

**AGENDA**  
**REGULAR DRAINAGE MEETING**  
**Wednesday, June 10, 2020**  
**Large Conference Room**

**Due to Covid-19 health concerns, this meeting will be open to the public via conference call only. The meeting date and time will remain the same. You may call at that time to access the hearing by following the instructions below:**

**To access the meeting call: 1-(312)-626-6799, when prompted enter meeting ID code: 662 016 552**

**You can also access the meeting online at:**

**<https://zoom.us/j/662016552>**

1. Open Meeting
2. Approve Agenda
3. Approve Minutes

Documents:

[06\\_03\\_2020 - DRAINAGE MINUTES.PDF](#)

4. Approve Claims For Payment

Documents:

[PAYABLES-DRAINAGE PUBLICATION 06\\_12\\_20.PDF](#)

5. DD 121 - WO 295 - Discuss W Possible Action  
DD 121 WO 295 - Tom Gilmore reports blow out / plugged district tile and water running across field.

Documents:

[DD 121 WO 295.PDF](#)  
[DD 121 - WO 295 MAP.PNG](#)

6. DD F-H 4-53 - WO 296 - Discuss W Possible Action  
DD F-H 4-53 - Jim Ziesman reports blowout on district tile with standing water in field.

Documents:

[DD F-H 4-53 WO 296.PDF](#)  
[DD F-H 4-53 - WO 296 MAP.PDF](#)

7. DD 10 WO 2020-11 Discuss W Possible Action - Midland Power Utility Permit Application

Documents:

[WO 2020-11 MIDLAND POWER DRAINAGE UTILITY PERMIT APPLICATION.PDF](#)  
[WO 2020-11 MIDLAND POWER DRAINAGE UTILITY PERMIT MAP.PDF](#)  
[WO 2020-11 MIDLAND DRAINAGE UTILITY PERMIT.PDF](#)

8. Discuss W Possible Action -Wind Turbine Ordinance And Drainage Utility Permit Language & Process

Documents:

[HARDIN COUNTY WIND TURBINE ORDINANCE APPROVED BY ZONING COMMISSION\\_20200417.PDF](#)  
[UTILITY PERMIT APPLICATION ACROSS DRAINAGE DISTRICT.PDF](#)

9. Discuss W Possible Action - Iowa Drainage District Association Membership
10. Drainage Clerk Performance Review
11. Other Business
12. Adjourn Meeting

**REGULAR DRAINAGE MEETING**  
**Wednesday, June 3, 2020 9:30 AM**  
**The meeting was held electronically due to Covid-19 concerns.**

6/3/2020 - Minutes

1. Open Meeting

Hardin County Drainage Chairperson Lance Granzow opened the meeting. Also in attendance were Trustee Renee McClellan; Lee Gallentine and Heather Thomas of Clapsaddle-Garber Associates (CGA); Michael Pearce; and Denise Smith, Drainage Clerk.

Motion by McClellan to recess the meeting until 12:00 pm due to large schedule of Board of Supervisors meetings today. Second by Granzow. All ayes. Motion carried.

Motion by McClellan to end recess and enter Regular Drainage Meeting. Second by Granzow. All ayes. Motion carried.

2. Approve Agenda

Motion by McClellan to approve agenda. Second by Granzow. All ayes. Motion Carried.

3. Approve Minutes

Motion by McClellan to approve the minutes to Drainage Meeting dated May 27, 2020. Second by Granzow. All ayes. Motion carried.

4. Approve Claims For Payment

Motion by McClellan to approve claims for payment with pay date of Friday, June 5, 2020. Second by Granzow. All ayes. Motion carried.

DD 22 WO 176 - Prof Svcs 4/18/20 to 5/16/20 Clapsaddle-Garber Assoc      \$ 836.00

DD 26 WO 82 - Prof Svcs 1/26/2019 to 5/16/2020 Clapsaddle-Garber Assoc    \$ 118.60

DD 52 WO 215 - Tree Removal, brush haul off, spray Honey Creek Land Improvement, LLC    \$ 6,930.00

DD 124 WO 259 - Tile Repair, Parts, Labor, Equip. Honey Creek Land Improvement, LLC    \$ 14,214.00

DD 131 WO 275 - Tile Repair, parts, labor, equip. Honey Creek Land Improvement, LLC    \$ 4,040.20

5. DD 11 WO 294 - Discuss W Possible Action - Investigation Summary

DD 11 WO 294 - Blowout reported by Bob Smuck, reported location did not quite match work order map, CGA spoke with Smuck and exact location was determined. CGA found sinkhole with dirt sunk away, and tile is not visible. Sinkhole is located at west side of property fence, and there is a manhole located off G Ave. CGA recommends excavation at sinkhole location and do repair as needed, sinkhole location appears to be right along district tile route. Gallentine reports that in manhole, tile was found to be flowing, but there is erosion around manhole structure, it is not clear if this is from surface water or if it is sucking dirt in, the erosion could be filled in, although this was not the area of focus on the work order. Granzow stated the erosion at manhole was not the area of complaint, so no action on this at this time.

Motion by McClellan to approve the engineer's recommendation to repair sinkhole on DD 11 Work Order 294 and to put work order in the lottery system. Second by Granzow. All ayes. Motion carried.

6. DD 22 WO 276 - Discuss W Possible Action - Repair Summary

DD 22 WO 276 - Heather Thomas stated the work order was on the sinkhole in Randy Silvest's wetland, repair went well. CGA did offer to come and look at it when the work order was complete, Silvest declined. Thomas stated the area of work was not seeded, Silvest did not request seeding, but this may be the only issue that would come back up. Other than that it went well, included in the packet is the contractor's time and materials and an as-built sketch. It was discussed the area of work that was done was 40' wide by 60' long, Thomas stated it was

wetland vegetation previously, but due to flooding out, it may not be what appears to be true wetland vegetation. Granzow stated we can leave it as is, and if Silvest contacts us for seeding, we can discuss with him how he would like that handled. McClellan stated we should reach out to Silvest with a phone call. Thomas will be happy to reach out to Silvest to see if he would like the area reseeded.

Motion by McClellan to have Thomas reach out to Silvest regarding the reseeding of the repair. Second by Granzow. All ayes. Motion carried.

7. DD 52 WO 215 - Discuss W Possible Action - Crop Damage Claim 2020-4

DD 52 - WO 215 - Smith stated we had received a quote from contractor Honey Creek Land Improvements for reseeding on Drainage Claim 2020-4 submitted by Tracey Below, the quote included round-up ready alfalfa seed, and the Trustees had directed Smith to reach out to the contractor and request a new quote with regular alfalfa seed. Honey Creek Landscaping submitted a new quote for \$430 for regular alfalfa seed, the previous quote was for \$715 for round-up ready seeding. Smith stated claimant Tracey Below would like payment of claim to be directed to landowner Shaun Piel.

Motion by McClellan to approve payment for Claim for Crop Damage 2020-4 to be paid to landowner Shaun Piel, as directed by Tracy Below, for regular alfalfa seeding in the amount of \$430.00. Second by Granzow. All ayes. Motion carried.

Smith will include the payment in next week's claims.

8. Discuss W Possible Action -Wind Turbine Ordinance And Drainage Utility Permit Language & Process

We received a reply from attorney Mike Richards regarding the Drainage Utility Permit Application as it pertains to wind turbines. Smith asked the Trustees to review Richards reply and direct her as to how they would like to proceed. Granzow asked Smith to share the document with CGA and the County Attorney, Darrell Meyer. The option of having the wind turbine company provide a \$50,000 escrow fund for drainage repairs was discussed, and that the fund would remain in escrow for the life of the turbine in case damages to district facilities are not apparent upon construction, and whether that fund should be per turbine or per drainage district. It was discussed that there may be differing opinions within the drainage districts on the wind turbines, and that the wind turbine companies may say that this repair fund would be too much cost to continue with the project and that there may be landowners that feel the Districts are depriving them of income.

Granzow stated we could clarify the \$50,000 repair fund requirement to be \$50,000 per each turbine during the construction phase and then after construction is complete, there could be a \$50,000 fund per district held in escrow, for any later district tile repairs tied to the wind turbines. Granzow states the original shock of \$50,000 per turbine is so that any damage done to district facilities could be repaired right away, and once money is spent on repairs it would be replenished by the wind turbine company. McClellan stated the escrow fund could be refunded after the turbine life is over. Granzow stated we have discussed another requirements as well including, televising tile before and after construction and GPS mapping of their crane walks as well. Smith stated this would only apply to wind turbines that require a Drainage Utility Permit application, wind turbines that do not impact a drainage tile or district facility would not need to apply for a Drainage Utility Permit, so that would not apply to any turbines that will not have possible impact on a drainage tile. Gallentine stated it may be possible to apply the \$50,000 requirement only when the wind turbine company crosses a tile line. Granzow had concerns that a wind turbine could cross a tile multiple times in construction of the turbine with all of the underground cabling. Granzow stated if it were \$50,00 per turbine only if it were impacting our facilities during construction, we could reduce that down to just \$50,000 in escrow per district when construction is complete. Gallentine stated if every thing goes perfect during construction, that amount sounds high, but if only two or three things go wrong with a district tile during construction the \$50,000 repair fund could be eaten up quickly in tile repair costs. McClellan asked if this were the same company that went through Franklin County, Gallentine stated it was not the same company, Smith stated they will share some transmission lines with Franklin County's project but it is not owned by the same company. Granzow stated we need to include this on the next agenda for discussion/action. Smith will include this on next week's agenda for additional review.

9. Other Business

IDDA - Smith received an invoice from Iowa Drainage District Association for membership, and asked if the Trustees would like this as an agenda item. Granzow stated it can be included in next week's agenda.

DD 55-3 - Smith provided an update on the DD 55-3 railroad consent, Honey Creek Land Improvement has submitted all of their paperwork and payment to their insurance company for railroad insurance coverage, and are

waiting on their binder form the insurance company so that they may submit it to the railroad. Smith received an email back from Valerie Harrell that stated they would like to do the Contractor Right of Entry and request for 90 day extension as one permitting event, so it sounds like the UP is willing to work with us on the time-line for the extension. Harrell states that once documentation is provided by the contractor we can look at the 90 day extension.

DD 102 CREP Wetland - Gallentine stated that contractor is getting ready to install concrete pipe tomorrow, and CGA will have someone on-site to observe those soil conditions to see if they need to add any rock bedding. Contractor thought construction would take one to two weeks. Granzow asked if CGA will be on-site the whole two weeks. Gallentine stated that they do not need to be on-site when the contractor is pulling out the old tile, and CGA only needs to be there for new tile install, contractor expected that may take a week, and Gallentine stated CGA may be on-site for an estimated 5 days.

DD 22 WO 176 - Thomas asked if we were any closer to holding in person meetings for a Completion Hearing. Thomas is waiting on lien waivers from Gehrke, so that is fine, and CGA can hold Gehrke's retainage a little while longer, until waivers are received. Granzow stated we are not ready to open the Courthouse up to the amount of foot traffic a landowner completion hearing may have, but we could certainly do a zoom meeting. Thomas stated if the Trustees are ok with doing a completion hearing by zoom meeting, we can get that scheduled once we receive lien waivers back from Gehrke. McClellan stated even if landowners don't have computer access, they can access the meeting with a telephone by calling the zoom phone number and entering the access code provided in the agenda.

