be compatible with the immediate neighborhood and will not interfere with the orderly use, development and improvement of surrounding property (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

The area around this parcel are used for farming.
There is an existing tower in the parcel to the west that will be removed once this tower is operational

STAFF ANALYSIS:

The plans submitted comply with the parameters of Section 5.05 of the Zoning Ordinance. This proposal is compatible with the neighborhood as noted in Criteria 3.

CRITERIA 5: Essential public facilities and services will adequately serve the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

This will be an unnammed facility, with limited traffic. We will only require Electricity and fiber Optics, which are already in the vicinity at the tower to the west, shceduled to be removed once this ~~tower is operational~~

STAFF ANALYSIS:

The plans submitted comply with the zoning ordinance. There have been no concerns presented from the stakeholders.

CRITERIA 6: The proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic or historic features of the subject property or adjacent properties (Woodbury County Zoning Ordinance, Sec. 2.02-9).

APPLICANT RESPONSE:

We have conducted a required NEPA Environmental Site Assessment Report. (Attached)

The purpose of a NEPA Land Use Screening is to comply with the National Environmental Policy Act of 1969 (NEPA). Trileaf performs extensive research and review to provide our clients with a full NEPA document. The following is a summary of the scope of work Trileaf performs to complete a NEPA/Section 106 Review.

STAFF ANALYSIS:

This proposal does not appear to significantly impact the items as referenced in Criteria #6.

OTHER CONSIDERATION 1: The proposed use or development, at the particular location is necessary or desirable to provide a service or facility that is in the public interest or will contribute to the general welfare of the neighborhood or community (Woodbury County Zoning Ordinance, Sec. 2.02-9).

STAFF ANALYSIS:

This CUP request could be interpreted as a contribution to the local communication infrastructure.

OTHER CONSIDRATION 2: All possible efforts, including building and site design, landscaping and screening have been undertaken to minimize any adverse effects of the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).

STAFF ANALYSIS:

The design of the tower and its proposed use clearly distinguishes itself as a communication structure. The plans submitted comply with the Zoning Ordinance. Under Iowa Code 8C, local governments cannot "dictate the type of transmission equipment or technology to be used, or discriminate between different types of infrastructure or technology."



SMJ INTERNATIONAL, LLC. 49030 Pontiac Trail Ste.100, Wixom, MI 48393

August 23, 2024

Daniel J. Priestley, MPA
Woodbury County Zoning Coordinator
620 Douglas Street #609
Sioux City, IA 51101

Re: CUP American Tower LLC

Dear Daniel,

Enclosed are the following items for the CUP request.

- CUP Application
- \$300.00 Fee
- BP Application
- \$500.00 Fee
- Floodplain Development Permit Application
- \$110.00 Fee
- FAA Approval
- FCC Approval
- NEPA Summary
- Construction Drawings
- Abstract Mailing list

Please let me know if you need anything else to put this on the next meeting agenda.

Best Regards,

Andy

Andy Bobrytzke
Project Manager
SMJ International, LLC
507-327-2361
Email: abobrytzke@smj-llc.com



WOODBURY COUNTY COMMUNITY AND ECONOMIC DEVELOPMENT

Zoning Ordinance
Section 2.02(9)

Page 1 of 6

CONDITIONAL USE PERMIT APPLICATION

Owner Information:	Applicant Information:
Owner <u>Bradley J. Kobold Trust</u>	Applicant <u>Andrew Bobrytzke obo</u>
Address <u>211 7th Street</u> <u>Sergeant Bluff, IA 51054</u>	Address <u>American Towers LLC</u> <u>10 Presidential Way</u> <u>Woburn, MA 01801</u>
Phone <u>712-251-4533</u>	Phone <u>507-327-2361</u>

We, the undersigned, hereby apply to the Woodbury County Board of Adjustment for permission to:
Construct a 250' Self Support Wireless Communications Tower to replace existing tower

Property Information:

Property Address or Address Range TBD 260th Street, Salix, IA

Quarter/Quarter _____ Sec 20 Twnshp/Range 87-47 *SESE Liberty*

Parcel ID # 874720400004 GIS # _____ Total Acres 36.9

Current Use Farming Proposed Use Farming w/ Wireless Tower

Current Zoning GI - GENERAL INDUSTRIAL

The filing of this application is required to be accompanied with all items and information required pursuant to section 2.02(9)(C)(2) through (C)(4) of Woodbury County's zoning ordinances (see attached pages of this application for a list of those items and information).

A formal pre-application meeting is recommended prior to submitting this application.

Pre-app mtg. date 04/23/2024 Staff present Daniel Priestly

The undersigned is/are the owners(s) of the described property on this application, located in the unincorporated area of Woodbury County, Iowa, assuring that the information provided herein is true and correct. I hereby give my consent for the Woodbury County Community and Economic Development staff, Zoning Commission and Board of Adjustment members to conduct site visits and photograph the subject property.

This Conditional Use Permit Application is subject to and shall be required, as a condition of final approval, to comply with all applicable Woodbury County ordinances, policies, requirements and standards that are in effect at the time of final approval. *Andrew J. Bobrytzke*

Owner obo Brad Kobold Applicant Andrew J. Bobrytzke

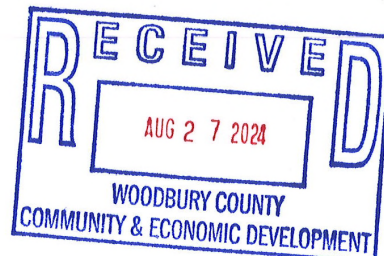
Date 08/23/2024 Date 08/23/2024

Fee: \$300* **Case #:** 7013

Check #: 6068 8.27.24

Receipt #: _____

Date Received



PER SECTION 2.02(9)(C)(2 (d) PROVIDE A SPECIFIC DESCRIPTION OF THE PROPOSED CONDITIONAL USE: (Tab at the end of each line to continue)

In order to prevent a loss of wireless cellular phone coverage in the area, American Tower Corp (ATC) wishes to construct a new 250' Self Support Wireless Communications tower. This is a replacement tower for the tower located on the property to the immediate west. That lease is expiring, and ATC will be removing that tower once new tower is built and all equipment is operating on new tower.

PER SECTION 2.02(9) (C)(2)(e) PROVIDE A MAP DRAWN TO SCALE, SHOWING THE SUBJECT PROPERTY, ALL STRUCTURES AND OTHER IMPROVEMENTS, WITH THE PROPOSED CONDITIONAL USE IDENTIFIED PER STRUCTURE OR IMPROVEMENT . PROVIDE BY ATTACHMENT.

Attached

PER SECTION 2.02(9) (C)(2)(e) PROVIDE A STATEMENT IN RESPONSE TO EACH OF SIX BELOW CRITEREA AND STANDARDS FOR APPROVAL OF CONDITIONAL USES AS LISTED IN SECTION 2.02(9)F OF THE ORDINANCES. (Tab at the end of each line to continue)

- (a) Provide a statement to why you feel the conditional use requested is authorized as a conditional use in the zoning district within which the property is located and that any specific conditions or standards described as part of that authorization have been or will be satisfied.

Telecommunications Towers are allowed in GI with a Conditional Use per Woodbury Counting Zoning ordinances.

- (b) Provide a statement to why the proposed use and development will be in harmony with the general purpose and intent of this ordinance and the goals, objectives and standards of the general plan. (Tab at the end of each line to continue)

Telecommunications Towers are allowed in GI with a Conditional Use per Woodbury Counting Zoning ordinances.

There is an existing tower in the parcel to the west that will be removed once this tower is operational

- (c) Provide a statement to why the proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare. (Tab at the end of each line to continue)

The area around this parcel are used for farming.
There is an existing tower in the parcel to the west that will be removed once this tower is operational

- (d) Provide a statement to why the proposed use and development will be located, designed, constructed and operated in such a manner that it will be compatible with the immediate neighborhood and will not interfere with the orderly use, development and improvement of surrounding property. (Tab at the end of each line to continue)

The area around this parcel are used for farming.
There is an existing tower in the parcel to the west that will be removed once this tower is operational

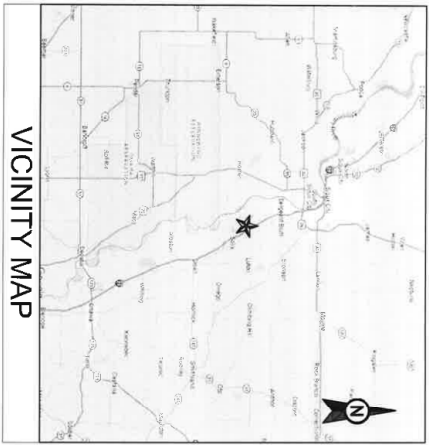
- (e) Provide a statement to why essential public facilities and services will adequately serve the proposed use or development. (Tab at the end of each line to continue)

This will be an unnammed facility, with limited traffic. We will only require Electricity and fiber Optics, which are already in the vicinity at the tower to the west, shceduled to be removed once this tower is operational

- (f) Provide a statement to why the proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic or historic features of the subject property or adjacent properties. (Tab at the end of each line to continue)

We have conducted a required NEPA Environmental Site Assessment Report. (Attached)

The purpose of a NEPA Land Use Screening is to comply with the National Environmental Policy Act of 1969 (NEPA). Trileaf performs extensive research and review to provide our clients with a full NEPA document. The following is a summary of the scope of work Trileaf performs to complete a NEPA/Section 106 Review.



VICINITY MAP



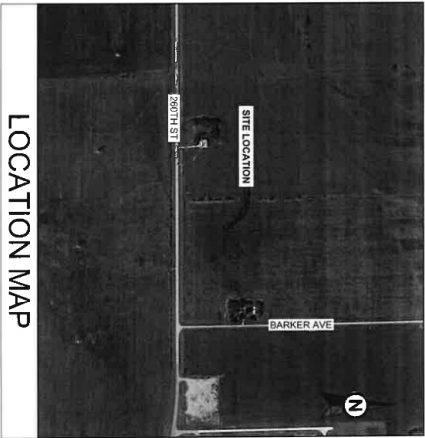
AMERICAN TOWER®

SITE NAME: STRELO WOODBURY COUNTY - 108

SITE NUMBER: 211984

SITE ADDRESS: TBD

SALIX, IA 51052-8137



LOCATION MAP

**STRATEGIC RELOCATION
ZONING DRAWINGS**

<p>COMPLIANCE CODE</p> <p>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</p> <p>1. INTERNATIONAL BUILDING CODE (IBC) 2. NATIONAL ELECTRICAL CODE (NEC) 3. NATIONAL FIRE ALARM CODE 4. OPT/COUNTY ORDINANCES</p>		<p>PROJECT SUMMARY</p> <p>SITE ADDRESS: TBD SALIX, IA 51052-8137 COUNTY: WOODBURY</p> <p>GEOGRAPHIC COORDINATES: LATITUDE: 42° 19' 51.88" LONGITUDE: 98° 28' 02.11" GROUND ELEVATION: 1083.9' AMSL</p> <p>ZONING INFORMATION: JURISDICTION: WOODBURY COUNTY PARCEL NUMBER: 8747240004</p>																																																																																	
<p>SURVEY INFORMATION</p> <p>1. TOPOGRAPHY AND BOUNDARY INFORMATION WAS OBTAINED FROM A LICENSED PROFESSIONAL SURVEYING & ENGINEERING.</p> <p>UTILITY COMPANIES</p> <p>POWER COMPANY: UNKNOWN PHONE: N/A TELEPHONE COMPANY: UNKNOWN PHONE: N/A</p>		<p>PROJECT TEAM</p> <p>TOWER OWNER: AMERICAN TOWER CORPORATION 10 FERTON MAIN STREET SUITE 300 WOODBURY, IA 51094</p> <p>PROJECT OWNER: BRADLEY J. KOBOLD 221 7TH STREET SERGEANT BLUFF, IA 51084</p> <p>ENGINEER: ATC TOWER SERVICES 1 FERTON MAIN STREET SUITE 300 WOODBURY, IA 51094</p>																																																																																	
<p>PROJECT DESCRIPTION</p> <p>THIS PROJECT ENTAILS A NEW 26' TOWER TO BE CONSTRUCTED WITHIN A PROPOSED 75' X 75' LOT AREA INSTALLED ON THE TOWER AND THEIR ASSOCIATED GROUND EQUIPMENT WITHIN THE COMPOUND</p> <p>PROJECT NOTES</p> <ol style="list-style-type: none"> 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. FACILITY WILL MEET OR EXCEEDS ALL FAA AND FCC REGULATORY REQUIREMENTS. 4. NO GATEWAY SIGNS, PORTABLE WATERS OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED. 6. THE FACILITY WILL NOT GENERATE NOISE IN EXCESS OF 59db AT THE PROPERTY LINES. 		<p>SHEET INDEX</p> <table border="1"> <thead> <tr> <th>SHEET NO.</th> <th>DESCRIPTION</th> <th>REV.</th> <th>DATE</th> <th>BY:</th> </tr> </thead> <tbody> <tr> <td>G-001</td> <td>TITLE SHEET</td> <td>3</td> <td>06/05/24</td> <td>JD</td> </tr> <tr> <td>G-002</td> <td>GENERAL NOTES</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>V-101</td> <td>ATKINSONS LAND TITLE SURVEY</td> <td>3</td> <td>08/08/24</td> <td>JD</td> </tr> <tr> <td>C-101</td> <td>OVERALL SITE PLAN</td> <td>2</td> <td>07/29/24</td> <td>EB</td> </tr> <tr> <td>C-102</td> <td>WETLAND IMPACT SITE PLAN</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>C-201</td> <td>GRADING PLAN & PROFILE</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>C-401</td> <td>COMPOUND PLAN</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>C-402</td> <td>TOWER ELEVATION</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>C-501</td> <td>CONSTRUCTION DETAILS</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>C-502</td> <td>CONSTRUCTION DETAILS</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>C-603</td> <td>SIGNAGE</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>E-401</td> <td>GROUNDING LAYOUT</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>E-501</td> <td>ELECTRICAL DETAILS</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>E-601</td> <td>ELECTRICAL ONE LINE DIAGRAM</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> <tr> <td>R-601</td> <td>SPECIAL INSPECTIONS WORKSHEET</td> <td>1</td> <td>04/22/24</td> <td>JD</td> </tr> </tbody> </table>		SHEET NO.	DESCRIPTION	REV.	DATE	BY:	G-001	TITLE SHEET	3	06/05/24	JD	G-002	GENERAL NOTES	1	04/22/24	JD	V-101	ATKINSONS LAND TITLE SURVEY	3	08/08/24	JD	C-101	OVERALL SITE PLAN	2	07/29/24	EB	C-102	WETLAND IMPACT SITE PLAN	1	04/22/24	JD	C-201	GRADING PLAN & PROFILE	1	04/22/24	JD	C-401	COMPOUND PLAN	1	04/22/24	JD	C-402	TOWER ELEVATION	1	04/22/24	JD	C-501	CONSTRUCTION DETAILS	1	04/22/24	JD	C-502	CONSTRUCTION DETAILS	1	04/22/24	JD	C-603	SIGNAGE	1	04/22/24	JD	E-401	GROUNDING LAYOUT	1	04/22/24	JD	E-501	ELECTRICAL DETAILS	1	04/22/24	JD	E-601	ELECTRICAL ONE LINE DIAGRAM	1	04/22/24	JD	R-601	SPECIAL INSPECTIONS WORKSHEET	1	04/22/24	JD
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<p>PROJECT LOCATION DIRECTIONS</p> <p>FROM SALIX: HEAD NORTH ON TIFTON ST TOWARD POPULAR ST, THEN TURN RIGHT AT THE 1ST CROSS STREET ONTO POPULAR ST, THEN LEFT ONTO BARKER AVE, THEN RIGHT ONTO OLD HWY 75 FOR 1.7 MILES, THEN TURN LEFT ONTO SOUTH ST AND IN 1.8 MILES, SITE DESTINATION WILL BE ON THE RIGHT.</p>		<p>OWNER _____ DATE _____</p> <p>I, THE LANDOWNER, ACKNOWLEDGE AND APPROVE OF THE CONSTRUCTION ACTIVITIES AS INDICATED ON THESE PLANS.</p>																																																																																	

AMERICAN TOWER®
ATC TOWER SERVICES, LLC
1 FERTON MAIN STREET
SUITE 300
WOODBURY, IA 51094
PHONE: (678) 488-9112

THESE DRAWINGS AND THE ACCOMPANYING EXPLANATION, INDENTURE OF AMERICAN TOWER, THEIR USE, AND THE PROJECT'S PERFORMANCE SHALL BE THE SOLE RESPONSIBILITY OF THE USER. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE GOVERNMENT AUTHORITIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE GOVERNMENT AUTHORITIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE GOVERNMENT AUTHORITIES.

REV.	DESCRIPTION	BY	DATE
1	FOR CONSTRUCTION	JD	02/25/24
2	UPDATES PER DM	JD	04/22/24
3	WETLAND IMPACT	EB	07/29/24
4	UPDT. SOUTH ROW DM	JD	08/08/24

ATC SITE NUMBER:
211984
ATC SITE NAME:
STRELO WOODBURY
COUNTY - 108



Printed on special paper. This drawing is the property of Scott A. Wirgau. It is to be used only for the project and location specified hereon. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Scott A. Wirgau. License Number: 23705 My license renewal date is November 3, 2023. Expires on 11/03/2023. All rights reserved. Scott A. Wirgau

DATE DRAWN: 03/25/24
ATC JOB NO: 14188750
GFC JOB NO: 14688535_D08
ATC LEGACY #: 50182

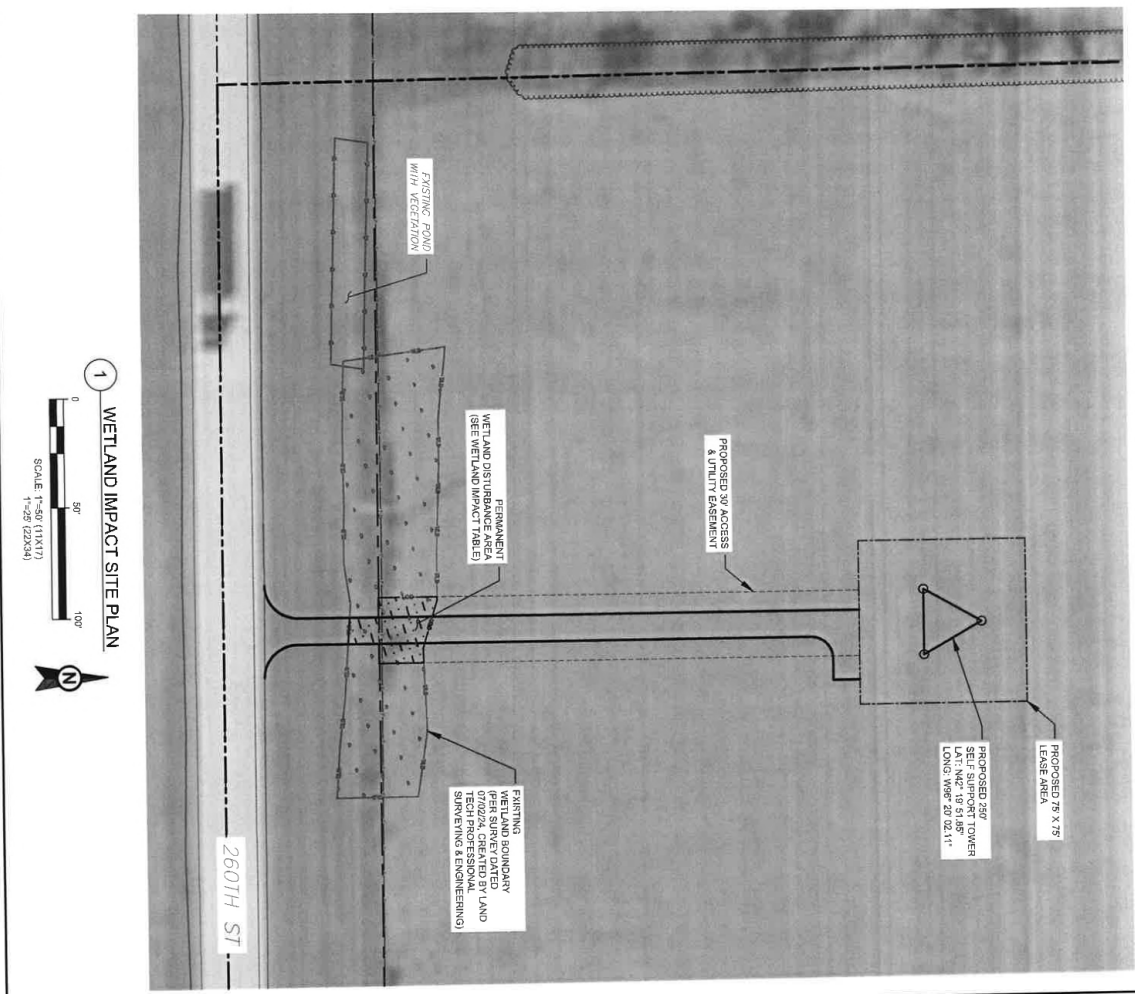
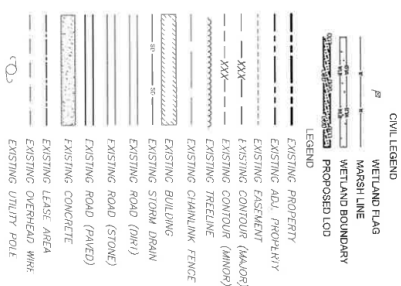
Scott Wirgau
Digitally signed by Scott Wirgau
Date: 2024.08.07 16:58:33 -0400

TITLE SHEET

SHEET NUMBER: **G-001** REVISION: **3**

- CONSTRUCTION NOTES:
1. SEDIMENT TRAPPED ON TO ANY PUBLIC ROADWAY OR SURFACE EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED OR SURFACE WATER (NOT TO ANY POSSIBLE DITCH, STORM SEWER, NOTIFY ATC CONSTRUCTION MANAGER AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES.
 2. ATC CONSTRUCTION MANAGER SHALL NOTIFY ATC CONSTRUCTION MANAGER AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES.
 3. ALL EARTH DISTURBANCE ACTIVITIES SHALL BE MONITORED BY THE ATC CONSTRUCTION MANAGER AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES. THE ONE CALL SYSTEM, INC. SHALL BE NOTIFIED TO BE IMPLEMENTED DURING CONSTRUCTION AS REQUIRED. METHODS TO BE IMPLEMENTED DURING CONSTRUCTION AS REQUIRED. METHODS TO BE IMPLEMENTED DURING CONSTRUCTION AS REQUIRED.
 4. ALL EARTH DISTURBANCE ACTIVITIES SHALL BE MONITORED BY THE ATC CONSTRUCTION MANAGER AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES.

