



Construction Inspection Report of Xcel Energy Minot Load Serving Project

Section 2, T154N R82W, 5th P.M.

Ward County, North Dakota

and

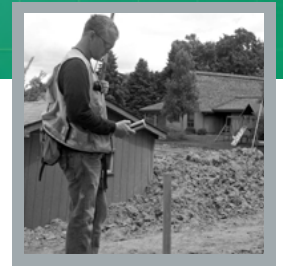
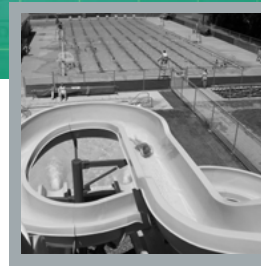
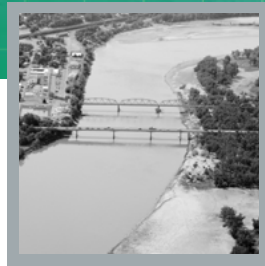
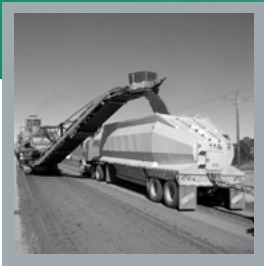
Section 2, T152N R80W, 5th P.M.

McHenry County, North Dakota

Prepared By:



Contents



■	1. Executive Summary	1
■	2. Background & Scope	1
■	3. Construction Inspection	2
■	4. CONCERNS AND CORRECTIVE ACTIONS	2
■	5. Conclusion	2
■	6. Signature	3
■	6. References	3
■	Field Inspection Map	Appendix A
■	Photographs	Appendix B

1. EXECUTIVE SUMMARY

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service Commission (Commission) to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of the citizens of North Dakota. Commission construction inspections ensure that energy projects are constructed in compliance with the siting laws (North Dakota Century Code Chapter 49-22), rules (North Dakota Administrative Code Article 69-06) and applicable Commission Orders.

The Commission retained Interstate Engineering, Inc. (Interstate) to complete construction inspections of the Northern States Power Company, doing business as Xcel Energy, Minot Load Serving Project, Case No. PU-17-102, which is currently under construction in McHenry and Ward Counties in North Dakota. The Project involves the construction of a new substation, called the Magic City Substation, and an approximately 20.5 mile-long 230 kilovolt (kV) transmission line connecting the new substation to an existing substation, the McHenry Substation, near the City of Velva.

Construction of the Project commenced on October 9, 2017. Interstate conducted the Construction Inspection on October 23, 2017, at the Magic City Substation site and October 31, 2017, at the McHenry Substation site. Interstate prepared this report to document the construction inspection and to provide a summary of compliance with the Commission Orders.

The purpose of the Construction Inspection was to observe the construction phase to verify that construction procedures were properly conducted during the construction phase. The inspection continued until the inspector determined that the equipment operators had demonstrated proficiency concerning the construction activities, in accordance with the Certification Relating to Order Provisions for Case PU-17-102. Photographs taken during the site inspection are included in Appendix B. The inspector took photos of the construction activities including grading and surveying to document the process.

Prior to the construction inspection, Interstate reviewed Project documents and filings from the North Dakota Public Service Commission Hearing held on August 18, 2017, in Minot, North Dakota. Overall, the construction activities were satisfactory, and the inspector determined that the equipment operators had demonstrated proficiency concerning construction activities in compliance with the Commission's Order.

2. BACKGROUND & SCOPE

On March 10, 2017, Xcel Energy filed a Consolidated Application for a Waiver or Reduction of Procedures and Time Schedules and Certificate of Corridor Compatibility and Transmission Facility Route Permit in Case No. PU-17-102 for the Minot Load Serving Project. The Project consists of a new substation, called the Magic City Substation, and an approximately 20.5-mile-long 230 kilovolt (kV) transmission line connecting the new substation to an existing substation, the McHenry Substation, near the City of Velva. The project is proposed to be designed and constructed to meet or exceed the standards of the National Electrical Safety Code (NESC) and the North Dakota Energy Conversion and Transmission Facility Siting Act (Siting Act). The Commission issued a decision approving a corridor and a route on October 4, 2017, in accordance with the Commission's Findings of Fact, Conclusions of Law and Order.

