

September 19, 2022

Steve Kahl  
Executive Director  
North Dakota Public Service Commission  
600 East Boulevard; Department 408  
Bismarck, ND 58505-0480

RE: Basin Electric Power Cooperative  
LOS-AVS 345-kV Transmission Lines - Mercer County  
Docket No. 9571 (April 1978)

Dear Mr. Kahl:

Due to the need for improved system reliability and to provide a safer facility for maintenance personnel, Basin Electric Power Cooperative (**Basin Electric**) is proposing to construct a new Leland Olds Station (**LOS**) Substation just south of the existing Leland Olds electrical generating station. The existing LOS 345-kV substation plays an important role as a regional transmission hub in electric system for the upper Midwest and was identified as one of the top priorities for upgrade by Basin Electric's aging infrastructure program. During the investigation and design phase to upgrade the existing LOS 345-kV substation, it was determined that replacing the equipment in this location was not a desirable option due to proximity to the Missouri River and other geographic limitations.

The proposed substation would be located directly beneath four (4) existing high voltage transmission lines (LOS to Fort Thompson 345-kV, LOS to Groton 345-kV, and two (2) LOS to Antelope Valley Station 345-kV) on previously cultivated land. *Certificate of Corridor Compatibility Number 13* was issued by the North Dakota Public Service Commission for the two 345-kV Leland Olds Station to Antelope Valley Station transmission lines on April 10, 1978 and includes a nine-mile-wide corridor. The LOS to Fort Thompson and LOS to Groton transmission lines were constructed in 1972, predating the NDPSC's siting rules. The new site is within the existing transmission corridor and provides a cost-effective solution by limiting the need for transmission line re-routes or additions.

As depicted on the attached figure, the proposed substation is located on cultivated land directly beneath Basin Electric's existing transmission lines. A review of National Wetland Inventory (**NWI**) data indicates no wetlands would be affected by substation construction. The area is heavily industrialized, and is not likely to serve as suitable habitat for threatened or endangered species. Metcalf Archaeological Consultants, Inc. (**MAC**) conducted Class I (literature review) and Class III (pedestrian) cultural resource surveys on an approximately 175-acre block encompassing the substation site. Results of the MAC surveys were provided to the North Dakota State Historical Preservation Office (**ND SHPO**) for review (ND SHPO Ref: 22-6291 "Basin Electric Power Cooperative LOS Substation Project: A Class I And III Cultural Resource Inventory in Mercer County, North Dakota" in portions of [T144N R84W Section 27]). The ND

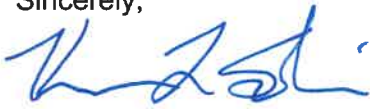
September 19, 2022

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SHPO review letter (attached) indicated the MAC report was acceptable and there had been a good faith effort to avoid impacts to significant sites. Because of the existing transmission facilities, Mercer County Planning and Zoning staff indicated no additional county permits were needed.

The new LOS Substation would be built within the existing corridor and would be an improvement to the existing transmission facilities. This submittal is in accordance with North Dakota Century Code (**NDCC**) 49-22-03 (3)(a)(1)(c), (2), and (3)(c). A notarized certification indicating Basin Electric's activities within the designated corridor will not affect any known exclusion or avoidance areas as defined in North Dakota Administrative Code 69-06-08-02 (1) and (2) in accordance with NDCC 49-22-03(a)(4) is enclosed. Basin Electric will comply with all applicable conditions and protections in siting laws and rules and previously issued commission orders.

Sincerely,



Kevin L. Solie, P.E.  
Senior Environmental Compliance Administrator

Enclosures





September 12, 2022

Kevin Solie  
Basin Electric Power Cooperative  
1717 E Interstate Ave  
Bismarck, ND 58503

**ND SHPO Ref: 22-6291 “Basin Electric Power Cooperative LOS Substation Project: A Class I And III Cultural Resource Inventory in Mercer County, North Dakota” in portions of [T144N R84W Section 27]**

Dear Kevin,

We reviewed ND SHPO Ref: 22-6291 “Basin Electric Power Cooperative LOS Substation Project: A Class I And III Cultural Resource Inventory in Mercer County, North Dakota” in portions of [T144N R84W Section 27] and find the report by Daniel Salas acceptable. We find that there has been a good faith effort to avoid impacts to significant sites.