10. Adjourn Meeting

Motion by McClellan to adjourn. Second by Hoffman. All ayes. Motion carried.



# Hardin County

Drainage Claims with Pay Date of 6/12/2020

Description	Vendor	Amount
DD 14 WO 291 Prof Svc to 5/30/20 Inv Plugged tile	Clapsaddle-Garber Assoc	589.70
DD 11 WO 294 Prof Svc to 5/30/20	Clapsaddle-Garber Assoc	1,007.25
DD 1 WO 244 Prof Svc 3/27/20 to 5/30/20	Clapsaddle-Garber Assoc	508.80
DD 48 WO 237 - Prof Svcs 4/25/20 to 5/30/20	Clapsaddle-Garber Assoc	971.30
DD 9 WO 229 Prof Svc to 5/30/20 Reclass Hrg	Clapsaddle-Garber Assoc	10,030.70
DD 14 WO 290 - Prof Svcs to 5/30/20 Blowout Repair	Clapsaddle-Garber Assoc	2,264.05
DD 25 WO 1 - Prof Svcs After 4/25/20 to 5/30/20	Clapsaddle-Garber Assoc	6,232.15
DD 26 WO 266 - Tile repair, parts, equip., labor	Honey Creek Land Improvement, LLC	11,392.50
DD 31 WO 278 - Prof Svcs After 3/27/20 to 6/4/20	Clapsaddle-Garber Assoc	1,076.25
DD 41 WO 194 - Prof Svcs After 9/14/2018 - 5/30/20	Clapsaddle-Garber Assoc	217.00
DD 48 WO 274 - Prof Svcs After 4/25/20 to 5/30/20	Clapsaddle-Garber Assoc	3,436.50
DD 52 WO 215 Crop Dmg Claim 2020-4 Alfalfa Sdg	Shaun Piel	430.00
DD 55-3 WO 201 - Prof Svcs After 3/27/20 - 5/30/20	Clapsaddle-Garber Assoc	751.30
DD 55-3 WO 284 Prof Svc to 5/30/20 Beaver Dam Rmvl	Clapsaddle-Garber Assoc	290.20
DD 68 WO 293	Clapsaddle-Garber Assoc	769.55
DD 86 WO 252 - Prof Svcs After 4/25/20 to 5/30/20	Clapsaddle-Garber Assoc	1,130.20
DD 102 WO 265 Prof Svc to 5/30/20 Reclass Rpt	Clapsaddle-Garber Assoc	753.30
DD 109 WO 269 - Tree Removal, labor, haul off	Honey Creek Land Improvement, LLC	2,920.00
DD 109 WO 269	Clapsaddle-Garber Assoc	1,603.00
DD 124 WO 259 - Prof Svc After 4/25/20 to 6/4/20	Clapsaddle-Garber Assoc	641.90
DD 128 WO 279 - Prof Svcs After 4/25/20 to 6/4/20	Clapsaddle-Garber Assoc	605.40
DD 131 WO 275 - Prof Svcs After 3/27/20 to 6/4/20	Clapsaddle-Garber Assoc	935.80
DD 143 WO 241 Prof Svc 3/27/20 to 5/30/20 Hearing	Clapsaddle-Garber Assoc	285.00
DD 143 WO 261 Prof Svcs After 3/27/20 to 5/30/20	Clapsaddle-Garber Assoc	253.80
DD 158 WO 285 - Prof Svc to 5/30/20 Inv Plug Tile	Clapsaddle-Garber Assoc	753.50
DD Big 4 Main WO 292 Prof Svcs to 6/4/20	Clapsaddle-Garber Assoc	1,093.05
DD Big 4 Lat 4 WO 195 Prof Svc 4/6/18 to 5/30/20	Clapsaddle-Garber Assoc	365.40

**Total Regular Payables:** 3,077.05  
**Total Stamped Warrants:** 48,230.55



# Drainage Work Order Request For Repair

## Hardin County

**Date:** 6/3/2020

**Work Order #:** WO00000295

**Drainage District:** DDs\DD 121 (51136)

**Sec-Twp-Rge:** 30-86-20      **Qtr Sec:** \_\_\_\_\_

**Location/GIS:** 86-20-30-400-003

**Requested By:** Tom Gilmore

**Contact Phone:** (515) 450-1942

**Contact Email:** \_\_\_\_\_

**Landowner (if different):** George C Fagg Heirs

**Description:** DD 121 - Tom Gilmore reports blow out/ plugged tile and water running across the field on parcel #862030400003.

**Repair labor, materials and equipment** \_\_\_\_\_

\_\_\_\_\_

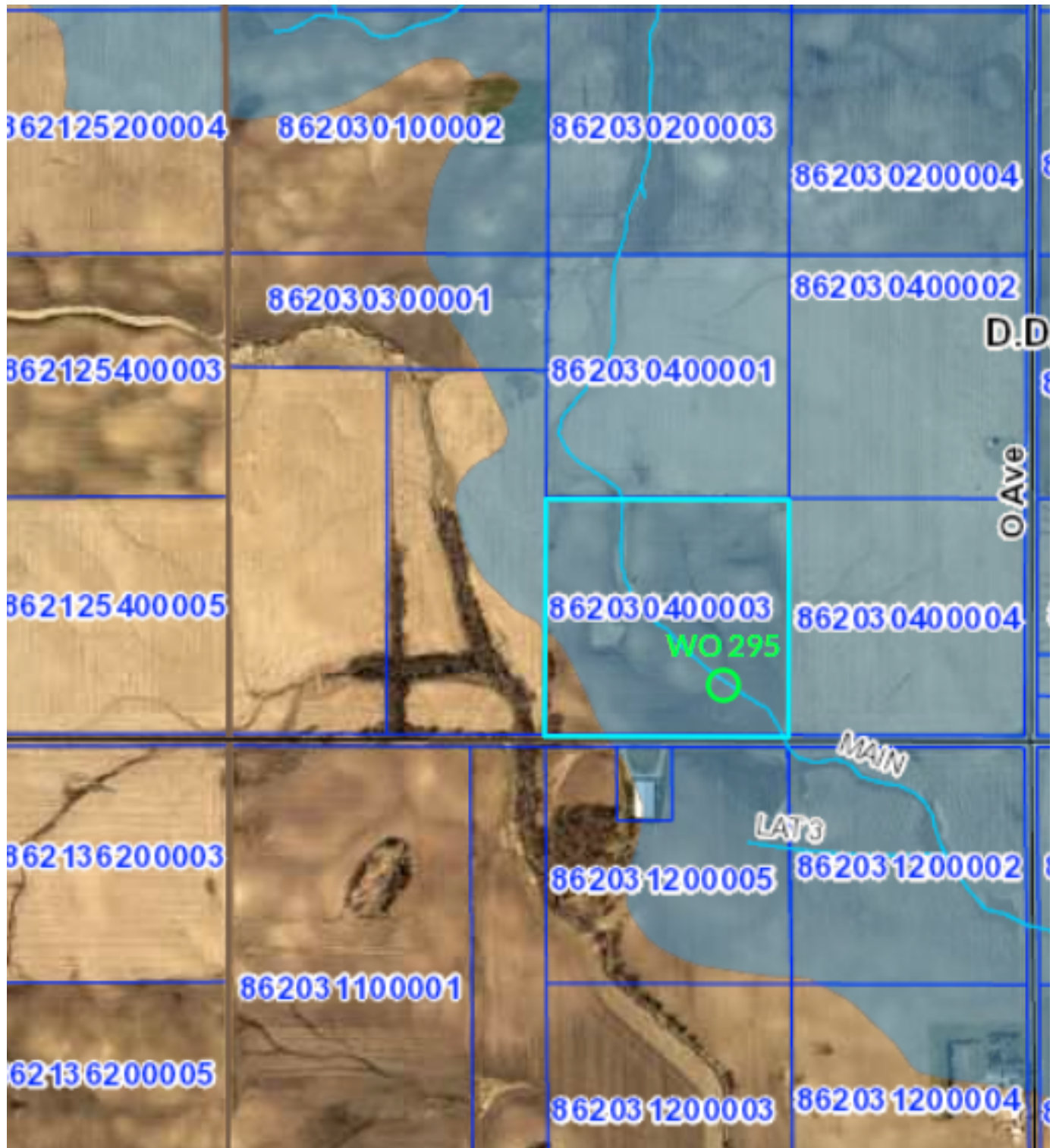
\_\_\_\_\_

**Repaired By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Please reference work order # and send statement for services to:** Hardin County Auditor's Office  
Attn: Drainage Clerk  
1215 Edgington Ave, Suite 1  
Eldora, IA 50627  
Phone (641) 939-8111  
Fax (641) 939-8245

For Office Use Only

**Approved:** \_\_\_\_\_ **Date:** \_\_\_\_\_







# Drainage Work Order Request For Repair

## Hardin County

**Date:** 6/9/2020

**Work Order #:** WO00000296

**Drainage District:** DDs\DD F-H 4-53 (51213)

**Sec-Twp-Rge:** 04-89-21      **Qtr Sec:** N1/2 SE1/4

**Location/GIS:** 89-21-04-200-002

**Requested By:** Jim Ziesman

**Contact Phone:** (641) 648-4933

**Contact Email:** Cell - 641-640-0419

**Landowner (if different):** \_\_\_\_\_

**Description:** DD F-H 4-53 - Landowner Jim Ziesman reports blowout with standing water in field on district tile in parcel #892104200002, located near where tile enters field in grassy waterway.

**Repair labor, materials and equipment:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Repaired By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Please reference work order # and send statement for services to:**

Hardin County Auditor's Office  
 Attn: Drainage Clerk  
 1215 Edgington Ave, Suite 1  
 Eldora, IA 50627  
 Phone (641) 939-8111  
 Fax (641) 939-8245

For Office Use Only

**Approved:** \_\_\_\_\_ **Date:** \_\_\_\_\_



01

892104100002

892104200002

WO 296

892104200003

89210310

MAIN

03

892104100004

4

HH Ave

892104200004

J.D.D.  
F-H 4-53

892104200005

8921035

4



# HARDIN COUNTY

1215 EDGINGTON AVE., SUITE 1  
ELDORA, IA 50627  
(641) 939-8108

## HARDIN COUNTY DRAINAGE DISTRICT UTILITY PERMIT APPLICATION

Applicant:

Midland Power Cooperative  
Company Name

1005 E Lincoln Way  
Address

Jefferson IA 50129  
City State Zip

Applicant Contact:

Casey Huff (515) 386-4111  
Name Phone

chuff@midlandpower.coop  
Email

Utility Type:

Overhead Electrical Distribution

Drainage District(s) Crossed:

DD No. 10

Facilities Crossed (specific tile, open ditch):

Description of Work:

Rebuilding 3 miles overhead electrical distribution  
Buckeye Township, Sections 3, 10, 14 and 15

(Location plan of proposed utility must be attached.)

