

EXHIBIT A

Energy Transmission Facilities Handbook

ENERGY TRANSMISSION FACILITIES HANDBOOK

An Overview of Procedures for Route Adjustments
Before or During Construction of Transmission Pipelines in North Dakota



ORIGINAL

PREFACE

Dakota Access, LLC constructed and operates the interstate oil transmission pipeline commonly known as the Dakota Access Pipeline. The North Dakota Public Service Commission is the regulatory body having jurisdiction over the Dakota Access Pipeline in North Dakota. This handbook was prepared in connection with a settlement agreement between Dakota Access, LLC and the North Dakota Public Service Commission relating to the construction and development of the Dakota Access Pipeline prior to being placed into operation.

ABOUT THE AUTHOR



Lawrence Bender is a nationally recognized expert in oil and gas law, public utility law, and other regulatory matters. Lawrence represents oil and gas exploration companies, drilling companies, oil field service companies, pipeline companies, and other businesses in state and federal litigation and contested proceedings before various state and federal agencies. He represents and advises a wide variety of natural resources and energy related companies regarding contractual matters and compliance with state and federal regulations. Lawrence's extensive experience in real estate law allows him to offer professional assistance with the sale and purchase of oil and gas properties, as well as title examination and complex financing transactions.

Prior to joining Fredrikson & Byron, P.A., Lawrence served as an Assistant Attorney General of the State of North Dakota and as Counsel for the North Dakota Industrial Commission, Oil & Gas Division, and the North Dakota Board of University & School Lands, giving him first-hand knowledge of the regulation of oil and gas companies in the state.







PURPOSE

There are many federal, state, and local agencies that regulate the construction and operation of crude oil and natural gas facilities in North Dakota. This handbook provides information about one such agency – the North Dakota Public Service Commission (the “Commission”). It is also limited to providing information and the process of only one aspect of permitting – procedures for route adjustments after the Commission has issued an order approving the pipeline and has issued a Route Permit and Corridor Certificate and both before or during construction of transmission pipelines.

This handbook also provides examples of various relevant filings for siting with the Commission, including samples of the various reroutes and an Unanticipated Discoveries Plan. This handbook also explains the importance of open communication with the Public Service Commission to achieve the goals of the Siting Act.

DISCLAIMER

This handbook is not intended as a comprehensive discussion of the process for submitting an application to the North Dakota Public Service Commission for the permitting of crude oil or natural gas transmission pipelines. Nor is it intended as a legal guide for operators desiring to make adjustments to the route of a pipeline before or during construction. Rather, this handbook provides a general overview of the reroute process. This handbook is not a substitute for a careful review of the North Dakota Public Service Commission statutes, rules, regulations, and applicable orders, or for seeking legal counsel before adjusting a crude oil or natural gas pipeline route established by the North Dakota Public Service Commission.



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I. INTRODUCTION



1. INTRODUCTION



The North Dakota Energy Conversion and Transmission Facility Siting Act (the “Siting Act”) was enacted by the North Dakota Legislative Assembly in 1975. Its purpose, as provided in the Statement of Policy of the Siting Act, was a determination by the Legislature “that the construction of energy conversion facilities and transmission facilities affects the environment and the welfare of the citizens of [North Dakota].” N.D.C.C. § 49-22-02. The Legislature, therefore, determined that “it is necessary to ensure that the location, construction, and operation of energy conversion facilities and transmission facilities will produce minimal adverse effects on the environment and upon the welfare of the

citizens of this state” *Id.* To accomplish that goal, the Legislature determined “that no energy conversion facility or transmission facility shall be located, constructed, and operated within this state without a certificate of site compatibility or a route permit” *Id.*

The North Dakota Public Service Commission (the “Commission”) is made up of three members who are elected to serve for six-year terms. N.D.C.C. § 49-01-02. The Commission is charged, by statute, with implementing the provisions of the Siting Act. A “[g]as or liquid transmission facility” is defined by the Siting Act as “[a] gas or liquid transmission line and associated facilities designed for or capable of transporting coal, gas, liquid hydrocarbons, liquid hydrocarbon products, or carbon dioxide.” N.D.C.C. § 49-22.1-01(7). The Siting Act does not apply to an oil or gas pipeline gathering system which “includes the pipelines and associated facilities used to collect oil from the lease site to the first pipeline storage site where pressure is increased for further transport, or pipelines and associated facilities



used to collect gas from the well to the gas processing facility” *Id.* Any person who desires to construct a gas or liquid transmission pipeline in the state must first obtain a certificate of corridor compatibility and a route permit. N.D.C.C. § 49-22.1-04. The issuance of the corridor certificate



and route permit authorizes the pipeline operator to construct the pipeline in accordance with the Commission's order conditioned upon other state permits which may be required for the operator to construct and operate the pipeline. N.D.C.C. § 49-22.1-13.



II. IMPORTANCE OF COMMUNICATION BETWEEN COMPANIES AND COMMISSION



II. IMPORTANCE OF COMMUNICATION BETWEEN COMPANIES AND THE COMMISSION



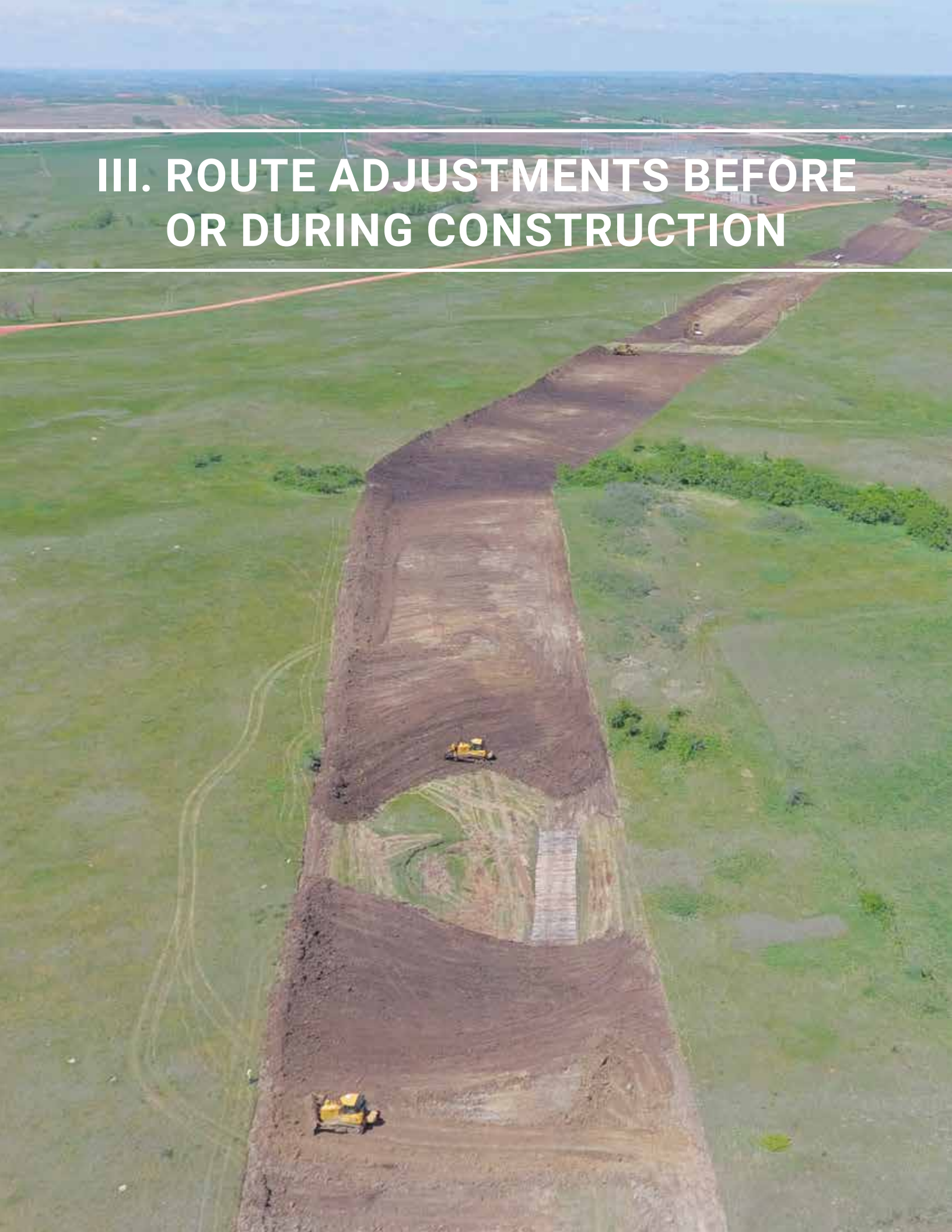
As outlined in Section III of this handbook, there are other rules and regulations that must be followed by companies desiring to undertake route adjustments before or during construction of a project. Appropriate plans are also put in place by companies during the project planning process for unanticipated finds encountered during construction and additional rules are imposed by the Commission where route adjustments are required due to these unanticipated finds.

Continued communication between the Commission and the companies allows additional safeguards to ensure compliance with the laws of North Dakota. Additionally, this transparency allows the Commission to continue to advance the goals of the Siting Act and ensure the location, construction, and operation of a project will produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota.

As set forth in the order and permits issued by the Commission, violations of any order or siting laws, including failure to notify the Commission of statutory route adjustments or adjustments due to unanticipated finds, could subject a company to fines, revocation of the permit, or other penalties. To avoid these consequences, it is imperative any company with a permit from the Commission keep the channels of communication open to facilitate project siting and infrastructure development in North Dakota.



III. ROUTE ADJUSTMENTS BEFORE OR DURING CONSTRUCTION



III. ROUTE ADJUSTMENTS BEFORE OR DURING CONSTRUCTION

A. Statutory Route Adjustments

There are four categories of statutory route adjustments recognized by the Commission before or during the construction of a pipeline: (1) route adjustments within the corridor with no exclusion or avoidance areas affected; (2) route adjustments within the corridor with avoidance areas affected; (3) route adjustments outside the corridor with no exclusion or avoidance areas affected; and (4) route adjustments outside the designated corridor with avoidance areas affected. See N.D.C.C. § 49-22.1-15. For all statutory route adjustments, the company must provide the information required by North Dakota Administrative Code § 69-06-04-01(2), which includes, but is not limited to:

- A description of: (1) the type of energy conversion facility proposed; (2) the gross design capacity; (3) the net design capacity; (4) the estimated thermal efficiency of the energy conversion process and the assumptions upon which the estimate is based; (5) the number of acres that the proposed facility will occupy; and (6) the anticipated time schedule for: (a) obtaining the certificate of site compatibility; (b) completing land acquisition; (c) starting construction; (d) completing construction; (e) testing operations; (f) commencing commercial production; and (g) beginning any expansions or additions.
- Copies of any evaluative studies or assessments of the environmental impact of the proposed facility submitted to any federal, regional, state, or local agency.
- An analysis of the need for the proposed facility based on present and projected demand for the product or products to be produced by the proposed facility, including the most recent system studies supporting the analysis of the need.







- A description of any feasible alternative methods of serving the need.
- A study area that includes the proposed facility site, of sufficient size to enable the commission to evaluate the factors addressed in North Dakota Century Code section 49-22-09.
- A discussion of the utility's policies and commitments to limit the environmental impact of its facilities, including copies of board resolutions and management directives.
- A map identifying the criteria that provides the basis for the specific location of the proposed facility within the study area.
- A discussion of the criteria evaluated within the study area, including exclusion areas, avoidance areas, selection criteria, policy criteria, design and construction limitations, and economic considerations.
- A discussion of the mitigative measures that the applicant will take to minimize adverse impacts which result from the location, construction, and operation of the proposed facility.
- The qualifications of each person involved in the facility site location study.
- A map of the study area showing the location of the proposed facility and the criteria evaluated.
- An eight and one-half-inch by eleven-inch black and white map suitable for newspaper publication depicting the site area.
- A discussion of present and future natural resource development in the area.
- Map and GIS requirements.

The applicant shall provide information that is complete, current, presented clearly and concisely, and supported by appropriate references to technical and other written material available to the Commission.

1. Category 1 Route Adjustments¹

Before conducting any construction activities for any adjustment to the designated route of a gas or liquid transmission line within the designated corridor under N.D.C.C. § 49-22.1-15(1), the company must file:

- Certification and supporting documentation affirming that construction activities will be within the designated corridor;
- Certification and supporting documentation affirming that construction activities will not affect any known exclusion or avoidance areas within the designated corridor;
- Certification and supporting documentation, including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying the designated corridor, route, and the route adjustment; and
- Certification that the company will comply with the Commission's order, laws, and rules designating the corridor and route.

Category 1 Route Adjustments are the most common and are simplistic in nature. Figure 1 depicts an example of a Category 1 Route Adjustment.

¹ Category 1 Route Adjustments were previously codified at N.D.C.C. § 49-22-16.3(1).