Thank you for the opportunity to review this project under North Dakota cultural resources consultation. This letter does not serve as federal agency consultation or SHPO consultation for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, (36 CFR Part 800), or the National Environmental Policy Act, as amended, (42 U.S.C. §§ 4321- 4347).

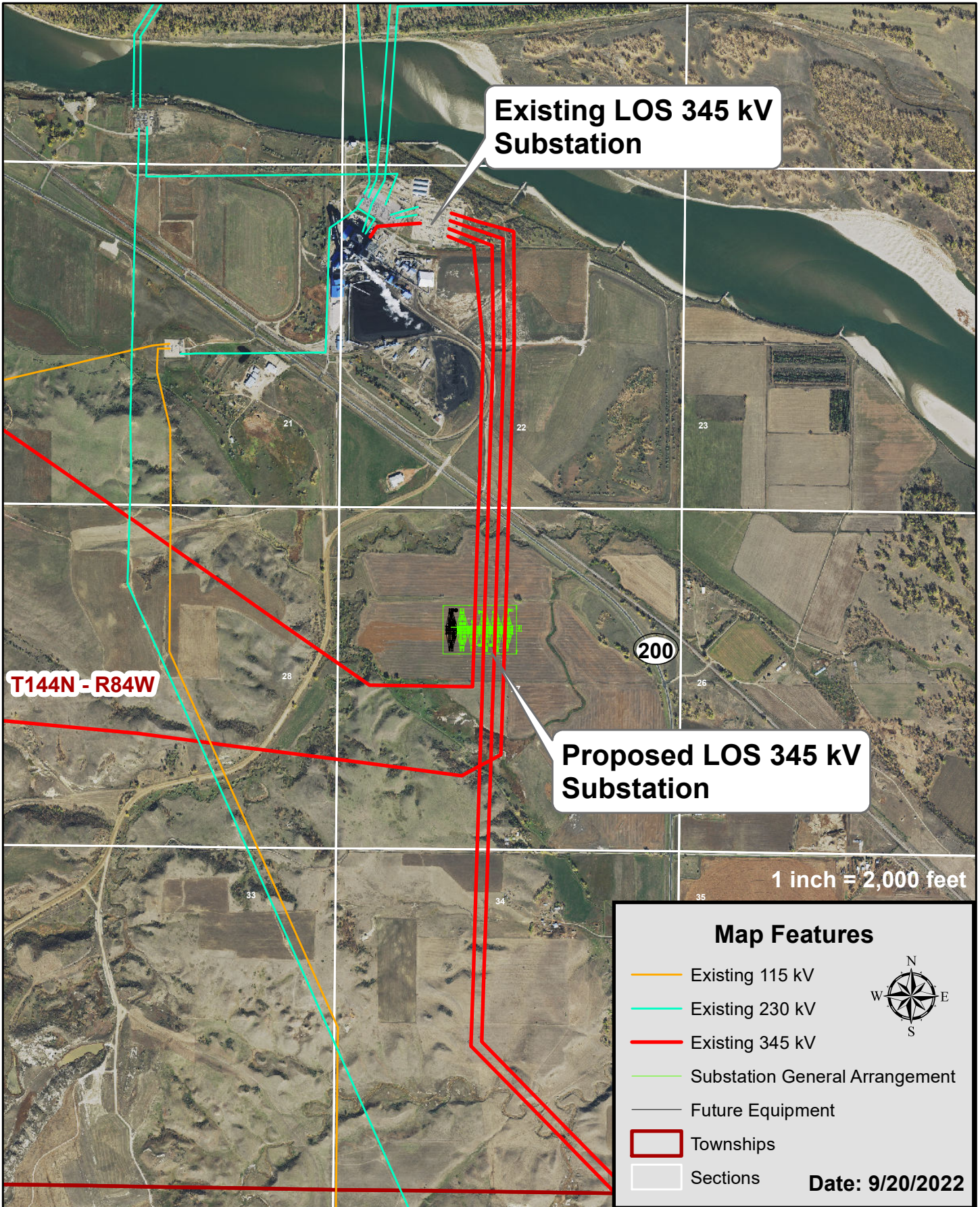
If you have any questions please contact Lisa Steckler, Historic Preservation Specialist at (701) 328-3577 or [lsteckler@nd.gov](mailto:lsteckler@nd.gov)