The Commission retained Interstate to complete construction inspections for the Project, which is currently under construction in McHenry and Ward Counties, North Dakota. The purpose of this inspection (Construction Inspection) was to observe the construction phase to verify that construction procedures were properly conducted during the construction phase. The inspection continued until the inspector determined that the equipment operators had demonstrated proficiency concerning the construction activities, in accordance with the Certification Relating to Order Provisions for Case PU-17-102. Photographs taken during the site

inspection are included in Appendix B. The inspector took photos of the construction activities including grading and surveying to document the process.

According to Xcel Energy, the purpose of the Project is to construct a new 230 kV transmission line from the existing McHenry Substation to a new 230/115 kV substation (Magic City) as well as reconfiguring and upgrading existing infrastructure at the McHenry Substation. This Project is needed to meet the growing demand for electricity in the Minot area and to reinforce the reliability of the region's transmission system.

Xcel Energy selected the project route after addressing the factors identified in NDCC § 49-22-09 and pursuant to the criteria in NDAC § 69-06-08-02. Xcel Energy proposes to construct a new 230 kV transmission line on double circuit structures. Most of the Project is parallel to Xcel Energy's existing 115 kV transmission line

3. CONSTRUCTION INSPECTION

On October 23, 2017, Ms. Veronica Meyer, working under Mr. Damon DeVillers, Project Manager at Interstate, conducted the construction inspection at the Magic City Substation site. Ms. Meyer met with Mr. Joe Sabo and was told that all topsoil had been removed that grading was underway and some topsoil replacement had begun. Ms. Meyer observed that the south pond had been graded and observed surveyors on site. Observations were made to confirm that the construction activities were occurring within the staked construction area. Ms. Meyer also verified topsoil replacement depths which were typically 6-8 inches.

On October 31, 2017, Ms. Meyer conducted the construction inspection at the McHenry Substation site. Ms. Meyer met with Mr. Mike Muellenbach and informed him that she would be verifying that the contractor was completing the construction activities in compliance with the Commission's Order. Ms. Meyer observed trucks hauling the excess material off-site and also verified topsoil replacement depths which were typically 6-8 inches. Pictures were taken observing the depth of topsoil replacement. Observations were made to confirm that the construction activities were occurring within the staked construction area.

Overall, the construction and topsoil replacement activities were satisfactory and consistent with the Commission's Order on both the Magic City and McHenry substation sites

4. CONCERNS AND CORRECTIVE ACTIONS

During the construction inspection, no concerns were observed at either substation site. Therefore, no corrective actions were needed.

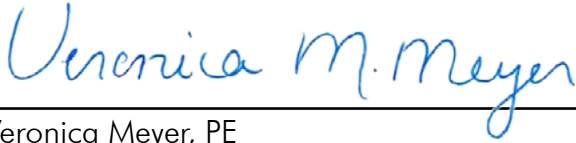
5. CONCLUSION

Generally, the construction activities within the sites appeared to be satisfactory and consistent with the Commission's Order. Based on the field observations and photographs, the Interstate Inspector (Ms. Meyer) determined that equipment operators demonstrated proficiency concerning construction activities in compliance with the Commission's Order.

6. SIGNATURE

Observations and findings contained in this report are based on available information, field reports and photographs in a generally accepted technical practice at the present time.

Project Manager Veronica M. Meyer, PE prepared this report.



Veronica Meyer, PE
Interstate Engineering, Inc.

4/18/2018

Date



Damon K. DeVillers, PE, President
Interstate Engineering, Inc.