WETLAND IMPACT TABLE (EASEMENT OPTION A)	TOTAL (SF)	TOTAL (AC)
PERMANENT DISTURBANCE AREA (COMPOUND)	6525.50	0.13
PERMANENT DISTURBANCE AREA (EASEMENT & ROAD)	2372.00	0.17
PERMANENT WETLAND DISTURBANCE AREA	843.00	0.02
TOTAL PERMANENT PROJECT DISTURBANCE AREA	9740.50	0.32
TOTAL PERMANENT WETLAND DISTURBANCE AREA	643.00	0.02



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 1 FENNER MAN STREET
 CARY, NC 27514
 PHONE: (919) 468-9112

THIS DRAWING IS RESTRICTED TO THE ACCOMPANYING SPECIFICATIONS AND CONTRACT DOCUMENTS. THE INFORMATION IS RESTRICTED TO THE ORIGINAL SITE VISITATION AND FIELD SURVEY DATA. THE INFORMATION IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF AMERICAN TOWER. THE INFORMATION IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
1	FOR CONSTRUCTION	JL	09/25/24
2	UPDTS PER PM	JD	04/22/24
3	WETLAND IMPACT	EE	07/26/24

ATC SITE NUMBER
211984
 ATC SITE NAME
STRELO WOODBURY
COUNTY - 108

SEAL: **SCOTT A. WIRGAL**
 LICENSED PROFESSIONAL ENGINEER
 NO. 23705
 STATE OF NORTH CAROLINA
 EXPIRES 12/31/2023

I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly licensed professional engineer under the laws of the State of North Carolina.
 Printed on 10/11/2023. **Scott Wirgala**
 My license renewal date is December 31, 2023.
 This document is the property of ATC. All rights reserved.

Digitally Signed: 2024-08-07

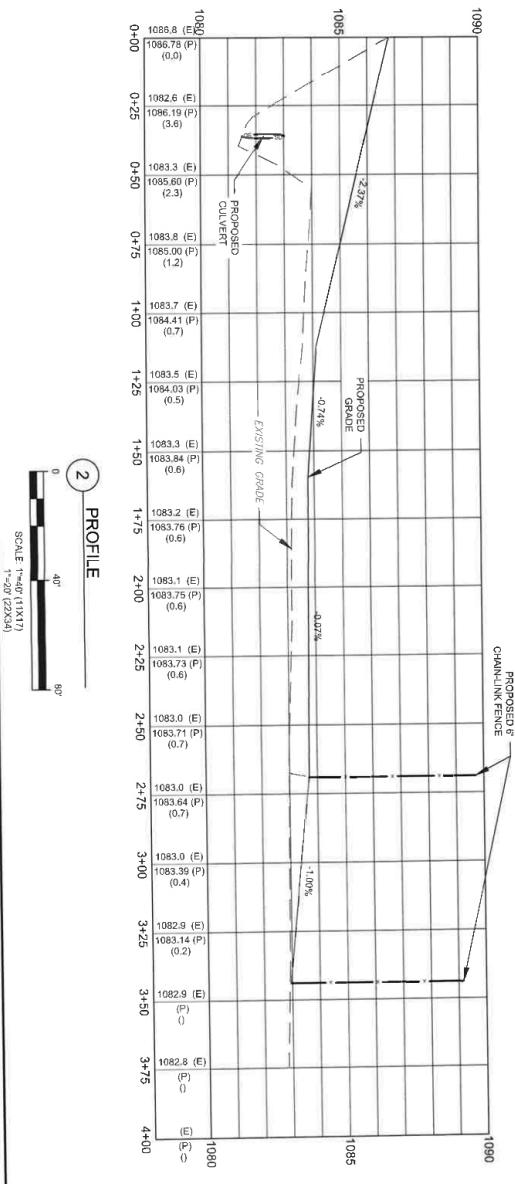
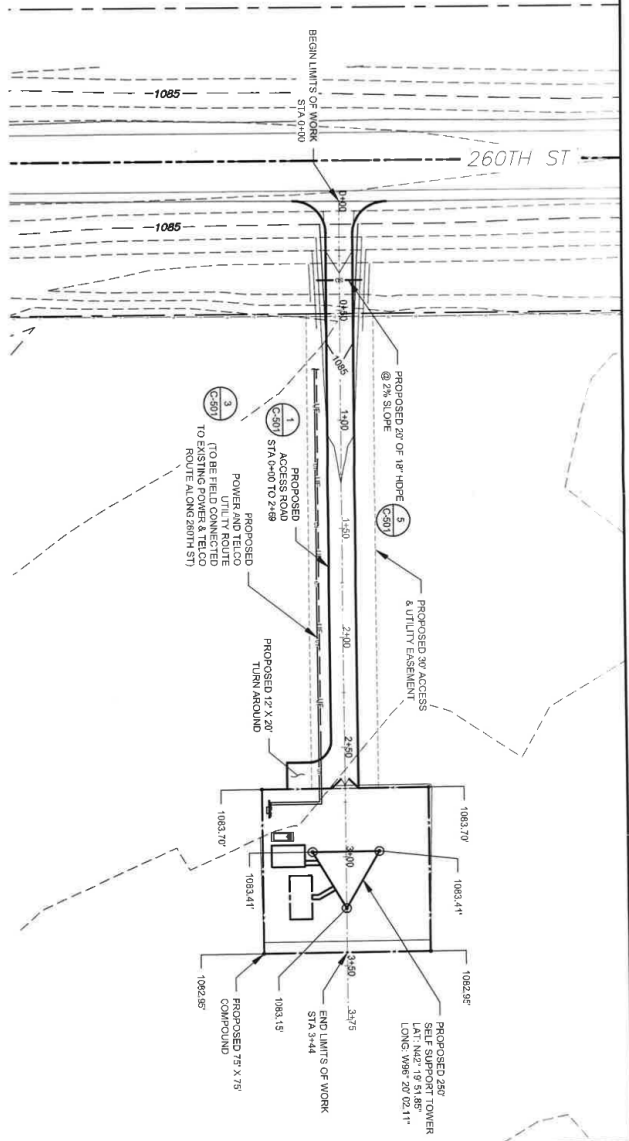
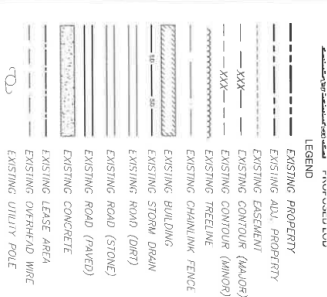
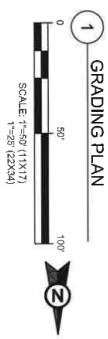
DATE DRAWN	02/25/24
ATC JOB NO.	14180750
OPS JOB NO.	14696035_06
ATC LEGACY #	50182

WETLAND IMPACT
SITE PLAN
 SHEET NUMBER: **C-102**
 REVISION: **2**

CUT/FILL VOLUMES	CUT (CY)	FILL (CY)	NET (CY)
ACCESS ROAD	1.43	157.83	159.26
COMPOUND	0.00	106.83	106.83
TOTAL	1.43	264.66	263.23

STONE REQUIRED FOR ROAD	AVG STONE DEPTH (IN)	WIDTH (FT)	LENGTH (FT)	STONE IMPORT (TONS)	STONE EXPORT (TONS)
ROAD	6	75	75	104.17	14.177
COMPOUND	6	1200	289	56.78	61.36
TOTAL				160.95	75.54

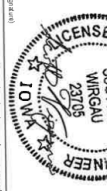
* CUT / FILL CALCULATIONS ARE APPROXIMATE. THE AMOUNT OF IMPORT TONNAGE WILL NEED TO BE REWORKED ON THE CONTRACTOR AND SUBMITTALS FOR STONE SHALL BE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STONE TO THE APPROXIMATE STONE DEPTHS.



AMERICAN TOWER
ATC TOWER SERVICES, LLC
 1 FENTON MAIN STREET
 CARY, NC 27511
 PHONE: (919) 484-9112

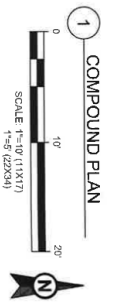
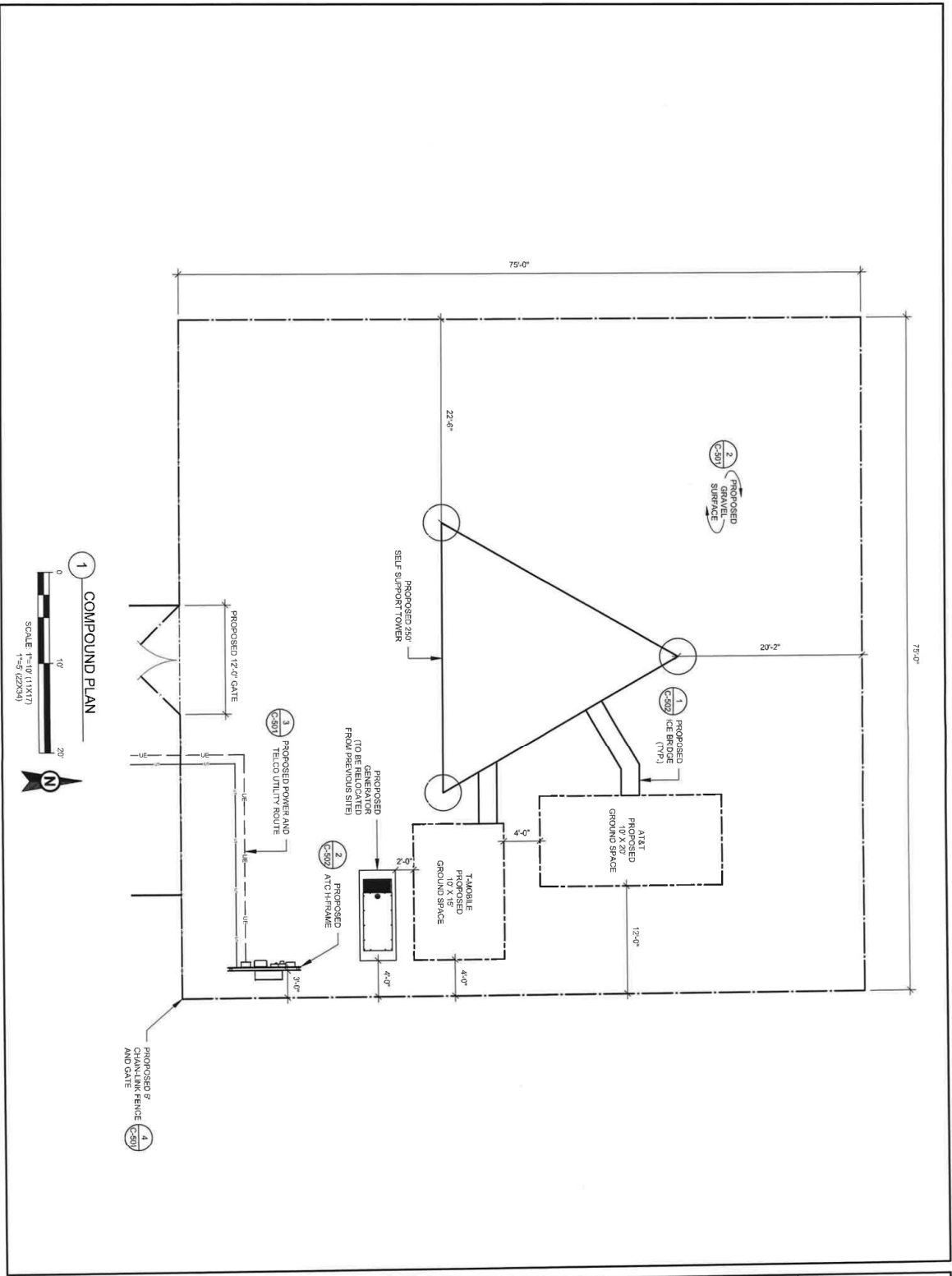
REV.	DESCRIPTION	BY	DATE
1	FOR CONSTRUCTION	JG	09/25/24
2	UPDTS PER BM	JG	04/22/24

ATC SITE NUMBER:
 211984
 ATC SITE NAME:
 STRELO WOODBURY
 COUNTY - 108



Digitally Signed: 2024-08-07
 I hereby certify that the engineering document is a requirement by me or under my direct personal supervision and control and that I am a duly Licensed Professional Engineer in the State of North Carolina.
 Printed Name: Scott Wirgala
 License Number: 23705
 Expiration Date: December 31, 2023
 My Seal and Stamp are valid for ALL

DATE DRAWN:	02/25/24
ATC JOB NO.:	14188750
ONS JOB NO.:	14686552_08
ATC LEGACY #:	50182
GRADING PLAN & PROFILE	
SHEET NUMBER:	C-201
REVISION:	1



AMERICANTOWER
ATC TOWER SERVICES, LLC
 1 FENTON MAIN STREET
 SUITE 300
 CHARLOTTE, NC 28204
 PHONE: (704) 4844112

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REV	DESCRIPTION	BY	DATE
1	FOR CONSTRUCTION	JL	03/25/24
2	UPDTS PER PM	JL	04/22/24
3			
4			

ATC SITE NUMBER:
211984
 ATC SITE NAME:
STRELO WOODBURY
COUNTY - 108

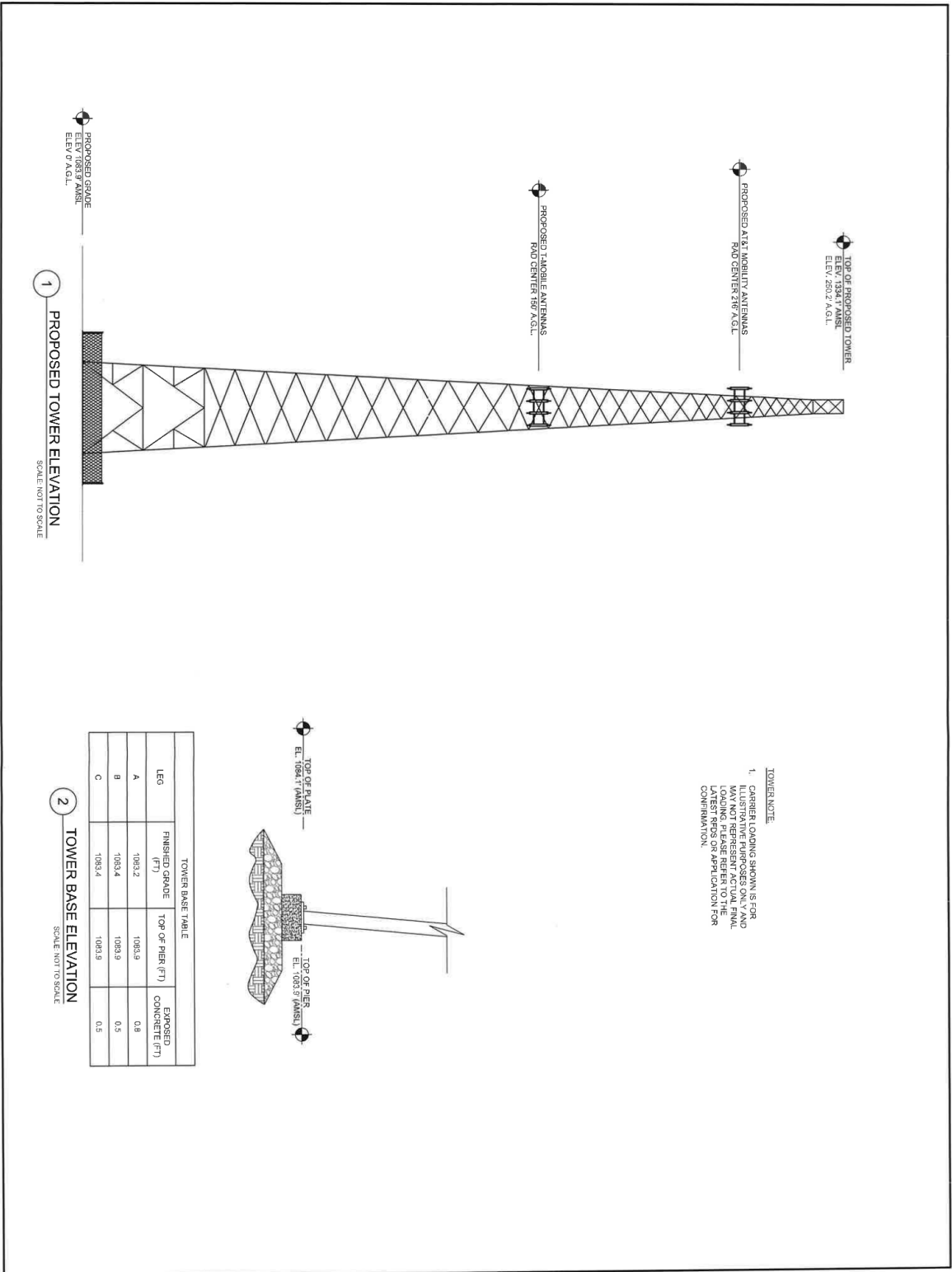


SEAL: (Professional Engineer Seal)
 I hereby certify that the engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of North Carolina.
 Printed or typed name: **Scott Wiegau**
 License Number: **22705**
 My license renewal date is December 31, **2023**
 My tower renewal date is the year **2023**
 My tower renewal expires on the year **2023**

DATE DRAWN: 03/25/24
 ATC JOB NO: 14789750
 OPS JOB NO: 14695855_05
 ATC LEGACY #: 50182

COMPOUND PLAN

SHEET NUMBER: **C-401** REVISION: **1**

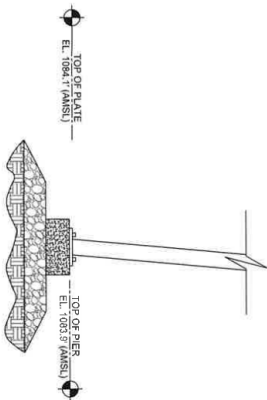


TOWER NOTE

1. CURRENT LOADING SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT REPRESENT ACTUAL FINAL LOADING. PLEASE REFER TO THE CURRENT ANTENNA LOADS AND OBTAIN CONFIRMATION ON APPLICATION FOR CONFIRMATION.

2 TOWER BASE ELEVATION
SCALE NOT TO SCALE

LEG	FINISHED GRADE (FT)	TOP OF PIER (FT)	EXPOSED CONCRETE (FT)
A	1083.2	1083.9	0.8
B	1083.4	1083.9	0.5
C	1083.4	1083.9	0.5



AMERICAN TOWER
ATC TOWER SERVICES, LLC
11800 MAIN STREET
SUITE 300
CARY, NC 27511
PHONE: (919) 486-8112

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REV	DESCRIPTION	BY	DATE
1	FOR CONSTRUCTION	J.D.	03/25/24
2	UPDATE PER PER	J.D.	04/22/24

ATC SITE NUMBER:
211984
ATC SITE NAME:
**STRELO WOODBURY
COUNTY - 108**



Digitally Signed: 2024-08-07

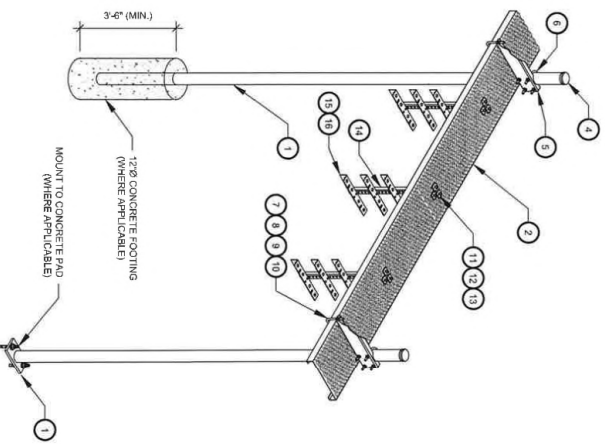
Project or sheet owned by the user: **ALL**

DATE DRAWN:	03/25/24
ATC JOB NO:	14188751
OPS JOB NO:	14886633_DS
ATC LEGACY #:	501482

TOWER ELEVATION

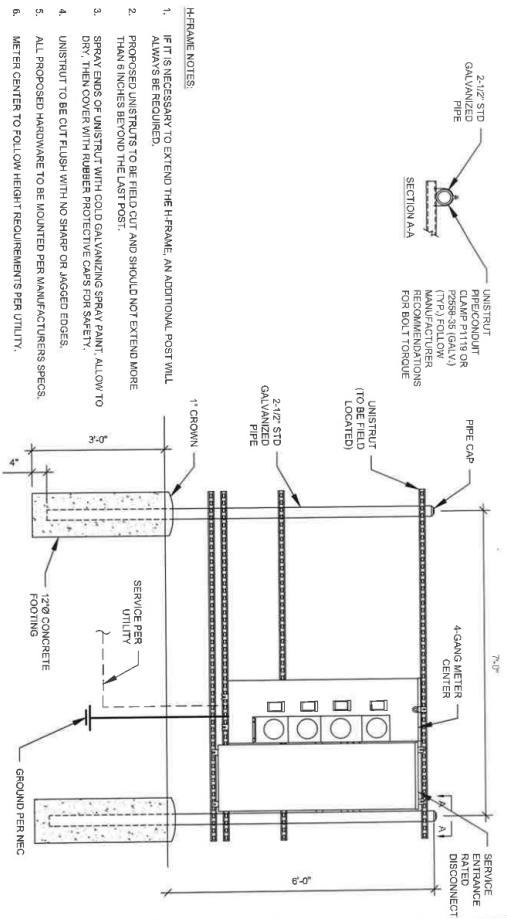
SHEET NUMBER:	C-402	REVISION:	1
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- CONSTRUCTION NOTE:
- WHERE POSSIBLE AND AS APPLICABLE, THE CONTRACTOR SHALL UTILIZE EXISTING ICE BRIDGE, CABLE LADDER, COAX SUPPORTS, AND COAX PORTS BEFORE UTILIZING CONTRACTOR SHALL VERIFY THE FALL HEIGHTS FOR THE COMPONENTS AND THE LOCATION OF THE COAX SUPPORTS. THE CONTRACTOR SHALL VERIFY THE INSTALLATION OF NEW ICE BRIDGE, CABLE LADDER, COAX SUPPORT, AND COAX PORT AS REQUIRED WITH THE ATC CONSTRUCTION MANAGER.
 - INSTALL THE BRIDGE TO ALLOW 1 FEET CLEARANCE ABOVE GRADE TO LOWEST ASPHALT SURFACE.