Sincerely,

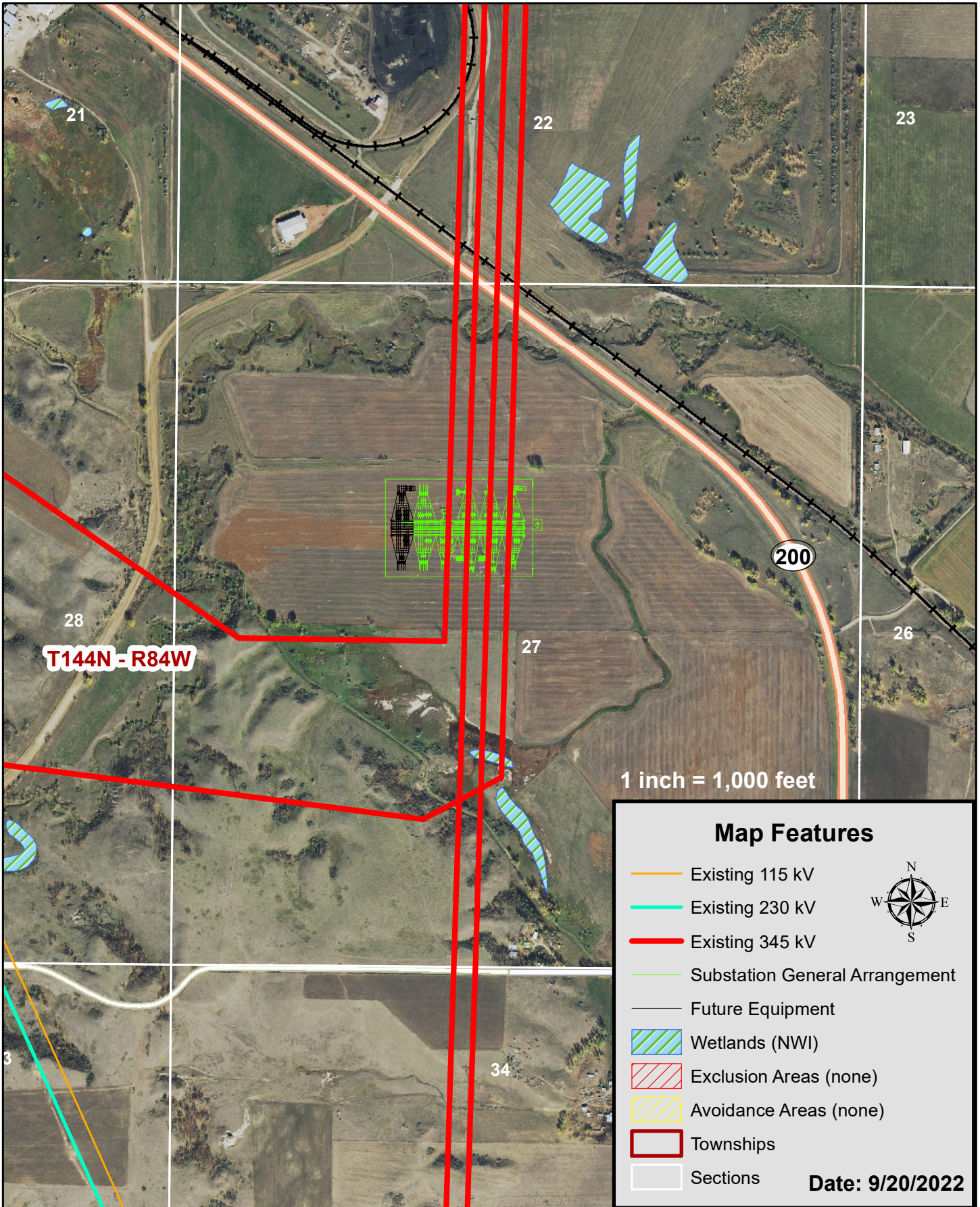
for William D. Peterson, PhD  
Director, State Historical Society of North Dakota