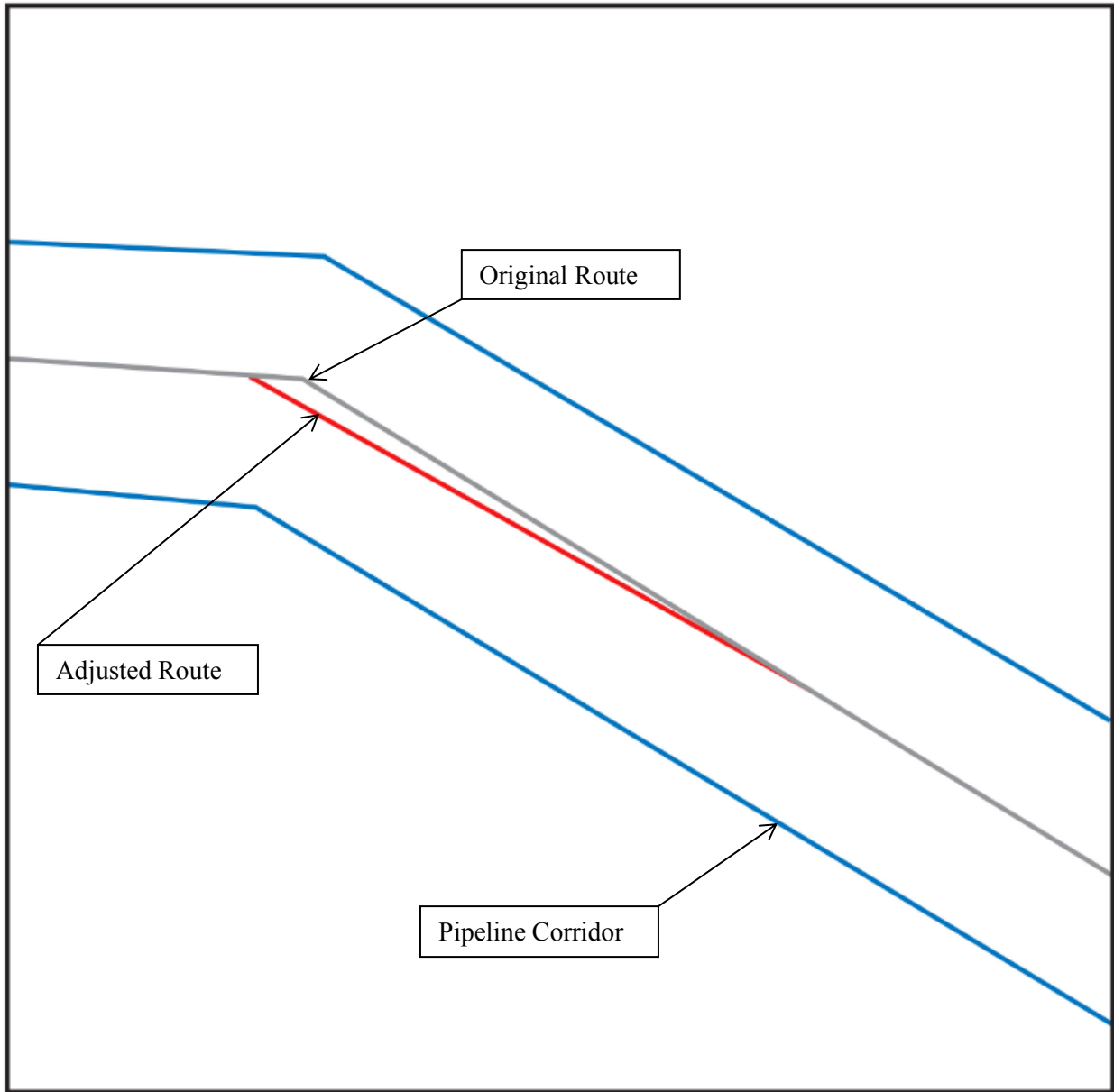


Figure 1. Example of a Category 1 Statutory Route Adjustment (N.D.C.C. §49-22.1-15(1))

Along with (i) certification and documentation affirming that construction activities will be within the designated corridor, (ii) certification and supporting documentation affirming that construction activities will not affect any known exclusion or avoidance areas within the designated corridor, and (iii) certification that the company will comply with the Commission’s order, laws, and rules designating the corridor and route, a map identifying the designated corridor, designated route, and the route adjustment must also be submitted. As set forth in Figure 1, the corridor designated by the

Commission is depicted in blue and the designated route is depicted in black. The route adjustment within the corridor is shown in red. No formal approval is required for a Category 1 Route Adjustment upon submission of the requisite information to the Commission.

2. Category 2 Route Adjustments²

Before adjusting the route of a gas or liquid transmission line under N.D.C.C. § 49-22.1-15(2) within the designated corridor that may affect an avoidance area, and before conducting any construction activities for any adjustment to the designated route within the designated corridor, the company must file:

- A specific description of the avoidance area expected to be impacted, including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying:
 - the designated corridor, designated route, and the route adjustment; and
 - all exclusion and avoidance areas within the portion of the designated corridor containing the route adjustment;
- Certification and supporting documentation affirming:
 - that construction activities will be within the designated corridor; and
 - that construction activities will not affect any known exclusion area;
- All field studies performed on the portion of the designated corridor containing the route adjustment;
- Specific information about any mitigation measures the company will take within the adjustment area;
- Certification and documentation that each owner of real property on which the adjustment is to be located and any applicable governmental entity with an interest in the same adjustment area do not oppose the adjustment;
- Certification and documentation that unless the Commission previously authorized the impact to the same avoidance area, that the company has good cause and a specific reason to impact the avoidance area and a reasonable alternative does not exist; and

² Category 2 Route Adjustments were previously codified at N.D.C.C. § 49-22-16.3(2).

- Certification that the company will comply with the Commission's order, laws, and rules designating the corridor and route.

In submitting a Category 2 Route Adjustment, the company will acknowledge and agree that:

- Written authorization from the Commission for impacting the avoidance area is necessary prior to commencement of construction activity unless the Commission fails to act within ten working days of receipt of filing a complete adjustment notification, in which case the adjustment is deemed approved.
- The initiation of the ten working days begins upon receipt of a complete filing, to include the company's certifications, supporting documentation, and maps. However, the Commission may extend the ten working day provision if the company is informed of the reason additional time is necessary for extension and the company has no objection to an extension.

Category 2 Route Adjustments are also relatively simple in nature. Figure 2 depicts an example of a Category 2 Route Adjustment.



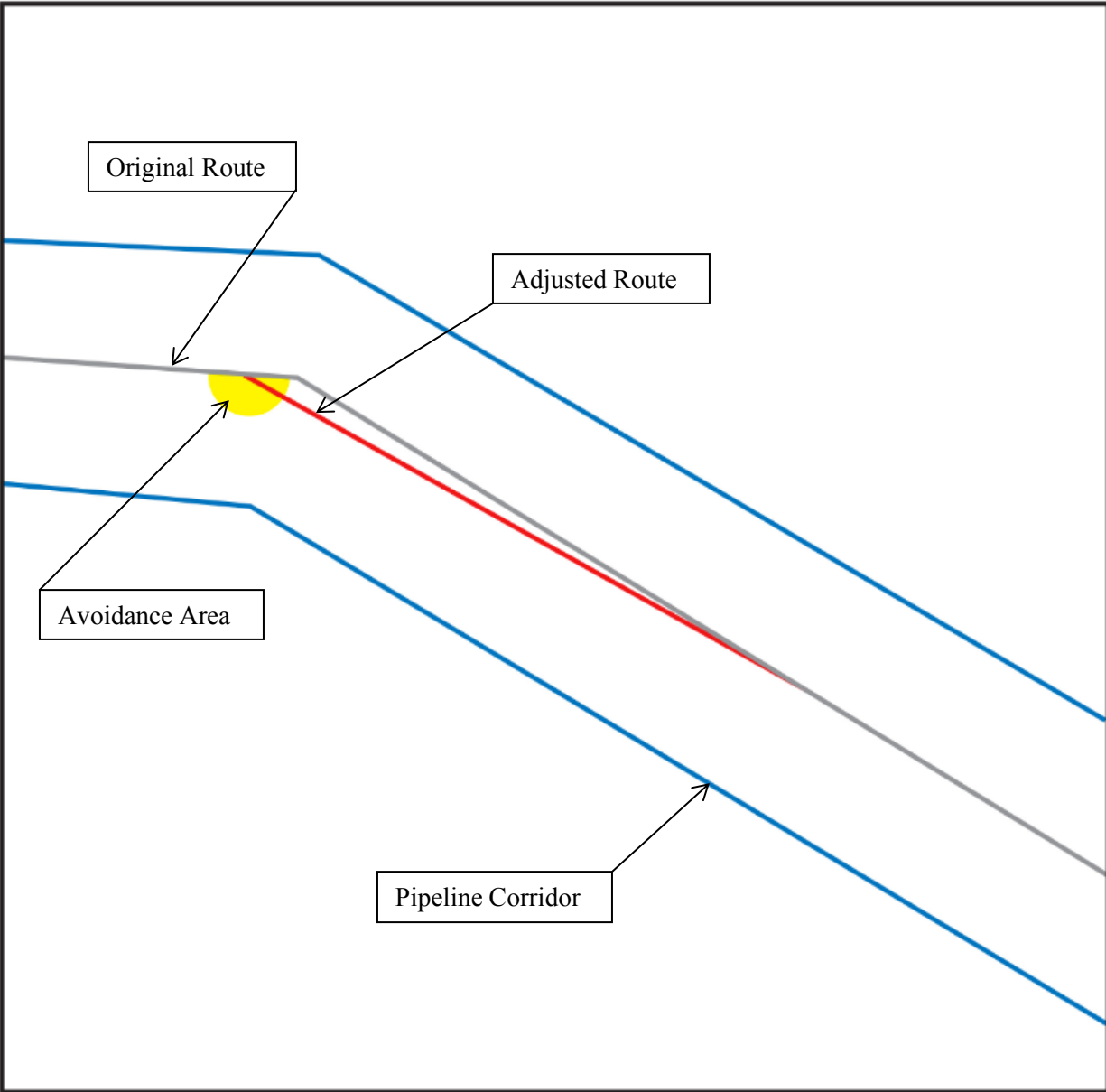


Figure 2. Example of a Category 2 Statutory Route Adjustment (N.D.C.C. §49-22.1-15(2))

As can be seen in Figure 2, a Category 2 Route Adjustment occurs when the route is modified within the previously designated corridor, but may affect an avoidance area. The avoidance area, as depicted in yellow, is the only difference from a Category 1 route adjustment. The designated corridor is again shown in blue, with the designated route in black.

While logistically a Category 2 Route Adjustment is very similar to a Category 1 Route Adjustment, additional information is required to be submitted to the Commission given the potential impact to an avoidance area. The company must provide sufficient information to the Commission regarding the impact to the avoidance area as detailed in this section. Written authorization for a Category 2 Route Adjustment is required before construction activities may begin.

3. Category 3 Route Adjustments³

Before adjusting the route of a gas or liquid transmission line under N.D.C.C. § 49-22.1-15(3) outside the designated corridor and not affecting any exclusion or avoidance areas, and before conducting any construction activities for any adjustment to the designated route outside the designated corridor, the company must file:

- Certification and supporting documentation affirming that construction activities will not affect any known exclusion or avoidance areas;
- Certification and supporting documentation that the route outside the corridor is no longer than one and one-half miles;
- Certification and supporting documents stating the length of the proposed route outside of the corridor and a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying the designated corridor, corridor adjustment, designated route, and the route adjustment;
- Certification and supporting documentation that each owner of real property on which the adjustment is to be located and any applicable governmental entity with an interest in the same adjustment area do not oppose the adjustment;

³ Category 3 Route Adjustments were previously codified at N.D.C.C. § 49-22-16.3(3).





- Detailed field studies indicating exclusion and avoidance areas for the proposed adjustment area; and
- Certification that the company will comply with the Commission’s order, laws, and rules designating the corridor and route.

Category 3 Route Adjustments are also common, but require a more complex filing with additional information than that required for Category 1 or Category 2 Route Adjustments. Figure 3 below depicts an example of a Category 3 Route Adjustment.