Pursuant to Code of Iowa Section 468.186, approval is hereby requested for the right, privilege and authority to construct, operate and maintain utilities on, over, across or beneath established Hardin County Drainage Districts, subject to the attached Requirements for Construction On, Over, Across or Beneath Established Drainage District. Failure to comply with said requirements shall be ground for revocation of the permit by the Hardin County Board of Supervisors.

[Signature]  
Applicant Signature

6/5/20  
Date

Submit Form and Location Plan To:

Hardin County Auditor's Office  
Attn: Drainage Clerk  
1215 Edgington Ave, Suite 1  
Eldora, IA 50627  
Fax (641) 939-8225  
[drainage@hardincountyia.gov](mailto:drainage@hardincountyia.gov)

For Office Use Only

Application Approval:

By: \_\_\_\_\_  
Board of Supervisor Chairman, Acting as Drainage District Trustee

Date: \_\_\_\_\_

APPROVED PERMIT #: \_\_\_\_\_



11. The construction and maintenance of Applicants installation shall be carried on in such a manner as to not interfere with or interrupt the function of said Drainage District facilities without the express written consent of the Drainage District Representative. In the event it becomes necessary to temporarily stop the flow of water, the following shall be completed by the Applicant:
  - a. If the crossing involves a tile line, the replacement of tile with approved materials, in the manner approved by the Drainage Districts designated representative, shall be performed as rapidly as possible. If the approved method of repair is impossible and the volume of water flowing in the tile is sufficient to create the possibility of crop loss or property damage, the Contractor will be permitted to temporarily block the tile line to prevent the flow of this tile water into the pipeline, or tile line ditch. In the event this tile line is so temporarily blocked, the Contractor will be expected to provide sufficient pumping equipment to pump the impounded tile water across the construction ditch to the undisturbed tile line. Such temporary blockages of said Drainage District tile lines will be removed a rapidly as possible and any tile repairs caused by this blockage will be immediately repaired at the Applicants expense.
  - b. If the crossing involves an open ditch that is carrying sufficient flow of water to make it necessary to place a temporary dam across said open ditch, such temporary dams may be constructed only upon approval from the Drainage District designated representative. The maximum elevation of this impounded water shall be determined by the designated Drainage District representative and all excess water must be allowed to flow across the construction ditch through either a closed metal culvert pipe or by pumping. All temporary dam structures are to be removed as soon as the crossing is completed. The construction and removal of these dams shall be in such a manner that the smooth and efficient function of the drainage ditch is not impaired, with all costs and damages borne by Applicant.
12. The Applicant will at any time subsequent to the commencement of construction, and at Applicants sole expense, reconstruct or replace its installation as may be necessary to conform to new grade or alignments resulting from maintenance or construction operations by the Drainage District in connection with any of its drainage facilities. Applicant agrees to do this within forty-five (45) days of receipt of written request from the Drainage District, or such longer time period as the Drainage District may specify, without cost to the Drainage District. Such reconstruction or realignment of Applicants improvements shall be made in accordance with and approved by the Drainage District or its designated representative. If the Applicant is unable to comply within the time period specified above, the Drainage District may cause the work to be done and the Applicant will pay the cost thereof upon receipt of a statement of such costs.
13. CROSSING OF OPEN DITCH FACILITIES. Utility crossings shall be constructed as follows, as directed by the designated representative of the Drainage District:
  - a. Passage of installation in a horizontal plane five feet (5') below design grade of drainage ditch, as established by the Drainage District representative.
  - b. The above depth to extend to a point two (2) times the design base width of ditch either side of centerline of drainage ditch (measured along the centerline of utility) unless the existing base width is greater than the design bases width. If the existing base width is greater than the design with, the depth is to extend to a point two (2) times the existing width.
  - c. The rate of slope for transition from normal utility laying depth of crossings of drainage ditches shall not be steeper than 4:1.
  - d. If such ditch crossings occur at points of outlets of Drainage District or private tile lines or within twenty-five feet (25') of said outlets, such outlets must be relocated to a point not less than twenty-five feet (25') from such crossings. Such relocations shall be at the expense of the Applicant and as directed by the representative of the Drainage District.

Name:

# Midland Power Cooperative

WO No.: 13392

740c#: 305

LOCATION: 1572--6703,10,14,15

## STAKING SHEET

ADDRESS:

Substation: 15 - Buckeye

County: Hardin

Phone:

Feeder: 1570

Township: T88N

Staked By: CASSANDRA DATE: 05/07/2020

Phase: A

Range: R22W

SHEET NO.: 1

OF: 7

Line Section:

School Dist:

Completed By:

DATE:

Work Order Type:

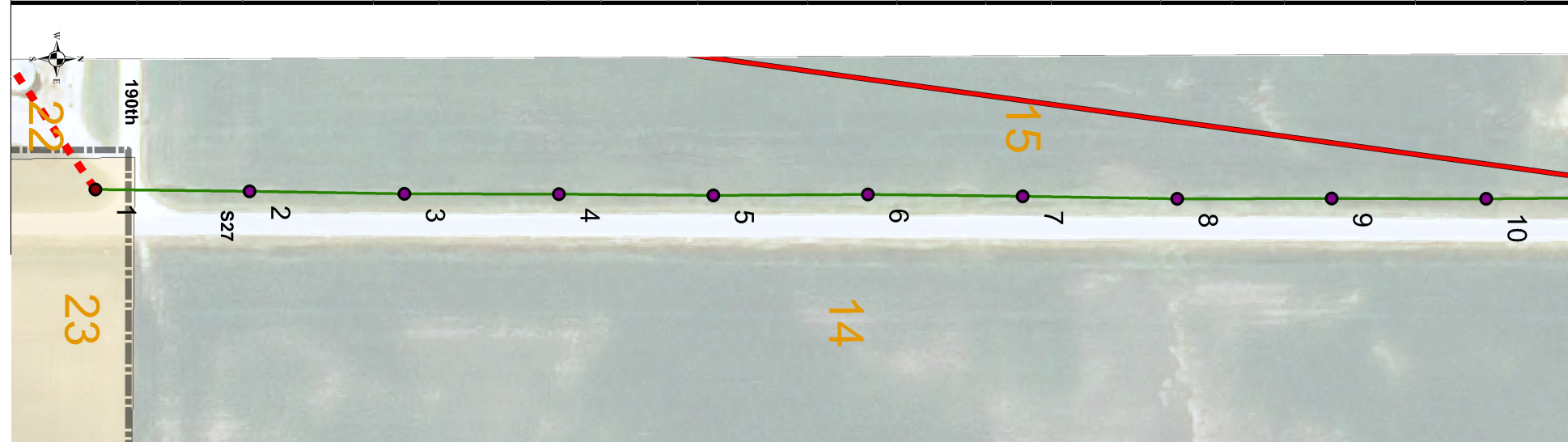
System Improvement

Primary Wire Size: 1/0-ACSR

Ruling Span: 240

Phase: A

POLE NUMBER	E R OR C	PRIMARY							GUY & ANCHOR			SECONDARY			METER OR LOOP	MISCELLANEOUS AND REMARKS
		BACK SPAN (FT.)	WIRE SIZE	POLE HEIGHT & CLASS	PRIMARY UNIT	LINE ANG	MISC UNIT	XFMR UNIT	GRND UNIT	GUY UNIT	LEAD	ANCHOR UNIT	UNIT "J OR K"	SPAN FEET		
1	E			35-5	A5.1-1/0					E1.1		F1.12				
	E				UA1											
2	C	240	(480) 1/0-ACSR	40-5	A1.1-1/0	0										
3	C	240	(480) 1/0-ACSR	40-5	A1.1-1/0	0										
4	C	240	(480) 1/0-ACSR	40-5	A1.1-1/0	-1										
5	C	240	(480) 1/0-ACSR	40-5	A1.1-1/0	1										
6	C	240	(480) 1/0-ACSR	40-5	A1.1-1/0	-1	H1.1-1/0									
	C			P1.1-1/0												
7	C	240	(480) 1/0-ACSR	40-5	A1.1-1/0	1										
8	C	240	(480) 1/0-ACSR	40-5	A1.1-1/0	0										
9	C	240	(480) 1/0-ACSR	40-5	A1.1-1/0	-1										
10	C	240	(480) 1/0-ACSR	35-5	A1.1-1/0	0										



Action	Conductor	Wire Feet	No. of Wires	Pole Line
C	1/0-ACSR	4320	2	2160
*	<b>UNITS</b>			<b>REQ.</b>
C	1/0-ACSR			4320
C	35-5			1
C	40-5			8
C	A1.1-1/0			9
C	H1.1-1/0			1
C	P1.1-1/0			1

Name:

# Midland Power Cooperative

WO No.: 13392

740c#: 305

LOCATION: 1572--6703,10,14,15

## STAKING SHEET

ADDRESS:

Substation: 15 - Buckeye

County: Hardin

Staked By: CASSANDRA DATE: 05/07/2020

Phone:

Feeder: 1570

Township: T88N

SHEET NO.: 2

OF: 7

Phase: A

Range: R22W

Completed By:

DATE:

Line Section:

School Dist:

Work Order Type:

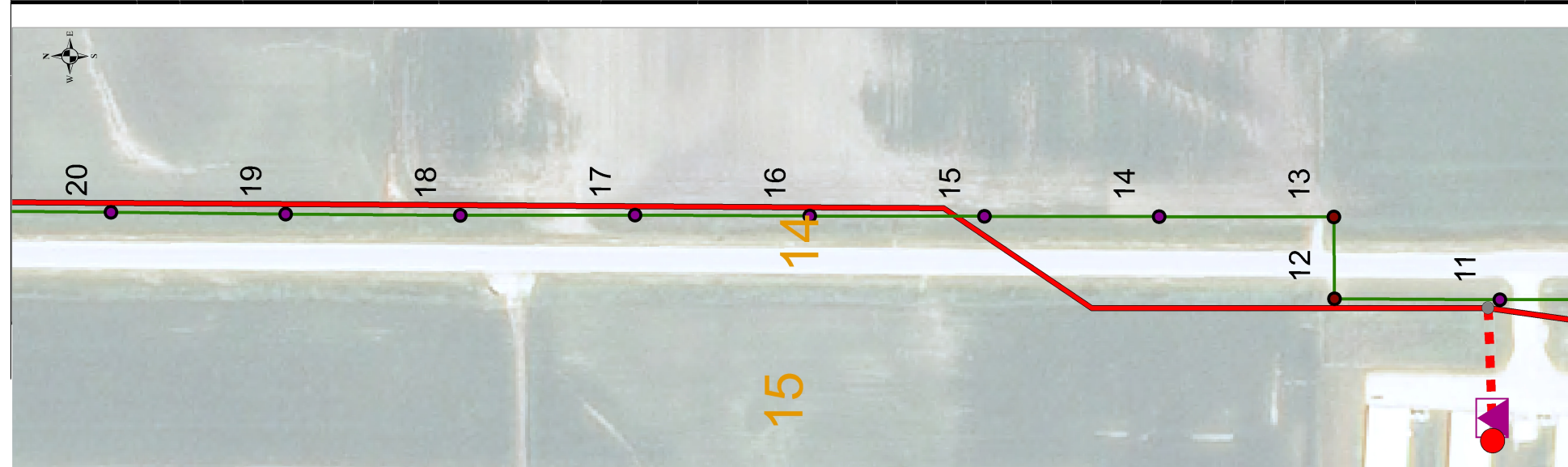
System Improvement

Primary Wire Size: 1/0-ACSR

Ruling Span: 237

Phase: A

POLE NUMBER	E R OR C	PRIMARY								GUY & ANCHOR			SECONDARY			METER OR LOOP	MISCELLANEOUS AND REMARKS
		BACK SPAN (FT.)	WIRE SIZE	POLE HEIGHT & CLASS	PRIMARY UNIT	LINE ANG	MISC UNIT	XFMR UNIT	GRND UNIT	GUY UNIT	LEAD	ANCHOR UNIT	UNIT "J OR K"	SPAN FEET	WIRE SIZE		
11	E			35-5	A1.1-1/0		H1.1-1/0										1572-016
	E				UA1												
	C	240	(480) 1/0-ACSR			0											
12	C	231	(462) 1/0-ACSR	40-5	A4.1-1/0	0	H1.1-1/0			E1.1	F1.12						
13	C	114	(228) 1/0-ACSR	45-3	A4.1-1/0	89	H1.1-1/0			E1.1	F1.12						
14	C	244	(488) 1/0-ACSR	40-5	A6.1-1/0	-89											
15	C	244	(488) 1/0-ACSR	40-5	A1.1-1/0	0											
16	C	244	(488) 1/0-ACSR	40-5	A1.1-1/0	0	H1.1-1/0										
	C			P1.1-1/0													
17	C	244	(488) 1/0-ACSR	40-5	A1.1-1/0	0											
18	C	244	(488) 1/0-ACSR	35-5	A1.1-1/0	0											
19	C	244	(488) 1/0-ACSR	35-5	A1.1-1/0	0											
20	C	244	(488) 1/0-ACSR	35-5	A1.1-1/0	1											



Action	Conductor	Wire Feet	No. of Wires	Pole Line
C	1/0-ACSR	4586	2	2293
*	<b>UNITS</b>			<b>REQ.</b>
C	1/0-ACSR			4586
C	35-5			3
C	40-5			5
C	45-3			1
C	A1.1-1/0			6
C	A4.1-1/0			2
C	A6.1-1/0			1
C	E1.1			2
C	F1.12			2
C	H1.1-1/0			3
C	P1.1-1/0			1

Name:

# Midland Power Cooperative

WO No.: 13392

740c#: 305

LOCATION: 1572--6703,10,14,15

## STAKING SHEET

ADDRESS:

Substation: 15 - Buckeye

County: Hardin

Phone:

Feeder: 1570

Township: T88N

Staked By: CASSANDRA DATE: 05/07/2020

Phase: A

Range: R22W

SHEET NO.: 3

OF: 7

Line Section:

School Dist:

Completed By:

DATE:

Work Order Type:

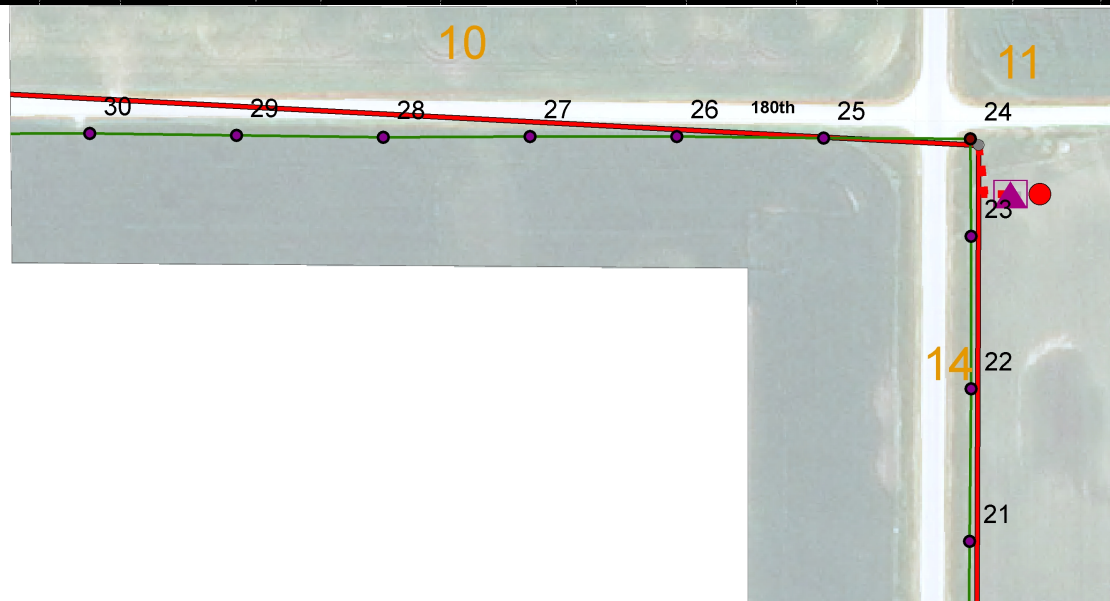
System Improvement

Primary Wire Size: 1/0-ACSR

Ruling Span: 234

Phase: A

POLE NUMBER	E R OR C	PRIMARY							GUY & ANCHOR			SECONDARY			METER OR LOOP	MISCELLANEOUS AND REMARKS
		BACK SPAN (FT.)	WIRE SIZE	POLE HEIGHT & CLASS	PRIMARY UNIT	LINE ANG	MISC UNIT	XFMR UNIT	GRND UNIT	GUY UNIT	LEAD	ANCHOR UNIT	UNIT "J OR K"	SPAN FEET		
21	C	244	(488) 1/0-ACSR	35-5	A1.1-1/0	0	H1.1-1/0									
	C			P1.1-1/0												
22	C	244	(488) 1/0-ACSR	35-5	A1.1-1/0	0										
23	E			35-5	A1.1-1/0		H1.1-1/0									1572-017
	E				UA1											
	C	244	(488) 1/0-ACSR			-1										
24	C	167	(334) 1/0-ACSR	40-5	A4.1-1/0	0	H1.1-1/0			E1.4	F1.12					
	C									E1.1						
25	C	235	(470) 1/0-ACSR	40-5	A1.1-1/0	-90										
26	C	235	(470) 1/0-ACSR	40-5	A1.1-1/0	1										
27	C	235	(470) 1/0-ACSR	40-5	A1.1-1/0	-1										
28	C	235	(470) 1/0-ACSR	P1.1-1/0	A1.1-1/0	0	H1.1-1/0									
	C			40-5												
29	C	235	(470) 1/0-ACSR	40-5	A1.1-1/0	1										
30	C	235	(470) 1/0-ACSR	35-5	A1.1-1/0	0										



Action	Conductor	Wire Feet	No. of Wires	Pole Line
C	1/0-ACSR	4618	2	2309
*	<b>UNITS</b>			<b>REQ.</b>
C	1/0-ACSR			4618
C	35-5			3
C	40-5			6
C	A1.1-1/0			8
C	A4.1-1/0			1
C	E1.1			1
C	E1.4			1
C	F1.12			1
C	H1.1-1/0			3
C	P1.1-1/0			2

Name:

# Midland Power Cooperative

WO No.: 13392

740c#: 305

LOCATION: 1572--6703,10,14,15

## STAKING SHEET

ADDRESS:

Substation: 15 - Buckeye

County: Hardin

Phone:

Feeder: 1570

Township: T88N

Phase: A

Range: R22W

Line Section:

School Dist:

Staked By: CASSANDRA DATE: 05/07/2020

SHEET NO.: 4

OF: 7

Completed By:

DATE:

Work Order Type:

System Improvement

Primary Wire Size: 1/0-ACSR

Ruling Span: 218

Phase: A

POLE NUMBER	E R OR C	PRIMARY						GUY & ANCHOR			SECONDARY			METER OR LOOP	MISCELLANEOUS AND REMARKS	
		BACK SPAN (FT.)	WIRE SIZE	POLE HEIGHT & CLASS	PRIMARY UNIT	LINE ANG	MISC UNIT	XFMR UNIT	GRND UNIT	GUY UNIT	LEAD	ANCHOR UNIT	UNIT "J OR K"			SPAN FEET
31	C	224	(448) 1/0-ACSR	40-5	A1.1-1/0	-1										
32	C	224	(448) 1/0-ACSR	40-5	A1.1-1/0	1										
33	C	224	(448) 1/0-ACSR	P1.1-1/0	A1.1-1/0	0	H1.1-1/0									
	C			40-5												
34	C	224	(448) 1/0-ACSR	35-5	A1.1-1/0	1	H1.1-1/0			E1.1	F1.12					1572-018
	C				A5.1-1/0											
35	C	171	(342) 1/0-ACSR	40-5	A1.1-1/0	-1										Set 8' Deep
36	C	171	(342) 1/0-ACSR	40-5	A4.1-1/0	0	H1.1-1/0			(3) E1.1	(3) F1.12					
37	E	65	(130) 1/0-ACSR	40-3	A5.1-1/0	91	H1.1-1/0									
	E				A2.1-1/0											
38	C	231	(462) 1/0-ACSR	40-5	A1.1-1/0	-2	H1.1-1/0									
	C				P1.1-1/0											
39	C	231	(462) 1/0-ACSR	40-5	A1.1-1/0	0										
40	C	231	(462) 1/0-ACSR	40-5	A1.1-1/0	0										



Action	Conductor	Wire Feet	No. of Wires	Pole Line
E	1/0-ACSR	130	2	65
C	1/0-ACSR	3862	2	1931
*	<b>UNITS</b>			<b>REQ.</b>
C	1/0-ACSR			3862
C	35-5			1
C	40-5			8
C	A1.1-1/0			8
C	A4.1-1/0			1
C	A5.1-1/0			1
C	E1.1			4
C	F1.12			4
C	H1.1-1/0			4
C	P1.1-1/0			2



Name:

# Midland Power Cooperative

WO No.: 13392

740c#: 305

LOCATION: 1572--6703,10,14,15

## STAKING SHEET

ADDRESS:

Substation: 15 - Buckeye

County: Hardin

Staked By: CASSANDRA DATE: 05/07/2020

Phone:

Feeder: 1570

Township: T88N

SHEET NO.: 5

OF: 7

Phase: A

Range: R22W

Completed By:

DATE:

Line Section:

School Dist:

Work Order Type:

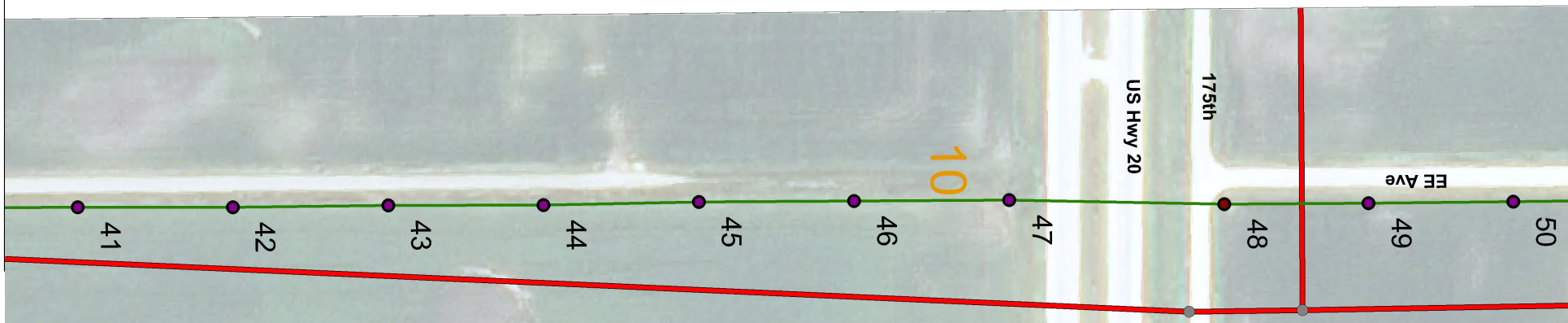
System Improvement

Primary Wire Size: 1/0-ACSR

Ruling Span: 242

Phase: A

POLE NUMBER	E R OR C	PRIMARY						GUY & ANCHOR			SECONDARY			METER OR LOOP	MISCELLANEOUS AND REMARKS	
		BACK SPAN (FT.)	WIRE SIZE	POLE HEIGHT & CLASS	PRIMARY UNIT	LINE ANG	MISC UNIT	XFMR UNIT	GRND UNIT	GUY UNIT	LEAD	ANCHOR UNIT	UNIT "J OR K"			SPAN FEET
41	C	231	(462) 1/0-ACSR	40-5	A1.1-1/0	1										
42	C	231	(462) 1/0-ACSR	40-5	A1.1-1/0	0										
43	C	231	(462) 1/0-ACSR	40-5	A1.1-1/0	-1	H1.1-1/0									
	C			P1.1-1/0												
44	C	231	(462) 1/0-ACSR	35-5	A1.1-1/0	1										
45	C	231	(462) 1/0-ACSR	35-5	A1.1-1/0	-2										
46	C	231	(462) 1/0-ACSR	40-5	A1.1-1/0	1										
47	C	231	(462) 1/0-ACSR	45-3	A1.1-1/0	0										CL = 124, st= 182+96
48	C	320	(640) 1/0-ACSR	45-3	A1.1-1/0	2	H1.1-1/0		E1.1		F1.12					CL=196, st= 182+96
	C				A5.1-1/0											
49	C	215	(430) 1/0-ACSR	40-5	A1.1-1/0	-2	H1.1-1/0									
	C			P1.1-1/0												
50	C	215	(430) 1/0-ACSR	35-5	A1.1-1/0	0										



Action	Conductor	Wire Feet	No. of Wires	Pole Line
C	1/0-ACSR	4734	2	2367
*	<b>UNITS</b>			<b>REQ.</b>
C	1/0-ACSR			4734
C	35-5			3
C	40-5			5
C	45-3			2
C	A1.1-1/0			10
C	A5.1-1/0			1
C	E1.1			1
C	F1.12			1
C	H1.1-1/0			3
C	P1.1-1/0			2

Name:

# Midland Power Cooperative

WO No.: 13392

740c#: 305

LOCATION: 1572--6703,10,14,15

## STAKING SHEET

ADDRESS:

Substation: 15 - Buckeye

County: Hardin

Staked By: CASSANDRA DATE: 05/07/2020

Phone:

Feeder: 1570

Township: T88N

SHEET NO.: 6

OF: 7

Phase: A

Range: R22W

Completed By:

DATE:

Line Section:

School Dist:

Work Order Type:

System Improvement

Primary Wire Size: 1/0-ACSR

Ruling Span: 196

Phase: A

POLE NUMBER	E R OR C	PRIMARY						GUY & ANCHOR			SECONDARY			METER OR LOOP	MISCELLANEOUS AND REMARKS
		BACK SPAN (FT.)	WIRE SIZE	POLE HEIGHT & CLASS	PRIMARY UNIT	LINE ANG	MISC UNIT	XFMR UNIT	GRND UNIT	GUY UNIT	LEAD	ANCHOR UNIT	UNIT "J OR K"		
51	C	215	(430) 1/0-ACSR	35-5	A1.1-1/0	0									
52	C	215	(430) 1/0-ACSR	35-5	A1.1-1/0	0									
53	C	215	(430) 1/0-ACSR	35-5	A1.1-1/0	0									
54	C	215	(430) 1/0-ACSR	P1.1-1/0	A1.1-1/0	0	H1.1-1/0								
	C			40-5											
55	C	215	(430) 1/0-ACSR	40-5	A1.1-1/0	0	H1.1-1/0	G1.3-1/0				J2.1T-1/0			1572-025/028
56	C	164	(328) 1/0-ACSR	40-5	A4.1-1/0	0	H1.1-1/0		E1.1	F1.12					
57	C	68	(136) 1/0-ACSR	40-5	A4.1-1/0	-90	H1.1-1/0		E1.1	F1.12					1572-029
	C				UA1										
58	C	175	(350) 1/0-ACSR	40-5	A1.1-1/0	90									
59	C	175	(350) 1/0-ACSR	40-5	A1.1-1/0	0									
60	C	175	(350) 1/0-ACSR	40-5	A1.1-1/0	0									



Action	Conductor	Wire Feet	No. of Wires	Pole Line
C	1/0-ACSR	3664	2	1832
*	<b>UNITS</b>			<b>REQ.</b>
C	1/0-ACSR			3664
C	35-5			3
C	40-5			7
C	A1.1-1/0			8
C	A4.1-1/0			2
C	E1.1			2
C	F1.12			2
C	G1.3-1/0			1
C	H1.1-1/0			4
C	J2.1T-1/0			1
C	P1.1-1/0			1
C	UA1			1

Name:

# Midland Power Cooperative

WO No.: 13392

740c#: 305

LOCATION: 1572--6703,10,14,15

## STAKING SHEET

ADDRESS:

Substation: 15 - Buckeye

County: Hardin

Staked By: CASSANDRA DATE: 05/07/2020

Phone:

Feeder: 1570

Township: T88N

SHEET NO.: 7

OF: 7

Phase: A

Range: R22W

Completed By:

DATE:

Line Section:

School Dist:

Work Order Type:

System Improvement

Primary Wire Size: 1/0-ACSR

Ruling Span: 210

Phase: A

POLE NUMBER	E R OR C	PRIMARY						GUY & ANCHOR			SECONDARY			METER OR LOOP	MISCELLANEOUS AND REMARKS
		BACK SPAN (FT.)	WIRE SIZE	POLE HEIGHT & CLASS	PRIMARY UNIT	LINE ANG	MISC UNIT	XFMR UNIT	GRND UNIT	GUY UNIT	LEAD	ANCHOR UNIT	UNIT "J OR K"		
61	C	226	(452) 1/0-ACSR	40-5	A1.1-1/0	0									
62	C	226	(452) 1/0-ACSR	40-5	A1.1-1/0	0	H1.1-1/0								
	C			P1.1-1/0											
63	C	194	(388) 1/0-ACSR	40-5	A1.1-1/0	0									
64	C	194	(388) 1/0-ACSR	40-5	A1.1-1/0	0									
65	C	222	(444) 1/0-ACSR	40-5	A1.1-1/0	-1									Set 10' Deep
66	C	222	(444) 1/0-ACSR	35-5	A1.1-1/0	-1									
67	C	222	(444) 1/0-ACSR	35-5	A1.1-1/0	0	H1.1-1/0								
	C			P1.1-1/0											
68	C	222	(444) 1/0-ACSR	35-5	A1.1-1/0	0	H1.1-1/0	G1.3-1/0				J2.1T-1/0			1572-031
69	C	173	(346) 1/0-ACSR	35-5	A1.1-1/0	0									
70	C	173	(346) 1/0-ACSR	35-5	A3.1-1/0	1	H1.1-1/0		E1.1		F1.12				1572-034



Action	Conductor	Wire Feet	No. of Wires	Pole Line
C	1/0-ACSR	4148	2	2074
*	UNITS			REQ.
C	1/0-ACSR			4148
C	35-5			5
C	40-5			5
C	A1.1-1/0			9
C	A3.1-1/0			1
C	E1.1			1
C	F1.12			1
C	G1.3-1/0			1
C	H1.1-1/0			4
C	J2.1T-1/0			1
C	P1.1-1/0			2



# Drainage Utility Permit Application

## Hardin County

**Applicant:** Midland Power Coop - Casey Huff

**Contact Email:** chuff@midland power.coop

**Contact Phone:** (515) 386-4111

**Utility Type:** N/A - Utility Permits Only

**Drainage District:** DDs\DD 10 (51023)

**Description of Work:** Midland Power Cooperative - Rebuilding 3 miles overhead electrical distribution, Buckeye Township, Sections 3, 20, 14 and 15.

Pursuant to Code of Iowa Section 468.186, approval is hereby requested for the right, privilege and authority to construct, operate and maintain utilities on, over, across or beneath established Hardin County Drainage Districts, subject to the attached Requirements for Construction On, Over, Across or Beneath Established Drainage Districts. Failure to comply with said requirements shall be ground for revocation of the permit by the Hardin County Board of Supervisors.

\_\_\_\_\_  
**Applicant Signature**

\_\_\_\_\_  
**Date**

**Submit Form and Location Plan To:** Hardin County Auditor's Office  
Attn: Drainage Clerk  
1215 Edgington Ave, Suite 1  
Eldora, IA 50627  
Phone (641) 939-8111  
Fax (641) 939-8245  
drainage@hardincountyia.gov

*For Office Use Only*

**Application Approval:**

**By:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
*Board of Supervisor Chairman, Acting as Drainage District Trustee*

**APPROVED PERMIT #:** 2020-11

Application in TCM  
 GIS Annotation  
 Approval Emailed

**ORDINANCE NO. 29**

**AMENDMENT NUMBER 4**

**ARTICLE XXIII. NON-COMMERCIAL WIND ENERGY CONVERSION SYSTEM PERMITTED USES AND COMMERCIAL CONDITIONAL USE WIND ENERGY CONVERSION SYSTEM STANDARDS.**

**Section 1. PURPOSE.**

The purpose of this Article is to provide a regulatory means for the construction and operation of large and small wind energy facilities in Hardin County, subject to reasonable restrictions, which will preserve the public health, safety, and welfare. Hardin County adopts these provisions to promote the effective and efficient use of the County's wind energy resource.