22-6291

# Proposed LOS 345-kV Substation Mercer County, North Dakota



# Proposed LOS 345-kV Substation Mercer County, North Dakota



### Map Features

- Existing 115 kV
- Existing 230 kV
- Existing 345 kV
- Substation General Arrangement
- Future Equipment
- Wetlands (NWI)
- Exclusion Areas (none)
- Avoidance Areas (none)
- Townships
- Sections

**Date: 9/20/2022**

# BASIN ELECTRIC POWER COOPERATIVE LOS SUBSTATION PROJECT: A CLASS I AND III CULTURAL RESOURCE INVENTORY IN MERCER COUNTY, NORTH DAKOTA

By:  
Daniel Salas

Principal Investigator:  
Daniel Salas

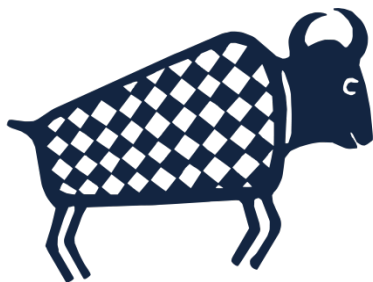


Metcalf Archaeological Consultants, Inc.  
Bismarck, ND

Prepared for:  
Basin Electric Power Cooperative

Metcalf Project No. 2022.ND.043

August 2022



# Metcalf

ARCHAEOLOGICAL CONSULTANTS

*Locational information for archaeological and historic sites is protected under North Dakota Century Code § 55-02-07.*  
All reports (Class I, II, III, Testing, or Data Recovery) or any loose maps that will be distributed outside the agency or client should not contain site locational information. Site locational information includes the location of a site on a topographic map or aerial photographs, the location of a site in tables, such as Township, Range, and Section, or photograph of sites. It is acceptable to mention the Smithsonian Trinomial designation (e.g., 32EM0123) as this does not contain locational information, other than state and county.

## ABSTRACT

Basin Electric Power Cooperative plans to construct the LOS Substation and temporarily adjust overhead electric lines in Mercer County, North Dakota. To comply with state law, Basin Electric Power Cooperative contracted Metcalf Archaeological Consultants, Inc. to conduct a Class I and Class III cultural resource inventory of the project area. There is no federal nexus for this project; project oversight will be through the Public Service Commission based on acceptance from the North Dakota State Historic Preservation Office. Fieldwork was conducted on May 26, 2022, by Daniel Salas, Kimberly Troendle, Daan Means, Alaina Schurr, and Connor Amsk. The inventory covered 175 acres.

During the pedestrian survey, Metcalf identified previously recorded archaeological sites, 32ME4 and 32ME2509; identified three new isolated finds 32MEx859, 32MEx860 and 32MEx861; and identified archaeological site 32ME2719. Twenty-five shovel probes were excavated within the proposed substation footprint; one at each isolated find location (n=3), and two in site 32ME2719. In addition, on August 11, 2022, Damita Engel and Elizabeth France excavated four shovel probes along the eastern edge of 32ME2719 following an existing two-track trail, to be used for the access road. All 34 shovel probes were negative for cultural material.

Isolated finds 32MEx859, 32MEx860 and 32MEx861 are recommended *not significant* and avoidance is not necessary. Sites 32ME4 and 32ME2509 will not be affected by the project. Site 32ME2719 is currently *unevaluated* for significance and Metcalf recommends the western portion of the site be avoided during construction; the eastern edge is currently used as access and is primarily disturbed by previous construction.

Provided that all the mentioned recommendations are deemed appropriate, Metcalf recommends a finding of *No Significant Sites Affected* (North Dakota Century Code, 49-22-09) for the proposed project as surveyed, mapped, and documented herein.