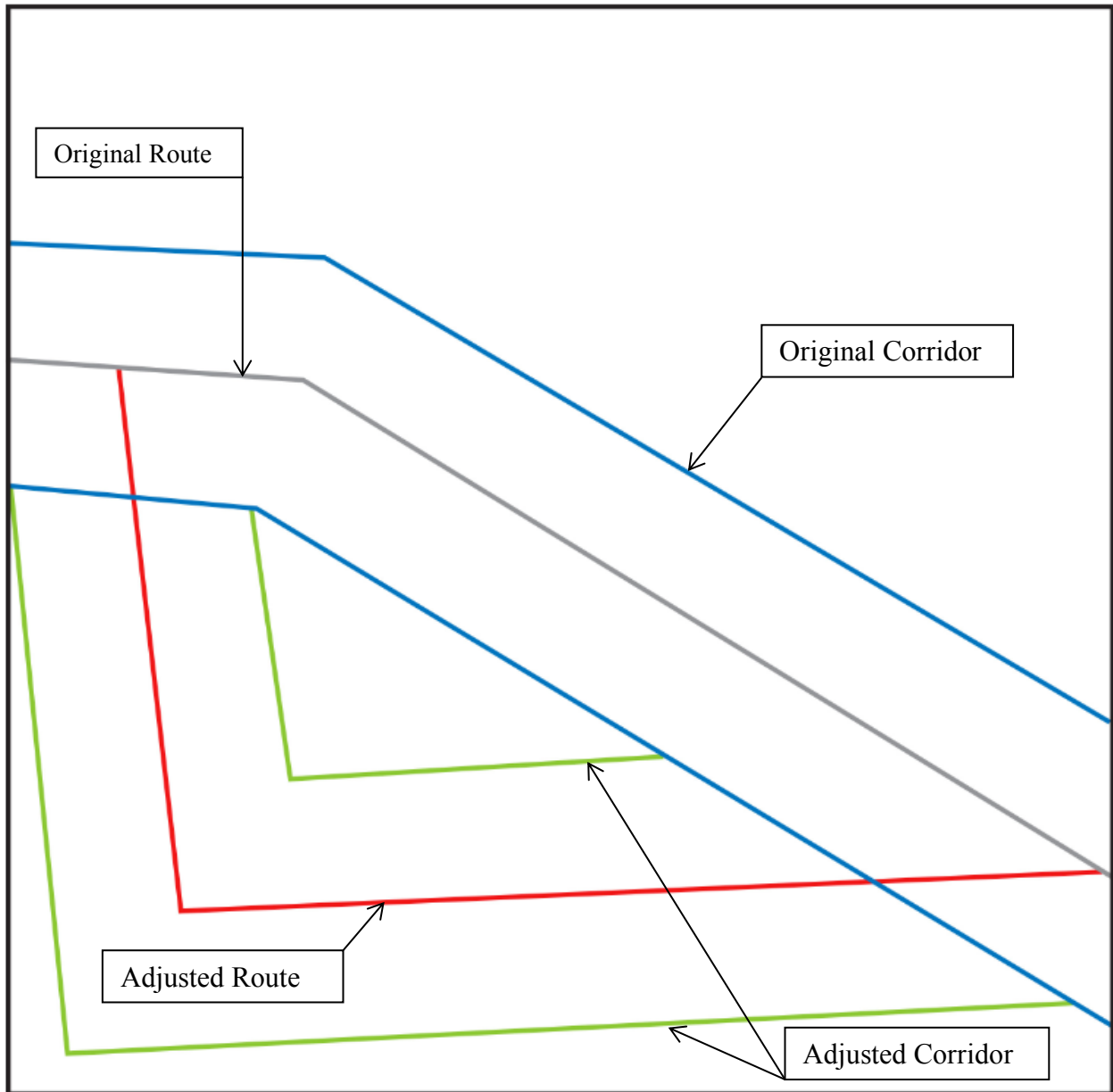
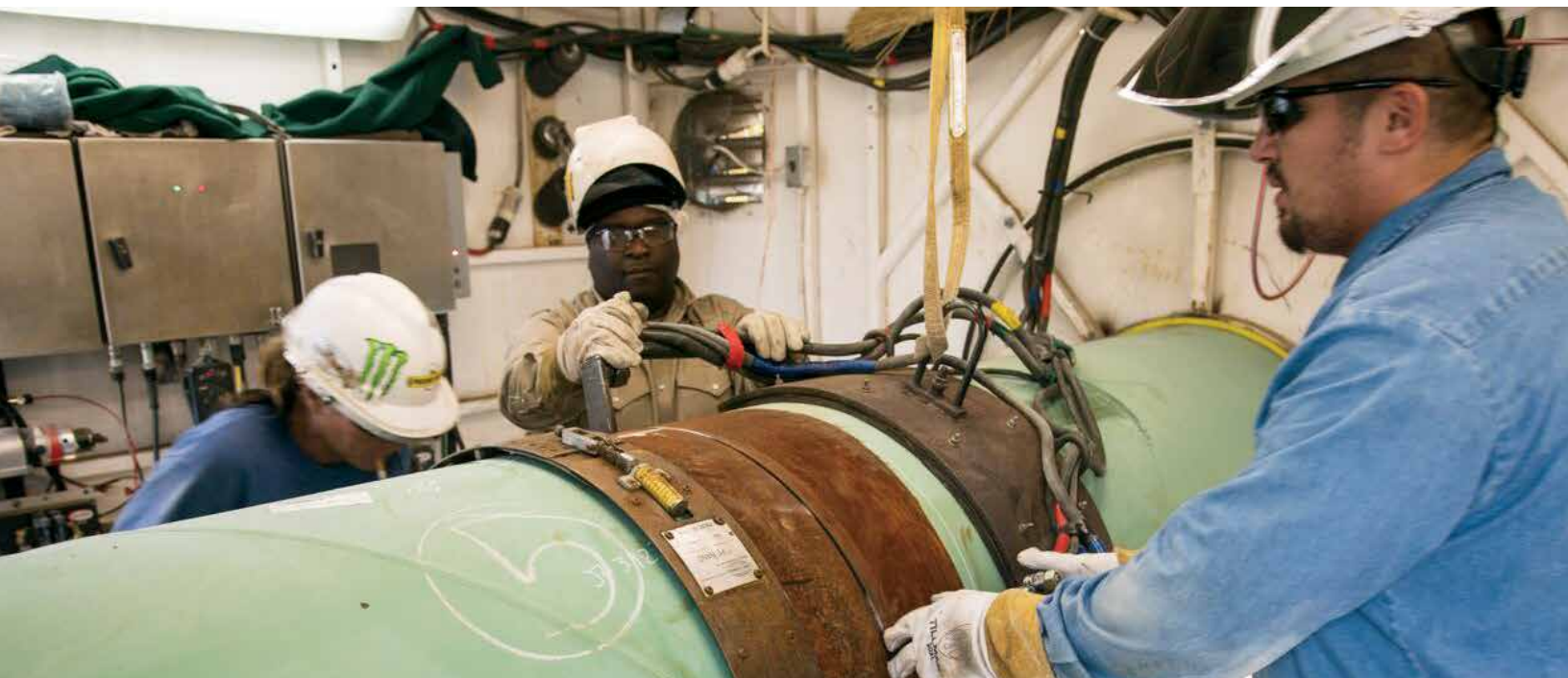


Figure 3. Example of a Category 3 Statutory Route Adjustment (N.D.C.C. §49-22.1-15(3))

Category 3 Route Adjustments occur when the reroute falls outside of the previously designated corridor. Maps showing the designated corridor, corridor adjustment, designated route, and the route adjustment must be included with a Category 3 Route Adjustment filing. In Figure 3, the designated corridor is depicted in blue with the designated route in black. A Category 3 Route Adjustment will require the adjusted corridor to be shown (green), along with the route adjustment (red). The maps and supporting information must also state the length of the proposed route outside of the corridor, which cannot be longer than one and one-half (1.5) miles in length in order to qualify for a category 3 Route Adjustment.

In addition to appropriate maps depicting the route and corridor adjustment, additional information is also required for a Category 3 Route Adjustment as previously detailed. The certification accompanying a Category 3 Route Adjustment must include sufficient information affirming construction activities will not affect any known exclusion or avoidance areas, that each owner of real property on which the adjustment is to be located and any applicable governmental entity with an interest in the same adjustment area do not oppose the adjustment, and that the company will comply with the Commission's order, laws, and rules designating the corridor and route. Additional field studies indicating exclusion and avoidance areas for the proposed adjustment area must also be submitted with the filing.

As detailed in this section, Category 3 Route Adjustments require significantly more detailed information to be submitted in support of the adjustment. While a Category 3 Route Adjustment does not require formal approval from the Commission, it is the practice of the Commission to acknowledge receipt of the filing upon review. Because of the more complex nature of a Category 3 Route Adjustment filing, it is important to ensure all filing requirements are understood and complied with prior to construction of the route adjustment.



4. Category 4 Route Adjustments⁴

Before adjusting the route of a gas or liquid transmission line under N.D.C.C. § 49-22.1-15(4) outside the designated corridor that may affect an avoidance area, and before conducting any construction activities for any adjustment to the designated route outside the designated corridor, the company must file:

⁴ Category 4 Route adjustments were previously codified at N.D.C.C. § 49-22-16.3(4).

- A specific description of the avoidance area expected to be impacted, including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying:
 - The designated corridor, corridor adjustment, designated route, and the route adjustment; and
 - All exclusion and avoidance areas within the adjustment area;
- Certification and supporting documentation that construction activities will not affect any known exclusion area;
- Certification and supporting documentation that the utility has good cause and a specific reason to impact the avoidance area and a reasonable alternative does not exist within the designated corridor and route;
- Certification and supporting documentation that the route outside the designated corridor is no longer than one and one-half miles;
- Certification and supporting documentation that each owner of real property on which the adjustment is to be located and any applicable governmental entity with an interest in the same adjustment area do not oppose the adjustment;
- Provide specific information about any mitigation measures company will take within the adjustment area;
- Detailed field studies indicating exclusion and avoidance areas for the proposed adjustment area; and
- Certification by the company that the Commission's order, laws, and rules applying to the adjustment corridor and route.

In submitting a Category 4 Route Adjustment, the company must acknowledge and agree that:

- Written authorization from the Commission for impacting the avoidance area is necessary prior to commencement of construction activity unless the Commission fails to act within ten working days of receipt of filing a complete adjustment application, in which case the adjustment is deemed approved.
- The initiation of the ten working days begins upon receipt of a complete filing, to include the company's certifications, supporting documentation, and maps. However, the Commission may extend the ten working day provision if the company is informed of the reason additional time is necessary for extension and the company has no objection to an extension.



Category 4 Route Adjustments are the least common and most complicated route adjustment type. Figure 4 depicts an example of a Category 4 Route Adjustment. While a Category 4 Route Adjustment looks very similar to a Category 3 Route Adjustment, the existence of an avoidance area requires additional information to be submitted to the Commission and additional steps to be taken prior to construction of the route adjustment.



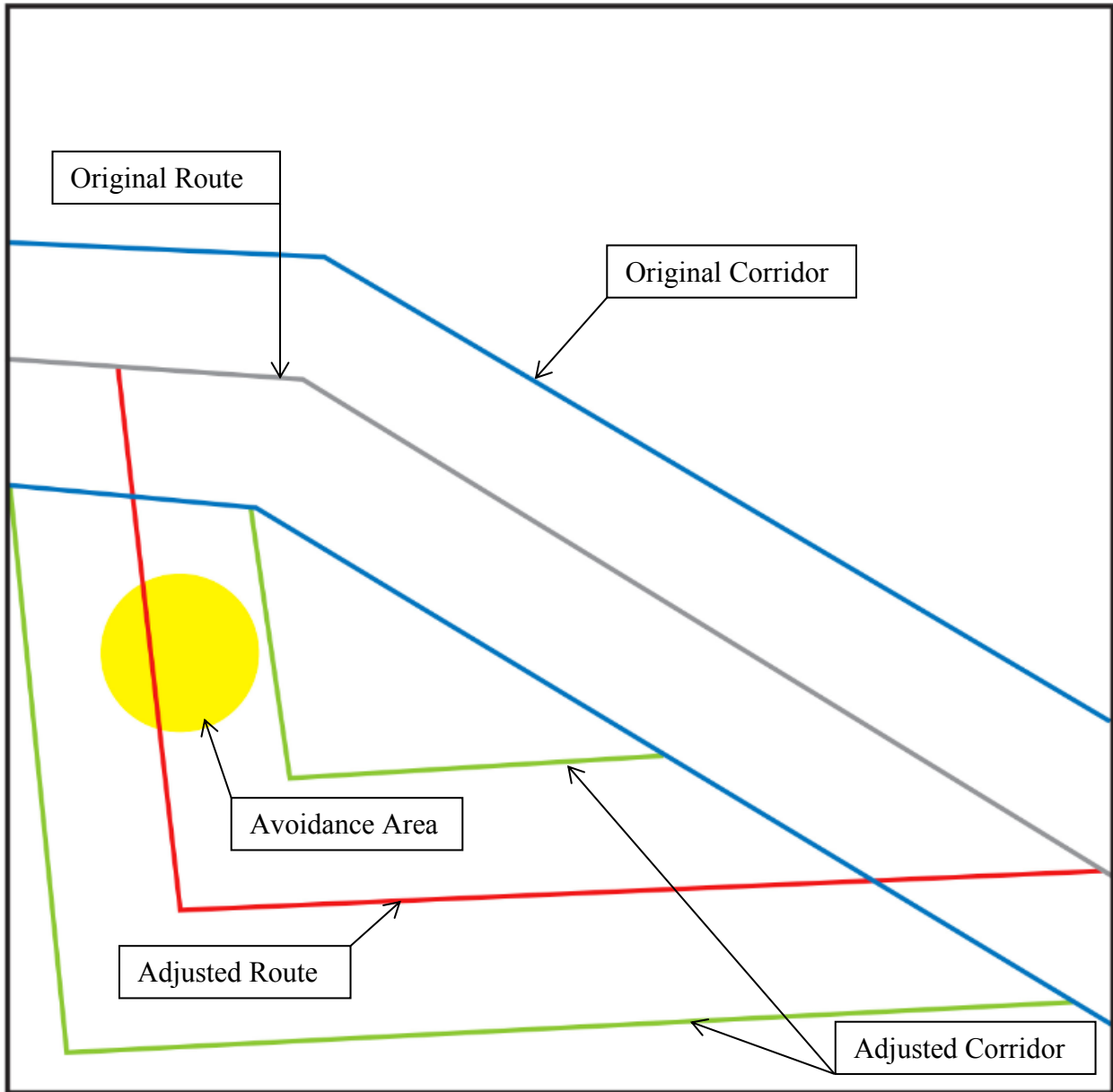


Figure 4. Example of a Category 4 Statutory Route Adjustment (N.D.C.C. §49-22.1-15(4))

Category 4 Route Adjustments occur when the reroute falls outside of the previously designated corridor and the route adjustment may affect an avoidance area. Maps showing the designated corridor, corridor adjustment, designated route, and the route adjustment must be included with a Category 4 Route Adjustment filing. Above, the previously designated corridor is depicted in blue with the designated route in black. A Category 4 Route Adjustment will require the adjusted corridor to be shown (green), along with the route adjustment (red). The avoidance area is also depicted on the map in yellow. The maps and supporting information should also state the length of the proposed route outside of the corridor, which cannot be longer than one and one-half (1.5) miles in length.