ITEM NUMBER	PART NUMBER	DESCRIPTION	ITEM NUMBER	PART NUMBER	DESCRIPTION
1	MF-128.01	10'-0" COLUMN & BASE SHOE	9	GMW-04	1/2" GALV. LOCK WASHER
2	WB-CV210	13'-4" PIPE COLUMN	10	GMW-04	1/2" GALV. HEX NUT
3	WBK1109BK	SAFETY GRATING 24" X 10"	11	GB-03205	3/8" X 2" GALV. BOLT KIT
4	PC-034	HARDWARE KIT (ITEMS 4, 6)	12	MT-387	SQUARE WASHER 1-1/2" X 1-1/2" WITH HOLE
5	WB-0343.08	PIPE CAP 3-1/2"	13	GMW-03	3/8" GALV. PLAT. WASHER
6	WB-0343.08	24" WAVEGUIDE BRIDGE SUPPORT BRACKET	14	WB7243.01	VERTICAL TRAPEZOID SECTION
7	WB-034	1/2" X 3/8" X 6" GALV. U-BOLT	15	GB-03105	3/8" X 1" GALV. BOLT KIT
8	GMW-04	1/2" GALV. PLAT. WASHER	16	WB7243.02	HORIZONTAL TRAPEZOID SECTION

1 24" WAVEGUIDE BRIDGE KIT
SCALE: NOT TO SCALE



2 UTILITY H-FRAME
SCALE: N.T.S.

- H-FRAME NOTES:
- IF IT IS NECESSARY TO EXTEND THE H-FRAME, AN ADDITIONAL POST WILL ALWAYS BE REQUIRED.
 - PROPOSED UNISTRUTS TO BE FIELD CUT AND SHOULD NOT EXTEND MORE THAN 8 INCHES BEYOND THE LAST POST.
 - SPRAY ENDS OF UNISTRUT WITH GOLD GALVANIZING SPRAY PAINT, ALLOW TO DRY, THEN COVER WITH RUBBER PROTECTIVE CAPS FOR SAFETY.
 - UNISTRUT TO BE CUT FLUSH WITH NO SHARP OR JAGGED EDGES.
 - ALL PROPOSED HARDWARE TO BE MOUNTED PER MANUFACTURER'S SPECS.
 - METER CENTER TO FOLLOW HEIGHT REQUIREMENTS PER UTILITY.

3-1/2" STD GALVANIZED PIPE
UNISTRUT
PRECONDUIT (PUSH-IN GALV.) (TYP.) FOLLOW MANUFACTURER'S INSTRUCTIONS FOR BOLT TORQUE

PIPE CAP
UNISTRUT (TO BE FIELD LOOKED)
2-1/2" STD GALVANIZED PIPE
1" CROWN
SERVICE PER UTILITY
12x9 CONCRETE FOOTING
GROUND PER N.E.C.
SERVICE ENTRANCE DISCONNECT
4-GANG METER CENTER
7'-0"

AMERICAN TOWER
ATC TOWER SERVICES, LLC
1 FENOM MAIN STREET
SUITE 200
CARY, NC 27511
PHONE: (919) 959-1112

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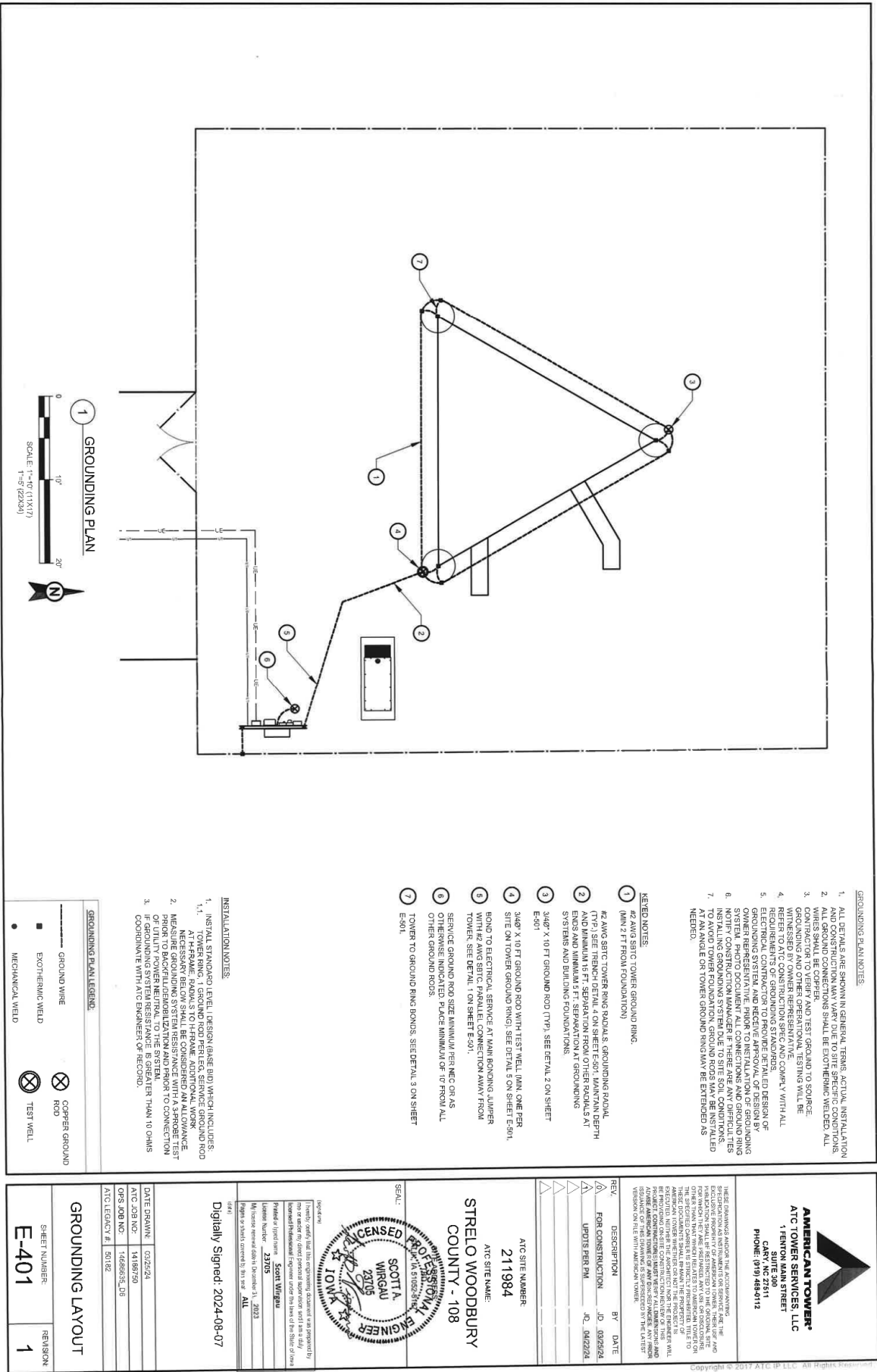
REV.	DESCRIPTION	BY	DATE
1	FOR CONSTRUCTION	J.D.	03/25/24
2	UPDATES PER 2M	J.D.	04/22/24

ATC SITE NUMBER
211984
ATC SITE NAME:
STRELO WOODBURY
COUNTY - 108

SEAL:

Project or sheet reviewed by: **AW**
Digitally Signed: 2024-08-07

DATE DRAWN:	03/25/24
ATC JOB NO.:	141881750
OPS JOB NO.:	14686832_03
ATC LEGACY #:	501182
CONSTRUCTION DETAILS	
SHEET NUMBER:	C-502
REVISION:	1



1 GROUNDING PLAN

SCALE: 1"=10' (11X17)
1"=5' (22X34)

- GROUNDING PLAN LEGEND:**
- GROUND WIRE
 - EXOTHERMIC WELD
 - MECHANICAL WELD
 - ⊗ COPPER GROUND ROD
 - ⊗ TEST WELL

INSTALLATION NOTES:

- INSTALL STANPOD LEVEL, LORSON (RANGE 800) WHICH INCLUDES:
 - TOWER RING, 1 GROUND ROD PER LEG, SERVICE GROUND ROD AT H-FRAME, RADIAL S TO H-FRAME, ADDITIONAL WORK NECESSARY BEFORE SHALL BE CONSIDERED AS A PROBE TEST PRIOR TO BACKFILL/DEMOLITION AND PRIOR TO CONNECTION OF UTILITY POWER NEUTRAL TO THE SYSTEM.
 - IF GROUNDING SYSTEM IS MORE THAN 10 OHMS CONDUCTANCE WITHIN THE ENGINEER OF RECORD.

- NOTED NOTES:**
- #2 AWG SBTC TOWER GROUND RING.
 - #2 AWG SBTC TOWER RING RADIALS, GROUNDING RADIAL (TYP.) SEE DETAIL 2 ON SHEET E-301. MINIMUM DEPTH ENDS AND MINIMUM 1 FT. SEPARATION AT GROUNDING SYSTEMS AND BUILDING FOUNDATIONS.
 - 3/4" X 10 FT GROUND ROD (TYP.), SEE DETAIL 2 ON SHEET E-301.
 - 3/4" X 10 FT GROUND ROD WITH TEST WELL (MIN. ONE PER SITE ON TOWER GROUND RING). SEE DETAIL 3 ON SHEET E-301.
 - BOND TO ELECTRICAL SERVICE AT MAIN BONDING JUMPER WITH #2 AWG SBTC PARALLEL CONNECTION AWAY FROM TOWER. SEE DETAIL 1 ON SHEET E-301.
 - SERVICE GROUND ROD SIZE MINIMUM 1/2" EGG OR AS OTHERWISE INDICATED. PLACE MINIMUM 10" FROM ALL OTHER GROUND RODS.
 - TOWER TO GROUND RING BONDS. SEE DETAIL 3 ON SHEET E-301.

GENERAL NOTES:

- ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
- ALL GROUND CONNECTIONS SHALL BE EXOTHERMIC WELDED. ALL CONNECTIONS TO VERIFY AND TEST GROUND TO SOURCE.
- GROUNDING AND OTHER OPERATIONAL TESTING WILL BE WITNESSED BY THE CONTRACTOR AND COMPLY WITH ALL REQUIREMENTS OF GROUNDING STANDARDS.
- ELECTRICAL CONTRACTOR TO PROVIDE DETAILED DESIGN OF GROUNDING SYSTEM. PHOTO DOCUMENT ALL CONNECTIONS AND GROUND RING SYSTEM. PHOTO DOCUMENT THE TEST RESULTS AND CONDITIONS NOTIFIED BY THE CONTRACTOR TO THE ENGINEER OF RECORD.
- TO AVOID TOWER FOUNDATION, GROUND RODS MAY BE INSTALLED AT AN ANGLE OR TOWER GROUND RING MAY BE EXTENDED AS NEEDED.



AMERICAN TOWER®
AT TOWER SERVICES, LLC
 1 FENTON MAN STREET
 SUITE 300
 CAMDEN, NJ 08104
 PHONE: (856) 888-0112

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REV	DESCRIPTION	BY	DATE
1	FOR CONSTRUCTION	JD	03/25/24
2	UPDATES PER RM	JD	04/22/24
3			
4			
5			

ATC SITE NUMBER: 211984
 ATC SITE NAME: STRELO WOODBURY COUNTY - 108



SEAL: SCOTT A. WIRGALA, LICENSE NO. 23705, STATE OF NEW JERSEY. My license renewal date is October 31, 2023. My license renewal date is October 31, 2023. My license renewal date is October 31, 2023.

DATE DRAWING: 03/25/24
 ATC JOB NO: 14188759
 OPS JOB NO: 14689852_L08
 ATC LEGACY #: 50182

GROUNDING LAYOUT

SHEET NUMBER: E-401
 REVISION: 1



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DATE DRAWN: 03/22/24
 ATC JOB NO.: 14188750
 CDS JOB NO.: 1468955L_05
 ATC LEGACY #: 50182

PROFESSIONAL ENGINEER
 SCOTTA WIRGAU
 2025
 LICENSE NUMBER: 23705
 My license renewed date is December 31, 2023
 My signature is valid for use ALL

Digitally Signed: 2024-08-07

DATE: 08/07/2024 10:00:00 AM
 USER: scott.wirgau

ATC SITE NUMBER: 211984
 ATC SITE NAME: STRELO WOODBURY COUNTY - 108

FOR CONSTRUCTION BY DATE
 ID: 0829264
 UNPLOT PERCENTAGE: 100%

SHEET NUMBER: 1

SHEET NAME: ELECTRICAL DETAILS

DATE: 08/07/2024 10:00:00 AM

USER: scott.wirgau

PROJECT: STRELO WOODBURY COUNTY - 108

DATE: 08/07/2024 10:00:00 AM

USER: scott.wirgau

PROJECT: STRELO WOODBURY COUNTY - 108

DATE: 08/07/2024 10:00:00 AM

USER: scott.wirgau

PROJECT: STRELO WOODBURY COUNTY - 108

DATE: 08/07/2024 10:00:00 AM

USER: scott.wirgau

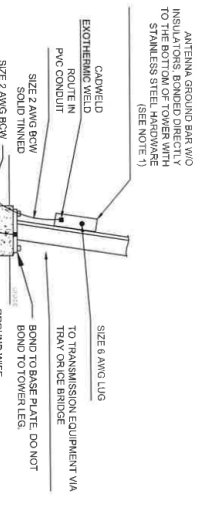
PROJECT: STRELO WOODBURY COUNTY - 108

DATE: 08/07/2024 10:00:00 AM

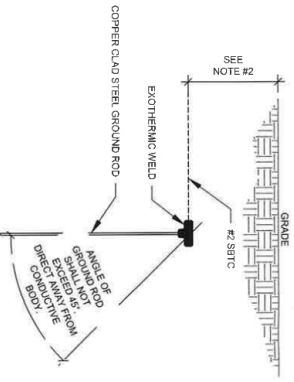
USER: scott.wirgau

PROJECT: STRELO WOODBURY COUNTY - 108

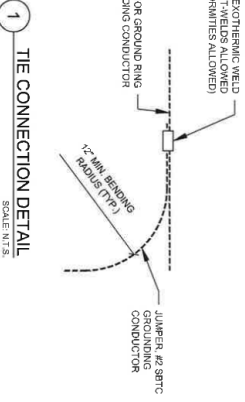
DATE: 08/07/2024 10:00:00 AM



3 TOWER GROUNDING
 SCALE: NOT TO SCALE

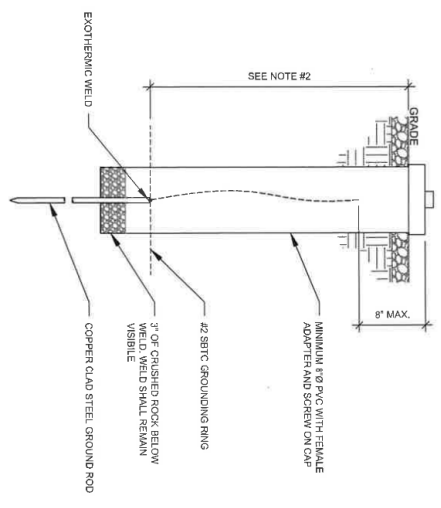


2 GROUND ROD DETAIL
 SCALE: N.T.S.

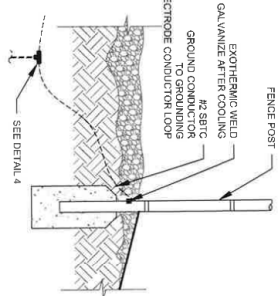


1 TIE CONNECTION DETAIL
 SCALE: N.T.S.

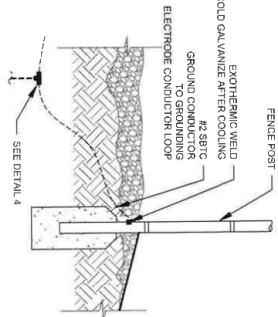
- NOTES:
1. LOCATE BEFORE DIGGING.
 2. ALL RING AND RADIAL DEPTHS AT 30" OR 6" BELOW FOOT LINE, WHICHEVER IS GREATER.
 3. WELD GROUND TO FENCE AS LOW AS POSSIBLE TO DETERR COPPER THEFT



4 GROUND CONNECTION TRENCH DETAIL (STD.)
 SCALE: N.T.S.



5 TEST WELL DETAIL
 SCALE: N.T.S.



6 FENCE GROUNDING DETAIL
 SCALE: N.T.S.

DATE DRAWN:	03/22/24
ATC JOB NO.:	14188750
CDS JOB NO.:	1468955L_05
ATC LEGACY #:	50182
ELECTRICAL DETAILS	
SHEET NUMBER:	1
REVISION:	



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 10101 Hillwood Parkway
 Fort Worth, TX 76177

Aeronautical Study No.
 2024-ACE-1110-OE

Issued Date: 04/12/2024

Alyse Brussard
 American Towers LLC - AB
 10 Presidential Way
 Woburn, MA 01801

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower STRE;LO WOODBURY COUNTY - 108 (211984)
 Location: Salix, IA
 Latitude: 42-19-51.87N NAD 83
 Longitude: 96-20-02.07W
 Heights: 1083 feet site elevation (SE)
 265 feet above ground level (AGL)
 1348 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Emissions from this site must be in compliance with the parameters set by collaboration between the FAA and telecommunications companies and reflected in the FAA 5G C band compatibility evaluation process (such as power, frequencies, and tilt angle). Operational use of this frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process. **Failure to comply with this condition will void this determination of no hazard.**

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, a med-dual system-Chapters 4,8(M-Dual),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Air Missions (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

This determination expires on 10/12/2025 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination of No Hazard is granted provided the following conditional statement is included in the proponent's construction permit or license to radiate:

Upon receipt of notification from the Federal Communications Commission that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference. This condition expires after 1 year of interference-free operation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (817) 222-5924, or Christopher.Grote@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2024-ACE-1110-OE.

Signature Control No: 614201725-618841951
Christopher Grote
Technician

(DNE)

Attachment(s)
Additional Information
Frequency Data
Map(s)

cc: FCC

Additional information for ASN 2024-ACE-1110-OE

BASIS FOR DECISION

Part 77 authorizes the FAA to evaluate a structure or object's potential electromagnetic effects on air navigation, communication facilities, and other surveillance systems. It also authorizes study of impact on arrival, departure, and en-route procedures for aircraft operating under visual or instrument flight rules, as well as the impact on airport traffic capacity at existing public use airports. Broadcast in the 3.7 to 3.98 GHz frequency (5G C band) currently causes errors in certain aircraft radio altimeters and the FAA has determined they cannot be relied upon to perform their intended function when experiencing interference from wireless broadband operations in the 5G C band. The FAA has adopted Airworthiness Directives for all transport and commuter category aircraft equipped with radio altimeters that prohibit certain operations when in the presence of 5G C band.

This determination of no hazard is based upon those mitigations implemented by the FAA and operators of transport and commuter category aircraft, and helicopters operating in the vicinity of your proposed location. It is also based on telecommunication industry and FAA collaboration on acceptable power levels and other parameters as reflected in the FAA 5G C band evaluation process.

The FAA 5G C band compatibility evaluation is a data analytics system used by FAA to evaluate operational hazards related to aircraft design. The FAA 5G C band compatibility evaluation process refers to the process in which the telecommunication companies and the FAA have set parameters, such as power output, locations, frequencies, and tilt angles for antenna that mitigate the hazard to aviation. As the telecommunication companies and FAA refine the tools and methodology, the allowable frequencies and power levels may change in the FAA 5G C band compatibility evaluation process. Therefore, your proposal will not have a substantial adverse effect on the safe and efficient use of the navigable airspace by aircraft provided the equipment and emissions are in compliance with the parameters established through the FAA 5G C band compatibility evaluation process.

