

**BASIN ELECTRIC
POWER COOPERATIVE**

1717 EAST INTERSTATE AVENUE
BISMARCK, NORTH DAKOTA 58503-0564
PHONE: 701-223-0441
FAX: 701-557-5336



August 14, 2009

RECEIVED VIA HAND DELIVERY

Annette Bendish, Counsel
North Dakota Public Service Commission
600 East Boulevard Avenue, Dept. 408
Bismarck, ND 58505

AUG 14 2009

PUBLIC SERVICE COMMISSION

RE: ND PSC Case No. PU-08-75 (Basin Electric Power Cooperative – PrairieWinds ND
Ward County Wind Generation Facility Siting Application)

Dear Ms. Bendish:

This letter serves as notice to the ND PSC that construction will begin on the referenced project on or about August 17, 2009. Basin Electric Power Cooperative also submits the following documentation to the ND PSC:

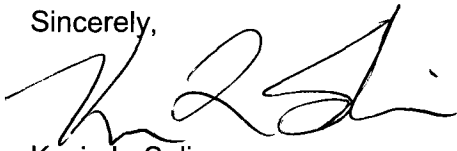
1. As requested at the Preconstruction Conference held August 13, 2009, copies of the preconstruction meeting minutes and attendee list;
2. In accordance with item 21 of the Findings of Fact, copies of the Rural Utilities Service (RUS) Environmental Assessment (disc copy) and Finding of No Significant Impact (FONSI);
3. In accordance with item 27 of the Findings of Fact, Stormwater Permit from the North Dakota Department of Health;
4. In accordance with item 4 of the Order, Conditional Use Permit and Project Zoning Approval from Gasman Township;
5. In accordance with item 4 of the Order, Conditional Use Requirements Building Permit from Newman Township;
6. In accordance with item 4 of the Order, Ward County Variance Applications and Approvals for turbines B19, A16, and E74;
7. In accordance with item 4 of the Order, Building Permit from Ward County;
8. In accordance with item 4 of the Order, various county, township and state Road and Utility Crossing Permits, Water Use Permits, and Approach Permits (white binder);
9. In accordance with item 29 of the Order, Project Engineering and Design Drawings.

41 **PU-08-75** Filed: 8/14/2009 Pages: 322
**Notice of Commencement of Construction and
Documentation Relating to Order Requirements**

August 14, 2009
Page 2

If you have any questions regarding this letter or any of the enclosures, please contact me at 701.557.5495.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Solie', with a stylized flourish at the end.

Kevin L. Solie
Senior Environmental Analyst

/gmj
Enclosures

FINDING OF NO SIGNIFICANT IMPACT

**PRAIRIEWINDS ND-1 PROJECT
WARD COUNTY, NORTH DAKOTA**

BASIN ELECTRIC POWER COOPERATIVE

**ENGINEERING AND ENVIRONMENTAL STAFF
RURAL UTILITIES SERVICE**

August 2009

**PRAIRIEWINDS ND-1 PROJECT – WARD COUNTY, NORTH DAKOTA
FINDING OF NO SIGNIFICANT IMPACT**

INTRODUCTION

Basin Electric Power Cooperative (Basin Electric) is proposing to construct, operate and maintain the PrairieWinds - ND 1 wind-powered electricity generation facility (Project) in Ward County, North Dakota. The Project has a nameplate rating of 115.5 megawatts (MW) or yearly average generation of 45 MW. The Rural Utilities Service (RUS), an agency that administers the U.S. Department of Agriculture's Rural Development Utilities Programs, may provide financial assistance for the Project.

PURPOSE AND NEED

With members in nine states, Basin Electric recognized the need for additional renewable energy capacity to service forecasted member load growth demands and to meet state mandated Renewable Portfolio Standards (RPS). Alternative technologies evaluated included demand-side management, renewable energy sources, traditional energy sources, nuclear power, repowering/uprating existing generation units, purchasing power from another supplier, and developing new transmission capacity. A 115.5 MW wind project was proposed as the least-cost renewable resource option to satisfy future load and RPS requirements. RUS has reviewed the appropriate engineering and planning studies and has concluded that the proposed project will help to met Basin Electric's current and future projected load growth and increase its renewable energy portfolio.

PROPOSED ACTION

The Project, located approximately 15 miles south of Minot, North Dakota includes seventy-seven (77) 1.5 MW wind turbines and associated facilities including a substation, temporary laydown yard, access roads, and buried collector lines. Power would be delivered to the regional transmission grid via existing Western Area Power Administration transmission lines that run through the site.