4/18/18

Date

6. REFERENCES

Joe Warner, Foreman for U.S. SiteWorks
11040 183rd Circle NW, Suite B, Elk River, MN 55330, October 2017

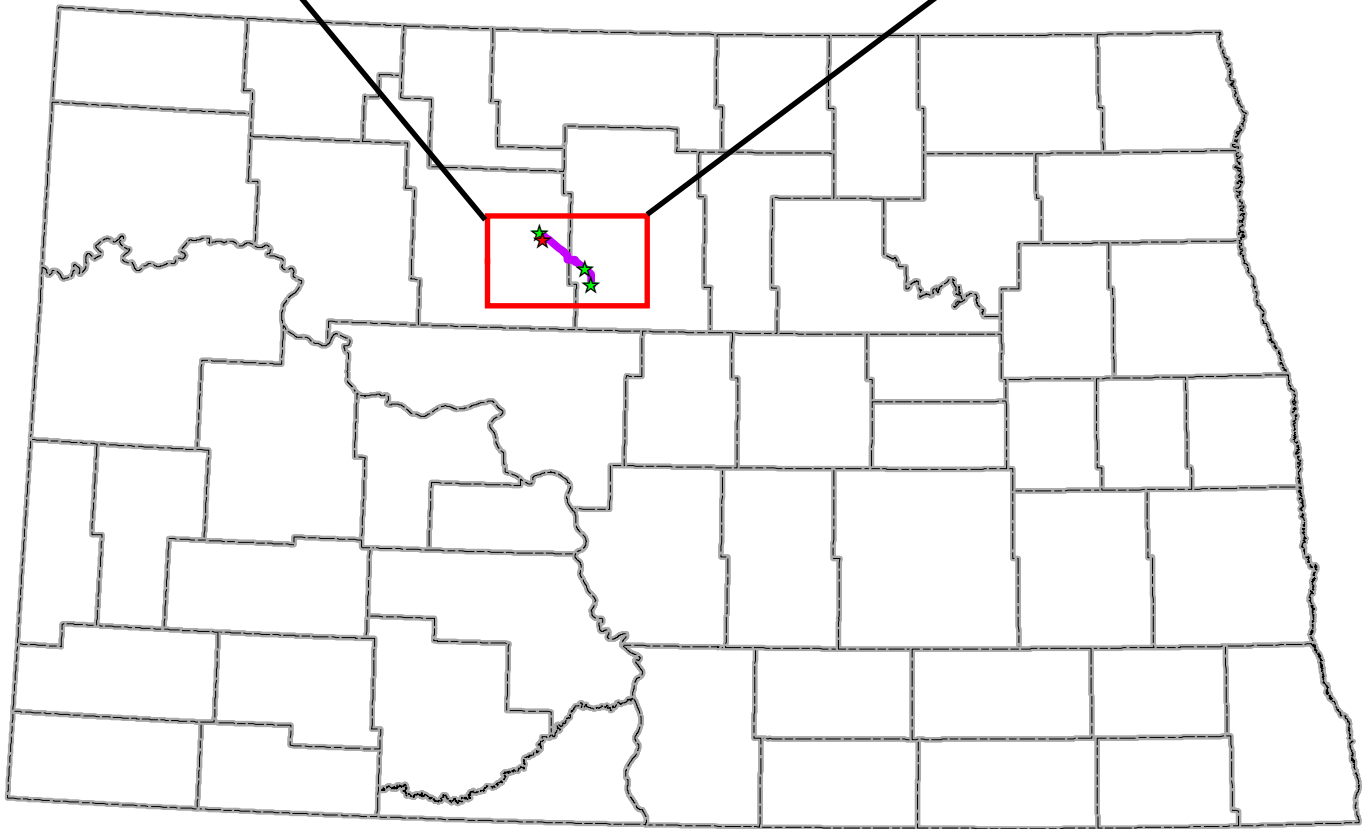
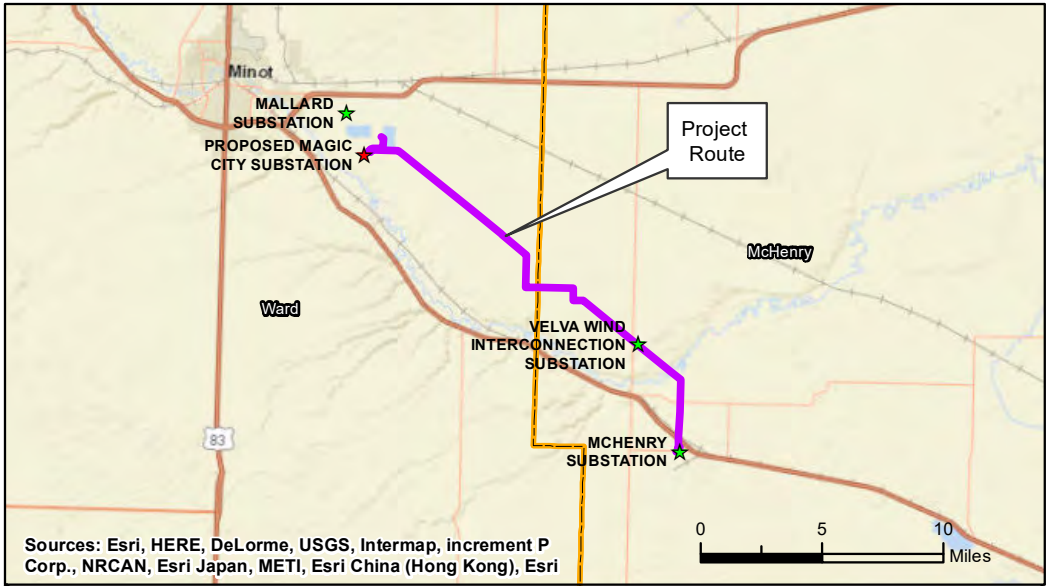
Joe Sabo, Superintendent for Carl Bolander & Sons
251 Starkey Street, St. Paul, MN 55107, October 2017