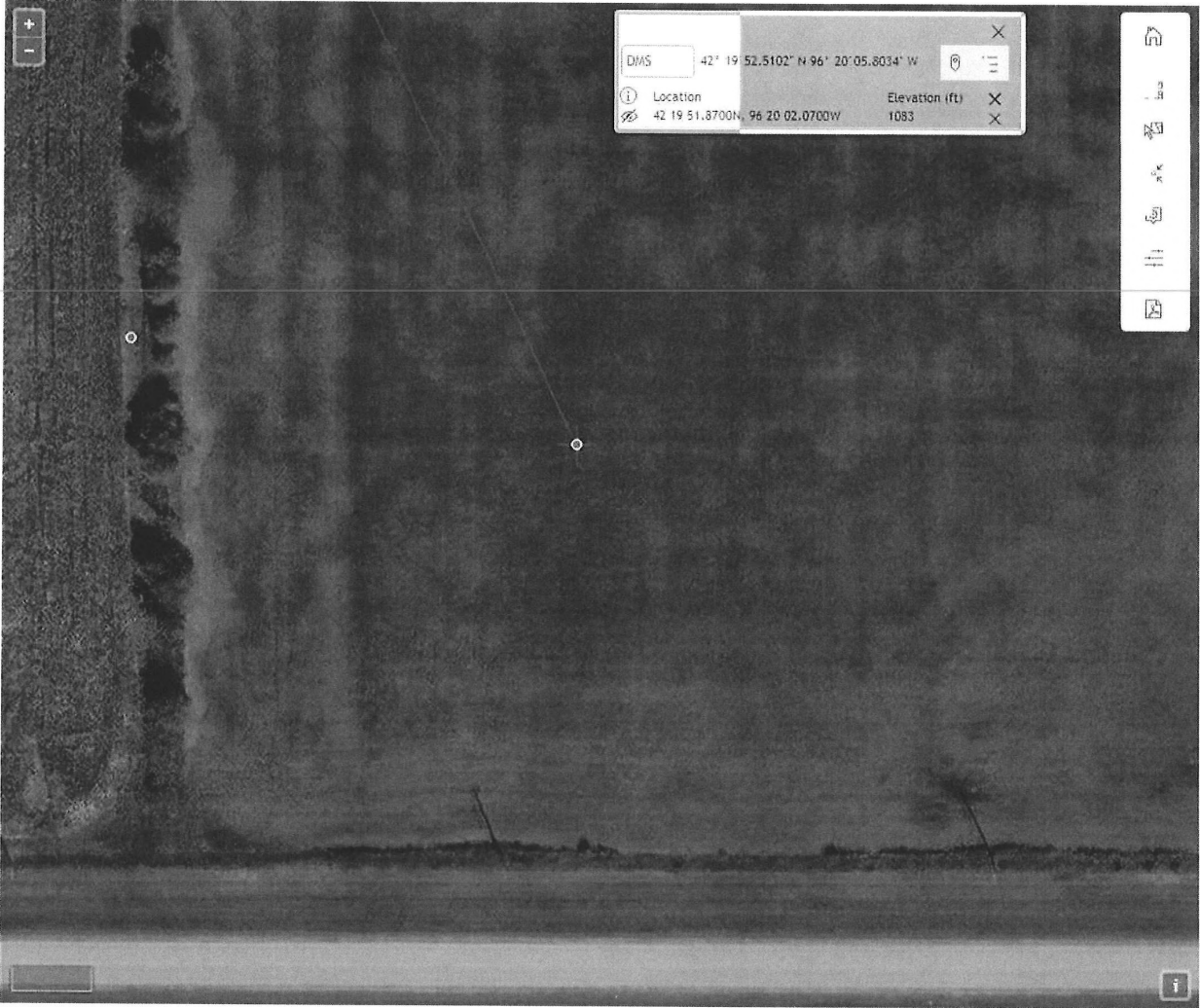
Any future changes that are not consistent with the parameters listed in the FAA 5G C band compatibility evaluation process will void this determination of no hazard.

For 2496-2690 MHz: No Objection with provision that upon receipt of notification from the Federal Aviation Administration (FAA) or Federal Communications Commission (FCC) that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take immediate corrective action as is necessary to eliminate the harmful interference.

Frequency Data for ASN 2024-ACE-1110-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	2000	W
614	698	MHz	1000	W
698	806	MHz	1000	W
806	824	MHz	500	W
806	901	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1755	1780	MHz	3280	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W
3450	3550	MHz	1640	W
3550	3700	MHz	47	dBm
3700	3980	MHz	1640	W

Verified Map for ASN 2024-ACE-1110-OE



**FCC Form 854
Main Form**

Approved by OMD – 3060-0139
See instructions for public burden estimate

Application for Antenna Structure Registration

Purpose of Filing

1) Enter the application purpose: (AM)	
AM – Amendment of a Pending Application AU – Administrative Update CA – Cancellation of an Antenna Structure Registration DI – Notification of an Antenna Structure Dismantlement MD – Modification of a Antenna Structure Registration	NE – Registration of a New Antenna Structure NT – Required Construction/Alteration Notification OC – Ownership Change RE – Registration of a Replacement Antenna Structure WD – Withdrawal of a Pending Application
2a) If the answer to 1 is AU, CA, DI, MD, NT, OC or RE, provide the FCC Antenna Structure Registration (ASR) Number.	FCC ASR Number:
2b) If the answer to 1 is AM or WD, provide the File Number of the pending application on file.	File Number: A1277938
2c) If the answer to 1 is MD or NT, provide the date the Antenna Structure was constructed or the date it was last altered (mm/dd/yyyy).	Date:
2d) If the answer to 1 is DI, provide the date the Antenna Structure was dismantled (mm/dd/yyyy).	Date:

Antenna Structure Ownership Information

3) Select one of the entity types:			
() Individual	() Unincorporated Association	() Trust	() Government Entity
() Corporation	(X) Limited Liability Company	() General Partnership	() Limited Partnership
() Consortium	() Limited Liability Partnership	() Other: _____	
4) FCC Registration Number (FRN): 0011498342		5) Assignor FCC Registration Number (FRN):	
6) First Name (if individual):	MI:	Last Name:	Suffix:
7) Legal Entity Name (if not an individual): American Towers LLC			
8) Attention To: FAA-FCC Regulatory Team		9) P.O. Box:	And/Or
10a) Street Address 1: 10 Presidential Way		10b) Street Address 2:	
11) City: Woburn	12) State: MA	13) Zip Code: 01801	
14) Telephone Number (xxx-xxx-xxxx): (781) 926-4500		15) Fax Number: (xxx-xxx-xxxx):	
16) E-mail Address: faa-fcc@americantower.com			

Contact Representative Information

17) First Name (if individual):	MI:	Last Name:	Suffix:
18) Business Name: American Towers LLC			
19) Attention To: FAA-FCC Regulatory Team	20) P.O. Box		And/Or
21a) Street Address 1: 10 Presidential Way		21b) Street Address 2:	
22) City: Woburn	23) State: MA	24) Zip Code: 01801	
25) Telephone Number (xxx-xxx-xxxx): (781) 926-4500		26) Fax Number: (xxx-xxx-xxxx):	
27) E-mail Address: faa-fcc@americantower.com			

Antenna Structure Information

28a) Latitude (DD-MM-SS.S): 42- 19- 51.8		28b) North or South: North	
29a) Longitude (DDD-MM-SS.S): 096- 20- 02.1		29b) East or West: West	
30) Street Address or Geographic Location: 260th Street (site # 211984)		31) City: Salix	
32) County: WOODBURY	33) State: IOWA	34) Zip Code: 51052-8137	
35) Elevation of site above mean sea level (meters):			330.1 meters
36) Overall height above ground level (AGL) of the supporting structure without appurtenances:			76.2 meters
37) Overall height above ground level (AGL) of the antenna structure including all appurtenances:			80.8 meters
38) Overall height above mean sea level (add items 35 and 37 together):			410.9 meters
39a) Enter the type of structure on which the antenna will be mounted: (LTOWER)			
B – Building BANT – Building with Antenna on Top BMAST – Building with Mast BPIPE – Building with Pipe BPOLE – Building with Pole BRIDG – Bridge BTWR – Building with Tower GTOWER – Guyed Structure Used For Communication Purposes LTOWER – Lattice Tower MAST – Mast MTOWER – Monopole NNGTANN – Guyed Tower Array		NNLTANN – Lattice Tower Array NNMTANN – Monopole Array PIPE – Any type of Pipe POLE – Any type of Pole RIG – Oil or Other Type of Rig SIGN – Any type of Sign or Billboard SILO – Any type of Silo STACK – Smoke Stack TANK – Any type of Tank (water, gas, etc.) TREE – When used as a support for an antenna UPOLE – Utility Pole/Tower used to provide service (electric, telephone, etc.)	
39b) Number of Towers in Array:		39c) Position of this Tower in the Array:	
40a) Array Center Latitude (DD-MM-SS.S):		40b) North or South	
41a) Array Center Longitude (DDD-MM-SS.S):		41b) East or West:	

Proposed Marking and/or Lighting

42) Enter the proposed marking and/or lighting: (7) See Form 854 Item 42 Instructions for detailed tier and lighting information.		
1) None	4) FAA Style B	7) FAA Style E
2) Paint Only	5) FAA Style D	8) FAA Style F
3) Other _____	6) FAA Style C	9) FAA Style A
		10) FAA Style G

FAA Notification

43) FAA Study Number: 2024-ACE-1110-OE	44) Date Issued: 04/12/2024
--	---------------------------------------

Environmental Compliance

45) Does the applicant request a waiver of the Commission's rules for environmental notice prior to construction due to an emergency situation?	(No) Yes or No
46a) If the answer to 45 is No, is another federal agency taking responsibility for environmental review of the Antenna Structure?	(No) Yes or No
46b) If the answer to 46a is Yes, indicate why: 1) The Antenna Structure is on Federal Land and the landholding agency is taking responsibility for the environmental review of the Antenna Structure. 2) Another federal agency has agreed with the FCC in writing to take responsibility for the environmental review of the Antenna Structure.	() 1 or 2
46c) If the answer to 46a is Yes, provide the name of the federal agency taking responsibility for the environmental review of the Antenna Structure.	Name:
47) If the answers to 45 and 46a are No, provide the National Notice Date for the application to be posted on the FCC's website (mm/dd/yyyy).	Date: 04/12/2024
48) Is the applicant submitting an environmental assessment?	(No) Yes or No
49) Does the applicant certify that grant of Authorizations at this location would not have a significant environmental effect pursuant to Section 1.1307 of the FCC's rules?	(Yes) Yes or No
50) If the answer to 49 is Yes, select the basis for this certification. 1) The construction is exempt from environmental notification (other than due to another agency's review) and it does not fall within one of the categories in Section 1.1307(a) or (b) of the FCC's rules? 2) The construction is exempt from environmental notification due to another agency's review, and the other agency has issued a Finding of No Significant Impact. 3) The environmental notification has been completed, and the FCC has notified the applicant that an Environmental Assessment is not required under Section 1.1307(c) or (d) of the FCC's rules, and the Construction does not fall within one of the categories in Section 1.1307(a) or (b) of the FCC's rules. 4) The FCC has issued a Finding of No Significant Impact.	(3) 1, 2, 3, 4
51) If the answer to 50 is 3 or 4, enter the date that Local Notice was provided (mm/dd/yyyy).	Date: 04/11/2024

Certification Statements

- 1) The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
- 2) The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. See Section 1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.

Signature (Typed or Printed Name of Party Authorized to Sign) (For OC Applications, to be completed by Assignee)

52) First Name: Alyse	MI:	Last Name: Brussard	Suffix:
53) Title: Specialist			
54) Signature: Alyse Brussard			55) Date: May 28, 2024

Signature (Typed or Printed Name of Party Authorized to Sign) (For OC Applications, to be completed by Assignor)

56) First Name:	MI:	Last Name:	Suffix:
57) Title:			
58) Signature:			59) Date:

**NEPA Environmental
Site Assessment Report**

**STRELO WOODBURY COUNTY - 108
ATC Site # 211984
2593 Barker Avenue
Salix, IA 51052**

Prepared for

American Towers LLC
10 Presidential Way
Woburn, MA 01801

Prepared by

Trileaf
8600 LaSalle Road, Suite 301
Towson, MD 21286

Job Number: 739770
May 27, 2024

Powered By PARCEL

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American Tower Corporation FCC NEPA CHECKLIST
(47 CFR Subpart 1, Chapter 1, Sections 1.1301-1.1319)

Site Name: STRELO WOODBURY COUNTY - 108 **Site Number:** 211984
Site Address: 2593 Barker Avenue

Category	Special Interest Item	Potential Effect		
		Yes	No	N/A
1	Is the antenna structure located in an officially designated wilderness area?		X	
2	Is the antenna structure located in an officially designated wildlife preserve?		X	
3	Is the proposed facility located within one mile of a National Scenic Trail?		X	
4	Will the antenna structure likely affect threatened or endangered species or designated critical habitats? (Ref. 50 CFR Part 402)		X	
5	Will the antenna structure likely impact migratory birds? (Ref. Draft Programmatic Environmental Assessment of the Antenna Structure Registration Program 08/26/11)		X	
6	Will the antenna structure affect districts, sites, buildings, structures, or objects significant in American history, architecture, archeology, engineering, or culture that are listed, or potentially eligible for listing in the National Register of Historic Places (NRHP)? (Ref. 36CFR Part 800 regulations implementing Section 106 of the National Historic Preservation Act)		X	
7	Will the antenna structure affect Indian religious site(s)?		X	
8	Will the antenna structure be located in a flood plain? (Ref. Executive Order 11988 and 40 CFR Part 6, Appendix A)		X	
9	Will construction of the antenna structure involve significant change in surface features (e.g. wetlands, deforestation, or water diversion)? (Ref. Executive Order 11990 and 40 CFR Part 6, Appendix A)		X	
10	Is the antenna structure located in a residential neighborhood and required to be equipped with high intensity white lights?		X	
11	Will the antenna structure equal or exceed total power (of all channels) of 2000 Watts ERP (3280 Watts EIRP) and have antenna located less than 10 meters above ground level?			X
12	Will the roof-top antenna project equal or exceed total power (of all channels)?			X

If any of the above responses is 'yes', an Environmental Assessment must be prepared and filed with FCC Form 854. Construction can not start until the FCC issues a 'Finding of No Significant Impact' (FONSI)

Preparer's Signature: John Lawhon Date: May 27, 2024

Printed Name and Title: John Lawhon, Assistant Project Manager
Company Name: Trileaf

1.0 Introduction

1.1 Scope of Services

The purpose of a NEPA Land Use Screening is to comply with the National Environmental Policy Act of 1969 (NEPA). Trileaf performs extensive research and review to provide our clients with a full NEPA document. The following is a summary of the scope of work Trileaf performs to complete a NEPA/Section 106 Review.

1.2 Site Location/Project Description

American Towers, LLC proposes to construct a 250-foot (260-foot overall) self-support telecommunications tower and associated equipment compound within a 75-foot by 75-foot (5,625-square-foot) lease area. In addition, a 30-foot-wide access/utility easement is proposed to extend approximately 217.5 feet south towards 260th Street. Additionally, a 30-foot buffer surrounding the proposed expansion area and the perimeter of the fenced compound will be evaluated. The site is currently agricultural land.

The address listed in this report and throughout the attachments is the best approximation of this project's address at the time environmental services were ordered. It should be noted that the address may change once the E-911 address is established by the local municipality. Despite any change in address, the site has not changed position and the correct site location was reviewed in this report.

2.0 NEPA Summary

There are no noted concerns for this project. The following sections describe the results of the research for each of the NEPA requirements.

2.1 Wilderness Area

Is the antenna structure located in an officially designated wilderness area? No

2.2 Wildlife Preserves

Is the antenna structure or facility located in an officially designated wildlife preserve? No

2.3 National and Scenic Historic Trails

Is the proposed facility located within one mile of a National Scenic Trail? No

Trileaf Corporation reviewed the topographic map as well as the National Trails System map provided by the National Park Service to determine the proximity of the project location to a National Scenic Trail. Trileaf determined that the proposed tower is not located within one mile of a National Scenic Trail.

2.4 Threatened and Endangered Species

Will the antenna structure or facility likely affect threatened or endangered species or designated critical habitats? No

Trileaf reviewed topographic maps for designated wilderness or wildlife areas at or near the project location. On March 5, 2024, a staff scientist took photographs and performed a visual survey of the property during a site visit. Trileaf reviewed both state and federally listed threatened or endangered species. The state list is broken down by county. Currently, the proposed lease area and surrounding 30-foot buffer area consists of an area that is existing agricultural land. The access easement is currently a agricultural land. The Project site is not located within an aquatic or riparian habitat, and the lease area is an existing heavily disturbed agricultural area, therefore any obligate aquatic, riparian, or plant species should not be impacted by this proposed project.

The 260-foot self-support tower will be built within a 75-foot by 75-foot lease area and will include a proposed 30-foot-wide, 217.5-foot-long access easement and utility easement (collectively known as the project area). Upon our site investigation, it was determined that the project area is not located in a waterway, wildlife refuge, national wilderness area, native grassland or forest area, ridge-line, mountain top, coastline or area commonly known to have high incidences of fog or low clouds, where migratory birds may be found. In addition, the nearest NWI mapped wetland is located at the terminus of the proposed access/utility easement and the nearest body of water is greater than 1/4 mile away from the project site. Therefore, based upon these findings, the probability that migratory birds will be found within the project area is minimal; however, the presence of migratory birds cannot be ruled out.

Per the interim guidelines of the FCC Programmatic Environmental Assessment of the Antenna Structure Registration Program (FCC PEA), implemented on June 18, 2012, towers over 450 feet in height require additional environmental review for potential migratory bird concerns. This tower will be 260 feet, which is below the FCC PEA height threshold. The area surrounding the project location is currently agricultural development. If the tower is required to be lit, to the extent FAA regulations allow, American Tower will use the most preferred lighting system possible outlined in the FCC PEA. Furthermore, this tower will be constructed to accept future collocations, thus reducing the need to build additional towers within the immediate project area, and will not be constructed with guy wires. The findings in the above paragraphs suggest that measures for minimizing impacts to migratory birds have been incorporated into this proposed undertaking.

The findings in the above paragraphs suggest that measures for minimizing impacts to migratory birds have been incorporated into this proposed undertaking. Based on the current data made available, and the interim FCC PEA, we have concluded that there is minimal potential for the proposed project to have a significant effect on migratory bird species, and that this project adheres to the guidelines set forth in the United States Fish & Wildlife Service's "Service Interim Guidelines For Recommendations On Communications Tower Siting, Construction, Operation, and Decommissioning."

FEDERAL

Trileaf reviewed a list of federally-listed species provided by the USFWS — Illinois & Iowa Ecological Services Field Office. After a review of the information, none of the listed species above were observed on the site or within 30 feet surrounding the proposed lease area or easements. In addition, no mapped critical habitat was identified. Therefore, it is expected that there will be no effect to listed species or their habitat.

STATE

Trileaf reviewed a list of state-listed species through the Iowa Department of Natural Resources (IDNR). After a review of the information, none of the listed species above were observed on the site or within 30 feet surrounding the proposed lease area or easements. In addition, no mapped critical habitat was identified. Therefore, it is expected that there will be no effect to listed species or their habitat.

On April 10, 2024, Trileaf reviewed the Section 7 Consultation guidance set forth by the USFWS — Illinois & Iowa Ecological Services Field Office. According to guidance obtained on April 10, 2024, "consultation with the Service is not mandatory if an action agency determines that an action will have no effect on species." Agency concurrence with a no effect determination is not required under the Endangered Species Act and will not be provided by the Illinois & Iowa Ecological Services Field Office. Therefore, as Trileaf determined the project would have no effect on listed or proposed threatened or endangered species or critical habitats, no further consultation with the USFWS was required.

On April 10, 2024, Trileaf initiated consultation with the IDNR regarding the proposed project. On May 13, 2024, the IDNR responded that "No land or water under the jurisdiction of the State of Iowa is involved in the project area; therefore, a Sovereign Lands Construction Permit pursuant to Chapter 461A of the Iowa Code will not be required for this project. If the construction plans change, the Department should be contacted for another review".

2.5 Migratory Birds

This 260-foot self-support tower will be built within a 75-foot by 75-foot lease area and will include a proposed 30-foot-wide, 217.5-foot-long access easement and utility easement (collectively known as the project area). Upon our site investigation, it was determined that the project area is not located in a waterway, wildlife refuge, national wilderness area, native grassland or forest area, ridge-line, mountain top, coastline or area commonly known to have high incidences of fog or low clouds, where migratory birds may

be found. In addition, the nearest NWI mapped wetland is located at the terminus of the proposed access/utility easement and the nearest body of water is greater than 1/4 mile away from the project site. Therefore, based upon these findings, the probability that migratory birds will be found within the project area is minimal; however, the presence of migratory birds cannot be ruled out.

Per the interim guidelines of the FCC Programmatic Environmental Assessment of the Antenna Structure Registration Program (FCC PEA), implemented on June 18, 2012, towers over 450 feet in height require additional environmental review for potential migratory bird concerns. This tower will be 260 feet, which is below the FCC PEA height threshold. The area surrounding the project location is currently agricultural development. If the tower is required to be lit, to the extent FAA regulations allow, American Tower will use the most preferred lighting system possible outlined in the FCC PEA. Furthermore, this tower will be constructed to accept future collocations, thus reducing the need to build additional towers within the immediate project area, and will not be constructed with guy wires. The findings in the above paragraphs suggest that measures for minimizing impacts to migratory birds have been incorporated into this proposed undertaking.

