

**January 8, 2024 BOARD OF ADJUSTMENT/ PLANNING COMMISSION  
DEUEL COUNTY  
STAFF REPORT**

**Monday – January 8, 2024 – 6:30 p.m.**

**DEUEL COUNTY BOARD OF ADJUSTMENT**

**ITEM #1 CONDITIONAL USE**

**Applicant: Jerae Wire - East River Electric Power Coop**

**Land Owner: Christine Watt**

**Property Description: N1/2NW1/4 (to be known upon platting as Tract 1 of Deuel Switchyard Addition in the N1/2NW1/4) of Section 34-113-50, Grange Township, Deuel County, South Dakota.**

**Action Items – Conditional Uses Permit – (Section 1101.04.12 Essential Services System & Section 1101.04.13 Wireless Telecommunication Tower)**

**Zoning Designation: A – Agricultural District**

**Request: Applicant/Owner requesting a Conditional Uses Permit to construct electrical switch yard to connect the Toronto Substation to the existing WAPA line and to erect 95' private internal communication tower.**

**History/Issue(s):**

**Specifics of Request**

1. The applicant is requesting to construct electrical switch yard and to erect 95' private internal communication tower to connect the Toronto Substation to the existing WAPA line in AG District.

a) This new 115 kV switching station is needed by East River to accommodate load growth, mitigate potential voltage violations and thermal overloads, and to improve reliability in the Deuel County area. The temporary interconnect on the WAPA Watertown to Brookings 115 kV line is being placed into service for the Toronto Tap and Toronto Substation project.

b) The Toronto Substation project has been previously approved and is scheduled to be placed into service in 2024. To more effectively sectionalize the 115 kV transmission network in the area, a 115 kV switching station is needed on WAPA's networked transmission line per their interconnect standards, which will replace said temporary interconnect.

c) The switching station will be located adjacent to WAPA's 115 kV line that currently goes from the WAPA Watertown substation to the WAPA Brookings substation.

- This location is approximately 4 miles west of the East River Toronto Substation. The initial arrangement will be a three-position ring bus to interconnect the 115-kV line from WAPA Brookings and WAPA Watertown as well as provide source to the new Toronto Substation. Deuel County will be designed for an ultimate eight-position breaker and a half arrangement, which will allow the expansion of the 115-kV network in the area. The networking provided by the Deuel County switching station will enhance the reliability for H-D Electric and Sioux Valley Electric in the Deuel and Brookings County area. East River will install equipment necessary for SCADA monitoring and control, and communications systems required to provide the necessary communication link to support the substation and equipment necessary to continue our load management system in the area. East River has substations similar to this in our system today. The Cooperative acknowledges 7CFR 1724.51 design requirements.

d) The applicant seeks to purchase this platted land from Watt if this conditional use permit is granted.

e) The applicant seeks to build security fence is approximately 70' from the north right-of-way which is a township gravel road. The proposed 95' tower would be greater than 70' from north road right-of-way.

f) Line Modifications: The project will include modifications to the area 115 kV lines as necessary to bring them into the new substation. The line taps will be built with 477 ACSR to handle proposed and future area loads with OPGW installed as the shield wire. Modifications to the WAPA transmission line to route into the substation will also be included with this project. The line will be constructed above ground. The typical structure will be a single wood pole with stand-off insulators. The average height of the poles will be 70 feet and set into the ground 9 feet in a 3 feet diameter hole. Future 115 kV lines built into the substation will be included on separate loan codes.

g) While we are requesting the CUP for approval of the switch yard and the internal communication tower they would need and other permitting with the PUC or with the FAA since substation is below permitting size for voltage and the tower is 95' which is below FAA regulations.

h) We have also notified the impacted townships (Grange Township in Deuel) about your plans for the installation of the switch yard about any approaches.

2. Deuel County Ordinance requires that a land owner go through the Conditional Uses Permit Process to construct a electrical switch yard (Deuel Switchyard Addition) and to erect 95' private internal communication tower in the "AG" District.

#### **Ordinance and Comprehensive Land Use Plan regarding this request:**

1. Essential services are listed as a Conditional Uses in the A – Agricultural District.

12. Essential services – Overhead or underground electrical, gas, steam or water transmission or distribution systems and structures, or collection, communication, supply or disposal systems and structures used by public for protection of the public health, safety or general welfare, including towers, poles, wires, mains drains, sewers, pipes, conduits, cables satellite dishes, and accessories in connection therewith. The Board attached the specific condition in accordance with its ability to add conditions to a conditional use permit.

2. Wireless Telecommunication Towers are listed as a Conditional Uses in the A – Agricultural District.

13. Wireless Telecommunication Towers and Facilities provided they meet requirements of Section 1216

- Since this tower is 95' tall majority of the Section 1216 does not apply because of height of the tower.

3. The Deuel County Comprehensive Land Use Plan states that the main goal is to accommodate growth and to minimize the disturbance of agricultural land.

4. This property is located out of the floodplain.

o This lot will get access off of 195<sup>th</sup> Street;

o They have efficient Off-street parking; ample room for parking

o They have efficient utilities;

o They have efficient Screening and Buffering; Applicant exceeds the setbacks and considering the location, no screening is necessary & chain link fence around the sites;

o They will have a sign; signage being located on the entrance gates approximately 2' x 4'; commercial grade work lights during emergency or work situation.

o They have have efficient yard space and other open space; General compatibility with adjacent properties and other property: Applicant's proposed use is generally compatible with the adjacent properties and there is one residence (Watt's house) approximately 825' from the platted lot in the Agriculture Zoned District. .

#### **Staff Summary**

**Conditional Use Permit – Essential Services & Wireless Telecommunication Tower: The application may be approved, postponed, or denied.**

#### **Staff recommendation:**

**Approval would be based on the applicant's ability to meet the requirements for a Conditional Use Permit described in ordinance - To grant the Conditional Uses Permit to construct an electrical switch yard (Deuel Switchyard Addition) and to erect 95' private internal communication tower in AG District.**

**The Board determined that it is empowered under the section of the ordinance described in the application to grant the special exception and that granting the special exception will not adversely affect the public interest. Please see Findings of Fact and Conclusions of Law on file with this application.**

#### **ITEM # 2 PLAT**

**Applicant: Jerae Wire - East River Electric Power Coop**

**Land Owner: Christine Watt**

**Property Description: Tract 1 of Deuel Switchyard Addition in of the N1/2NW1/4 Section 34, Township 113 North, Range 50 West of the 5th P.M., Deuel County, South Dakota.**

**Request: To plat Lot 1 which contains 10 acres for transferring purposes.**

**Action Item –Plat approval.**

**ITEM # 3 PLAT**

**Applicants/Owners: Fieber LLC**

**Property Description: Plat of Fieber First Addition in of the SE1/4 Section 15, Township 116 North, Range 50 West of the 5th P.M., Deuel County, South Dakota**

**Request: To plat Lot 1 which contains 5 acres for transferring purposes.**

**Action Item –Plat approval.**

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