North Dakota Public Service Commission (NDPSC) Online Case Search. Available from http://www.psc.nd.gov/database/docket_file_list.php (Accessed May 2017)






APPENDIX A

Field Inspection Map



North Dakota

Legend

-  Project Route
-  Proposed Substation
-  Substation

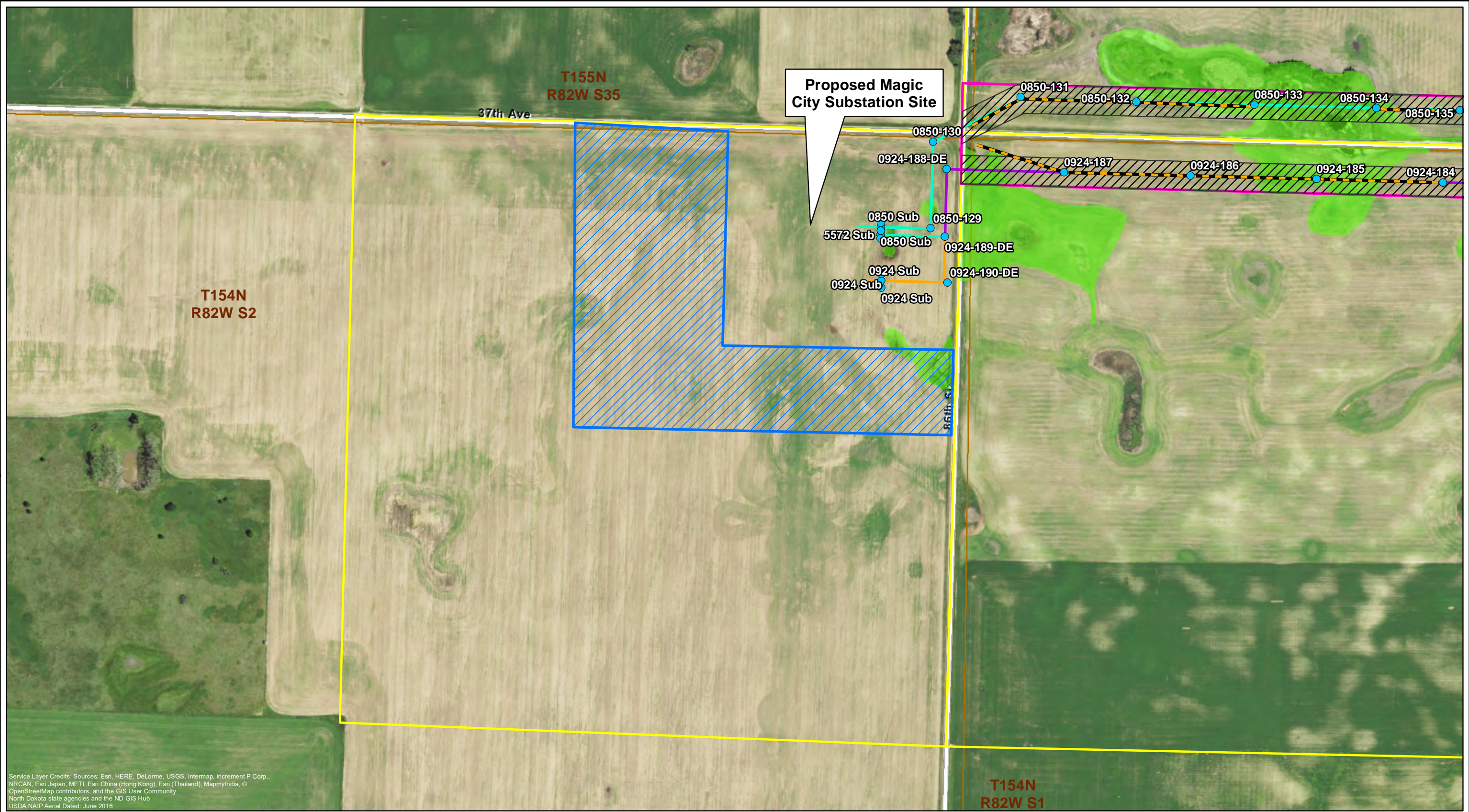


Minot Load Serving Project
 McHenry and Ward Counties, North Dakota

Figure 1
Project Location Map
 March 2017

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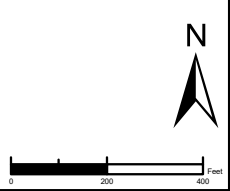
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 North Dakota state agencies and the ND GIS Hub