In addition to sufficient maps depicting the route and corridor adjustment, additional information is also required for a Category 4 Route Adjustment as detailed in this section. Because of the potential to impact an avoidance area, even greater information than that submitted for a Category 3 Route Adjustment is required. The Commission must also provide written authorization of the Category 4 Route Adjustment prior to construction.

As outlined herein, the certification accompanying a Category 4 Route Adjustment must include sufficient information affirming construction activities will not affect any known exclusion areas, each owner of real property on which the adjustment is to be located and any applicable governmental entity with an interest in the same adjustment area do not oppose the adjustment, and that the company will comply with the Commission's order, laws, and rules designating the corridor and route. The existence of an avoidance area to be impacted by the route adjustment necessitates the heightened information to be submitted to the Commission. A description of the avoidance area and corresponding detailed field studies of the area to be impacted must also be submitted with the filing. The company must provide good cause and a specific reason to impact the avoidance area and confirm a reasonable alternative does not exist. The company must receive written authorization from the Commission that it may impact the avoidance area. If authorization is not received, the company must go through the entire siting process. Again, the complexity of a Category 4 Route Adjustment necessitates a comprehensive understanding of the filing process prior to construction.

B. Non-Statutory Route Adjustments

In addition to the statutory route adjustments previously discussed, the Commission also requires that in those situations where a cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction (“Unexpected Find”), the resource or site must be marked, preserved, and protected from further disturbance until a professional examination can be made and a report of such examination is filed with the Commission and the North Dakota State Historic Preservation Office (“SHPO”). Following discovery of the Unexpected Find, clearance to proceed must be provided by the Commission prior to construction of the Unexpected Find Route Adjustment.

Unexpected Find Route Adjustments are less common, but these adjustments can occur. Figure 5 below depicts an example of an Unexpected Find Route Adjustment.



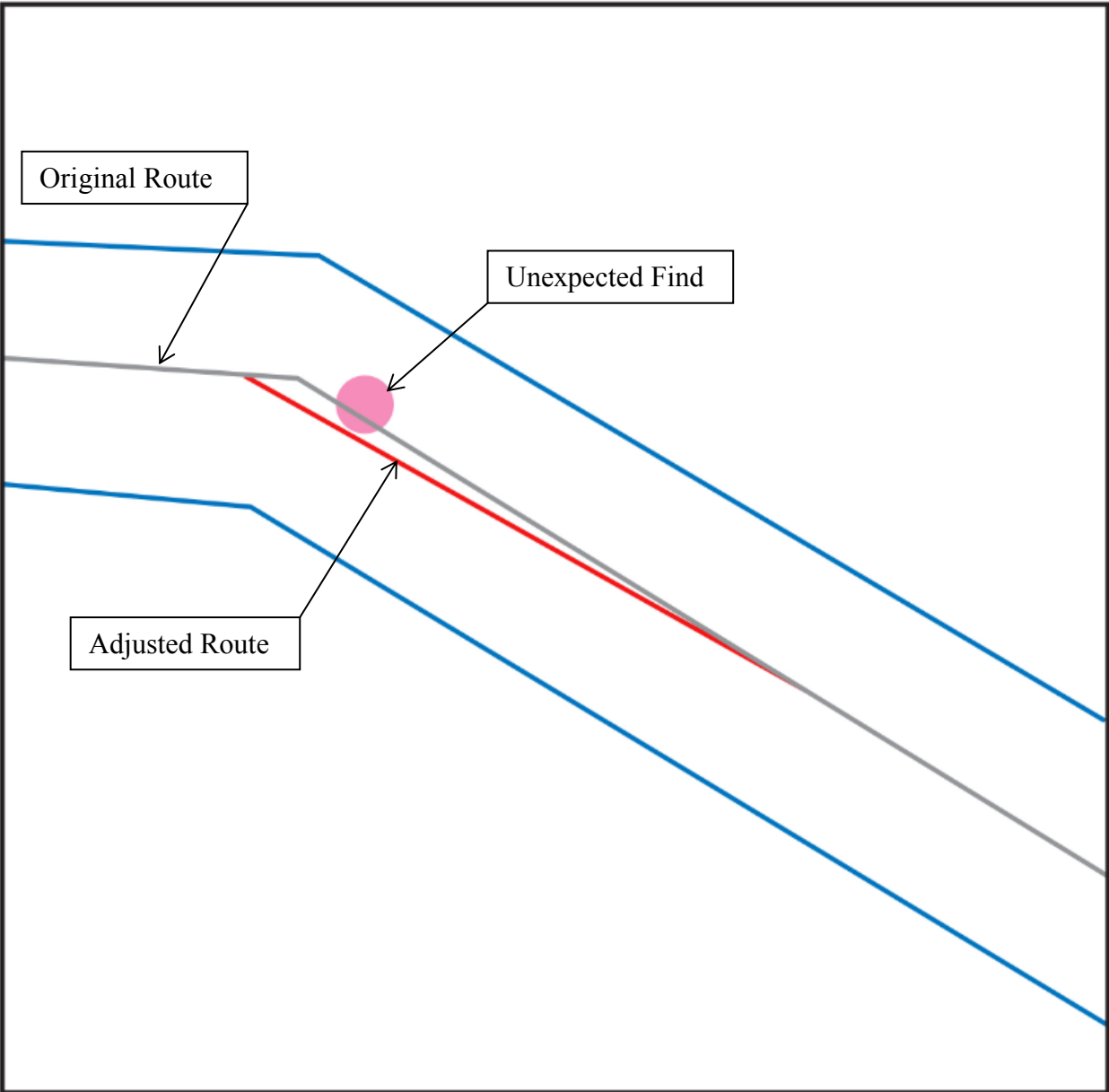


Figure 5. Example of Route Adjustment because of unexpected archeological find.

An Unexpected Find Route Adjustment will be required when, as depicted in Figure 5, an archeological or similar site is encountered during construction. For example, the pink area in Figure 5 illustrates an Unexpected Find encountered during construction. When such an area is encountered, construction activities must be halted and the site marked as required by Commission

STATE
HISTORIC
PRESERVATION
OFFICE



<http://history.nd.gov/>



rules. Prior to construction of the Unexpected Find Route Adjustment depicted in red, both the Commission and the SHPO must be notified and clearance to proceed must be given by the Commission. Additionally, information supporting the route adjustment must be provided to the Commission. Ultimately, the Commission should be notified of the Unexpected Find Route Adjustment and the company and Commission should work together to ensure the resource or site is not impacted.



IV. CONCLUSION





CONCLUSION

As detailed in this handbook, there are various types of route adjustments that can occur prior to or during construction of a transmission pipeline in North Dakota. Each type or category of route adjustment has specific rules that must be followed and documentation required to be submitted to the Commission prior to beginning construction of the route adjustment. It is important for companies engaging in transmission facility construction in North Dakota to be aware of the guidelines outlined herein, and discuss any questions with Commission staff or legal counsel.



FREQUENTLY ASKED QUESTIONS



FREQUENTLY ASKED QUESTIONS

Question 1: What is a “route”?

Answer: A route is the location of a gas or liquid transmission facility within a designated corridor. See N.D.C.C. § 49-22.1-01(10).

Question 2: What is a “corridor”?

Answer: A corridor is the area of land in which a designated route may be established for a gas or liquid transmission facility. See N.D.C.C. § 49-22.1-01(4). Construction for a transmission facility must be limited to the corridor as designated by the Commission.

Question 3: What is a “route adjustment”?

Answer: A route adjustment occurs when the route and/or corridor previously approved by the Commission must be modified or moved based on factors encountered prior to or during construction of the transmission facility.

Question 4: What are some of the obstacles that may necessitate a route adjustment?

Answer: There are a number of reasons why a route may need to be modified prior to or during construction of a transmission facility. For example, following issuance of the route permit and certificate of corridor compatibility by the Commission, a landowner may request that the company modify the approved route. Additionally, various environmental factors may be encountered prior to or during construction that may necessitate the route be modified, such as previously unknown exclusion or avoidance areas, cultural resources, paleontological sites, archeological sites, historical sites, or grave sites.

Question 5: How do you measure the length of the route adjustment?

Answer: The length of a route adjustment is determined by measuring the length of the modified route as it deviates from the previously approved route. For various statutory route adjustments, the length of the route adjustment outside the corridor is necessary to determine which category of route adjustment is applicable. In that instance, the proposed adjusted route should be overlaid with the previously designated corridor, and the length of the modified route outside the designated corridor should be measured.

Question 6: What is the difference between a statutory route adjustment and a non-statutory route adjustment?

Answer: A statutory route adjustment is a voluntary modification governed by one of the categories set forth in North Dakota Century Code § 49-22.1-15. A non-statutory route adjustment is a route modification required by the Commission based on language found in the Commission’s orders or Certification Relating to Order Provisions, such as cultural resources, paleontological sites, archeological sites, historical sites, or gravesites.

NOTES



APPENDIX A: CATEGORY 1 ROUTE ADJUSTMENT SAMPLE PSC FILING



July 29, 2016

VIA HAND-DELIVERY

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

**Re: Sacagawea Pipeline Company, LLC -
Case No. PU-15-744 -Notification of Route
Adjustment under N.D.C.C. § 49-22-16.3(1)**

Dear Mr. Nitschke:

On May 24, 2016, the North Dakota Public Service Commission ("Commission") issued Findings of Fact, Conclusions of Law, and Order ("Order") granting Certificate of Corridor Compatibility Number 186 and Route Permit Number 198 to Sacagawea Pipeline Company, LLC ("Sacagawea") for the Johnson's Corner Connector Crude Oil Pipeline Project ("Project"). Since issuance of the Order, Sacagawea has determined that a route adjustment within the corridor designated for the Project is necessary to accommodate landowner requests and construction activities. No known exclusion or avoidance areas, as defined in North Dakota Administrative Code §§ 69-06-08-02(1) and (2), will be affected by construction activities associated with the route adjustment. All construction activities will be within the previously designated corridor.

Therefore, enclosed for filing please find an original and ten (10) copies of the following documents in support of Sacagawea's notification for route adjustment under North Dakota Century Code § 49-22-16.3(1):

- Certification of Troy Andrews, with accompanying exhibits:
 - Exhibit A: Route Adjustment Chart;
 - Exhibit B: Route Adjustment Map; and
 - Exhibit C: Landowner Information.

Attorneys & Advisors
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Certification and documentation for route adjustments under NDCC 49-22-16.3
Sacagawea Pipeline Company, LLC
Lawrence Bender, Fredrikson&Byron, P.A.

Mr. Darrell Nitschke
July 29, 2016
Page 2

Also enclosed herewith is a disk containing the above-referenced documents in PDF format. Please note that the Certification of Troy Andrews is a copy, with the original to be submitted upon receipt. Should you have any questions, please advise.

Sincerely,

LAWRENCE BENDER

LB/dmk
Enclosures

cc: Mr. Zachary Pelham (via e-mail w/o enclosures)
Ms. Julie Prescott (via e-mail w/o enclosures)

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**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA**

**Sacagawea Pipeline Company, LLC
16-inch Crude Oil Pipeline – McKenzie County
Route Adjustment**

CASE NO. PU-15-744

CERTIFICATION OF TROY ANDREWS

STATE OF TEXAS

COUNTY OF DALLAS

Troy Andrews, being first duly sworn upon oath, states and alleges as follows:

1. I am CEO of Paradigm Energy Partners, LLC, with authority to provide information on behalf of Sacagawea Pipeline Company, LLC (“Sacagawea”). I am familiar with the fifteen (15) mile, 16-inch diameter crude oil pipeline (“Project”) and the above-captioned matter, and have the authority to bind Sacagawea with respect to the certification made herein.