Based on the efforts undertaken during this IBA, as well as the project specifications, the current data made available, and the interim FCC PEA, we have concluded that there is minimal potential for the proposed project to have a significant effect on migratory bird species, and that this project adheres to the guidelines set forth in the United States Fish & Wildlife Service's "Service Interim Guidelines For Recommendations On Communications Tower Siting, Construction, Operation, and Decommissioning."

2.6 Historical and Cultural Concerns

Will the antenna structure or facility affect districts, sites, buildings, structures, or objects significant in American history, architecture, archeology, engineering, or culture that are listed, or potentially eligible for listing in the National Register of Historic Places (NRHP)? No

Trileaf performed a NEPA Review in accordance with the *Nationwide Programmatic Agreement for Review of Effects on historic Properties for Certain Undertakings Approved by the Federal Communications Commission* dated September 2004. Our investigation includes determining if the site is contained in, on, or within the viewshed of a building, site, district, structure, or object, significant in American history, architecture, archaeology, engineering, or culture, that is listed, or eligible for listing on the State or National Registers of Historic Places, or located in or on an Indian Religious Site.

A Cultural Resource Evaluation was conducted by Abraham Ledezma of In Situ Archaeological Consulting, LLC. The records and literature search determined that there are two (2) listed or eligible National Register of Historic Places (NRHP) identified within the Direct Area of Potential Effects (APE) or within the Visual APE. No archaeological sites or other cultural resources were identified within the direct APE or near the subject property. On April 3, 2024, Trileaf submitted the Form 620, with a "No Effect" finding, to the Iowa SHPO. The State Historic Preservation concurred on April 29, 2024, that there will be no historic properties affected.

Trileaf submitted information with regards to this project to the Woodbury County Community & Economic Development and the Rural Woodbury County Historical Society on March 12, 2024. No responses have been received in regards to this project as of the date of this report. Further, public involvement was solicited through the *Sioux City Journal*, in which a public notice was published on March 28th and April 4th, 2024. No comments were received from the public to Trileaf's knowledge as of the date of this report.

2.7 Indian Religious Sites

Will the antenna structure or facility affect Indian religious site(s)? No

Trileaf referred to the Section 106 review to determine if the property is located in or on a Native American Religious Site. Also, in compliance with the Federal Communications Commission (FCC) regulations, Trileaf contacted all federally recognized Native American Tribes as specified by Section IV.G of the Nationwide Programmatic Agreement (NPA). On February 26, 2024, Trileaf submitted project information through the Tower Construction Notification System (TCNS) to the FCC who initiated contact with the tribes on March 1, 2024. As of May 31, 2024, all tribes have confirmed clearance either directly or by default via the FCC referral process. Trileaf determined that the subject Property is not located on or near a Native American Religious or Sacred Site.

2.8 Floodplains

Will the antenna structure or facility be located in a floodplain? No

Trileaf reviewed the USGS topographic map and the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel No. 19193C0400D, dated September 29, 2011, to determine if the project was located within the 100-year flood plain. The Property is mapped in Zone X, a zone known to be outside the 100- and 500-year floodplain. Based on this review, Trileaf determined that the property is not in a 100-year floodplain.

2.9 Significant Changes in Surface Features

Will construction of the antenna structure or facility involve significant change in surface features (e.g. wetlands, deforestation, or surface water diversion)? No

Trileaf performed a field visit and identified all surface water bodies in the action area. Using local maps in combination with an area reconnaissance, Trileaf determined that there were no bodies of water found within the action area. Based on examination of the topographic map, groundwater flow in the area is generally south. The closest body of water is Browns Lake located approximately 2,200 feet south from the proposed tower location.

According to the U.S. Soil Conservation Service Soil Survey of Woodbury County, Iowa, the Property is underlain by Salix silt loam, Albaton silty clay, and Onawa-Albaton complex with 0 to 2 percent slopes, rarely flooded.

Salix soils consist of moderately well drained soils that are formed from alluvium and are found in floodplains. A typical profile of a Salix soil consists of a surface layer of silty clay loam extending from 0 to 7 inches, two distinct layers of silty clay loam extending from 7 to 15 inches and 15 to 25 inches, and followed by two distinct layers of silty loam extending from 25 to 40 inches and 40 to 60 inches. The depth to the most restrictive feature is more than 80 inches. The depth to water table is about 48 to 72 inches. Salix soils do not typically flood or pond.

Albaton soils consist of poorly drained soils that are formed from calcareous clayey alluvium and are found in floodplains. A typical profile of an Albaton soil consists of a surface layer of silty clay extending from 0 to 7 inches followed by a subsurface layer of silty clay extending from 7 to 60 inches. The depth to the most restrictive feature is more than 80 inches. The depth to water table is about 0 to 12 inches. Albaton soils rarely flood and have no frequency of ponding.

Onawa rarely flooded soils consist of somewhat poorly drained soils that are formed from clayey alluvium over silty alluvium and are found in floodplains. A typical profile of an Onawa rarely flooded soils consists of a surface layer of silty clay extending from 0 to 9 inches followed by a subsurface layer of silty clay extending from 9 to 36 inches, and silt loam extending from 36 to 80 inches. The depth to the most restrictive feature is more than 80 inches. The depth to water table is about 12 to 42 inches. Onawa soils rarely flood and have no frequency of ponding.

Salix silt loam and Onawa-Albaton complex with 0 to 2 percent slopes, rarely flooded are not considered hydric soils, however, Albaton silty clay with 0 to 2 percent slopes, rarely flooded is considered a hydric soil.

Trileaf has reviewed the USGS topographic map, soil composition and survey drawings, as well as the National Wetlands Inventory (NWI) Map to determine if the proposed lease area and easements, and the area encompassing an additional 30 foot surrounding this site would have an impact on any wetlands or required significant amounts of fill or grading. On May 7, 2024, AquAeTer, Inc. performed a wetland delineation of the project site. It was determined that the proposed lease area compound is not located within a recognized national wetland area. However, a recognized national wetland area was identified south of the proposed compound south of the proposed lease area, located at the terminus of the proposed access/utility easement. AquAeTer, Inc. determined that less than 0.1 acres of this recognized national wetland area is to be impacted by the proposed site development. Additionally, the United States Army Corp of Engineers (USACE) has confirmed the boundaries of this wetland and that the impacted wetland area is less than 0.1 acres. Since the impacted wetland area has been confirmed by the USACE to be less than 0.1 acres, Trileaf has determined that the proposed project development will not have a significant impact on wetlands or other surface features.

2.10 High Intensity White Lights

Is the antenna structure or facility located in a residential neighborhood and required to be equipped with high intensity white lights? No

High intensity white lights are required by FAA for aviation avoidance marking on towers over 499 feet above ground surface. Towers less than 499 feet are not equipped with high intensity white lights.

2.11 Radio Frequency Radiation

Will the antenna structure equal or exceed total power (of all channels) of 2000 Watts ERP (3280 Watts EIRP) and have antenna located less than 10 meters above ground level? N/A

This category applies to FCC licensees and not antenna structure owners. Antenna structures (towers) do not emit radio frequency radiation. FCC licensees transmitting from antennas mounted on American Tower-owned antenna structures are required to comply with radio frequency exposure standards.

3.0 Limitations

Trileaf noted no limiting conditions with this assessment.

4.0 Certification

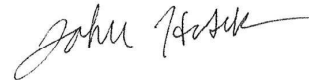
A NEPA Review was prepared for STRELO WOODBURY COUNTY - 108, IA, located at 2593 Barker Avenue, Salix, Iowa 51052, by Trileaf Corporation.

Report Writer

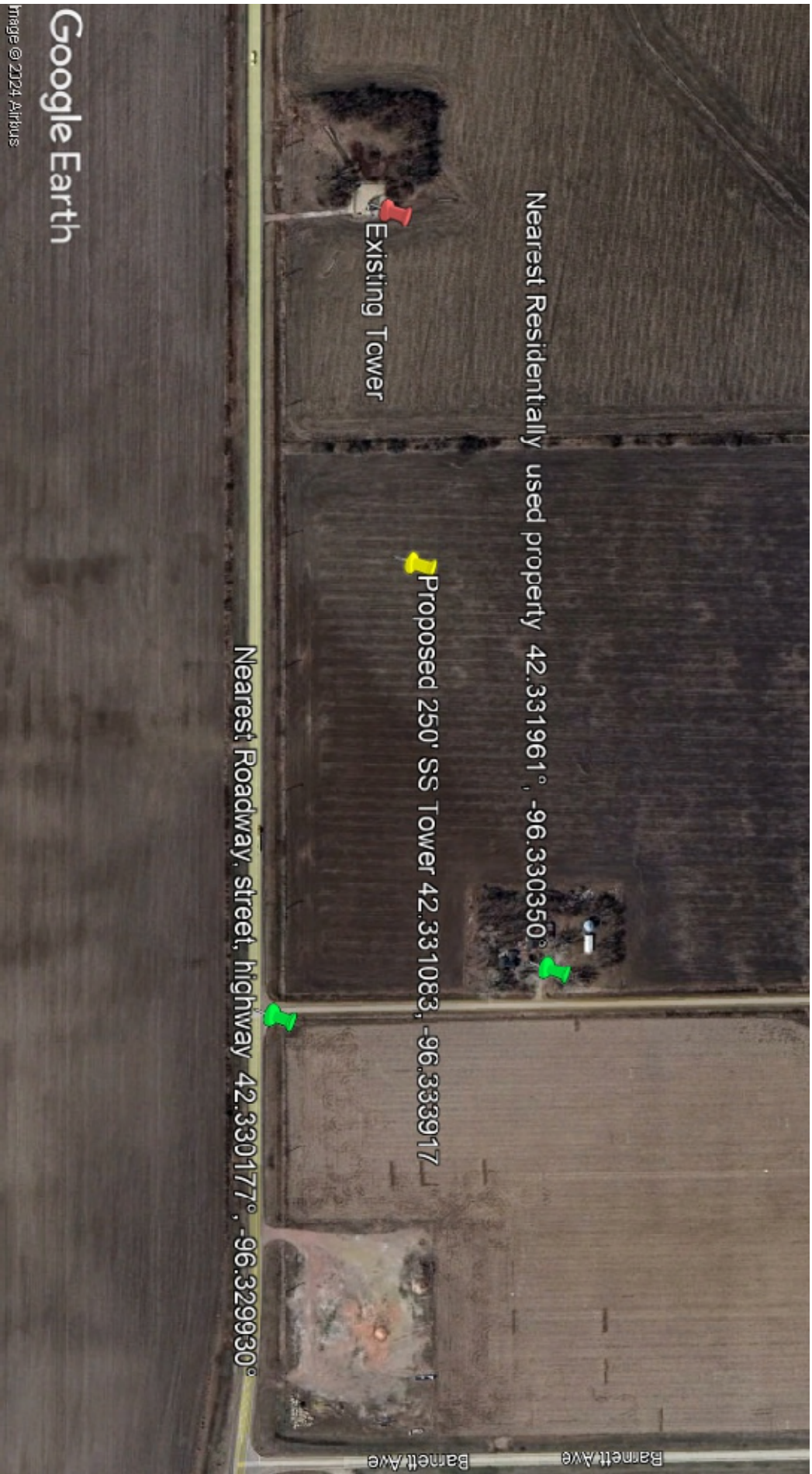



John Lawhon
Assistant Project Manager

Senior Reviewer




John Hosek
Project Manager





EXISTING

**EXISTING TOWER
TO BE DEMO**



PROPOSED

PROPOSED 250' TOWER

PROPOSED ANTENNAS

AMERICAN TOWER
SITE DESIGN

3000 W. FORTY SECOND AVENUE
DENVER, CO 80202-2499
PHONE: 303.440.2400

LVB

40120 POMEROY LANE, SUITE 100
WYOMING, MICHIGAN 48382
PHONE: (248) 712-9212

REV.	DATE	REVISIONS	INITIALS

ATC SITE NUMBER:
271984
STRELO WOODBURY
COUNTY - 108

SHEET TITLE
PHOTOSIM 1

SHEET NUMBER
P1



EXISTING



PROPOSED

PROPOSED 250' TOWER
 PROPOSED ANTENNAS

AMERICAN TOWER
 SITE DESIGN
 48000 Porticus Trail, Suite 100
 Wixom, Michigan 48393
 PHONE: (248) 705-8212

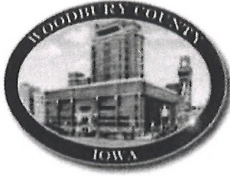
LAB

REV.	DATE	DESCRIPTION	INITIALS
P1	9/12/24	ISSUED FOR REVIEW	PL

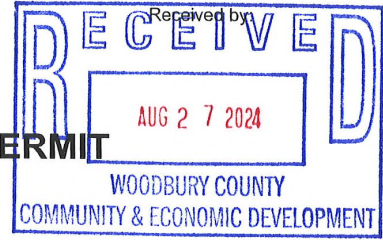
ATC SITE NUMBER:
 211984
 STRELO WOODBURY
 COUNTY - 108

SHEET TITLE
PHOTOSIM 2

SHEET NUMBER
P1



WOODBURY COUNTY, IOWA
APPLICATION FOR BUILDING PERMIT



For Office Use: Case No. 7015
Zoning District GI Date Approved Denied By
Floodplain District Map # 380E Fee 500 Ck/Rct # 6069
GIS # 8747 20400 004 Mail [checked] Pick up

In accordance with the Woodbury County Zoning Ordinance, the undersigned hereby applies for a building permit: abobrytzke@smj-llc.com

Landowner's name: Andrew Bobrytzke obo Brad Kobold and American Tower LLC Phone: 507-327-2361

Mailing Address: 10 Presidential Way City: Woburn Zip: 01801

Structure will be built at (address): xxx 260th Street, Salix, IA Parcel 874720400004

Occupied by: American Tower LLC

Quarter/quarter Section 20 Civil Township 87-47 SESE Liberty

Subdivision Block Lot(s)

Name of Contractor: TBD Phone:

Address of Contractor:

Anticipated start date of construction: (month/day/year): TBD pending approvals

Type of structure: Communications Tower Will this be used for business purposes? YES

Structure's Value: \$250,000.00 Size of parcel in acres: 36.9

Remarks: This is a replacement Cell Tower

PLEASE READ CAREFULLY.

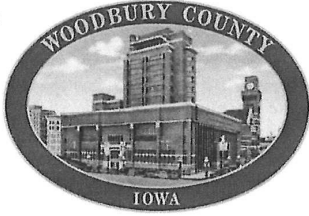
I, the undersigned, hereby understand and state that the land and building listed herein SHALL NOT BE OCCUPIED OR USED in whole or in part for any purpose whatsoever until the structure has been completed and reported as such to the County Office of Planning and Zoning; and to do so constitutes a violation of the Woodbury County Zoning Ordinance subject to misdemeanor charges. I further state that I have read the foregoing application and attachments and know the contents therein, and the facts contained are true and accurate.

Signature

This day of , 20

Notary Public in and for Woodbury County, Iowa

AFTER THE APPLICATION HAS BEEN APPROVED AND THE PERMIT ISSUED, THE PERMIT BECOMES NULL AND VOID IF CONSTRUCTION HAS NOT COMMENCED WITHIN 120 DAYS AND IN ANY EVENT ONE YEAR.



WOODBURY COUNTY

Floodplain Development Permit Application

Date: 08/23/2024

TO THE ADMINISTRATOR: The undersigned hereby makes application for a Permit to develop in a flood plain. The work to be performed, including flood protection works, is as described below and in attachments hereto. The undersigned agrees that all such work shall be done in accordance with the requirements of the Woodbury County Flood Plain Management Ordinance and with all other applicable county ordinances and the laws and regulations of the State of Iowa.

Andrew Bobrytzke
(Owner or Agent)
49030 Pontiac Trail, Ste 100 Wixom, MI 48393
(Address)
Telephone # 507-327-2361

American Tower LLC
(Builder)
10 Presidential Way, Woburn, MN 01801
(Address)
Telephone # 20-87-47

1. Location: _____ ¼ _____ ¼, Section _____, Township _____
Street Address: TBD 260th Street, Salix, IA
GIS # 874720400004

GI *Liberty*
SESE

2. Type of Development: Communications Tower
Filling _____ Grading _____ Excavation _____ Routine Maintenance _____
Minor Improvement _____ Substantial Improvement _____ New Construction X

3. Description of Development: Build new communications tower w access driveway

4. Premises: Size of site: 75 ft. x 75 ft. Area of Site: 5625 sq. ft. Estimated cost: 250,000.00
Principal Use: Communications Tower
Accessory Uses (Storage, parking, etc.): Base Station equipment in fences tower compound

5. Addition or modification to non-conforming use? Yes _____ No _____ Assessed value of structure \$ _____

6. Is property located in a designated Floodway (FW District)? Yes _____ No X

IF ANSWERED YES, CERTIFICATION MUST BE PROVIDED PRIOR TO THE ISSUANCE OF A PERMIT TO DEVELOP, THAT THE PROPOSED DEVELOPMENT WILL RESULT IN NO INCREASE IN THE 100 YEAR (BASE) FLOOD ELEVATION.

7. Property located in a designated Floodway District (FW), Floodway Fringe (FF) General Flood Plain District (FP), Shallow Flooding District (SF), or Dam Failure Inundation District (DI)?
Yes _____ No X If so, indicate which one: _____
a. Elevation of the 100 year (Base) flood (identify source if other than FIRM): _____
b. Elevation of the proposed development site (natural ground): _____ MSL/NGVD
c. Required elevation/flood-proofing level for lowest floor: _____ MSL/NGVD

- d. Proposed elevation/flood-proofing level for lowest floor (including basement): _____ MSL/NGVD
 - e. Other flood plain information (identify and describe source)
-

THIS PERMIT IS ISSUED WITH THE CONDITION THAT THE LOWEST FLOOR (INCLUDING BASEMENT) OF ANY NEW OR SUBSTANTIALLY IMPROVED RESIDENTIAL BUILDING WILL BE ELEVATED AT LEAST 1.0 FOOT ABOVE THE 100 YR. (BASE) FLOOD ELEVATION. IF THE PROPOSED DEVELOPMENT IS A NON-RESIDENTIAL BUILDING, THIS PERMIT IS ISSUED WITH THE CONDITION THAT THE LOWEST FLOOR (INCLUDING BASEMENT) OF A NEW OR SUBSTANTIALLY IMPROVED NON-RESIDENTIAL BUILDING WILL BE ELEVATED OR FLOOD-PROOFED TO AT LEAST 1.0 FOOT ABOVE THE 100 YR. (BASE) FLOOD ELEVATION.

8. Other permits required?

Iowa Department of Natural Resources: Yes _____ No If yes, permit # _____
Date Received: _____

Corps of Engineers: Yes _____ No If yes, permit # _____
Date Received: _____

Other: _____

All provisions of the County of Woodbury Flood Plain Management Ordinance (Ordinance # : _____) shall be complied with.

THIS PERMIT IS ISSUED WITH THE CONDITION THAT THE DEVELOPER/OWNER WILL PROVIDE CERTIFICATION BY A REGISTERED ENGINEER, ARCHITECT, OR LAND SURVEYOR OF THE "AS-BUILT" LOWEST FLOOR (INCLUDING BASEMENT) ELEVATION OF ANY NEW OR SUBSTANTIALLY IMPROVED BUILDING COVERED BY THIS PERMIT.

Plans and Specifications Approved this _____ Day of _____, 20 ____ .

Andrew J. Bobrytzke
(Signature of Developer/Owner)

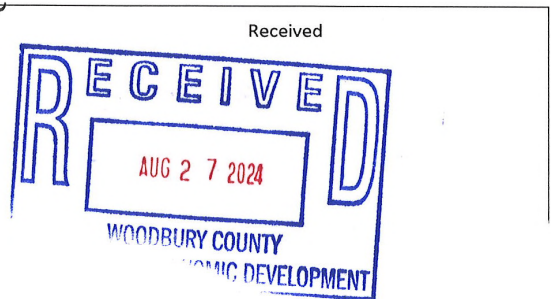
(Authorizing Official)

Cc: Water Resources Section
Iowa Department of Natural Resources
Wallace State Office Building
East 9th and Grand
Des Moines, IA 50319

Date: _____

For Office Use Only

FPDP #: <u>7014</u>	Fee: <u>\$110</u> pd <u>8-27-24</u>
Approved: _____	Denied: _____
Check #: <u>6070</u>	Receipt #: _____
Map Panel #: <u>380E</u>	SFHA: _____



Sioux City Journal

AFFIDAVIT OF PUBLICATION

Sioux City Journal
2802 Castles Gate Drive
Sioux City 51106
(712) 293-4250

State of New Jersey, County of Hudson, ss:

Laquansay Nickson Watkins, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Sioux City Journal, printed and published by Journal Communications, in Sioux City in Woodbury County and issued daily and Sunday and that this affidavit is Page 1 of 1 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Sep. 21, 2024

NOTICE ID: wKhGCoFU7NPROrbSsrau
PUBLISHER ID: COL-IA-500806
NOTICE NAME: BOA_Tower_Turbine_10-7-24
Publication Fee: \$50.97

(Signed) Laquansay Nickson Watkins

VERIFICATION

State of New Jersey
County of Hudson

SHANNEA H HOLMES
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires August 1, 2026

Subscribed in my presence and sworn to before me on this: 09/23/2024

Shanea H. Holmes

Notary Public
Notarized remotely online using communication technology via Proof.