 USDA NAIP Aerial Dated: June 2016



- Project Feature**
- Preliminary Structure Location
 - Potential Laydown Area
 - Preliminary 115 kV Centerline
 - Preliminary 230 kV Centerline
 - Preliminary 230/115 kV Centerline
 - Preliminary Right-of-Way (125 Feet)
 - Project Corridor

- Property Ownership**
- Parcel Boundary
- Desktop Wetland Review**
- Wetland

- Access Route**
- Primary Access



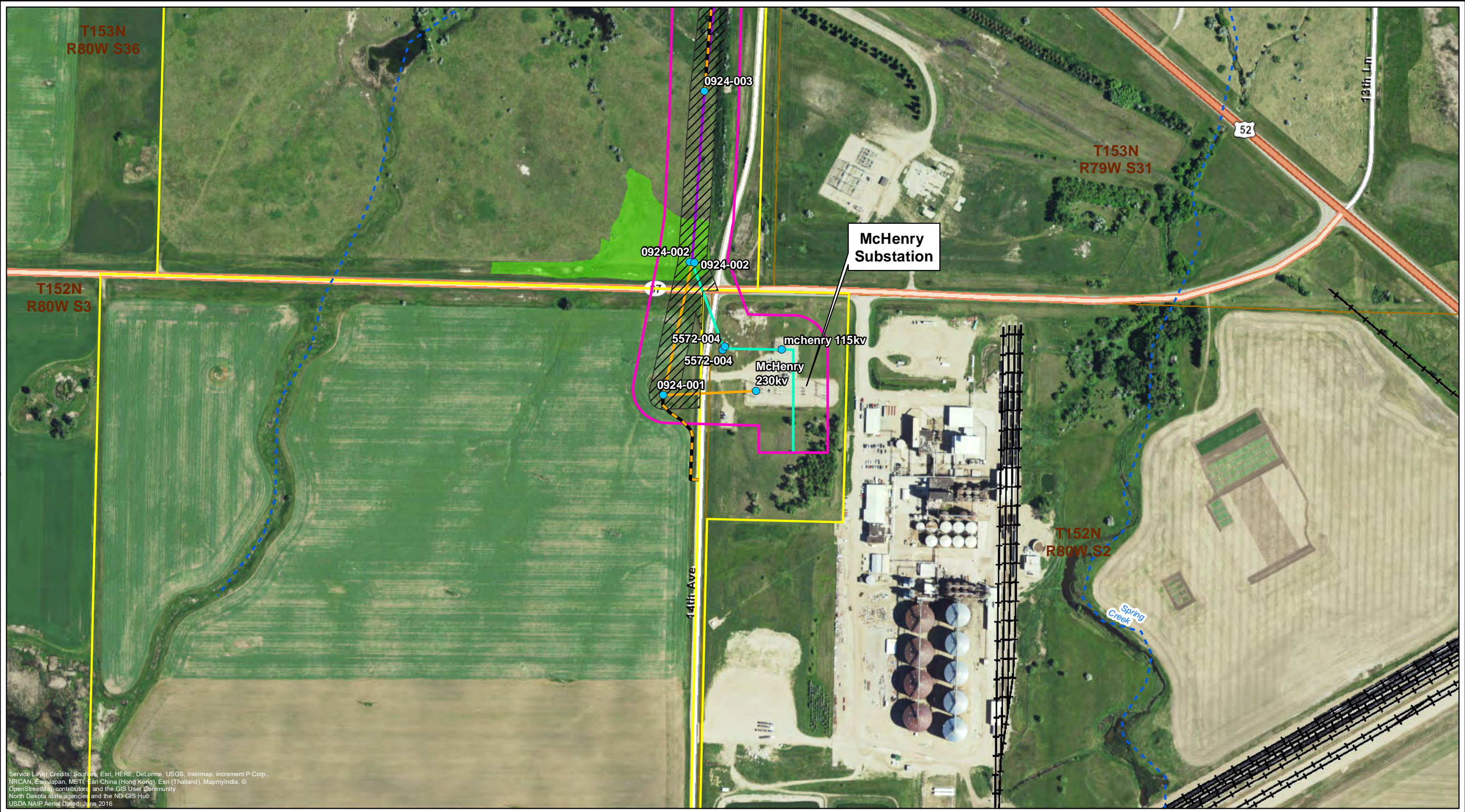
Minot Load Serving Project Appendix B - Project Sheet Map McHenry and Ward Counties, North Dakota