Findings. Hardin County finds and declares that:

1. Wind energy is an abundant, renewable and nonpolluting energy resource of the County and its conversion to electricity may reduce dependence on nonrenewable energy sources and decrease the air and water pollution that results from the use of conventional energy sources.
2. The generation of electricity from properly sited wind energy facilities, including small systems, can be cost effective and in many cases existing power distribution systems can be used to transmit electricity from wind-generating stations to utilities or other uses, or energy consumption at that location can be reduced.
3. Regulation of the siting and installation of wind energy facilities is necessary for the purpose of protecting the health, safety, and welfare of neighboring property owners and the general public.
4. Wind energy facilities represent significant potential aesthetic impacts because of their size, lighting, and shadow flicker effects, if not properly sited.
5. If not properly sited, wind energy facilities may present risks to the property values of adjoining property owners.
6. Wind energy facilities may be significant sources of noise, which, if unregulated, can negatively impact adjoining properties.
7. Without proper planning, construction of wind energy facilities can create traffic problems and damage local roads.
8. If not properly sited, wind energy facilities can interfere with various types of communications.

**Section 2. DEFINITIONS.**

**Facility Owner** shall be the entity or entities having an equity interest in the wind energy facility, including their respective successors and assigns.

**Facility Operator** is the entity responsible for the day-to-day operation and maintenance of the Wind Energy Facility.

**Feeder Line** shall mean any power line that carries electrical power from one or more wind turbines or individual transformers associated with individual wind turbines to the point of interconnection with the electric power grid, in the case of interconnection with the high voltage transmission systems the point of interconnection shall be the substation serving the wind energy conversion system.

**Dwelling Unit** shall mean structures which are meant to and capable of being used for human habitation such as a house, apartment, or other place of residence.

**Non-Dwelling Unit** shall mean structures which are not meant to be used for human habitation such as a garage, storage shed, grain bin, animal confinement buildings, etc.

**Rotor Diameter** shall mean the diameter of the circle described by the moving rotor blades.

**Total Height** shall mean the highest point, above ground level, reached by a rotor tip or any other part of the Wind Energy Conversion System.

**Tower Height** shall mean the total height of the Wind Energy Conversion System exclusive of the rotor blades.

**Commercial WECS (C-WECS)** shall mean a wind energy conversion system of equal to or greater than 100 kW in total name plate generating capacity.

**Meteorological Tower** shall mean, for purposes of this regulation, a tower which is erected primarily to measure wind speed and directions plus other data relevant to siting a Wind Energy Conversion System. Meteorological towers to not include towers and equipment used by airports, the Iowa Department of Transportation, or other applications to monitor weather conditions.

**Non-Commercial WECS** shall mean a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of less than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

**Wind Energy Conversion System (WECS)** shall mean an electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transformers, substations, and meteorological towers that operate by converting the kinetic energy of wind into electrical energy. The energy may be used on-site or distributed into the electrical grid.

**Wind Turbine** shall mean any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy through the use of airfoils or similar devices to capture the wind.

**Section 3. "A", AGRICULTURAL DISTRICT; "R-1", SINGLE-FAMILY RESIDENTIAL; "R-2", MULTI-FAMILY RESIDENTIAL; "R-3", MOBILE HOME PARK DISTRICT; "C", COMMERCIAL DISTRICT; "M", MANUFACTURING DISTRICT.**

**PERMITTED USES:**

Non-Commercial WECS, subject to the following standards:

1. Tower Height: Parcels smaller than one (1) acre are not recommended for the placement of WECS and must seek a Conditional Use Permit. For property sizes between one (1) acre and two (2) acres the Total Height shall be limited to eighty (80) feet. For property sizes of two (2) acres or more, there is no limitation on tower height, except as imposed by FAA regulations.
2. Setback: No part of the wind system structure, including guy wire anchors, may extend closer than ten (10) feet to the property boundaries of the installation site.

3. Noise: Non-Commercial WECS shall not exceed 60 dBA, as measured at the closest neighboring inhabited dwelling. The level, however, may be exceeded during short-term events such as utility outages and/or severe windstorms.
4. Engineer Certification: Applications for Non-Commercial WECS shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. An engineering analysis of the tower showing compliance with the applicable regulations and certified by a licensed professional engineer shall also be submitted. This analysis is frequently supplied by the manufacturer.
5. Compliance with FAA Regulations: Non-Commercial WECS must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
6. Compliance with National Electric Code: Applications for Non-Commercial WECS shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code. This information is frequently supplied by the manufacturer.
7. Utility Notification: No Non-Commercial WECS shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

#### **Section 4. CONDITIONAL USE PERMITS FOR NON-COMMERCIAL WECS AND C-WECS STANDARDS.**

- Non-Commercial WECS may be constructed as a principal or accessory use as outlined in **Table 2**. Non-Commercial WECS that are constructed as an accessory use to a principal permitted use and meet the setback (**see Table 1**), height (**see Section 3.I.1(a)**), and power output requirements (**see definition of Non-Commercial WECS**) of this section, shall not require a Conditional Use Permit approval, and shall only require building permit approval. All Non-Commercial WECS that are constructed as a principal permitted use, or Non-Commercial WECS that do not meet the setback, height, or power output requirements of this section, shall require Conditional Use Permit approval as set forth in **Section 4, General Requirements**.
- C-WECS shall be permitted as a Conditional Use within any district where the use is listed and allowed. (**See Table 2**)
- No C-WECS, or addition of a Wind Turbine to an existing C-WECS, shall be constructed unless a Conditional Use Permit has been issued to the Facility Owner or Facility Operator approving construction of the facility under this ordinance. Permit application of the expansion shall be based on the total rated capacity, including existing facility but excluding like-kind replacements.
- Any physical modification to an existing and permitted WECS that materially alters the size and/or type of Wind Turbines or other equipment shall require a permit modification under this Ordinance. Like-kind replacements shall not require a permit modification.

#### **1. GENERAL REQUIREMENTS**

The requirements of this Ordinance shall apply to all WECS proposed after the effective date of this Ordinance. WECS for which a required permit has been properly issued prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance; provided, that any such pre-existing C-WECS, which does not provide energy for a continuous period of twelve (12) months, shall meet the requirements of this Ordinance prior to recommencing production of energy. Also, no modification or alteration to an

existing WECS shall be allowed without full compliance with this Ordinance. The Hardin County Zoning Director shall be responsible for creating a Conditional Use Permit Application for WECS to ensure substantial compliance with this ordinance.

**General Requirements for C-WECS:**

- a. **Color and Finish.** Wind Turbines shall be painted a non-reflective color. Blades may be black in order to facilitate de-icing. Finishes shall be matte or non-reflective. At C-WECS sites, the design of the buildings and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the C-WECS to the natural setting and existing environment. Exceptions may be made for meteorological towers, where concerns exist relative to aerial spray applicators.
- b. **Tower configuration.** All wind turbines, which are part of a C-WECS, shall be installed with a tubular, monopole type tower. Meteorological towers may be guyed.
- c. **Lighting.** C-WECS sites shall not be artificially lighted, except to the extent required by the FAA or other applicable authority. Lighting, including lighting intensity and frequency of strobe, shall adhere to but not exceed requirements established by Federal Aviation Administration permits and regulations. Red strobe lights are preferred for night-time illumination to reduce impacts on migrating birds. Red pulsating incandescent lights should be avoided. Exceptions may be made for meteorological towers, where concerns exist relative to aerial spray applicators.
- d. **Signage.** All signage on site shall comply with Hardin County Sign Standards. The manufacturer's or owner's company name and/or logo may be placed upon the compartment containing the electrical generator, of the WECS. Wind turbines shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the C-WECS sites.
- e. **Feeder Lines.** All communications and feeder lines, equal to or less than 34.5 kV in capacity, installed as part of a C-WECS shall be buried according to Hardin County Engineer unless set forth in other applicable requirements.
- f. **Waste Disposal.** Solid and hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oils and lubricants, shall be removed from the site in a time period as established by the Hardin County Health Department and disposed of in accordance with all applicable local, state, and federal regulations.
- g. **Minimum Ground Clearance.** The blade tip of any Wind Turbine shall, at its lowest point, have ground clearance of no less than seventy-five (75) feet.
- h. **Signal Interference.** The applicant shall minimize and mitigate any interference with electromagnetic communications, such as radio, telephone or television signals caused by any WECS.
- i. **Federal Aviation Administration.** All C-WECS shall comply with FAA standards and permits.
- j. **Electrical Codes and Standards.** All C-WECS and accessory equipment and facilities shall comply with the National Electrical Code and other applicable standards.
- k. **Safety.**



- I. All wiring between wind turbines and the C-WECS substation shall be underground. If the developer can demonstrate the need for an overhead line and the acceptance of landowners for this line, such option may be approved conditionally by the Board of Adjustment upon recommendation from the County Engineer.
- II. Wind turbines and meteorological towers shall not be climbable up to 15 feet above ground level.
- III. All access doors to wind turbines and meteorological towers and electrical equipment shall be locked when not being serviced.
- IV. Appropriate warning signage shall be placed on Wind Turbine towers, electrical equipment, and C-WECS entrances.
- V. See **tables 1 and 2** for setback requirements. These setbacks and separation requirements shall apply to all wind turbines and meteorological towers; provided that the Board of Adjustment upon request of the land owner and recommendation by the Zoning Commission, after giving notice and opportunity for objection from any entity entitled to notice under the procedures contained below herein, may reduce the standard setbacks and separation requirements if the intent of this Ordinance would be better served thereby.
- VI. For all C-WECS, the manufacturer's engineer or another qualified engineer shall certify that the turbine, foundation and tower design of the C-WECS is within accepted professional standards, given local soil and climate conditions.
- VII. For all guyed towers, visible and reflective objects, such as plastic sleeves, reflectors or tape, shall be placed on the guy wire anchor points and along the outer and innermost guy wires up to a height of eight (8) feet above the ground. Visible fencing shall be installed around anchor points of guy wires. The property owner must sign a notarized acknowledgement and consent form allowing construction of the turbine and guyed wires without fencing as required in this Ordinance to be presented to the Commission and Board of Adjustment.
- VIII. Landowners shall be given notice and opportunity to object to any variance request regardless of any agreement or waiver to the contrary.
  - I. **Noise.** Audible noise due to C-WECS sites operations shall not exceed sixty (60) dBA for any period of time, when measured at any dwelling, school, hospital, church, public library, long-term care facility, and early care and education facility existing on the date of approval of any conditional use permit from the property line. In the event audible noise due to C-WECS operations contains a steady tone, such as a whine, screech, or hum, the standards for audible noise set forth in subparagraph a of this subsection shall be reduced by five (5) dBA. In the event the ambient noise level (exclusive of the development in question) exceeds the applicable standard given above, the applicable standard shall be adjusted so as to equal the ambient noise level. The ambient noise level shall be expressed in terms of the highest whole number sound pressure level in dBA, which is succeeded for more than five (5) minutes per hour. Ambient noise levels shall be measured at the exterior of potentially affected existing residences, schools, hospitals, churches, public libraries, long-term care facility, and early care and education facility. Ambient noise level measurement techniques shall employ all practical means of reducing the effect of wind generated noise at the microphone. Ambient noise level

measurements may be performed when wind velocities at the proposed project site are sufficient to allow wind turbine operation, provided that the wind velocity does not exceed thirty (30) mph at the ambient noise measurement location. In the event the noise levels resulting from the C-WECS exceed the criteria listed above, a waiver to said levels may be granted by the Board of Adjustment upon recommendation by the Commission provided that the following has been accomplished:

Written consent from the affected property owners has been obtained stating that they are aware of the C-WECS and the noise limitations imposed by this Ordinance, and that consent is granted to allow noise levels to exceed the maximum limits otherwise allowed; and

If the applicant wishes the waiver to apply to succeeding owners of the property, a permanent noise impact easement shall be recorded in the Office of the Hardin County Recorder which describes the burdened properties and which advises all subsequent owners of the burdened property that noise levels in excess of those permitted by this Ordinance may exist on or at the burdened property.