2. That I submit this certification in accordance with North Dakota Century Code (“N.D.C.C.”) § 49-22-16.3(1) in support of Sacagawea’s route adjustment for the Project.

3. That, on May 24, 2016, the North Dakota Public Service Commission (“Commission”) issued its Findings of Fact, Conclusions of Law and Order for the Project granting Sacagawea Certificate of Corridor Compatibility No. 186 and Route Permit No. 198 designating a corridor and route for the Project.

4. That Sacagawea now seeks to modify the approved Project route, as depicted on the map filed herewith, under N.D.C.C. § 49-22-16.3(1).

5. The attached **Exhibit A** lists information regarding the route adjustment being made pursuant to N.D.C.C. § 49-22-16.3. Exhibit A identifies: (a) the location of the adjustment; (b) the subsection of N.D.C.C. § 49-22-16.3 applicable to the adjustment; (c) the

total length of the adjustment; (d) the length of the adjustment outside of the designated corridor; (e) whether supplemental surveys or approvals were required for the adjustment; and (f) whether any exclusion or avoidance areas are impacted by the adjustment.

6. A map depicting the designated corridor and route, and the route adjustment, is attached hereto as **Exhibit B**.

7. No owner of real property on which an adjustment is to be located and no applicable governmental entity with an interest in the same adjustment area oppose the adjustment. Attached hereto as **Exhibit C** is the landowner information for the landowner affected by the route modification.

8. All construction activities for the route adjustment will be within the previously designated corridor. *See Exhibits A and B.*

9. The route adjustment is covered by the previous studies conducted for the Project included in the original siting application. *See Exhibits A and B; see also PSC Docket No. 1.* Keitu Engineers and Consultants Inc. (“Keitu”) reviewed the survey information submitted in conjunction with the original application. In reviewing the previously submitted information, no exclusion or avoidance areas were found that will be impacted by the route adjustment. *See Exhibit A; see also PSC Docket No. 1.*

10. Construction activities for the route adjustment will not affect any known exclusion or avoidance areas. *See Exhibit A.* The studies conducted in connection with the original application for the Project cover the route adjustment, with no further studies required. *See PSC Docket No. 1.*

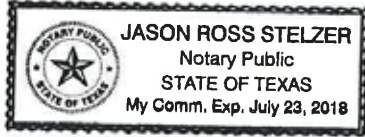
11. Sacagawea will comply with the Commission’s orders, laws, and rules designating the corridor and designating the route.

Troy Andrews

Troy Andrews

Subscribed and sworn to before me
this 29th day of July, 2016.

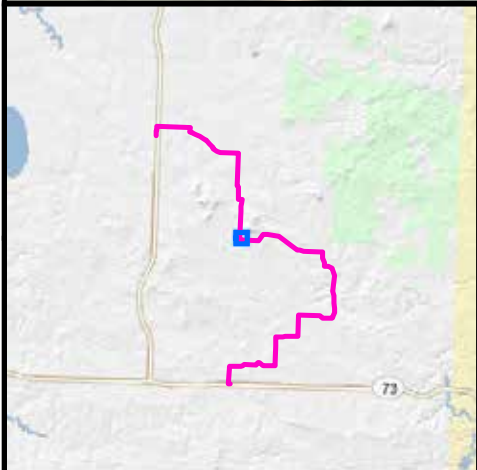
Jason Ross Stelzer
Notary Public







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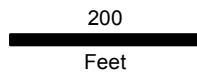
Exhibit A
Johnson's Corner Connector Pipeline - PU-15-744
Route Adjustment Chart

Route Adjustment	Location	Applicable N.D.C.C. Section	Total Length (miles)	Outside Corridor (miles)	Supplemental Survey Required	Archy Study	Supp. SHPO Concurrence	Keitu Field Report	Avoidance Areas	Exclusion Areas
428	Section 31, T151N, R95W	§ 49-22-16.3(1)	0.07	0.00	No	N/A	N/A	N/A	No	No



Legend

-  Approved Centerline
-  Route Adjustment within Corridor
-  Approved Corridor
-  Survey



SACAGAWEA
PIPELINE COMPANY, LLC

**Johnson's Corner Connector Pipeline
 (PU-15-744)**

**Route Adjustment
 Sta: 428+55 to
 Sta: 432+04**

S31 T151N R95W



Updated: 6/27/2016

SACAGAWEA PIPELINE COMPANY, LLC
CASE NO. PU-15-744
EXHIBIT C — LANDOWNER INFORMATION

Harold & Marilyn Rolfsrud Trust
3601 113 Ave. NW
Keene, ND 58847

Legal Description:

SW1/4 NW1/4 of Sec 31, T151N, R95W, 5th P.M.



**APPENDIX B:
CATEGORY 2 ROUTE
ADJUSTMENT SAMPLE PSC FILING**

At the time of preparing this Handbook, no company had ever submitted a request for a Category 2 Route Adjustment.

APPENDIX C: CATEGORY 3 ROUTE ADJUSTMENT SAMPLE PSC FILING





May 22, 2017

VIA HAND-DELIVERY

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

**Re: Dakota Access, LLC - Case No. PU-14-842
Notification of Route Adjustments under
N.D.C.C. § 49-22-16.3(3)**

Dear Mr. Nitschke:

On January 20, 2016, the North Dakota Public Service Commission (“Commission”) issued Findings of Fact, Conclusions of Law, and Order (“Order”) granting Certificate of Corridor Compatibility Number 179 and Route Permit Number 191 to Dakota Access, LLC (“Dakota Access”) for the Dakota Access Pipeline Project (“Project”). On May 24, 2016, the Commission issued Supplemental Findings of Fact, Conclusions of Law and Order issuing First Amended Certificate of Corridor Compatibility Number 179 and First Amended Route Permit Number 191 to Dakota Access. On June 22, 2016, the Commission issued Second Supplemental Findings of Fact, Conclusions of Law and Order granting Dakota Access Second Amended Certificate of Corridor Compatibility No. 179 and Second Amended Route Permit No. 191 for the Project.

Recently, through review of the as-built information for the Project, it was discovered that minor route adjustments were not previously provided to the Commission. These three minor deviations are less than 1.5 miles in length and were the result of landowner site or route specific change requests during construction to avoid obstacles that appeared post order issuance. When evaluating the as-built files it was observed that these three changes had not been previously submitted and recorded as part of the administrative record. However, please now find and accept for the record the three route adjustments. Final as-built drawings and data will be provided to the Commission by May 26, 2017 pursuant to Order provision 32.

Attorneys & Advisors
main 701.221.8700
fax 701.221.8750
fredlaw.com

Fredrikson & Byron, P.A.
1133 College Drive, Suite 1000
Bismarck, North Dakota
58501-1215

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Mr. Darrell Nitschke
May 22, 2017
Page 2

The three route adjustments are labeled 133, 134, & 135. Route adjustments 135 & 136 were related to landowner requests and route adjustment 134 is related to spatial conflict with a well pad and flare stack. The details of each route adjustment are as follows:

1. Route adjustment 134 shifted the pipeline centerline south for a short distance to avoid a well pad. Prior to shifting, the pipeline centerline was in very close proximity to a flare stack and was not suitable for safe pipeline construction or operations and would have been disruptive to well pad operations. Constructing the pipeline through the well pad would have compromised the well pad base, increased the disturbed area required to safely construct, and extended the time required for reclamation.
2. Route adjustment 135 shifted the pipeline centerline south for a short distance to provide landowner access to livestock corrals and to accommodate a water line proposed to cross the property. During construction it was observed that the construction activities were going to block access to the corrals, Therefore, in cooperation with the landowner, the pipe was slightly adjusted to provide access and to eliminate the conflict. The shift also provided greater separation from the proposed water line. The pipeline centerline was shifted at the landowner's request.
3. Route adjustment 136 shifted the pipeline centerline south for a short distance to avoid conflicts with landowner stock dam and livestock water trough. As proposed, the pipeline would have been constructed very close to the stock dam and the landowner's water trough would have required temporary or permanent relocation. To avoid unnecessary impacts to the landowner's livestock operation, at the request of the landowner during construction the pipeline centerline was shifted.
- 4.

The route adjustments meet all of the requirements to proceed under N.D.C.C. § 49-22-16.3(3), and only require notification to the Commission of the route adjustments. No known exclusion or avoidance areas, as defined in North Dakota Administrative Code §§ 69-06-08-02(1) and (2), were affected by construction activities associated with the route adjustments.

To supplement the administrative record, enclosed for filing please find an original and ten (10) copies of the following documents pursuant to North Dakota Century Code ("N.D.C.C.") § 49-22-16.3(3):

- Certification of Joey Mahmoud, with accompanying exhibits:
 - Exhibit A: Dakota Access Reroute Location Maps;
 - Exhibit B: Summary of the Environmental/Exclusion and Avoidance Areas Analysis Completed for Reroute Locations;
 - Exhibit C: Environmental Crossing Analysis for Reroute Locations;

Mr. Darrell Nitschke
May 22, 2017
Page 2

- o Exhibit D: Summary of the Cultural Resources Analysis Completed for Reroute Locations;
- o Exhibit E: Exclusion and Avoidance Criteria Analysis for Reroute Locations; and
- o Certificate of Service.

Also enclosed herewith is a disk containing the above-referenced documents in PDF format. Should you have any questions, please advise.

Sincerely,



LAWRENCE BENDER

LB/dmk
Enclosures

61450181_1.docx

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

Dakota Access, LLC
Dakota Access Pipeline Project
Siting Application

CASE NO. PU-14-842

CERTIFICATION OF JOEY MAHMOUD

STATE OF NORTH DAKOTA

COUNTY OF BURLEIGH

Joey Mahmoud, being first duly sworn upon oath, states and alleges as follows:

1. That I am employed as the Vice President of Engineering for Dakota Access, LLC (“Dakota Access”) for the Dakota Access Pipeline Project (the “Project”) and have the authority to bind Dakota Access with respect to the certification made herein.

2. That I submit this certification in accordance with North Dakota Century Code (“N.D.C.C.”) § 49-22-16.3(3) in support of Dakota Access’s route and corridor adjustments for the Project.

3. That on January 20, 2016, the North Dakota Public Service Commission (“Commission”) issued its Findings of Fact, Conclusions of Law and Order granting Dakota Access a Certificate of Corridor Compatibility and Route Permit for the Project.

4. That on May 24, 2016, the Commission issued its Supplemental Findings of Fact, Conclusions of Law and Order granting Dakota Access First Amended Certificate of Corridor Compatibility No. 179 and First Amended Route Permit No. 191 for the Project.

5. That on June 22, 2016, the Commission issued its Second Supplemental Findings of Fact, Conclusions of Law and Order granting Dakota Access Second Amended Certificate of Corridor Compatibility No. 179 and Second Amended Route Permit No. 191 for the Project.

6. That under N.D.C.C. § 49-22-16.3(3), modification to the approved Project route and corridor, as depicted on the maps filed herewith, were required for the Project.

7. That the reroutes occur in Williams, Mercer, and Morton Counties. Both the approved and modified route and corridor are depicted on the maps attached hereto as Exhibit A.

8. No owner of real property on which an adjustment is located and no applicable governmental entity with an interest in the same adjustment area oppose the adjustment.

9. That botany, wetland, and wildlife surveys were completed for the route and corridor modifications. A Summary of the Environmental/Exclusion and Avoidance Areas Analysis Completed for Reroute Locations prepared by Dakota Access discussing the various environmental reviews performed is attached hereto as Exhibit B. Also attached hereto as Exhibit C is a document setting forth the findings of the environmental crossing analysis for the reroute locations in table format.

10. That Class II and Class III cultural resources inventories have been completed for the Project, which includes the modified route and corridor. The review of the inventory and associated documents by the State Historic Preservation Office took into account all of the proposed route and corridor adjustments, as explained in the Summary of the Cultural Resources Analysis Completed for Reroute Locations from Dakota Access attached hereto as Exhibit D.

11. That following the Class III cultural resources inventories, the reports were submitted to the North Dakota State Historic Preservation Office for review. As discussed in the Summary of the Cultural Resources Analysis Completed for Reroute Locations, the State

Historic Preservation Office concurred with the recommendations provided in the reports, and stated no significant sites will be affected by the Project, with the exception of those sites included in the Evaluation and Mitigation Plan. The Evaluation and Mitigation Plan was also approved by the State Historic Preservation Office. See Exhibit D.