Prepared By: TETRA TECH

Drawn:	MAR 3/9/2017
Approved:	LHK 3/9/2017
Scale:	1:4,800
PROJECT NUMBER	60342328
SHEET MAP	1

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 North Dakota state agencies and the ND GIS Hub
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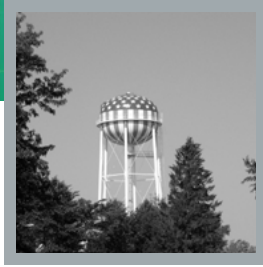
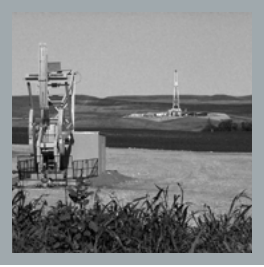


Project Feature	Property Ownership	Access Route
● Preliminary Structure Location	 Parcel Boundary	 Primary Access
 Potential Laydown Area	Stream/River	
 Preliminary 115 kV Centerline	 Stream (Intermittent)	
 Preliminary 230 kV Centerline	Desktop Wetland Review	
 Preliminary 230/115 kV Centerline	 Wetland	
 Preliminary Right-of-Way (125 Feet)		
 Project Corridor		

**Minot Load Serving Project
 Appendix B - Project Sheet Map
 McHenry and Ward Counties,
 North Dakota**



Prepared For:		Drawn: MAR 3/9/2017
Prepared By:		Approved: LHK 3/9/2017
PROJECT NUMBER	60342328	Scale: 1:4,800
SHEET MAP	27	



APPENDIX B

Photographs



Photo 1 - Topsoil pile on southwest corner of site



Photo 2 – Graded south pond with topsoil replacement



Photo 3 - 7" topsoil replacement depth on southwest bank corner of south pond



Photo 4 – 8" topsoil replacement depth on south bank of south pond



Photo 5 - Construction activity on site



Photo 6 - Surveyors on site



Photo 7 – 7" topsoil replacement depth northwest corner of site



Photo 8 – 7" topsoil replacement depth northwest corner of site



Photo 9 - 7" topsoil replacement depth northwest corner of site



Photo 10 – 5" topsoil replacement depth southeast corner of site