- m. The Facility Owner shall designate and provide as part of the application, and shall maintain at the office of the Director, the name and contact information of a local agent (local meaning a person whose residence is in Hardin County, Iowa, or a business with its primary place of business or its registered agent located in Hardin County, Iowa, as listed with the Iowa Secretary of State). The Facility Owner shall authorize the local agent to accept service of legal notice and be served legal notice and can be a first point-of-contact by the public.

## **2. Avoidance and Mitigation of Damages to Public Infrastructure:**

### **a. Roads.**

- a. The applicant shall identify all county, municipal, or township roads to be used for the purpose of transporting C-WECS, substation parts, cement, and/or equipment for construction, operation, maintenance, and decommissioning of the C-WECS and obtain applicable weight and size permits from the impacted jurisdictions prior to construction.
- b. At applicant's cost, the applicant shall conduct a pre-construction survey, in coordination with the appropriate jurisdictions to determine existing road conditions. The survey shall include photographs and a written agreement to document the condition of the public road. The applicant is responsible for ongoing road maintenance and dust control measures identified by the Hardin County Engineer during all phases of construction.
- c. The applicant shall be responsible for restoring or paying damages as agreed to by the applicable road authority sufficient to restore the identified road(s), bridge(s), and associated infrastructure to preconstruction conditions. Financial security in a manner approved by the County Attorney shall be submitted covering 130% of the costs of all required improvements.

- d. A separate road agreement which clearly lays out the rights and obligations of the county and applicant with respect to the construction, maintenance, and use of county roads in connection with development and removal of the C-WECS will be required prior to the start of construction and shall be made a condition to the site plan review and approval of the C-WECS permit.

**b. Drainage.**

- a. The applicant shall be responsible for immediate repair of damage to public drainage systems stemming from construction, operation, maintenance and decommissioning of the C-WECS. For each C-WECS permit application that includes an area with a public drainage system, the applicant shall provide and maintain a security deposit in the amount of \$50,000.00 to be held in escrow by Hardin County and to be used by Hardin County at its discretion to make repairs during the productive life of the C-WECS.
- b. To complete such repairs, the applicant shall consult with the County Engineer and if recommended by the County Engineer hire appropriate contractor(s) with the approval of the County Engineer, with said costs to be paid from the security deposit.
- c. Regarding an application that is within a drainage district, the applicant must apply for a Wind Turbine Drainage District Utility Permit and include the approved permit with their application for C-WECS.

**3. Discontinuation and Decommissioning**

The Facility Owner shall provide to the Director proof of energy production every three (3) months per Commercial Wind Turbine. A C-WECS shall be considered a discontinued use after twelve (12) months without energy production, unless a plan is developed and submitted to and approved by the Director within that time outlining the steps and schedule for returning the C-WECS to service within six (6) months of approval. All discontinued C-WECS and accessory facilities shall be removed to six (6) feet below ground level or to the level of the bedrock if less than six (6) feet below ground level within twelve (12) months of the discontinuation of use. Each C-WECS shall have a decommissioning plan on file as part of the permit application, outlining the anticipated means and cost of removing C-WECS at the end of their serviceable life or upon becoming a discontinued use. The cost estimates shall be made by a professional engineer licensed in the State of Iowa and approved by the County Engineer. The plan (required under Section 5.2(n) below) shall also expressly agree to provide at the County's request, no more often than annually, the financial resources available to pay for the decommissioning and removal of the C-WECS and accessory facilities which shall include cash reserves, profit/loss statement, assets and liabilities, and signed guarantees from any lender holding an interest in the C-WECS or in any assets pledged as securities by the Facility Owner or assigns. Financial security in a manner approved by the County Attorney shall be submitted covering 130% of the costs of decommissioning. The County reserves the right to verify that adequate decommissioning terms are contained in the landowner easement.

## Section 5. PROCEDURES.

1. A Conditional Use Permit Application must be submitted for each individual applicable Wind Turbine with the applicable fee. This does not prohibit joint proceedings, including notices, public hearings, reviews and approvals as appropriate. The Director is hereby authorized to establish the content and form of the Conditional Use Permit Application consistent with this ordinance.
2. In addition to submittal requirements defined for Conditional Use Permit Applications, all applications for WECS shall include the following information in form and substance approved by the Director:
  - a. The name(s) and address of the project applicant.
  - b. The name of the project owner.
  - c. The legal description of the site where the development is planned.
  - d. A description of the project including number, type, name plate generating capacity, tower height, rotor diameter, and total height of all wind turbines and means of interconnecting with the electrical grid.
  - e. Site layout, including location of property lines, wind turbines, electrical wires, interconnection points with the electrical grid, all related accessory structures, and all areas to be used for staging during construction or for maintenance, including distances and drawn to scale.
  - f. Engineer's certification(s) as required in these supplemental standards.
  - g. Documentation of land ownership or legal control of the property.
  - h. The latitude and longitude of individual wind turbines.
  - i. A USGS topographical map, or map with similar data, of the property and surrounding area, including any other WECS within 10 rotor diameters of the proposed WECS.
  - j. Existing Resources Inventory. This should include assets and liabilities and executory energy contracts.
  - k. An acoustical analysis.
  - l. Approved FAA Permit Application.
  - m. Location of all known communications towers/facilities within two (2) miles of the proposed WECS.
  - n. Decommissioning plan.
  - o. Description of potential impacts on all nearby WECS and other wind resources on adjacent properties.
  - p. Identification of significant migratory patterns and nesting areas for birds within two (2) miles.
  - q. Proof of liability insurance.
  - r. The Facility Owner/Facility Operator shall be responsible for obtaining and submitting to the Director, at the time the Conditional Use Permit Application is made, showing the names and last known addresses of the owners of all property **within 5,280 feet (1 mile)** of the perimeter of the total project development site containing wind energy device(s). Prior to the approval for such Conditional Use Permit, notice shall be given by the Director by ordinary mail to all adjacent property owners and owners of property within 5,280 feet (1 mile) of the proposed site(s) for which the conditional use is requested.
3. The WECS applicant is responsible in notifying the following state or federal agencies of their planned project and allowing said entities 120 days to do a preliminary review. Documentation of notification by certified mail to these agencies, and any reports from the agencies must be provided to the county 30 days prior to the Board of Adjustment first public hearing on the matter. If the

entity does not act within 120 days, the plan may be deemed approved by the entity. It is recommended that any issues be addressed prior to the public hearing.

- Army Corps of Engineers
- Bureau of Land Management
- U.S. Fish and Wildlife
- U.S. Department of Agriculture (Local FSA and NRCS)
- Environmental Protection Administration (EPA)
- Federal Communications Commission (FCC)
- National Weather Service
- Iowa Pipeline Association

4. The WECS applicant is responsible in notifying the following boards, commissions, and bodies of their planned project and allowing said entities 120 days to do a preliminary review. The WECS application must have attached to it written approval or denial from each and every board, commission, and body listed below. An incomplete application will not be considered. A completed application will contain written verification of approval or denial from each and every board, commission, and body listed below. Such approval or denial shall be on a form provided by the Director. No application will be approved without the written approval of all the below-listed boards, commissions, and bodies. In the event of a denial, by a board, commission, or body listed below the applicant and applicable body, commission, or body listed below shall make a good faith effort to resolve the reason for the denial. An aggrieved applicant can then seek relief from the Board of Adjustment.

- Hardin County Conservation Board
- Hardin County E911 Service Board
- Hardin County Emergency Management Commission
- Private and Public Hardin County Drainage District Trustees
- Hardin County Drainage Clerk
- Hardin County and local EMS Fire and Rescue
- Hardin County Engineer's Office
- Hardin County Firemen's Association
- Hardin County EMS Council
- Hardin County Solid Waste Commission
- Hardin County Board of Health
- Iowa River Trail – Hardin Commission
- Pioneer Cemetery Commission
- Iowa Falls Airport
- Eldora Airport
- Ackley Airport
- Radcliffe Airport
- South Fork Watershed Alliance

**Section 6. RECORDING REQUIREMENT**

The applicant shall be responsible for recording with the Hardin County Recorder’s Office, within 60 days of completed construction of each C-WECS structure, documentation sufficient to identify by longitude and latitude and depth of all structures and underground utilities comprising each C-WECS, for deed and abstracting purposes.

**Section 7. FEES.**

The building permit fee and conditional use permit fee per tower shall be set by the Hardin County Board of Supervisors. This fee is due upon submission of application for a WECS project. Please see attached fee schedule.

**Section 8. SEVERABILITY CLAUSE.**

If any section, provision, or part of this ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of this ordinance as a whole or any section, provision, or part thereof not adjudged invalid or unconstitutional.

**Section 9. EFFECTIVE DATE.**

That this ordinance shall be effective immediately upon adoption and publication as provided by law. By enactment, the previous Article XXIII of Ordinance No. 29 (Hardin County Zoning Ordinance) is hereby repealed.