NOTICE OF PUBLIC HEARINGS
BEFORE THE WOODBURY
COUNTY BOARD OF
ADJUSTMENT

The Woodbury County Board of Adjustment will hold public hearings on the following items hereafter described in detail on October 7, 2024 at 6:00 PM or as soon thereafter as the matters may be considered. Said hearings will be held in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, Iowa. Copies of said items may now be examined at the office of the Woodbury County Community and Economic Development, on the 8th Floor of said courthouse by any interested persons. All persons who wish to be heard in respect to the matters should appear at the aforesaid hearings in person or call: 712-454-1133 and enter the Conference ID: 742-346-129# during the meeting to listen or comment. However, it is recommended to attend in person as there is the possibility for technical difficulties with phone and computer systems. Questions or comments can be directed to Daniel Priestley, Woodbury County Zoning Coordinator, 6th Floor, Woodbury County Courthouse, 620 Douglas St., Sioux City, IA 51101 or at 712-279-6608 or via email at: dpriestley@woodburycounty.iowa.gov

Item One (1)
Pursuant to Section 335 of the Code of Iowa, the Woodbury County Board of Adjustment will hold a public hearing to consider the Conditional Use Permit application by L & K Tabke Holdings, LLC (Kathy Tabke) for the installation and use of three (3) 100' wind turbines to reduce the electrical costs on the farm. The property is designated as Parcel #884420300005 and is located in T89N R44W (Wolf Creek Township) in Section 20 in the N 1/2 of the SW 1/4. The proposed location is about 5.2 miles southeast of Merville, IA which is on the south side of 195th Street and east of Jasper Avenue. The property is located in the Agricultural Preservation (AP) Zoning District and "Electric wind generator (Private use)" is classified as a "conditional use" in Section 3.03.4 of the Woodbury County Zoning Ordinance. Applicant(s)/Owner(s): L & K Tabke Holdings, LLC (Kathy Tabke), 3112 195th St., Merville, IA 51039.

Item Two (2)
Pursuant to Section 335 of the Code of Iowa, the Woodbury County Board of Adjustment will hold a public hearing to consider the Conditional Use Permit application by Andrew Bobryzkie on behalf of American Tower LLC and the Bradley J. Kobold Trust who have filed the conditional use permit application to request to construct a 250' self-support wireless communications tower to replace an existing tower from the area. The property is designated as Parcel #674720400004 in T87N R47W (Liberty Township) in Section 20 in the SE 1/4 of the SE 1/4. The proposed location is about one (1) half mile west of the Salix, IA which is on the north side of 280th Street and west of Barker Avenue. The property is located in the General Industrial (GI) Zoning District and "Telecommunication towers" are classified as a "conditional use" in Section 3.03.4 of the Woodbury County Zoning Ordinance. Applicant(s)/Owner(s): Andrew Bobryzkie on behalf of American Tower LLC, 10 Presidential Way, Woburn, MA 01801 / Bradley J. Kobold Trust, 211 7th Street, Sergeant Bluff, IA 51054.
COL-IA-500806

PROPERTY OWNER(S) NOTIFICATION

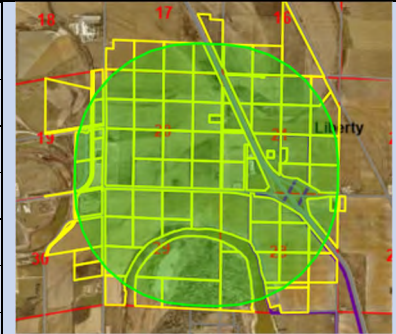
Property Owners within 500 Feet:	7
Notification Letter Date:	September 18, 2024
Public Hearing Board:	Board of Adjustment
Public Hearing Date:	October 7, 2024, 6:00 PM
Phone Inquiries:	2 (Anthony Ashley, Jeanette M. Kummer)
Written Inquiries:	0
The names of the property owners are listed below.	
When more comments are received after the printing of this packet, they will be provided at the meeting.	



PROPERTY OWNER(S)	MAILING ADDRESS				COMMENTS
Kathy J. Tabke Revocable Trust & Lane D. Tabke Revocable Trust	3112 195th Street	Moville	IA	51039-8120	No comments received.
L & K Tabke Holdings LLC	3112 195th St.	Moville	IA	51039-8120	No comments received.
Delbert D. Spink Revocable Trust	16796 Birchview Road	Park Rapids	MN	56470	No comments received.
2B, LLC C/O Greg Brandt	839 Meadow Dr.	Moville	IA	51039	No comments received.
Jeanette M. Kummer	1977 Jasper Ave.	Moville	IA	51039-8191	Phone inquiry: asked about location of the turbines relative to her property and height. Had no objections (9/24/24).
Todd Tabke	34679 C70	Kingsley	IA	51028	No comments received.
Anthony Ashley	3346 170th St.	Correctionville	IA	51016	Phone Inquiry: question about the CUP process for private turbine. (9/16/24).

PROPERTY OWNER(S) NOTIFICATION

Total Property Owners within one (1) mile via Certified Abstractor's Listing:	35 Deed Holders/Owners of 180 Properties
Notification Letter Date:	September 18, 2024
Public Hearing Board:	Board of Adjustment
Public Hearing Date:	October 7, 2024
Phone Inquiries:	0
Written Inquiries:	0
The names of the property owners are listed below.	
When more comments are received after the printing of this packet, they will be provided at the meeting.	



PROPERTY OWNER(S)	MAILING ADDRESS				COMMENTS
SENT TO "CURRENT PROPERTY OWNERS" OR TO THE FOLLOWING:					No comments received.
Fred L. & Margaret A. Godfredson Revocable Trust	2403 Barker Ave.	Sergeant Bluff	IA	51054-8037	No comments received.
George & Jodi Nelson	2514 Buchanan Ave.	Salix	IA	51052	No comments received.
CF Industries Nitrogen, LLC	4 Parkway North Suite 400	Deerfield	IL	60015	No comments received.
Lindgren-Baker Farm LC	PO Box 6	Algona	IA	50511	No comments received.
Three Bee's LC	2201 East 4th St.	Sioux City	IA	51101	No comments received.
MidAmerican Energy Co.	PO Box 657	Des Moines	IA	50303-0657	No comments received.
Larry Eisenhauser Trust	1801 Glen Ellen Rd.	Sioux City	IA	51106	No comments received.
Barbara D. Wiggs	409 Beall St. PO Box 121	Sloan	IA	51055	No comments received.
Barbara D. Wiggs	PO Box 121	Sloan	IA	51055	No comments received.
C & NW RR Co	400 W Madison St.	Chicago	IL	60606	No comments received.
Chicago Northwestern R R Co	400 W Madison St.	Chicago	IL	60606	No comments received.
Michael Lee & Vicki Jo Smith Christine & Matthew Cappetta	2575 Barker Ave.	Sergeant Bluff	IA	51054-8084	No comments received.
Bradley J. Kobold Trust	211 7th St.	Sergeant Bluff	IA	51054	No comments received.
United States of America Real Estate Division Omaha District	106 S. 15th St.	Omaha	NE	68102-1618	No comments received.

Irwin A. Grau Revocable Trust, Wilma C. Grau Revocable Trust	433 E Maple	Lawton	IA	51030	No comments received.
A & A Cattle Company Inc	PO Box 767	Sergeant Bluff	IA	51054-0767	No comments received.
Richard John Glen Patterson	2708 Benton Ave.	Salix	IA	51052-8039	No comments received.
Dennis Brouillette	605 Aspen St.	Salix	IA	51052-8060	No comments received.
Randall T. Beck Revocable Trust	201 1st St.	Sergeant Bluff	IA	51054	No comments received.
Randall T. Beck Revocable Trust	PO Box 845	Sergeant Bluff	IA	51054-0845	No comments received.
Richard J. G. Patterson	PO Box 108	Salix	IA	51052-0108	No comments received.
Dennis Brouillette & Andrew J. & Katherine L. Brouillette	101 Liberty LN	Salix	IA	51052-8060	No comments received.
Andrew J. & Katherine L. Brouillette	101 Liberty LN	Salix	IA	51052-8060	No comments received.
PNW, LLC c/o Daniel G. Lee	2568 Barnett Ave.	Salix	IA	51052	No comments received.
Barbara Oeherking Revocable Trust	Box 168	Sergeant Bluff	IA	51054	No comments received.
Carlye Erika Diana Patterson	PO Box 108	Salix	IA	51052	No comments received.
Michael L. Patterson	1866 Highway 141, Box 44	Sloan	IA	51055-0044	No comments received.
Michael L. Patterson	Box 44	Sloan	IA	51055-0044	No comments received.
Michael T. & Patricia J. Ping	2550 Benton Ave.	Salix	IA	51052-8037	No comments received.
Daniel G. & Barbara J. Lee	1405 260th St.	Salix	IA	51052	No comments received.
Daniel Gordon Lee	1405 260th St.	Salix	IA	51052	No comments received.
William J. Smith	5309 Hwy 75 North Lot 44	Sioux City	IA	51108	No comments received.
State of Iowa Property Management Section	800 Lincoln Way	Ames	IA	50010	No comments received.
Nora Reynolds Lerer	415 Sherman St.	Healdsburg	CA	95448	No comments received.
D & H Himmel Farms LLC & ML Kimmel Farms LLC: Kriener Farm Management ATTN: Dan Kriener	4110 Floyd Blvd	Sioux City	IA	51108	No comments received.
Iowa State Conservation	800 Lincoln Way	Ames	IA	50010	No comments received.
Northern Natural Gas	PO Box 3330	Omaha	NE	68103-0330	No comments received.
Kimmel Family Farms, LLC & Kent W. Ivener Living Trust	111 Doral Lane	Dakota Dunes	SD	57049	No comments received.
Mark W. Maupin c/o Bob Cook	705 Winfield Cir	Sergeant Bluff	IA	51054	No comments received.
Union Pacific Railroad	1400 Douglas Stop 1640	Omaha	NE	68179-1640	No comments received.

STAKEHOLDER COMMENTS

911 COMMUNICATIONS CENTER:	No comments received.
FIBERCOMM:	No comments received.
IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR):	No comments received.
IOWA DEPARTMENT OF TRANSPORTATION (IDOT):	No comments received.
LOESS HILLS NATIONAL SCENIC BYWAY:	No comments received.
LOESS HILLS PROGRAM:	No comments received.
LONGLINES:	No comments received.
LUMEN:	No comments received.
MAGELLAN PIPELINE:	No sir. No issues from us here. We don't have any assets on that property. A mile or so east and west we do, but not there. Thank you for following up. – Bryan Ferguson, 9/18/24.
MIDAMERICAN ENERGY COMPANY (Electrical Division):	I have reviewed the attached rezoning application for MEC electric and we have, No conflicts. – Casey Meinen, 9/4/24.
MIDAMERICAN ENERGY COMPANY (Gas Division):	No comments received.
NATURAL RESOURCES CONSERVATION SERVICES (NRCS):	No comments received.
NORTHERN NATURAL GAS:	No comments received.
NORTHWEST IOWA POWER COOPERATIVE (NIPCO):	Have reviewed this zoning request. NIPCO has no issues with this request. – Jeff Zettel, 9/10/24
NUSTAR PIPELINE:	No comments received.
SIOUXLAND DISTRICT HEALTH DEPARTMENT:	No comments received.
WIATEL:	No comments received.
WINNEBAGO TRIBE:	No comments received.
WOODBURY COUNTY ASSESSOR:	No comments received.

WOODBURY COUNTY CONSERVATION:	None at this time. – Daniel Heissel, 9/3/24
WOODBURY COUNTY EMERGENCY MANAGEMENT:	No comments received.
WOODBURY COUNTY EMERGENCY SERVICES:	No comments received.
WOODBURY COUNTY ENGINEER:	I have reviewed the site and have an approved driveway permit for access to the new tower. The fall zone for the tower lies outside of the right of way. I have no concerns with the proposed land use at this location. – Mark Nahra, 9/11/24
WOODBURY COUNTY RECORDER:	No comments. Thank you. – Diane Swoboda Peterson, 9/3/24
WOODBURY COUNTY RURAL ELECTRIC COOPERATIVE (REC):	No comments received.
WOODBURY COUNTY SOIL AND WATER CONSERVATION DISTRICT:	The WCSWCD has no comments regarding this project. – Neil Stockfleth, 9/5/24
WOODBURY COUNTY TREASURER:	No comments received.

PICTOMETRY



Woodbury County, IA / Sioux City

Summary

Parcel ID: 872720400004
 Alternate ID: 7603190
 Property Address: 5413 S. HERRER AVE
 SAU: 04.0192
 Sec/Plat/Blk: 20-07-47
 Brief Description: SESE 20-87-47
 Date/Book/Page: 2011/18/25/224
 Gross Acres: 36.90
 Net Acres: 36.90
 Adjusted CSR Pct: 2433.12
 Zone: Q1 - GENERAL INDUSTRIAL
 School District: WESTWOOD COMM
 Neighborhood: N/A



Owner

Deed Holder: [KONOLD, RONALD E & J TRUST](#)
 Contract Holder: SERGEANT BLUFF IA 31054
 Contract Address: 2117TH ST
 2117TH ST
 SERGEANT BLUFF IA 51054

Land

Lot Area: 36.90 Acres: 1,607,364 SF

Residential Dwellings

Residential Dwelling: Single-Family / Owner Occupied
 Construction Style: 1 1/2 Story Frame
 Architectural Style: N/A
 Year Built: 1875
 Condition: Normal
 Floor: Asphalt/Grabb
 Flooring: Bk
 Foundation: Viny
 Exterior Material: Pks
 Interior Material: 1,696 SF
 Total Gross Living Area: 668
 Main Area Square Feet: 668
 Alike Type: None
 Number of Rooms: 3, above Dblow
 Basement Area Type: 1/2
 Basement Area: 334
 Basement Finished Area: 1 Standard Bath - 3FR
 Appliances: Central Air
 Heat: Yes
 Prepaces: WoodDeck, Gas ST,
 1 Story Frame (36.05 SF),
 460 SF - Det Frame (bld. 1901),
 Garages

Agricultural Buildings

Par #	Type	Description	Width	Length	Year Built	Building Count
0	Sheet Utility Building		20	40	1965	1
0	Sheet Utility Building		21	40	1977	1
0	Bldg - Grain Storage (bladed)		0	0	1960	1

Sales

Date	Seller	Buyer	Recording	Sub-Condition	NUTC	Type	Mail	Amount
8/2/2022	KONOLD BRADLEY J	KONOLD BRADLEY J TRUST	2022-09-19	Quit Claim Deed		Deed	Parcel	\$0.00

Show: There are other parcels involved in one or more of the above sales.

Valuation

	2024	2023	2022	2021	2020
Class: cation	Ag Dwelling / Agriculture	Ag Dwelling / Agriculture	Ag Dwelling / Agriculture	Ag Dwelling / Agriculture	Ag Dwelling / Agriculture
* Assessed Land Value	\$79,280	\$79,280	\$61,590	\$61,590	\$61,200
* Assessed Building Value	\$2,930	\$2,930	\$2,080	\$2,160	\$2,000
* Assessed Dwelling Value	\$89,540	\$89,160	\$65,740	\$65,740	\$59,900
* Gross Assessed Value	\$171,970	\$171,290	\$129,410	\$129,490	\$120,100
- Exempt Value	\$0	\$0	\$0	\$0	\$0
* Net Assessed Value	\$171,970	\$171,290	\$129,410	\$129,490	\$120,100

Sioux City Special Assessments and Fees

[Click here to view special assessment information by category.](#)

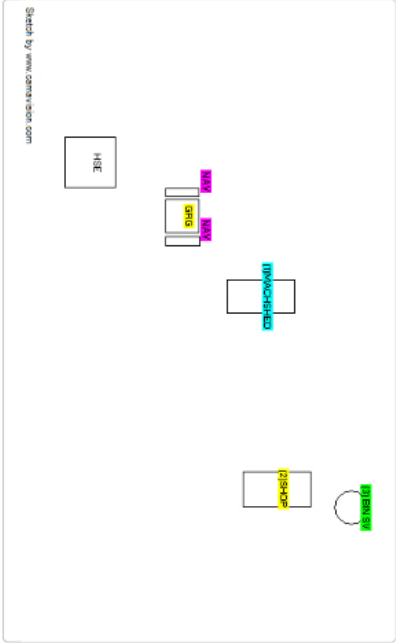
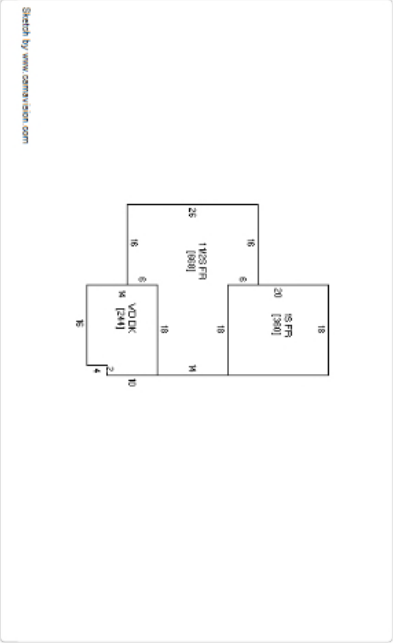
Woodbury County Tax Credit Applications

Apply for Homestead, Military or Business Property Tax Credits

Photos



Sketches

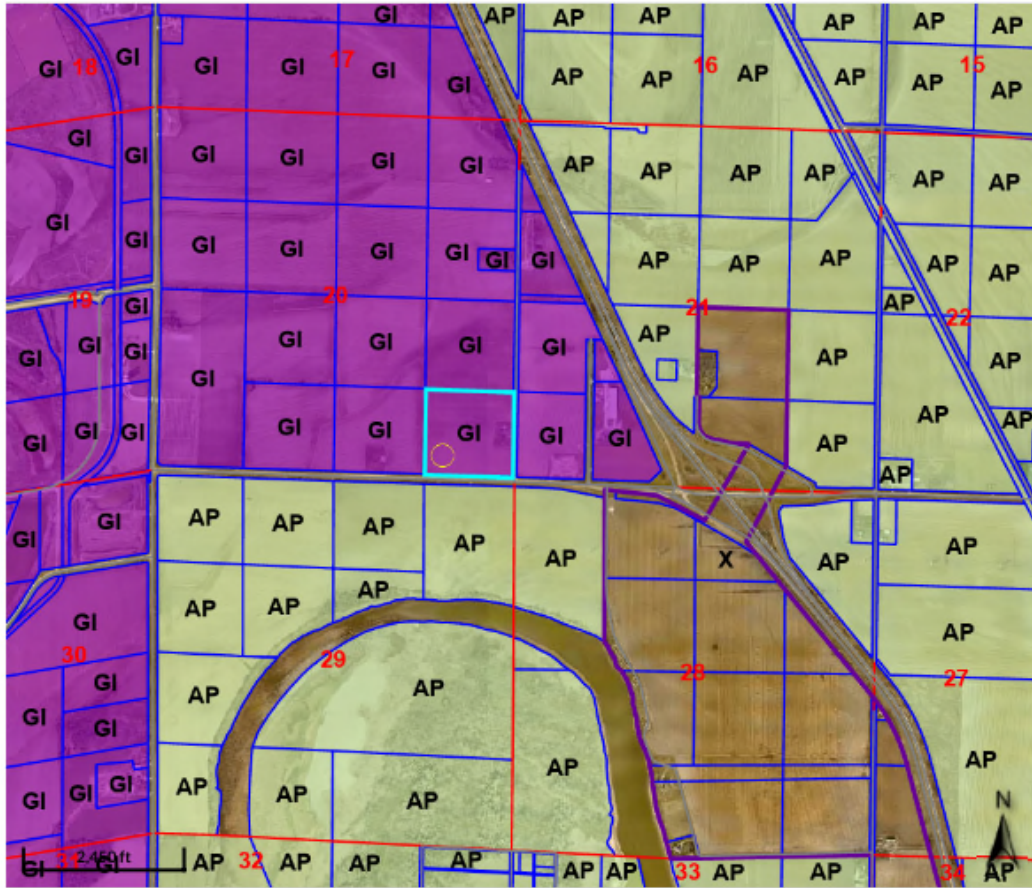


Not data available for the following modules: Commercial Building, Yard/Entry, Atrium, Stair, Bus, Credit Application, Stair City Board/ Review Section.