12. That no exclusion or avoidance areas will be affected by the route and corridor adjustments and associated construction activities. Dakota Access conducted the necessary field studies to confirm the route adjustments will not impact any exclusion or avoidance areas. A table setting forth the exclusion and avoidance criteria analysis performed for the reroute locations is attached hereto as Exhibit E. A Summary of the Environmental/Exclusion and Avoidance Areas Analysis Completed for Reroute Locations prepared by Dakota Access discussing the exclusion and avoidance area reviews performed is attached hereto as Exhibit B.

13. That for each of the route adjustments, the route outside the designated corridor is no longer than one and one-half miles in length. The exact length of each reroute, and the length outside of the designated corridor, is set forth in the environmental crossing analysis table attached hereto as Exhibit C.


14. That Dakota Access will comply with the Commission's orders, laws, and rules designating the corridor and designating the route.



- PSC Milepost
- May 2016 Route
- May 2016 Workspace
- PSC Corridor
- 1 Mile Study Corridor
- May 2017 Route
- May 2017 Workspace
- Adjusted Corridor
- Area Outside of PSC Corridor
- North Dakota PLSS Section
- North Dakota PLSS Township

0 400 Feet

Waterbody
Wetland

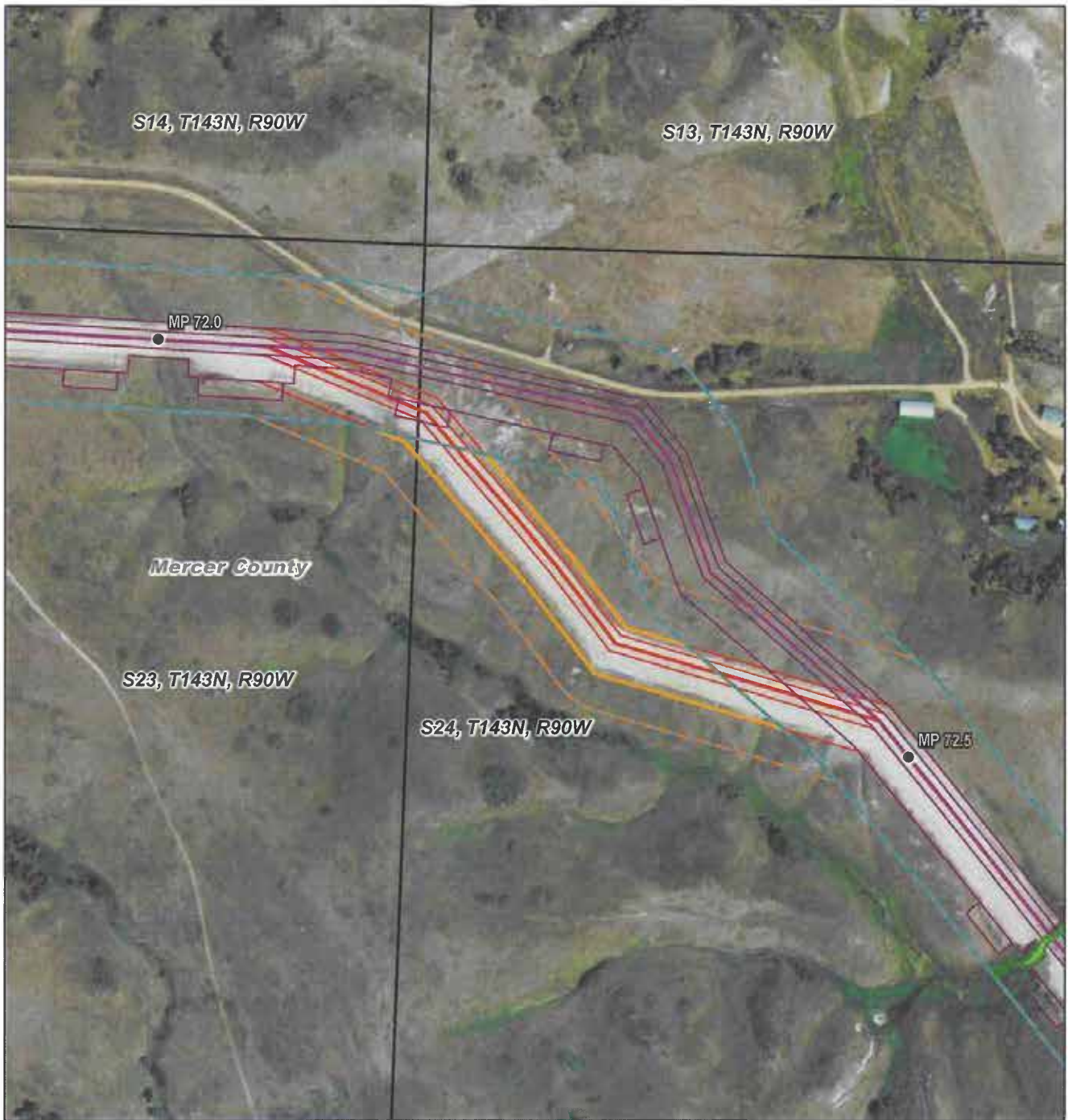


DAKOTA ACCESS, LLC

**Dakota Access Pipeline Project
North Dakota PSC
Reroute Location 133
EXHIBIT A**

Page 1 of 3	1:4,800
UTM83-13F	Date: May, 2017


Path: P:\GISClient\ETC_Energy Transfer\DakotaAccess_DAPL\Maps\ENV\ND_Reroutes\20170504_IND_RR_Update\MXD\IND_reroutes_RR134.mxd



- PSC Milepost
- May 2016 Route
- May 2016 Workspace
- PSC Corridor
- 1 Mile Study Corridor
- May 2017 Route
- May 2017 Workspace
- Adjusted Corridor
- North Dakota PLSS Section
- North Dakota PLSS Township

0 390 Feet

Waterbody
Wetland

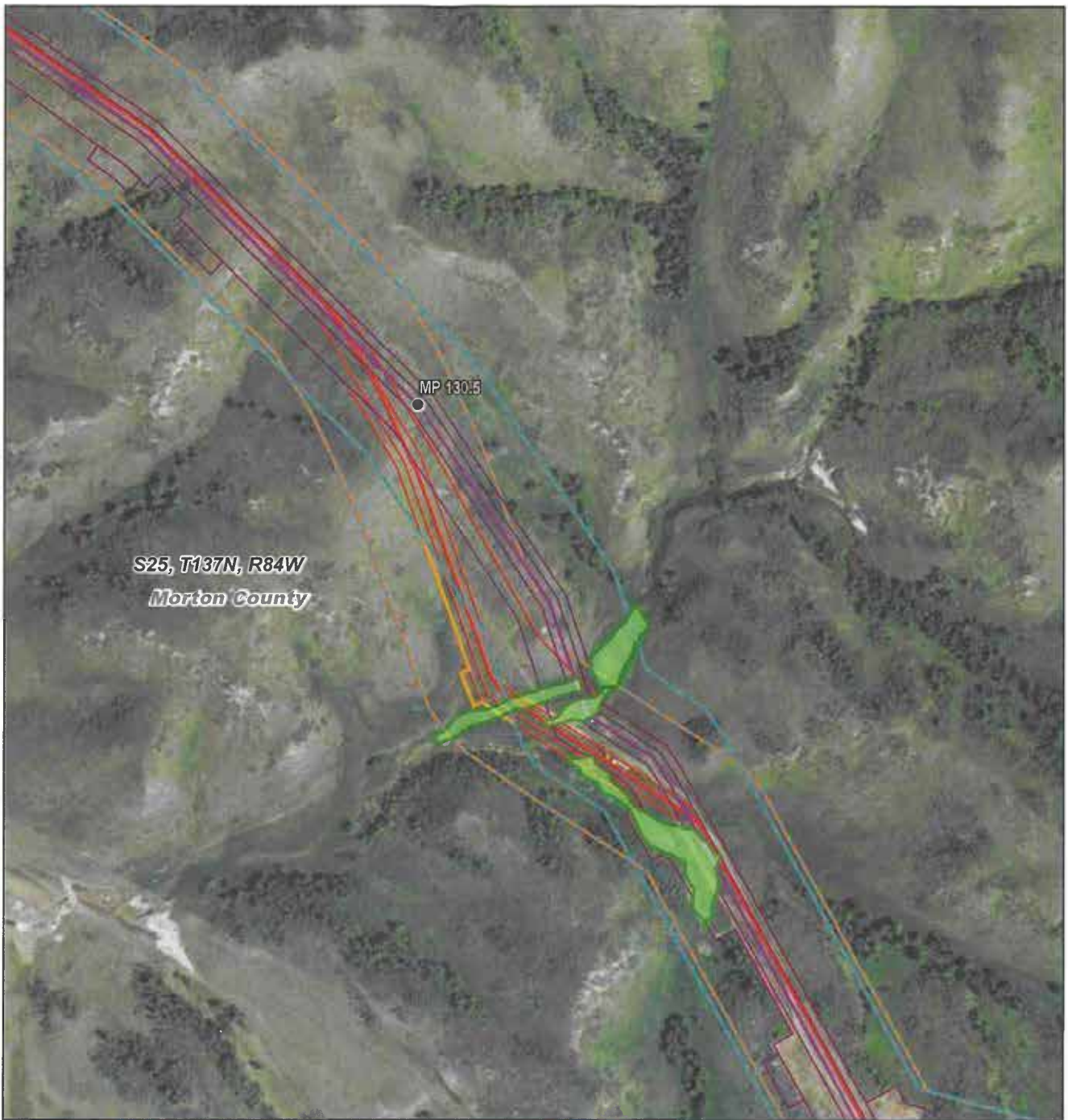


DAKOTA ACCESS, LLC

**Dakota Access Pipeline Project
North Dakota PSC
Reroute Location 134**

Page 2 of 3	1:4,800
UTM83-13F	Date: May, 2017

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S25, T137N, R84W
Morton County

MP 130.5



- PSC Milepost
- May 2016 Route
- May 2016 Workspace
- PSC Corridor
- 1 Mile Study Corridor
- May 2017 Route
- May 2017 Workspace
- Adjusted Corridor
- Area Outside of PSC Corridor
- North Dakota PLSS Section
- North Dakota PLSS Township

0 400 Feet

Waterbody
Wetland



**Dakota Access Pipeline Project
North Dakota PSC
Reroute Location 135**

Page 3 of 3	1:4,800
UTM83-14F	Date: May, 2017

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**Summary of the Environmental/Exclusion and Avoidance Areas Analysis
Completed for Reroute Locations
Dakota Access Pipeline Project
North Dakota PSC**

Dakota Access, LLC has completed environmental surveys for the proposed Dakota Access Pipeline Project (Project) across affected tracts. The environmental survey consisted of land use assessment, a wetland and waterbody delineation, threatened and endangered species assessment, and cultural resources assessment (See the attached Cultural Survey Summary). This document provides a summary of the environmental survey methodology completed along the Project route and datasets utilized to complete the PSC reroute analysis of exclusion and avoidance areas.

The attached tables correspond to the environmental analysis and evaluation of exclusion and avoidance areas completed for each reroute location as described below.

Environmental Survey Methodology

Biologists conducted the environmental survey within a defined environmental survey area (400-foot corridor centered on the pipeline). The following provides a brief description of the methods utilized to complete the environmental survey.

Land Use Assessment

Vegetation community types occurring along the Project route were identified, described, and delineated based on data obtained during field surveys and review of aerial photography. During field surveys, vegetation communities were described as part of the U.S. Army Corps of Engineers (USACE) wetland delineations and classification of land uses. To be able to compare the original filed route with the reroutes, the U.S. Geological Survey (USGS) National Land Cover database was utilized to determine the land use for the reroute environmental analysis.

Wetland and Waterbody Delineation

Biologists conducted a wetland and waterbody delineation to identify and record physical features that may be considered “waters of the United States,” as defined by the USACE. “Waters of the United States” include most wetlands, rivers, creeks, streams, lakes, and tributaries. The delineation was conducted in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains* (USACE, 2010) and the routine determination guidelines provided in the USACE *Wetland Delineation Manual* (Technical Report Y-87-1). The field delineated wetland and waterbody data was utilized in the environmental analysis and is included in the mapping exhibits.

Threatened and Endangered Species Assessment

Biologists conducted a threatened and endangered (T&E) species assessment to determine the presence or absence of federally listed threatened and endangered species and potential suitable habitat within the environmental survey area.

EXHIBIT B

Exclusion and Avoidance Areas

Exclusion and avoidance areas [North Dakota Administrative Code Chapter 69-06-08-02 (1 and 2)] were included in the analysis for the site suitability evaluation process; information on how data was gathered for these areas and results of the review is described below:

69-06-08-02	Transmission Facility Corridor and Route Criteria	
1	Exclusion areas	Results
1.a.	Designated or registered national: parks, sites, landmarks, monuments, wilderness	Publicly available datasets were utilized to evaluate national, state, or county exclusion areas; in addition, any of these potential exclusion areas would have been identified during the Project title vetting process. See Exhibit G, "National, State, or County Exclusion Areas" column for the results of the review of this exclusion area.
1.b.	Designated or registered state: parks, sites, monuments, archeological sites, natural preserves	Publicly available datasets were utilized to evaluate national, state, or county exclusion areas; in addition, any of these potential exclusion areas would have been identified during the Project title vetting process. See Exhibit G, "National, State, or County Exclusion Areas" column for the results of the review of this exclusion area.