**TABLE 1****Setback Requirements for Non-Commercial WECS, C-WECS, and Meteorological Towers**

	Non-Commercial WECS	Commercial WECS	Meteorological Tower
Property Lines**	2 X Total Height	2 X Total Height	2 X Total Height
Dwelling Units†	Greater of Manufacturer's Recommended Safety Setback Distance or 3 X Total Height	Greater of Manufacturer's Recommended Safety Setback Distance or 3 X Total Height	Greater of Manufacturer's Recommended Safety Setback Distance or 3 X Total Height
Non-Dwelling Units†	2 X Total Height	2 X Total Height	2 X Total Height
Public Right-of-Way**	2 X Total Height	2 X Total Height	2 X Total Height
Communication or Electrical Lines	2 X Total Height	2 X Total Height	2 X Total Height
Cemeteries	2 X Total Height	2 X Total Height	2 X Total Height
Other WECS	NONE	(1.1 X Total Height of Turbine 1) + (1.1 X Total Height of Turbine 2)	NONE

\*Distance may be satisfied in whole or in part through acquisition of an easement from adjacent property owner

\*\*Including above ground utility such as railroad and power lines

† A waiver could be obtained from affected property owners to lower this setback requirement to no less than 1.1 X the Total Height

**TABLE 2****Zoning District Regulations for Use of Non-Commercial WECS, C-WECS, and Meteorological Towers**

	Non-Commercial WECS	Commercial WECS	Meteorological Tower
Agricultural (A)	A	CUP	CUP
Commercial (C)	A	CUP	CUP
Conservation-Greenbelt (G)	X	X	X
Manufacturing (M)	A	CUP	CUP
Mobile Home Park (R-3)	A	X	X
Multi-Family Residential (R-2)	A	X	X
Single-Family Residential (R-1)	A	X	X
Wilderness Preserve (W)	X	X	X

CUP – Requires a Conditional Use Permit, A – Allowed, X – Not allowed



# HARDIN COUNTY

1215 EDGINGTON AVE., SUITE 1  
ELDORA, IA 50627  
(641) 939-8108

## HARDIN COUNTY DRAINAGE DISTRICT UTILITY PERMIT APPLICATION

Applicant:

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City State Zip

Applicant Contact:

\_\_\_\_\_  
Name (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  
Phone

\_\_\_\_\_  
Email

Utility Type:

\_\_\_\_\_

Drainage District(s) Crossed:

\_\_\_\_\_

Facilities Crossed (specific tile, open ditch):

\_\_\_\_\_

Description of Work:

\_\_\_\_\_

*(Location plan of  
proposed utility must  
be attached.)*

\_\_\_\_\_

\_\_\_\_\_

Pursuant to Code of Iowa Section 468.186, approval is hereby requested for the right, privilege and authority to construct, operate and maintain utilities on, over, across or beneath established Hardin County Drainage Districts, subject to the attached Requirements for Construction On, Over, Across or Beneath Established Drainage District. Failure to comply with said requirements shall be ground for revocation of the permit by the Hardin County Board of Supervisors.

\_\_\_\_\_  
Applicant Signature

\_\_\_\_\_  
Date

Submit Form and Location Plan To:

Hardin County Auditor's Office  
Attn: Drainage Clerk  
1215 Edgington Ave, Suite 1  
Eldora, IA 50627  
Fax (641) 939-8225  
[drainage@hardincountyia.gov](mailto:drainage@hardincountyia.gov)

*For Office Use Only*

Application Approval:

By: \_\_\_\_\_  
*Board of Supervisor Chairman, Acting as Drainage District Trustee*

Date: \_\_\_\_\_

**APPROVED PERMIT #:** \_\_\_\_\_





## REQUIREMENTS FOR CONSTRUCTION ON, OVER, ACROSS OR BENEATH ESTABLISHED DRAINAGE DISTRICT

Upon issuance of a permit for utilities on, over, across or beneath established Hardin County Drainage Districts, the applicant shall be governed by these requirements and shall comply with all conditions contained herein.

1. The Applicant shall furnish the Drainage District, or its representative, plats showing the exact location of the proposed construction. If it is found that such locations are in conflict with the present or proposed facilities and that a more desirable location is possible, the Applicant shall review such possible alignment changes. **No construction is to commence with the drainage facility without an approved application.**
2. Applicant shall comply with Iowa One-Call requirements prior to commencing any work.
3. The Drainage District shall provide Applicant access to maps or other information regarding the location of all known drainage district facilities so that reasonable care may be taken by Applicant to avoid un-necessary damage to said drainage district facilities.
4. The Applicant shall hold the Drainage District harmless from any damage that may result to the Drainage District facility because of the construction or maintenance of the utility, and shall reimburse the Drainage District for any expenditures that the Drainage District may have to make on said Drainage District facilities resulting from Applicant's construction and installation of utilities, or their subsequent repair or modification.
5. The Applicant shall take all reasonable precaution during the construction of said utility to protect and safeguard the lives and property of the public and adjacent property owners and shall hold the Drainage District harmless from any damages or losses that may be sustained by adjacent property owners on account of such construction operations. Further, Applicant agrees to replace, repair or reimburse all damages to private property occasioned by Applicant's installation of subsequent modification or repairs.
6. The Drainage District assumes no responsibility for damages to the Applicants property occasioned by any construction or maintenance operation of said Drainage District facilities, subsequent to Applicants installation.
7. A copy of a certificate of insurance naming the County/Drainage District as additional insured for their permit work shall be provided to the County Auditor prior to installation. The limit of liability under the insurance policy shall not be less than \$1,000,000 per occurrence.
8. The Applicant agrees to give the Drainage District twenty-four (24) hours (Saturday and Sunday excluded) notice of its intention to commence construction on any lands within the jurisdiction of the Drainage District. Said notice shall be made in writing to the County Auditor or to the designated Drainage District representative.
9. The Applicant agrees to place permanent, visible markers or monuments at locations where utility crosses Drainage District facilities. These monuments or markers shall identify the owners name, address and phone number.
10. The Drainage District Trustees may appoint a representative to inspect and approve all construction across Drainage District facilities as part of this permit. All compensation, wages, mileage and other expenses for this representative will be paid by the Applicant. It will be the responsibility of the Applicant to make all contacts with private parties (adjacent owners/operators) to determine the location of private drainage facilities. Said representative will also inspect all crossing of Drainage District facilities and may, if required, observe the crossing of private drainage facilities, and shall have the authority to require the Applicant to excavate and expose the crossing of any Drainage District facility where the representative believes it prudent to visually examine Applicants crossing of the Drainage District facility. Further, said representative has the authority to suspend construction and installation by the Applicant within any Drainage District jurisdiction by verbal order to the contractor at the site and a telephone call to Applicants contact person listed on page 1 within six (6) hours of the verbal order.



11. The construction and maintenance of Applicants installation shall be carried on in such a manner as to not interfere with or interrupt the function of said Drainage District facilities without the express written consent of the Drainage District Representative. In the event it becomes necessary to temporarily stop the flow of water, the following shall be completed by the Applicant:
  - a. If the crossing involves a tile line, the replacement of tile with approved materials, in the manner approved by the Drainage Districts designated representative, shall be performed as rapidly as possible. If the approved method of repair is impossible and the volume of water flowing in the tile is sufficient to create the possibility of crop loss or property damage, the Contractor will be permitted to temporarily block the tile line to prevent the flow of this tile water into the pipeline, or tile line ditch. In the event this tile line is so temporarily blocked, the Contractor will be expected to provide sufficient pumping equipment to pump the impounded tile water across the construction ditch to the undisturbed tile line. Such temporary blockages of said Drainage District tile lines will be removed as rapidly as possible and any tile repairs caused by this blockage will be immediately repaired at the Applicants expense.
  - b. If the crossing involves an open ditch that is carrying sufficient flow of water to make it necessary to place a temporary dam across said open ditch, such temporary dams may be constructed only upon approval from the Drainage District designated representative. The maximum elevation of this impounded water shall be determined by the designated Drainage District representative and all excess water must be allowed to flow across the construction ditch through either a closed metal culvert pipe or by pumping. All temporary dam structures are to be removed as soon as the crossing is completed. The construction and removal of these dams shall be in such a manner that the smooth and efficient function of the drainage ditch is not impaired, with all costs and damages borne by Applicant.
12. The Applicant will at any time subsequent to the commencement of construction, and at Applicants sole expense, reconstruct or replace its installation as may be necessary to conform to new grade or alignments resulting from maintenance or construction operations by the Drainage District in connection with any of its drainage facilities. Applicant agrees to do this within forty-five (45) days of receipt of written request from the Drainage District, or such longer time period as the Drainage District may specify, without cost to the Drainage District. Such reconstruction or realignment of Applicants improvements shall be made in accordance with and approved by the Drainage District or its designated representative. If the Applicant is unable to comply within the time period specified above, the Drainage District may cause the work to be done and the Applicant will pay the cost thereof upon receipt of a statement of such costs.
13. **CROSSING OF OPEN DITCH FACILITIES.** Utility crossings shall be constructed as follows, as directed by the designated representative of the Drainage District:
  - a. Passage of installation in a horizontal plane five feet (5') below design grade of drainage ditch, as established by the Drainage District representative.
  - b. The above depth to extend to a point two (2) times the design base width of ditch either side of centerline of drainage ditch (measured along the centerline of utility) unless the existing base width is greater than the design bases width. If the existing base width is greater than the design with, the depth is to extend to a point two (2) times the existing width.
  - c. The rate of slope for transition from normal utility laying depth of crossings of drainage ditches shall not be steeper than 4:1.
  - d. If such ditch crossings occur at points of outlets of Drainage District or private tile lines or within twenty-five feet (25') of said outlets, such outlets must be relocated to a point not less than twenty-five feet (25') from such crossings. Such relocations shall be at the expense of the Applicant and as directed by the representative of the Drainage District.



14. CROSSING OF DRAINAGE DISTRICT TILE LINES. Utility crossings shall be constructed as follows, as directed by the designated representative of the Drainage District:
- a. All proposed installations must be placed under the existing Drainage District tile lines. These requirements may be waived only upon the review by and approval of the designated representative of the Drainage District. Such waiver must be in writing.
  - b. A minimum of one foot (1') clearance below existing Drainage District facilities must be maintained.
  - c. At all crossings of Drainage District tile lines with the proposed utility, one of the following must be used:
    - i. Replace Drainage District tile with reinforced concrete pipe of same or larger diameter than existing tile. Concrete pipe to be 2,000 D strength (Iowa Department of Transportation approved) with standard tongue and groove joints. Pipe to have a minimum of three (3) bolt-type connectors at each joint.
    - ii. Replace Drainage District tile with cathodic protected corrugated metal pipe. Diameter of corrugated metal pipe to be a minimum of two inches (2") larger than outside diameter of tile line being replaced. (Specifications regarding gage, cathodic protection and other details to be subject to review and approval.)
    - iii. Dual wall plastic with specific approval of Drainage District representative.
    - iv. Bore new utility installation; maintain existing tile in an undisturbed state.
  - d. The length of tile to be replaced by any of the above alternates is as follows:
    - i. Eight-inch (8") tile and smaller: Six feet (6') either side of centerline of proposed installation, measured at right angles to the centerline of installation.
    - ii. Ten inch (10") tile and larger: Ten feet (10') either side of centerline of proposed installation, measured at right angles to the centerline of installation.
  - e. At all crossings of Drainage District tile lines where the Drainage District and private tile lines are damaged by the construction, maintenance or repair of Applicants installation shall be repaired as directed by the Drainage Districts designated representative.
15. This permit is subject to existing regulations and statutes of the State of Iowa and future regulations, which may be promulgated or enacted.
16. This application is subject to revocation by Hardin County, if in its judgment it is necessary for legitimate purposes. In such event, written notice shall be provided to permit holder.
17. Applicant agrees to pay all other legitimate costs, fees and expenses associated with its crossing of the Drainage District facility, including but not limited to, publication costs, engineering costs and legal service costs. Said costs will be paid within thirty (30) days of the mailing of the statements to the Applicant.
18. Applicant agrees to provide a copy of as-built plan of the utility route and location, showing route changes that may have taken place during construction.
19. Applicant agrees to include a copy of these requirements to all bidding specifications; or if the construction and installation contract has been let by the time this permit is approved, Applicant agrees to provide a copy of these requirements to the contractor and to advise them that they are bound by the terms of these requirements.