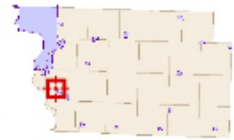
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BeaconTM Woodbury County, IA / Sioux City



Overview



Legend

- Roads
- Corp Boundaries
- Townships
- Sections
- Parcels
- County Zoning**
- AE
- AP
- GC
- GC-PD
- GI
- LI
- LI-PD
- SR
- WR

Parcel ID	874720400004	Alternate ID	760380	Owner Address	KOBOLD BRADLEY J TRUST
Sec/Twp/Rng	20-87-47	Class	A		211 7TH ST
Property Address	2593 BARKER AVE	Acreage	36.9		SERGEANT BLUFF, IA 51054
	SALIX				
District	0043				
Brief Tax Description	SESE 20-87-47				
	(Note: Not to be used on legal documents)				

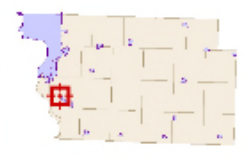
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SPECIAL FLOOD HAZARD AREA (SFHA) MAP



Overview



Legend

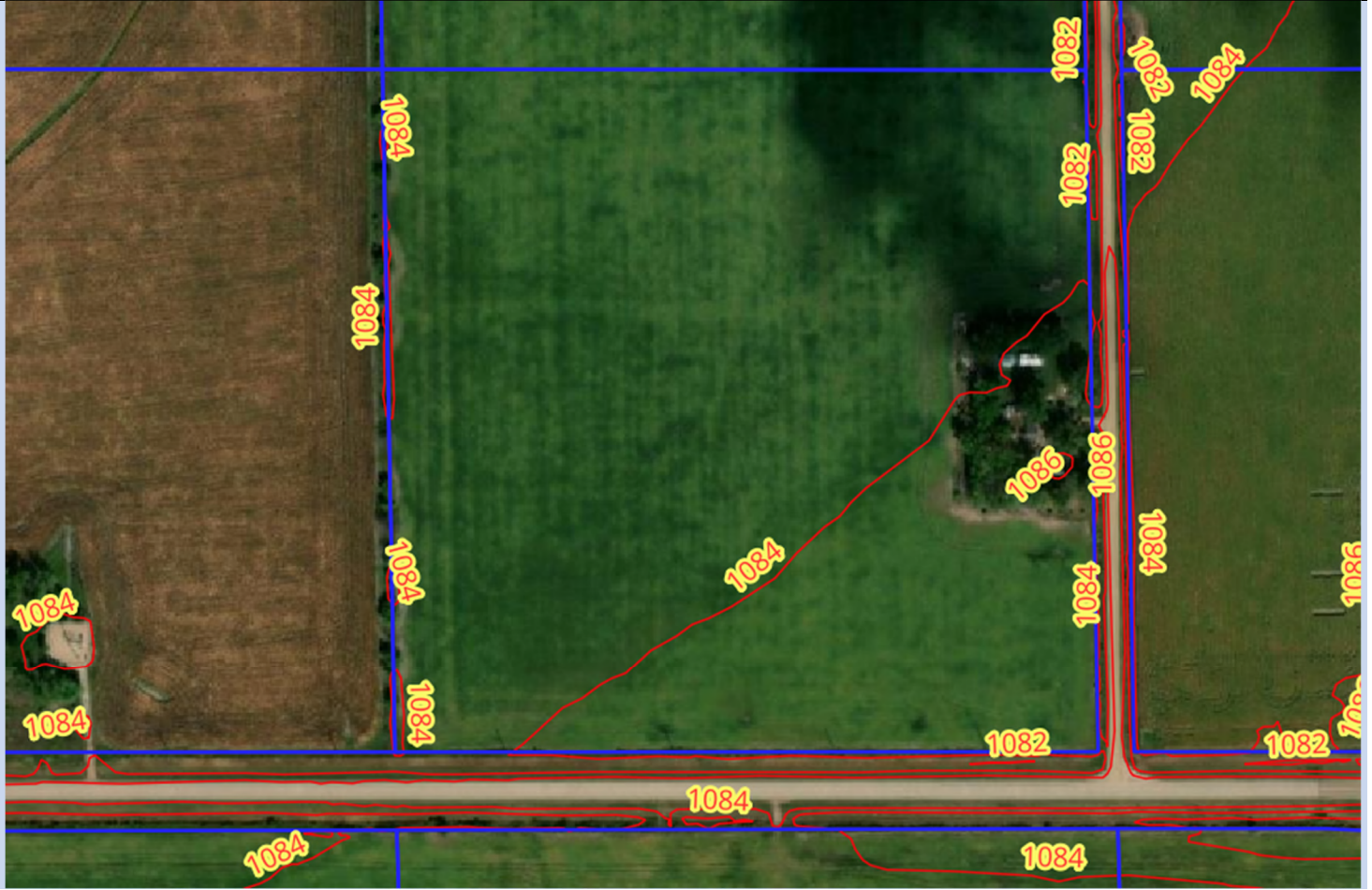
-  Roads
-  Corp Boundaries
-  Townships
-  Parcels

Parcel ID	874720400004	Alternate ID	760380	Owner Address	KOBOLD BRADLEY J TRUST
Sec/Twp/Rng	20-87-47	Class	A		211 7TH ST
Property Address	2593 BARKER AVE	Acres	36.9		SERGEANT BLUFF, IA 51054
	SALIX				
District	0043				
Brief Tax Description	SESE 20-87-47				
	(Note: Not to be used on legal documents)				

Date created: 8/31/2024
Last Data Uploaded: 8/31/2024 1:49:27 AM

Developed by 

ELEVATION MAP



SOIL REPORT(S)

Woodbury County, IA / Sioux City

Summary

Parcel ID	874720400004
Gross Acres	36.90
ROW Acres	0.00
Gross Taxable Acres	36.90
Exempt Acres	0.00
Net Taxable Acres	36.90
Average Unadjusted CSR2	68.55

(Gross Taxable Acres - Exempt Land)
(2529.5 CSR2 Points / 36.9 Gross Taxable Acres)

Agland Active Con g 2017 CSR2

Sub Parcel Summary

Description	Acres	CSR2	Unadjusted CSR2 Points	Adjusted CSR2 Points
100% Value	34.70	67.19	2,331.34	2,331.34
Non-Crop	2.20	90.07	198.16	101.98
Total	36.90		2,529.50	2,433.32

Soil Summary

Description	SMS	Soil Name	CSR2	Adjusted Acres	Unadjusted CSR2 Points	Adjusted CSR2 Points
100% Value	36	SALIX SILT LOAM, 0 TO 2 PERCENT SLOPES, RARELY FLOODED	94.00	8.85	831.90	831.90
100% Value	3146	ONAWA-ALBATON COMPLEX, 0 TO 2 PERCENT SLOPES, RARELY FLOODED	72.00	0.01	0.72	0.72
100% Value	156	ALBATON SILTY CLAY, 0 TO 2 PERCENT SLOPES, RARELY FLOODED	58.00	25.84	1,498.72	1,498.72
Non-Crop	36	SALIX SILT LOAM, 0 TO 2 PERCENT SLOPES, RARELY FLOODED	94.00	1.96	184.24	92.86
Non-Crop	156	ALBATON SILTY CLAY, 0 TO 2 PERCENT SLOPES, RARELY FLOODED	58.00	0.24	13.92	9.12
Total				36.90	2,529.50	2,433.32

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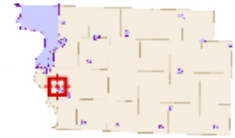
Contact Us



BeaconTM Woodbury County, IA / Sioux City



Overview



Legend

- Roads
- Soils**
- 0.000000 - 5.000000
- 5.000001 - 20.000000
- 20.000001 - 30.000000
- 30.000001 - 40.000000
- 40.000001 - 50.000000
- 50.000001 - 60.000000
- 60.000001 - 70.000000
- 70.000001 - 80.000000
- 80.000001 - 90.000000
- 90.000001 - 100.000000
- Corp Boundaries
- Townships
- Parcels

Parcel ID	874720400004	Alternate ID	760380	Owner Address	KOBOLD BRADLEY J TRUST
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	SALIX				
District	0043				
Brief Tax Description	SESE 20-87-47				
	(Note: Not to be used on legal documents)				

Date created: 8/31/2024
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WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) REQUEST FORM

Date: 8/16/2024

Weekly Agenda Date: 8/27/2024

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Supervisors J. Taylor/M. Nelson

WORDING FOR AGENDA ITEM:

Direction for Planning and Zoning Director to Work with Planning and Zoning, the Board of Adjustment Commission, and Legal Counsel in Order to Make a Recommendation Contemplating Decommissioning Requirements as a Part of a New Ordinance Regarding Carbon Pipelines

ACTION REQUIRED:

Approve Ordinance

Approve Resolution

Approve Motion

Public Hearing

Other: Informational

Attachments

EXECUTIVE SUMMARY:

When something as powerful as eminent domain is used and emplacement of a new carbon pipeline is completed, a key question must be asked: after these new technologies have reaped the benefit of federal tax credits and the subsidiary energy used, what is to become of the land? This something that we have engaged in dozens of times regarding the alternative energies of wind and solar. Woodbury County adopted at our urging an energy resolution and has urged officials to look at new technologies that do not degrade farmland for future generations, respect private property rights, and leave the land in the spirit of stewardship better than we found out.

If the Summit plan to expand carbon pipeline through 300 miles that were abandoned by Navigator's C02 pipeline maintains IUB commission approval by approvals in South and North Dakota and survives any lawsuit (if parties so file), then it is incumbent upon us to ask a key question: what decommissioning will be required to leave the land as outside companies found it?

While publicly elected officials to include seven other Iowa counties have appropriately focused mainly on setback distances and the use of eminent domain, this approach has an integral and reasonable, "If...then..." measure to protect our land for future generations.

BACKGROUND:

Decommissioning refers to the process of taking a line out of service safely and permanently. We are currently exploring changes to decommissioning with wind energy. Why? Because federal policy can dramatically change the viability of alternative energies. We realize the "shelf life" of such technologies may vacillate with financial viability. Afterwards with solar, wind, and carbon pipeline, there is a dramatic effect on the land with in the amount of concrete, pipe, metal over thousands of acres of land. Lest 100 years from now Iowa becomes a spotted terrain of a patchwork not just of corn and soybeans but of once lucrative abandoned energy projects, we must demand a fair process to restore the land to how it was found, a key principle of who we are as a people.

Decommissioning can include leaving piping in place or removal, disconnecting the line from systems and segmenting where necessary, cleaning the line, addressing stability and soil/slope disturbance, contracting or obligating the monitoring responsibility of the decommissioned line. A key consideration in the decommissioning process is to minimize disturbance to farmlands, roadways, wetlands, green spaces, livestock operations, and residences. This would also entail the responsibility for looking after the line by maintaining protection from corrosion, right of way monitoring and maintenance, signage and contact info, maintaining profile and survey information for "call before dig" areas. In some cases a bond or other financial obligation is required as part of a decommissioning process.

The hoped for agenda item asks the Planning and Zoning Director to work collaboratively with P&Z, the BoA, our county attorney's office, and even outside legal counsel that we have already engaged in order to make sure that this process is well-detailed, legal, reasonable, and fair.

While setbacks for safety and eminent domain for private property rights have understandably and in many ways (rightly) dominated the debate, we want to move the discussion to a process wherein we are asked as a county, "If we are to build pipeline through hundreds of miles of farmland, near neighborhoods, under right of way and roads, what do you all require us to do in order to make things right for future generations?" Should a carbon pipeline be implemented, our answer to that will not only be to the major corporations who seek to use the land but will be realized by our children and Iowans for generations to come.

FINANCIAL IMPACT:

IF THERE IS A CONTRACT INVOLVED IN THE AGENDA ITEM, HAS THE CONTRACT BEEN SUBMITTED AT LEAST ONE WEEK PRIOR AND ANSWERED WITH A REVIEW BY THE COUNTY ATTORNEY'S OFFICE?

Yes No

RECOMMENDATION:

Direction for Planning and Zoning Director to Work with Planning and Zoning, the Board of Adjustment Commission, and Legal Counsel in Order to Make a Recommendation Contemplating Decommissioning Requirements as a Part of a New Ordinance Regarding Carbon Pipelines

ACTION REQUIRED / PROPOSED MOTION:

Direction for Planning and Zoning Director to Work with Planning and Zoning, the Board of Adjustment Commission, and Legal Counsel in Order to Make a Recommendation Contemplating Decommissioning Requirements as a Part of a New Ordinance Regarding Carbon Pipelines

WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) REQUEST FORM

Date: 6/27/24 Weekly Agenda Date: 7/2/24

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Supervisor Keith Radig

WORDING FOR AGENDA ITEM:

Motion to direct the Zoning Commission to look at the zoning of nuclear energy.

ACTION REQUIRED:

Approve Ordinance

Approve Resolution

Approve Motion

Public Hearing

Other: Informational

Attachments

EXECUTIVE SUMMARY:

This directs the Zoning Commission to look at the zoning of nuclear energy as a potential energy option in Woodbury County.

BACKGROUND:

The Zoning Commission shall explore the zoning potential of nuclear energy as a potential option.

FINANCIAL IMPACT:

0

IF THERE IS A CONTRACT INVOLVED IN THE AGENDA ITEM, HAS THE CONTRACT BEEN SUBMITTED AT LEAST ONE WEEK PRIOR AND ANSWERED WITH A REVIEW BY THE COUNTY ATTORNEY'S OFFICE?

Yes No

RECOMMENDATION:

Approve the motion.

ACTION REQUIRED / PROPOSED MOTION:

Motion to direct the Zoning Commission to look at the zoning of nuclear energy.

Approved by Board of Supervisors April 5, 2016.

DISCUSSION AND PLANNING PROCESS FOR NUCLEAR ENERGY TO BE CONSIDERED FOR ADDITION TO WOODBURY COUNTY ZONING ORDINANCE (INFORMATION / DISCUSSION ITEM) SUMMARY:

The Woodbury County Board of Supervisors at their meeting on July 2, 2024 voted to direct the Zoning Commission to begin the process of exploring nuclear energy as a potential energy option in Woodbury County. This information item is for a discussion on how to proceed with future work sessions and public hearings.

Initial Information about Nuclear

The following is provided for initial informational purposes. The goal is to examine both standard nuclear power plants and small modular reactors as potential energy opportunities in the unincorporated areas in Woodbury County.

Nuclear Power Plant –

- A nuclear power plant is a thermal power station that harnesses energy from nuclear fuel fission. Here's how it works: the heat released during fission boils water, producing steam. This steam drives a turbine connected to a generator, ultimately producing electricity.

Small Modular Reactors (SMR) –

- Type of advanced nuclear reactor designed to be smaller in size and capacity compared to traditional nuclear reactors.
- Characteristics:
 - o Small Size. SMRs have a power capacity of up to 30 MW per unit, which is about one-third of the capacity of conventional nuclear reactors.
 - o Modular Construction. These reactors are designed to be factory-assembled and transported to the site for installation.
 - o Flexibility. SMRs can be deployed in single or multiple modules, making them suitable for a variety of application, including industrial use and remote areas with limited grid capacity.
 - o Safety. Many SMR designs incorporate passive safety features, which rely on natural physical processes rather than active controls to ensure safety.

Articles Links:

- *Nuclear Power Plan Licensing Process*
 - o <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/licensing-process-fs.html>
- *Office of Nuclear Material Safety and Safeguards*
 - o <https://scp.nrc.gov/>
- *Governing Legislation*
 - o www.nrc.gov/about-nrc/governing-laws.html
- *Fact Sheet: Biden-Harris Administration Announces New Steps to Bolster Domestic Nuclear Industry and Advance America's Clean Energy Future*
 - o <https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/29/fact-sheet-biden-harris-administration-announces-new-steps-to-bolster-domestic-nuclear-industry-and-advance-americas-clean-energy-future/>
- *Without a plant currently operating in Iowa, does nuclear energy have a future in the state?*
 - o <https://www.weareiowa.com/article/tech/science/climate-change/nuclear-energy-in-iowa-future-developments-midamerican/524-aaed2ac4-7c3b-406a-a84b-c6e356b181ee>
- *Newly Signed Bill Will Boost Nuclear Reactor Deployment in the United States*
 - o <https://www.energy.gov/ne/articles/newly-signed-bill-will-boost-nuclear-reactor-deployment-united-states#:~:text=President%20Biden%20signed%20the%20Fire,t%20seen%20since%20the%201970s.>
- *What is a Nuclear Microreactor?*
 - o <https://www.energy.gov/ne/articles/what-nuclear-microreactor>
- *Micro-reactor Pilot Program*
 - o <https://www.eielson.af.mil/microreactor/>
- *Project PELE Mobile Nuclear Reactor*
 - o https://www.cto.mil/pele_eis/
- *NRC Dockets Construction Permit Application for TerraPower's Sodium Reactor*
 - o <https://www.energy.gov/ne/articles/nrc-dockets-construction-permit-application-terrapowers-sodium-reactor>
- *What is High-Assay Low-Enriched Uranium (HALEU)?*
 - o <https://www.energy.gov/ne/articles/what-high-assay-low-enriched-uranium-haleu>
- *4 Crucial Steps the Biden-Harris Administration is Taking to Secure a Nuclear Fuel Supply Chain*
 - o <https://www.energy.gov/ne/articles/4-crucial-steps-biden-harris-administration-taking-secure-nuclear-fuel-supply-chain>
- *New DOE and NRC Agreement Will Lead to Faster Deployment and Licensing of U.S. Nuclear Technologies*
 - o <https://www.energy.gov/ne/articles/new-doe-and-nrc-agreement-will-lead-faster-deployment-and-licensing-us-nuclear>
- *What are Small Modular Reactors (SMRs)?*
 - o <https://www.iaea.org/newscenter/news/what-are-small-modular-reactors-smrs>
- *Small modular reactors*
 - o <https://www.iaea.org/topics/small-modular-reactors>

Nuclear Energy Discussion

Nuclear energy power plants including their establishment is primarily governed by the United States Nuclear Regulatory Commission (NRC). The NRC has a significant amount of control over the permitting and operation of such plants. Companies who wish to get involved in nuclear must directly work with the NRC through the process of obtaining an “Early site permit (ESP).” An example of this process can be found at the following NRC website:

<https://www.nrc.gov/reactors/new-reactors/large-lwr/esp/north-anna.html>

This website illustrates the process for the North Anna Site that was submitted by Dominion Nuclear North Anna, LLC. It includes application information, a review schedule, a safety evaluation report, a final environmental impact statement, the North Anna Early Site Permit, and contacts. There is also a “combined license process” which includes construction and operation approvals. The applicants must provide detailed plans for the plant’s design, construction, and operation as well as safety measures. It is the duty of the NRC to thoroughly review the submissions. The following website includes a list of combined license applications for new reactors: <https://www.nrc.gov/reactors/new-reactors/large-lwr/col.html>

An example of a combined license can be found at this link for the North Anna, Unit 3 site: <https://www.nrc.gov/reactors/new-reactors/large-lwr/col/north-anna.html>. The application materials include: referenced documents; application information; review schedule; safety evaluations; early site permit; final supplemental environmental impact statement; combined licenses; related application information; and contacts. In the combined license process, the application is reviewed and includes a public participation process, safety and environmental reviews and compliance with the National Environmental Policy Act (NEPA). The NRC also is involved in design certification, construction and operation, and post-license oversight.

It appears at this time that the permitting process for nuclear power plants including modular is a multi-governmental complex process largely governed by the NRC. The Iowa legislature appears to have considered two study bills (House Study Bill 555 and Senate Study Bill 3075) which would designate modular nuclear as an alternative energy production facility in Iowa. For more information, there is a January 25, 2024 article written by Wally Taylor entitled “Iowa Utilities bill includes a good idea – and a lost cause”

<https://www.bleedingheartland.com/2024/01/25/iowa-utilities-board-bill-includes-a-good-idea-and-a-lost-cause/>

Role of the County

Presently, under Section 3.03.3 of the Zoning Ordinance, nuclear energy generation could be administratively interpreted as a utility use that is eligible for conditional use permit consideration by the Zoning Commission and Board of Adjustment in the General Industrial (GI) Zoning District. However, as the same section reads “the table in subsection 3.03.4 may be updated pursuant to the procedure outlined in Section 2.03 from time to time to reflect legislative acceptance or rejection of the interpretations of the zoning director.” (p. 31).

As nuclear and modular nuclear technological systems are evolving, Woodbury County is in a position to legislatively address the county's nuclear policy for clarification. At this time, in terms of county zoning the question is, do the citizens of Woodbury County view nuclear as a viable alternative energy option for the future? If so, are there areas within the county that would be most appropriate for nuclear power generation? Depending on the input from the public stakeholders and the industry, the Woodbury County Zoning Ordinance could potentially be updated to clearly clarify the permitting of future nuclear projects.

Based on the regulations as presented by the NRC and the State of Iowa including the Iowa Utilities Board, the county could choose to add "Nuclear Energy Generation" as a land use in Section 3.03.4 (Land Use Summary Table of Allowed Uses...) under the "Utilities" category as either a "Conditional Use" or a "Principal Allowed Use" in the General Industrial (GI) Zoning District in the Woodbury County Zoning Ordinance. Regardless of either a conditional use or a principal allowed use, the applicants must go through a rigorous permitting process through other levels of government.

It is apparent that nuclear energy is significant, complex, and consequential. As directed by the Board of Supervisors, the work of the Zoning Commission is to examine nuclear energy as an option for zoning. Hence, a Zoning Commission public hearing process can be employed to seek public comments and consider potential recommendations including possibly legislatively adding "nuclear energy generation" formally as an option to the Zoning Ordinance's land use summary table.

Stakeholder Comments:

On July 26, 2024, a letter was sent to over 120 Woodbury County stakeholders ranging from state, city, county and township officials, utilities, and other stakeholder organizations. They were requested to offer their initial thoughts about nuclear energy. As of August 22, 2024, a total of five (5) comments have been received for the record. The letter is available on the subsequent page followed by the comments.



WOODBURY COUNTY COMMUNITY & ECONOMIC DEVELOPMENT

620 Douglas St. - Sixth Floor - Sioux City, IA 51101 - Phone: 712.279.6609 - Fax: 712.279.6530 - Web: woodburycountyia.gov
Daniel J. Priestley, MPA - Zoning Coordinator - dpriestley@woodburycountyia.gov
Dawn Norton - Senior Clerk - dnorton@woodburycountyia.gov

July 26, 2024

Dear Woodbury County Stakeholder(s):

The Woodbury County Zoning Commission has been tasked to explore the addition of nuclear energy including modular nuclear facilities as a potential land use to the Woodbury County Zoning Ordinance.

Currently, we are requesting your insights, perspective, and input on this matter. Your participation will play a crucial role in shaping the future zoning regulations pertaining to the potential siting of nuclear energy plants in our community. Specifically, we are seeking your comments and recommendations regarding the following aspects:

Appropriate Locations / Zoning District Designation(s):

- Where do you believe nuclear energy facilities, including modular nuclear reactors, could be appropriately sited within the unincorporated areas of Woodbury County?
- Which zoning districts do you think would be most suitable for accommodating nuclear energy facilities (General Industrial, Agricultural Preservation, etc.)? See map included.
- Are there any specific considerations or criteria we should prioritize in these areas?