1.c.	County parks and recreational areas, municipal parks, parks owned or administered by other governmental subdivisions	Publically available datasets were utilized to evaluate national, state, or county exclusion areas; in addition, any of these potential exclusion areas would have been identified during the Project title vetting process. <i>See Exhibit G, "National, State, or County Exclusion Areas"</i> column for the results of the review of this exclusion area.
1.d.	Areas of critical habitat	Potential T&E habitat data was collected in the field, as described above under Environmental Survey Methodology. <i>See Exhibit G, "T&E/Rare Species Critical Habitat"</i> column for the results of the review of this exclusion area.
1.e.	Areas where unique or rare species would be irreversibly damaged	Potential T&E habitat data was collected in the field, as described above under Environmental Survey Methodology. <i>See Exhibit G, "T&E/Rare Species Critical Habitat"</i> column for the results of the review of this exclusion area.
1.f.	Area within 1,200 feet of ICBM facility	Publically available datasets were utilized to evaluate national, state, or county exclusion areas; in addition, any of these potential exclusion areas would have been identified during the Project title vetting process. <i>See Exhibit G, "City Limits or Military Installation"</i> column for the results of the review of this exclusion area.

<p>1.g.</p>	<p>Areas within 30 feet of direct line of ICBM launch facilities</p>	<p>Publically available datasets were utilized to evaluate national, state, or county exclusion areas; in addition, any of these potential exclusion areas would have been identified during the Project title vetting process. See Exhibit G, "City Limits or Military Installation" column for the results of the review of this exclusion area</p>
<p>2</p>	<p>Avoidance Areas</p>	<p>Results</p>
<p>2.a.</p>	<p>Designated or registered national: historic districts, wildlife areas, wild, scenic or recreational rivers, wildlife refuges, grasslands</p>	<p>Publically available datasets were utilized to evaluate national, state, or county avoidance areas; in addition, any of these potential avoidance areas would have been identified during the Project title vetting process. See Exhibit G, "National, State, or County Exclusion Areas" column, which also encompasses a review of all national avoidance areas, for the results of the review of this avoidance area.</p>
<p>2.b.</p>	<p>Designated or registered state: wild, scenic, recreational rivers, game refuges, game management areas, forest management lands, grasslands</p>	<p>Publically available datasets were utilized to evaluate national, state, or county avoidance areas; in addition, any of these potential avoidance areas would have been identified during the Project title vetting process. See Exhibit G, "National, State, or County Exclusion Areas" column, which also encompasses a review of all national avoidance areas, for the results of the review of this avoidance area.</p>

2.c.	Historical resources which are not specifically designated as exclusion or avoidance areas	See Exhibit G, "Historic Resources or Landmarks" column for the results of the review of this avoidance area. <i>See also</i> Exhibit D, Cultural Resource Summary.
2.d	Areas which are geologically unstable	The U.S. Geological Survey Landslide Susceptibility national dataset was utilized to determine landslide susceptibility of the reroute locations. <i>See</i> Exhibit G, "Geologically Unstable Areas" for the results of the review of this avoidance area.
2.e.	Within 500 feet of a residence, school, or place of business	There are no residences, schools, or places of business within 500' of the route modifications.
2.f	Reservoirs and municipal water supplies	Publicly available datasets were utilized to implement avoidance of known reservoirs and municipal water supplies during the initial routing analysis. The same datasets were utilized to evaluate the proposed route modifications and no reservoirs or municipal water supplies were identified.

<p>2.g.</p>	<p>Water sources for organized rural water districts</p>	<p>Dakota Access coordinated with rural water districts to obtain locational data on existing and planned rural water district transmissions lines and source locations. While multiple transmission lines are being crossed with the proposed pipeline, Dakota access will implement permit-specific code and industry-complaint crossing techniques to meet applicable district guidelines. No known rural water district sources are being impacted by the proposed route modifications.</p>
<p>2.h.</p>	<p>Irrigated land</p>	<p>Google Earth aerial imagery was reviewed at each reroute location. Acreages within the Project footprint were calculated in Geographic Information Systems (GIS) if irrigated lands were identified. See Exhibit G, "Irrigated Lands" column for the results of the review of this avoidance area.</p>
<p>2.i.</p>	<p>Area of recreational significance but not designated exclusion areas</p>	<p>There are no areas of recreational significance not designated as exclusion areas that will be impacted by the route modifications</p>

Prime Farmland

The Natural Resources Conservation Service (NRCS) SSURGO database was utilized to determine which soil types would be crossed at the reroute location. Once the soil types crossed were identified, the NRCS Web Soil Survey was utilized to determine if any of the soil types within the County were considered prime farmland.

Woodlands and Wetlands

For woodlands, forested land use types identified by the USGS National Land Cover database were utilized.

For wetlands, as described above under Environmental Survey Methodology, field delineated wetlands were utilized in this analysis.

100-Year Floodplain

The Federal Emergency Management Agency (FEMA) 100 Year Flood Zones national dataset was utilized to determine if the reroute locations were located within the 100-year flood zone. Many of the reroute locations were in areas that did not have FEMA floodplain data available.

Dakota Access Environmental Crossing Analysis for Reroute Locations- May 2017										
North Dakota PSC										
Filed Route	Centerline length within reroute location (miles)	Length of centerline outside original PSC corridor (miles)	Land Cover Type ¹ (acres within workspace)						Wetlands ² (acres within workspace)	Waterbodies ² (number of features crossed by centerline)
			Cultivated Crops	Forest	Developed, Open Space	Grasslands/Herbaceous	Pasture/Hay	Shrub/Scrub		
Reroute Location 133										
May 2016*	0.42	0.15	8.17	0	0	0	0	0	0.38	0
May 2017	0.44		7.58	0	0	0	0	0	0.22	0
Net Difference	+0.02		-0.59	0	0	0	0	0	-0.16	0
Reroute Location 134										
May 2016*	0.50	0.20	0	0	0	9.26	0	0	0	0
May 2017	0.48		0	0	0	8.60	0	0	0	0
Net Difference	-0.02		0	0	0	-0.66	0	0	0	0
Reroute Location 135										
May 2016*	0.37	0.08	0	0	0	6.88	0	0	0.52	0
May 2017	0.38		0	0.01	0	7.50	0	0	0.73	0
Net Difference	+0.01		0	+0.01	0	+0.62	0	0	+0.21	0
TOTAL NET DIFFERENCE	+0.01	--	-0.59	+0.01	0	-0.04	0	0	+0.05	0

¹ Based on the U.S. Geological Survey National Land Cover Database
² Based on field delineations
* Reroute area was previously submitted to the PSC for approval on 5/25/16

EXHIBIT C



Summary of the Cultural Resources Analysis Completed for Reroute Locations
Dakota Access Pipeline Project
North Dakota PSC

Dakota Access, LLC has completed Class II/III cultural resources survey for the proposed Dakota Access Pipeline Project (Project) across affected tracts. This document provides a summary of the Class II/III methodology and results of surveys completed along the Project route and datasets utilized to complete the PSC reroute analysis of exclusion and avoidance areas (Table 1).

Cultural resources investigation conducted in support of this Project began with a Class I search for previously reported archaeological sites and manuscript files focused on a 2-mile-wide (3.2 km) area centered on the 400-foot-wide environmental survey corridor. The Class I search was conducted at the SHSND office in Bismarck, North Dakota. This work was followed by a Class II/III cultural resources inventory across all portions of the Project where landowner access was voluntarily provided. All field work was conducted under the direct supervision of the Principal Investigators permitted by the State Historical Society of North Dakota (SHSND), and in compliance with the North Dakota State Historic Preservation Office (SHPO) Guidelines Manual for Cultural Resources Inventory Projects (SHSND, 2012). To date, a total of three Class II/III inventory report volumes have been prepared and submitted to the SHSND that detail the results of the Class II/III survey investigations to date (Landt et al 2016; Lange Mueller et al 2015a; Lange Mueller et al 2015b). Salient information regarding background review studies, environmental and cultural setting, methods, results and recommendations may be referenced in these report volumes. The SHSND concurred with the management recommendations provided these report volumes in a letter dated February 19, 2016. The letter further stated that no significant sites will be affected by the Project, with the exception of those sites included in the *Evaluation and Mitigation Plan*. The *Evaluation and Mitigation Plan* was also approved by SHSND in a letter dated February 19, 2016.

The revised May 2017 workspace has achieved avoidance, or has minimized impacts to all significant archaeological sites documented through Class II/III investigations. For those sites where impacts will be minimized, mitigation and data recovery investigations were completed in April of 2016 in accordance with the approved *Evaluation and Mitigation Plan*, thus completing necessary cultural resources investigations for the Project.

EXHIBIT D



DAKOTA ACCESS, LLC

References

Landt, Matthew J., Sara A. Millward, Michael J. Prouty, Abbie L. Harrison, Dristin Safi, Patrick D. Trader, and Beth McCord

2016 *Volume III: 2015 Dakota Access Cultural Resources Inventory*, Prepared by Gray & Pape and Alpine Archaeological Consultants. Prepared for Energy Transfer Partners.

Lange Mueller, Allison, Craig Picka, Matthew Terry, and Dean Sather

2015a *Dakota Access, LLC Dakota Access Pipeline Project (ND): 2014 Dakota Access Class II/III Cultural Resources Inventory*. Prepared by Merjent, Inc., Minneapolis, Minnesota. Prepared for Energy Transfer Partners

Lange Mueller, Allison, Dean T. Sather, Craig M. Picka, and Matthew Landt

2015b *Volume II: 2015 Dakota Access Class II/III Cultural Resources Inventory*. Prepared by Merjent, Inc. and Gray & Pape, Inc., Cincinnati, Ohio. Prepared for Energy Transfer Partners.

Dakota Access Exclusion and Avoidance Criteria Analysis for Reroute Locations- May 2017 North Dakota PSC										
Filed Route	Prime Farmlands ^a (acres within workspace)	Irrigated Lands (acres within workspace)	Geologically Unstable Areas ^b	Wetlands (acres within workspace)	Woodlands (acres within workspace)	Workspace within 100 year Floodplain ^c	Historic Resources or Landmarks (sites within workspace)	National, State, or County Exclusion Areas (sites within workspace)	T&E/Rare Species Critical Habitat (acres within workspace)	City Limits or Military Installation (sites within workspace)
Reroute Location 133										
May 2016*	8.17	0	Moderate	0.38	0	N/A	0	0	0	0
May 2017	7.58	0	Moderate	0.22	0	N/A	0	0	0	0
Net Difference	-0.59	0	--	-0.16	0	--	0	0	0	0
Reroute Location 134										
May 2016*	1.54	0	Moderate	0	0	No	0	0	0	0
May 2017	1.18	0	Moderate	0	0	No	0	0	0	0
Net Difference	-0.36	0	--	0	0	--	0	0	0	0
Reroute Location 135										
May 2016*	0	0	Moderate	0.52	0	No	0	0	0	0
May 2017	0	0	Moderate	0.73	0.01	No	0	0	0	0
Net Difference	--	0	--	+0.21	+0.01	--	0	0	0	0
TOTAL NET DIFFERENCE	-0.95	0	--	+0.05	+0.01	--	0	0	0	0

^a All impacts associated with pipeline construction would be temporary, no permanent surface impacts would occur on prime farmlands.
^b Geologically unstable area data from: U.S. Geological Survey Landslide Susceptibility, Low: Low landslide incidence (less than 1.5% of the area is involved), Moderate (i): Moderate landslide incidence (1.5% - 15% of the area is involved), Moderate: Moderate susceptibility to landsliding and low incidence.
^c 100 year Floodplain data from: Federal Emergency Management Agency 100 Year Flood Zones, N/A: data not available for area.
* Reroute area was previously submitted to the PSC for approval on 5/25/16

EXHIBIT E

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

Dakota Access, LLC
Dakota Access Pipeline Project
Siting Application

CASE NO. PU-14-842

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that true and correct copies of the following documents:

- Letter filing Notification of Route Adjustments under N.D.C.C. § 49-22-16.3(3);
- Certification of Joey Mahmoud;
 - Exhibit A: Dakota Access Reroute Location Maps;
 - Exhibit B: Summary of the Environmental/Exclusion and Avoidance Areas Analysis Completed for Reroute Locations;
 - Exhibit C: Environmental Crossing Analysis for Reroute Location;
 - Exhibit D: Summary of the Cultural Resources Analysis Completed for Reroute Locations; and
 - Exhibit E: Exclusion and Avoidance Criteria Analysis for Reroute Locations

were on the 22nd day of May, 2017 served by placing the same in the United States mail, postage prepaid, properly addressed to the following:

Zachary E. Pelham
Pearce & Durick
314 E. Thayer Ave.
P.O. Box 400
Bismarck, ND 58502-0400

Derrick Braaten
Baumstark Braaten Law Partners
109 North Fourth Street, Suite 100
Bismarck, ND 58501-4003

Matt J. Kelly
Tarlow and Stonecipher, PLLC
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Bozeman, MT 59715

Bryan Van Grinsven
McGee, Hankla & Backes
2400 E. Burdick Expy., Ste. 100
Minot, ND 58702-0998

Bryan L. Giese
Attorney at Law
107 First Ave. NW
Mandan, ND 58554-3150

Brian Bjella
Blaine Johnson
Crowley Fleck, PLLP
100 West Broadway, Suite 250
Bismarck, ND 58501


The original and ten (10) copies of the foregoing document were also hand delivered to the North Dakota Public Service Commission on said date.

By: 

LAWRENCE BENDER, ND Bar #03908
DANIELLE M. KRAUSE, ND Bar #06874
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Attorneys for Dakota Access, LLC

61411346_1.docx

A close-up photograph of a wooden beam, likely part of a ship's hull or a large structure. The wood is light brown with a visible grain. A metal fastener or bolt is visible on the left side of the beam. The background is dark and out of focus.

**APPENDIX D:
CATEGORY 4 ROUTE
ADJUSTMENT SAMPLE PSC FILING**

At the time of preparing this Handbook, no company had ever submitted a request for a Category 4 Route Adjustment.

APPENDIX E: MODEL UNANTICIPATED DISCOVERY PLAN SAMPLE PSC FILING



UNANTICIPATED DISCOVERIES PLAN CULTURAL RESOURCES, HUMAN REMAINS, PALEONTOLOGICAL RESOURCES & CONTAMINATED MEDIA

Dakota Access Pipeline Project (DAPL)

A. INTRODUCTION

Dakota Access, LLC is proposing to install approximately 1,100 miles of 12- to 30-inch pipeline from Stanley, North Dakota, crossing South Dakota and Iowa, to an existing tank hub near Patoka, Illinois crossing South Dakota and Iowa as well.

This document describes the procedures for dealing with unanticipated discoveries during the course of project construction. It is intended to:

- Maintain compliance with applicable Federal and State laws and regulations during construction of the Project;
- Describe to regulatory and review agencies the procedure the project or its representative will follow to prepare for and deal with unanticipated discoveries; and,

Provide direction and guidance to project personnel as to the proper procedure to be followed should an unanticipated discovery occur.

B. PROCEDURES FOR THE DISCOVERY OF CULTURAL RESOURCES

In the event that any member of the construction work force believes that a cultural resource discovery is encountered the following plan will be implemented:

1. All work within 100 feet both sides of the discovery will immediately stop and the Environmental Inspector (EI) will be notified. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the materials. A cultural resource can be prehistoric or historic and could consist of, but not be limited to, for example:
 - An accumulation of shell, burned rocks, or other subsistence related materials
 - An area of charcoal or very dark soil with artifacts
 - Stone tools, arrowheads, or dense concentrations of stone artifacts
 - A cluster of bones in association with shell, charcoal, burned rocks, or stone artifacts
 - A historic structure or assemblage of historic materials older than 50 years
2. If the EI believes that the discovery is a cultural resource, the EI will take appropriate steps to protect the discovery site. This will include flagging the immediate area of discovery and stop work or exclusion zone, as well as notifying the Environmental Project Manager and/or Company

Representative. Work in the immediate area will not resume until treatment of the discovery has been completed.

3. Dakota Access or its representative will arrange for the discovery to be evaluated by a qualified archaeologist in accordance with applicable regulations. The archaeologist will evaluate the remains and provide recommendations for how to manage the resource under the appropriate State's Historic Preservation Plan.
4. If the discovery is within an area of federal jurisdiction, the appropriate federal agency will be consulted. If the discovery is determined to have the potential for eligibility, the archaeologist and Dakota Access will also consult with the SHPO on how best to avoid, minimize, or otherwise mitigate further impacts. Treatment measures may include mapping, photography, sample collection, or excavation activity.
5. The archaeologist will implement the appropriate treatment measure(s) and provide a report on its methods and results as required. The investigation and technical report will be performed in compliance with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 CFR 44734--44737); the Advisory Council on Historic Preservation (ACHP) publication "Treatment of Archaeological Properties" (ACHP 1980); and follow the guidelines set forth by the applicable State(s) Historic Preservation Office.

C. PROCEDURES FOR THE DISCOVERY OF HUMAN REMAINS

In the event that human remains are encountered during either construction or maintenance activities, the following plan outlines the specific procedures to be followed. These procedures meet or exceed the Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects set forth by the National Historic Preservation Act (Public Law [PL] 89-665), its implementing regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800); the Native American Grave and Repatriation Act (43 CFR Part 10); Procedures for the Protection of Historic Properties (33 CFR 325 Appendix C); the Archaeological and Historic Preservation Act; and Consultation and Coordination with Indian Tribal Governments (EO 13175); North Dakota's "Protection of human remains, and burial goods – Unlawful acts – Penalties - Exceptions" law (North Dakota Century Code [NDCC] 23-06-27) and its accompanying administrative rules (North Dakota Administrative Code [NDAC] 40-02-03).

All activity that might disturb the remains shall cease and may not resume until authorized by appropriate law enforcement officials or the State Archaeologist. Any human remains, burial sites, or burial related materials that are discovered during construction will at all times be treated with dignity and respect. If any member of the construction work force believes that human remains are encountered the following plan will be implemented:

1. Any activity that may disturb the unmarked burial site, human skeletal remains, or burial artifacts associated with the site will immediately cease on discovery. The site will be carefully covered and secured for protection from degradation by weather or unauthorized individuals.
2. The EI will be notified and responsible for taking appropriate steps to protect the discovery. This

will include fencing off the immediate area of discovery and flagging the area as an exclusion zone. No activity may resume until authorized by the agency authority governing the disposition of the human remains.

3. The EI will notify the Project Environmental Manager, who will contact the Project archeologist, specific county law enforcement agency and the coroner of the jurisdiction where the site or remains are located. The State Archaeologist will also be contacted to assist with identifying the remains.
4. If the unmarked burial site, human skeletal remains, or funerary objects can be shown to have ethnic affinity with a living Native American tribe, a the Environmental Project Manager will notify the appropriate federal agency with jurisdiction and/or NDSHPO to assist in determining the tribe(s), if any, who may have historic ties to the region and represent descendants of any Native American remains. If direct relations to a Native American tribe are verified, the tribe will have control of the disposition of the human skeletal remains.
5. If the District Coroner finds that the unmarked burial site is over 50 years old and that there is no need for a legal inquiry by their office or for a criminal investigation, and if no direct relations to any Native American tribe are found, then the SHPO will have jurisdiction of the site, human skeletal remains, and the burial artifacts.

D. PROCEDURES FOR THE DISCOVERY OF PALEONTOLOGICAL RESOURCES

In the event that any member of the construction work force believes that a paleontological resource discovery is encountered the following plan will be implemented:

1. All work within 100 feet both sides of the discovery will immediately stop and the EI will be notified. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the materials. A paleontological resource would be expected to be in the form of fossils. In-situ fossils are usually found within layers of geologically old sediments and rocks where the creature lived, died, and became fossilized. However, through geologic, hydrologic, and marine activity, many fossils and parts of fossils have been carried into younger geologic areas.
2. If the EI believes that the discovery is a paleontological resource, the EI will take appropriate steps to protect the discovery site. This will include flagging the immediate area of discovery and stop work or exclusion zone, as well as notifying the Environmental Project Manager and/or Company Representative. Work in the immediate area will not resume until treatment of the discovery has been completed.
3. The Project Environmental Manager will arrange for the discovery to be evaluated by a qualified geologist/paleontologist in accordance with applicable regulations. The geologist/paleontologist will evaluate the remains and provide recommendations for how to manage the resource.
4. If the find is on state land, the Project Environmental Manager will notify the land managing state agency and the North Dakota Geological Survey, pursuant to North Dakota Century Code NDCC 54-17.3 "Paleontological Resource Protection," which addresses the need to obtain a permit to record,

excavate, or collect paleontological resources on state land. If the find is on federal or municipal land, the Project Environmental Manager will inform the appropriate land managing agency of the find. Treatment measures may include mapping, photography, sample collection, or excavation activity. The geologist/paleontologist will implement the appropriate treatment measure(s) and provide a report on its methods and results as required.

E. PROCEDURES FOR THE DISCOVERY OF CONTAMINATED MEDIA

Indicators of possible contamination include, but are not limited to:

- Buried drums or containers, rusted or in otherwise poor condition
- Stained or otherwise discolored soil (in contrast to adjoining materials)
- Spoil material containing debris other than obvious construction material
- Chemical or hydrocarbon odors emanating from excavations
- Oily residues
- Visible sheen or other discoloration on groundwater
- Structures such as pipelines (concrete, PVC or steel) or underground storage tanks.

The EI and appropriate contractor personnel will be trained in hazard identification and worker protection and these topics will be discussed regularly in safety meetings. A desktop assessment for contaminated along the Project route indicated that contamination is not likely to be encountered during construction. In the unlikely event that contamination is encountered the following activities should take place:

1. Immediately cease construction activities within that area and notify the EI and Project Environmental Manager. Work in the immediate area will not resume until an assessment of the discovery has been completed and the Company has released the site. If safe to do so, the EI will take appropriate steps to mark (flag) off the area to identify the exclusion zone. Work in the immediate area will not resume until an assessment discovery has been completed.
2. If potentially contaminated groundwater or soil reaches (or has the potential to reach) surface waters, booms and/or absorbent materials shall be immediately deployed to contain and reduce downstream migration of the spilled material.
3. Upon notification, the Project Environmental Manager will perform or direct a hazard assessment to determine appropriate control measures to be implemented at the specific site. Activities may include sampling vapors, soil, sediments, groundwater, and/or wipe samples of materials.
4. If warranted by the assessment, the Project Environmental Manager will notify appropriate Federal, State and Local agencies.
5. Company or the designated person(s) will make appropriate notifications to regulating agencies as necessary. Upon evaluation of the sampling results, additional notifications may be made to coordinate a work plan for measures to be implemented in the contaminated area to resume activities in a safe, environmentally compliant, and effective manner. Measures may include additional personal protective equipment, segregation of contaminated media, treatment or off-site disposal of contaminated media.
6. All identification /characterization, handling, labeling, storage, manifesting, transportation, record keeping, and disposal of potentially contaminated materials shall be conducted in accordance with all applicable federal, state, and local regulations and guidance.

F. PROJECT CONTACTS

Environmental Inspector

Contact: TBD Prior to Construction
Telephone
Email:
Address:

Chief Inspector

Contact: TBD Prior to Construction
Telephone
Email:
Address:

DAPL Project Manager

Contact: Joe Malucci
Telephone: (o) 713-989-7186 (c) 713-898-8222
Email: Monica.howard@energytransfer.com
Address: 1300 Main Street, Houston, TX 77002

DAPL Project Environmental Manager

Contact: Monica Howard
Telephone: (o) 713-989-7186 (c) 713-898-8222
Email: Monica.howard@energytransfer.com
Address: 1300 Main Street, Houston, TX 77002

DAPL Retained Archeologist, Merjent

Contact: Dean Sather
Telephone: (o) 612.924.3984
Fax: 612.746.3679
E-mail: dsather@merjent.com
Address: 800 Washington Avenue N., Suite 315, Minneapolis, MN 55401

North Dakota State Historic Preservation Program

Contact: Merlan E. Paaverud, Jr., Director/SHPO
Telephone: (701) 328-2672
Fax: (701) 328-3710
E-mail: mpaaverud@nd.gov
Address: State Historical Society of North Dakota
612 East Boulevard Avenue, Bismarck, ND 58505-0830

North Dakota Geological Survey

Contact: Edward C. Murphy, State Geologist
 Telephone: (701) 328-8000
 Email: emurphy@nd.gov
 Address: North Dakota Industrial Commission
 Department of Mineral Resources/North Dakota Geological Survey
 1016 East Calgary Ave., Bismarck, ND 58503

County Sherriff Department Contacts

County	Sherriff	Address	Phone	Fax
Mountrail	Kenneth G. Halvorson	P.O. Box 309, Stanley, ND 58784-0309	701-628-2975	701-628-3975
Williams	Scott Busching	Williams County Law Enforcement Center 223 East Broadway Suite 301 Williston, ND 58801	701-577-7700	NA
McKenzie	John Fulwider	201 5 th Street NW Watford City, ND 58854	701-444-3654 Ext. 1420	NA
Dunn	Clay Coker	205 Owens Street Manning, ND	701-573-4449	701-573-4311
Mercer	Dean Danzeisen	419 North Avenue Stanton, ND 58571	701-745-3333	701-745-3347
Morton	Dave Shipman	205 1 st Avenue NW Mandan, ND 58554	701-667-3330	NA
Emmons	Gary Sanders	P.O. Box 159 Linton, ND 58552-0159	701-254-4411	701-254-5311