Impact Assessment:

- What potential impacts (economic, environmental, social) do you foresee with the introduction of nuclear energy facilities in our community?

Regulatory Framework:

- Are there any specific regulatory frameworks or best practices from other jurisdictions that you believe we should consider when updating our zoning ordinance to include nuclear energy?

Your perspective is highly valued in helping us make informed decisions that reflect the interests and concerns of all Woodbury County stakeholders involved. We aim to ensure that any changes to our zoning ordinance are comprehensive, inclusive, and aligned with both community needs and regulatory standards.

Please provide your initial feedback by **August 23, 2024 before 10:00 AM**. You can send your response to dpriestley@woodburycountyia.gov, Woodbury County Planning and Zoning, 620 Douglas St., Sixth Floor, Sioux City, IA 51101 or call 712-279-6609 to discuss this matter further.

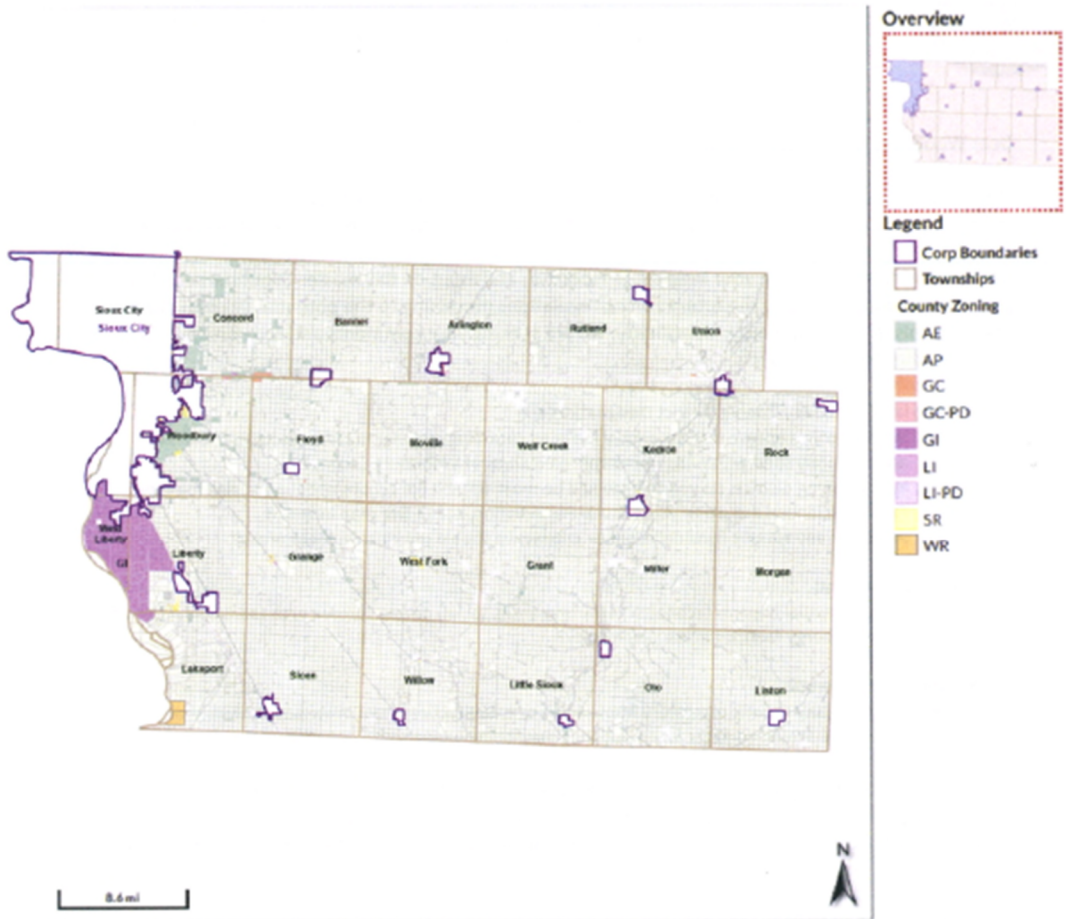
The Woodbury County Zoning Commission is in the introductory stage of this process. There will be an information / discussion agenda item at the next public meeting on **Monday, August 26 at 5:00 PM** at the Woodbury County Courthouse, 620 Douglas Street, Sioux City, IA, basement meeting area. Subsequently, public hearings and work sessions will be scheduled and announced at a future date.

Thank you in advance for your time and contribution to this important investigation. We look forward to hearing from you.

Respectfully and sincerely,

Daniel J. Priestley, MPA
Zoning Coordinator

Enclosure: Woodbury County Zoning Map



From: Wendi Hess
Sent: Wednesday, August 7, 2024 9:22 AM
To: Daniel Priestley
Subject: RE: Comments Requested Nuclear Energy in Woodbury County, Iowa

Follow Up Flag: Follow up
Flag Status: Flagged

Dan: In regards to the 911 Dispatch Center- having this type of facility in our response area would potentially create a need for additional training for our staff members along with participating in regular exercises and training related to potential emergencies at the facility. For us that would become a budgetary item needing to add training funds to our annual budget for overtime, etc related to the additional training activity that would be necessary. I am not sure if there are any specific certifications that would be required by our staff.

Thanks,
Wendi

Wendi Hess
Communications Center Director/Accreditation Manager
Woodbury County Communications
PO Box 447
Sioux City, IA 51102
Office: 712-279-6268
whess@sioux-city.org

Aug 6 2024
Woodbury Co. Planning & Zoning
I would like to say NO
to Any Nuclear facilities in
Woodbury County. Nuclear Waste
And Malfunctions can be Catastrophic

Thank You

Jerry Holder
105 D Street
Sergeant Bluff IA 51054



From: Bob Scott
Sent: Monday, July 29, 2024 9:44 AM
To: Daniel Priestley
Subject: RE: Comments Requested Nuclear Energy in Woodbury County, Iowa

I am all four a nuke plant in the area south of town. I am also for wind energy and solar farms. The construction of a nuclear plant would be a boon to our local economy. Nuclear plants are so highly regulated that we should not have to do much locally.

From: Mark Nahra
Sent: Friday, July 26, 2024 4:11 PM
To: Daniel Priestley
Subject: RE: Comments Requested Nuclear Energy in Woodbury County, Iowa

Follow Up Flag: Follow up
Flag Status: Flagged

Dan,

I gave this some thought, but reserve the opportunity to add to these comments at a later date. See my preliminary thoughts in **red**.

Mark J. Nahra, P.E.
Woodbury County Engineer
759 E. Frontage Road
Merville, IA 51039
Phone: 712-873-3215 or 712-279-6484
Fax: 712-873-3235
Email: mnahra@woodburycountyiowa.gov

From: Daniel Priestley <dpriestley@woodburycountyiowa.gov>
Sent: Friday, July 26, 2024 10:16 AM
To: Daniel Priestley <dpriestley@woodburycountyiowa.gov>
Subject: Comments Requested Nuclear Energy in Woodbury County, Iowa
Importance: High

Dear Woodbury County Stakeholder(s):

The Woodbury County Zoning Commission has been tasked to explore the addition of nuclear energy including modular nuclear technology as a potential land use to the Woodbury County Zoning Ordinance.

Currently, we are requesting your insights, perspective, and input on this matter. Your participation will play a crucial role in shaping the future zoning regulations pertaining to the potential siting of nuclear energy plants in our community. Specifically, we are seeking your comments and recommendations regarding the following aspects:

Appropriate Locations / Zoning District Designation(s):

- Where do you believe nuclear energy facilities, including modular nuclear reactors, could be appropriately sited within the unincorporated areas of Woodbury County? **I think the General industrial zoning areas are the best for these facilities with the exception of allowing such a facility to be located within a city's two mile jurisdictional area. Communities desiring to control their own power generation should be able to expand into the rural area from their current boundaries to their two mile jurisdictional limits. When we lived in Tipton, IA, we lived in a community with its own electric generation capacity. I don't feel the county ordinance should interfere with communities' efforts to be energy self-sufficient.**

- Which zoning districts do you think would be most suitable for accommodating nuclear energy facilities (General Industrial, Agricultural Preservation, etc.)? See map included. **General industrial plus portions of districts bordering cities as noted above.**
- Are there any specific considerations or criteria we should prioritize in these areas? **On site security should be a priority to prevent sabotage to nuclear generation plants. I am not sure what this looks like as I sit here today, but feel it should be noted as a consideration in developing site selection standards. Additional concerns may include items like standoff from existing/future housing, distances from water or wastewater treatment facilities, land drainage characteristics, offsets from highways and public properties.**

Impact Assessment:

- What potential impacts (economic, environmental, social) do you foresee with the introduction of nuclear energy facilities in our community? **Less costly, clean energy for county residents and our city dwellers. I don't see a downside to allowing nuclear to develop within the county. I think public perception of the safety of such plants will be a huge issue for entities seeking to develop nuclear power generation.**

Regulatory Framework:

- Are there any specific regulatory frameworks or best practices from other jurisdictions that you believe we should consider when updating our zoning ordinance to include nuclear energy? **Depending upon the size of the reactor and its construction needs, the county should require a Road agreement to assure restoration of county roads damaged by nuclear plant construction. The road agreement for wind generation can, and should be utilized, for nuclear plant construction to assure taxpayers aren't left holding the bag for energy plant construction.**

From: Meinen, Casey (MidAmerican) <Casey.Meinen@midamerican.com>
Sent: Friday, July 26, 2024 10:33 AM
To: Daniel Priestley
Subject: RE: [INTERNET] Comments Requested Nuclear Energy in Woodbury County, Iowa

CAUTION: This email originated from **OUTSIDE** of the organization. Please verify the sender and use caution if the message contains any attachments, links, or requests for information as this person may NOT be who they claim. **If you are asked for your username and password, please call WCICC and DO NOT ENTER any data.**

Daniel,

I have forwarded this to company Management for their input.

Have a great weekend.

Casey Meinen
Lead, Electric Distribution Engineering

Casey.meinen@midamerican.com

Phone (712-233-4831)



ORDINANCE NO. _____

WOODBURY COUNTY, IOWA

AN ORDINANCE AMENDING THE TEXT OF THE WOODBURY COUNTY ZONING ORDINANCE TO INCLUDE THE USE OF NUCLEAR ENERGY FACILITIES AS AN ENERGY OPTION IN WOODBURY COUNTY AND TO ALLOW FOR THE ESTABLISHMENT OF SUCH FACILITIES IN INDUSTRIAL ZONING AREAS AND TO AMEND PORTIONS OF: THE TABLE OF CONTENTS; TO ADD ANEW SECTION ENTITLED SECTION 5.09: NUCLEAR ENERGY FACILITIES CONDITIONAL USE; AND TO INCLUDE THE RENUMBERING OF PAGE NUMBERS.

WHEREAS, WOODBURY COUNTY IS COMMITTED TO SUPPORTING SUSTAINABLE AND RELIABLE ENERGY SOLUTIONS THAT ENSURE LONG-TERM ENVIRONMENTAL AND ECONOMIC BENEFITS FOR ITS RESIDENTS AND BUSINESSES; AND

WHEREAS, NUCLEAR ENERGY IS RECOGNIZED AS A EFFECTIVE METHOD OF PRODUCING BASELOAD ENERGY THAT IS CARBON-FREE AND CAPABLE OF MEETING THE GROWING DEMAND FOR CLEAN ENERGY IN BOTH RESIDENTIAL AND INDUSTRIAL SECTORS; AND

WHEREAS, ADVANCEMENTS IN NUCLEAR TECHNOLOGY, INCLUDING SMALL MODULAR REACTORS (SMRS) AND OTHER INNOVATIVE DESIGNS, PROVIDE A SAFER, MORE EFFICIENT, AND MORE FLEXIBLE OPTION FOR ENERGY GENERATION COMPARED TO TRADITIONAL NUCLEAR PLANTS, MAKING THEM A VIABLE ADDITION TO THE COUNTY'S ENERGY PORTFOLIO; AND

WHEREAS, THE COUNTY ACKNOWLEDGES THE POTENTIAL FOR ECONOMIC GROWTH THROUGH THE DEVELOPMENT OF NUCLEAR ENERGY FACILITIES, INCLUDING JOB CREATION, INCREASED INVESTMENT IN LOCAL INFRASTRUCTURE, AND A BROADENED TAX BASE; AND

WHEREAS, WOODBURY COUNTY SEEKS TO DIVERSIFY ITS ENERGY RESOURCES TO PROMOTE RESILIENCE, ENERGY INDEPENDENCE, AND STABILITY IN ENERGY PRICING FOR ITS RESIDENTS AND INDUSTRIES; AND

WHEREAS, THE SITING OF NUCLEAR ENERGY FACILITIES IN GENERAL INDUSTRIAL ZONING AREAS WILL ALLOW FOR BETTER LAND USE PLANNING BY UTILIZING SPACES ALREADY DESIGNATED FOR LARGE-SCALE INDUSTRIAL OPERATIONS, MINIMIZING POTENTIAL CONFLICTS WITH RESIDENTIAL OR AGRICULTURAL AREAS, AND ENSURING THE AVAILABILITY OF APPROPRIATE INFRASTRUCTURE TO SUPPORT SUCH FACILITIES; AND

WHEREAS, THE COUNTY IS COMMITTED TO ENSURING THAT ANY NUCLEAR ENERGY FACILITIES COMPLY WITH FEDERAL AND STATE SAFETY STANDARDS, AS WELL AS LOCAL REGULATIONS, TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THE PUBLIC AND THE ENVIRONMENT; AND

WHEREAS, THE PASSAGE OF THIS ORDINANCE WILL PROVIDE THE FRAMEWORK FOR THE REVIEW AND APPROVAL OF CONDITIONAL USE PERMITS FOR NUCLEAR ENERGY FACILITIES WITHIN INDUSTRIAL ZONES, ENSURING THAT EACH PROJECT IS CONSIDERED ON A CASE-BY-CASE BASIS WITH INPUT FROM THE COMMUNITY, REGULATORY BODIES, AND EXPERTS;

NOW, THEREFORE, BE IT RESOLVED BY THE WOODBURY COUNTY BOARD OF SUPERVISORS:

SUPPORT FOR NUCLEAR ENERGY: WOODBURY COUNTY AFFIRMS ITS SUPPORT FOR THE DEVELOPMENT OF NUCLEAR ENERGY FACILITIES AS PART OF ITS LONG-TERM ENERGY STRATEGY TO MEET CLEAN ENERGY GOALS AND FOSTER ECONOMIC GROWTH.

DESIGNATION OF GENERAL AND LIMITED INDUSTRIAL ZONES: THE COUNTY APPROVES THE AMENDMENT TO ITS ZONING ORDINANCE TO ALLOW NUCLEAR ENERGY FACILITIES AS A CONDITIONAL USE IN GENERAL AND LIMITED INDUSTRIAL ZONES, ENSURING THAT SUCH FACILITIES ARE APPROPRIATELY LOCATED WITHIN AREAS DESIGNED FOR INDUSTRIAL ACTIVITIES.

CONDITIONAL USE PERMIT PROCESS: THE COUNTY WILL ESTABLISH A TRANSPARENT AND RIGOROUS PROCESS FOR THE EVALUATION OF CONDITIONAL USE PERMITS FOR NUCLEAR ENERGY FACILITIES, WHICH WILL INCLUDE ENVIRONMENTAL ASSESSMENTS, SAFETY REVIEWS, AND PUBLIC HEARINGS TO ADDRESS ANY CONCERNS.

COMMITMENT TO SAFETY AND COMPLIANCE: THE COUNTY WILL ENSURE THAT ALL NUCLEAR ENERGY FACILITIES COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, PARTICULARLY REGARDING SAFETY, ENVIRONMENTAL PROTECTION, AND EMERGENCY PREPAREDNESS.

PUBLIC ENGAGEMENT AND EDUCATION: THE COUNTY WILL WORK TO INFORM AND ENGAGE THE PUBLIC ON THE BENEFITS AND SAFETY MEASURES ASSOCIATED WITH NUCLEAR ENERGY, PROVIDING OPPORTUNITIES FOR COMMUNITY INPUT THROUGHOUT THE PROCESS.

NOW, THEREFORE, BE IT ENACTED BY THE BOARD OF SUPERVISORS OF WOODBURY COUNTY, IOWA THAT THE BELOW ZONING ORDINANCE LANGUAGE AMENDMENTS BE MADE:

Amendment #1:

On page 39: To add the following line-item use language within zoning ordinance Section 3.03.4 *Land Use Summary Table of Allowed Uses in each Zoning District* under the “Utilities” category:

“Nuclear Energy Facilities”. With placement of the letter “C” within the (Limited Industrial), and GI (General Industrial) zoning districts columns on the table related to this line-item use.

On page 104: To add the following definition, “Nuclear Facility” as definition 112 to Article 6. Definitions. Section 6.02: Definitions as “112. Nuclear Energy Facility” includes any facility designed for the generation of electricity or power through nuclear fission or fusion, as well as any associated storage or handling of nuclear materials and waste in compliance with federal and state regulatory requirements.”

Amendment #2:

In the Table of Contents, on page iii: To add “Section 5.09: Nuclear Energy Facilities Conditional Use” under the Article 5, Supplemental Requirements category(PAGE NUMBER).

Amendment #3:

Beginning on page 92, to re-designate or re-number the definitions in Article 6. Definitions. Section 6.02: Definitions 112 through 191. The purpose is to add “Nuclear Energy Facilities” as definition 112 thereby pushing the existing definitions 112 through 191 ahead one position with Article 6. Definitions. Section 6.02 now including definitions 1 through 192.

Beginning on page 82, to amend Article 6. Definitions by moving the start page from page ____ to page ____.

Amendment #4:

Beginning on Page 97, to add the following section to be known as “Section 5.09: Nuclear Energy Facilities Conditional Use.”

Section 5.09: Nuclear Energy Facilities Conditional Use

1. **Purpose.** This section is established to regulate the siting, development, and operation of nuclear energy facilities, including but not limited to nuclear power plants and small modular reactors (SMRs), within Woodbury County. The intent is to ensure public health, safety, environmental protection, and compliance with federal and state regulations, while facilitating orderly land use and development.
2. **Definition.** For the purposes of this ordinance, a “Nuclear Energy Facility” includes any facility designed for the generation of electricity or power through nuclear fission or fusion, as well as any associated storage or handling of nuclear materials and waste in compliance with federal and state regulatory requirements.
3. **General Requirements for Conditional Use Permit (CUP) Approval**
 - A. **Compliance with Federal and State Regulations**
 - (1) All nuclear energy facilities must comply with regulations set forth by the Nuclear Regulatory Commission (NRC), the Environmental Protection Agency (EPA), and the Iowa Department of Natural Resources (IDNR), including but not limited to licensing, environmental impact assessments, waste management, and operational safety.
 - (2) Applicants must provide evidence of approval or pending approval from the NRC, including required licensing documentation for the proposed facility.
 - B. **Environmental Impact**
 - (1) Applicants shall conduct a comprehensive Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act (NEPA) and state-level environmental regulations, demonstrating minimal adverse effects on air and water quality, soil, wildlife habitats, and surrounding land uses.
 - (2) The applicant must submit a mitigation plan outlining how environmental impacts will be managed and minimized, including measures for water usage, waste containment, and radiation control.
 - C. **Safety, Security, and Emergency Response**
 - (1) A detailed Emergency Response Plan must be submitted, reviewed, and approved by Woodbury County’s Emergency Management Department in coordination with state and federal authorities. This plan must address potential radiation leaks, natural disasters, fire, and other hazards.
 - (2) The facility shall include 24/7 security, perimeter fencing, surveillance systems, and controlled access points as required by NRC guidelines for nuclear facilities.
 - (3) The facility operator must provide ongoing safety training for county emergency services personnel and coordinate regular emergency response drills.
 - D. **Nuclear Waste Storage and Transportation**

- (1) The storage and transportation of nuclear materials and waste must be in full compliance with federal standards outlined by the NRC and Department of Transportation (DOT), including regulations regarding the safe handling, containment, and transportation of radioactive materials.
- (2) A long-term waste management plan shall be submitted as part of the CUP application, detailing storage solutions, transportation routes, and potential impacts on local infrastructure and communities.

E. Decommissioning Plan

- (1) A detailed decommissioning plan must be submitted, outlining procedures for safely shutting down the facility at the end of its operational life. The plan shall include financial assurance mechanisms (such as bonds or escrow accounts) to ensure the proper removal of radioactive materials and the restoration of the site to its original condition.

4. Conditions for Approval

- A. The County may impose additional conditions, restrictions, or safeguards to ensure compatibility with surrounding land uses and protect the health, safety, and welfare of the public.
- B. Approval of the CUP may be conditioned upon periodic review by the County to verify ongoing compliance with applicable regulations and conditions of the permit.

5. Revocation of Permit

- A. The conditional use permit may be revoked by the County if the facility is found to be in violation of any applicable federal, state, or local regulation, or if any conditions of approval are not met. The County reserves the right to impose corrective actions or suspend operations as necessary to protect public welfare.

THE WOODBURY COUNTY BOARD OF SUPERVISORS

Matthew Ung, Chairman

Daniel Bittinger II, Vice-Chairman

Mark Nelson

Keith Radig

Jeremy Taylor

Attest:

Patrick Gill, Woodbury County Auditor

Adoption Timeline:
 Date of Public Hearing and First Reading _____
 Date of Public Hearing and Second Reading _____
 Date of Public Hearing and Third Reading _____
 Date of Adoption _____
 Published/Effective Date _____