ALTERNATIVES CONSIDERED

Basin Electric has established a need for additional renewable energy capacity to service forecasted member load growth, meet their renewable energy goal established in 2005, and to meet a state-mandated RPS. Solar resources in the region are limited and while solar economics are improving, costs are still not competitive with wind. Geothermal and bio-based resources are in some cases cost effective, but are either restricted to limited or distant locations, available in only small quantities, or present other environmental concerns. In contrast, potential wind resources in the Basin Electric member service territory are generally recognized as excellent, and limited mainly by land

**PRAIRIEWINDS ND-1 PROJECT – WARD COUNTY, NORTH DAKOTA
FINDING OF NO SIGNIFICANT IMPACT**

use and available transmission. Wind was determined to be the most viable renewable technology based on availability and economics.

An alternative site for the wind project located approximately 10 miles southwest of Minot, North Dakota was also considered. Environmental considerations would be similar to those of the proposed action; however, the alternative site would require the construction of a new transmission line, increasing both cost and potential impact to the environment.

The No Action alternative serves as the baseline for alternative comparison. If there is no action, the project would not be constructed resulting in no physical impact to the environment. This alternative would not, however provide a renewable energy resource and thus would not meet Basin Electric's purpose and need.

Based on the alternatives analysis, RUS has concluded that the proposed wind energy facility is a viable, economically feasible alternative to meet the renewable energy needs of Basin Electric.

SUMMARY OF ENVIRONMENTAL EFFECTS AND COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS

Basin and its environmental consultant Tetra Tech, Inc., prepared an Environmental Assessment (EA) discussing the potential impacts of the project. RUS has reviewed the EA and determined that it represents an accurate assessment of the proposed project and its potential environmental impacts. As a result of its independent evaluation of the environmental issues and concurrence with the scope and content of the EA, RUS has adopted the document as its Environmental Assessment of the proposed project according to 7 CFR 1794.41.

RUS has reached the following conclusions with reference to the proposed project:

- The Project area includes both prime farmland and farmland of statewide importance. No turbines would be located on prime farmland, and total permanent disturbance to areas of prime farmland amounts to approximately 4 acres due to the proposed construction. Permanent disturbance to farmland of statewide importance amounts to approximately 41 acres. RUS has determined the proposed facilities will have minimal impact on important farmland. Other important land resources or formally designated lands are not found in the Project area.
- There are no floodplains located on the Ward County site. Therefore, RUS has determined that the proposed project will not impact floodplains.

**PRAIRIEWINDS ND-1 PROJECT – WARD COUNTY, NORTH DAKOTA
FINDING OF NO SIGNIFICANT IMPACT**

- There are numerous wetlands within the project area. A wetlands delineation was done for the turbine sites. The Project has been designed to avoid wetlands identified within the project area foot print. Wetlands greater than 50 acres will have a 500-foot buffer for turbine placement. Therefore, RUS has determined that there will be no impacts to wetland areas.
- The U. S. Fish and Wildlife Service (USFWS) identified four endangered or threatened species that could occur in the Project area. These species included the whooping crane (endangered), the piping plover (threatened), the gray wolf (endangered) and the Dakota skipper (candidate). No critical habitat is designated for any listed species in the project area. Based on the results of informal consultation with the U.S. Fish and Wildlife Service, RUS determined the Project may affect, but is not likely to adversely affect the threatened piping plover and would not destroy or adversely modify any piping plover critical habitat. RUS also determined that the project may affect, but not likely to adversely affect the endangered whooping crane and the endangered gray wolf. The USFWS concurred with these determinations in a letter dated June 26, 2009, and Basin Electric will fund voluntary conservation measures to offset potential impacts to whooping crane stopover habitat. A determination of effect is not required for candidate species. Potential Dakota skipper habitat will be identified and avoided during construction to minimize potential impacts to the species.
- A cultural resource inventory examined 83 turbine locations (including alternate locations), access roads, underground collector lines and the substation site which totaled 1,484 acres. This inventory identified 31 sites and three isolated finds. Of the 31 sites, 19 are prehistoric sites, 11 are historic sites and one is a multi-component site. The project has been designed to avoid the identified cultural resource sites. No paleontological resources were identified in the project area. It was recommended in the survey that no historic properties would be affected by the proposed construction. RUS has determined that the proposed project will not impact known cultural resources listed or eligible for listing in the *National Register of Historic Places*. The North Dakota State Historic Preservation Officer concurred with this finding.
- The total proportion of minorities in Ward County is 6.1 percent. The proposed project should have no significant adverse impacts to the human environment. RUS has determined that there will be no disproportionate impacts to minority or low income populations regarding human health or the environment.

**PRAIRIEWINDS ND-1 PROJECT – WARD COUNTY, NORTH DAKOTA
FINDING OF NO SIGNIFICANT IMPACT**

- Potential impacts to soils and geology, air quality, aesthetics, noise, and radio/television interference were also evaluated, and no significant impacts were identified to any of these resources or issues.
- The North Dakota Public Service Commission reviewed and conducted public hearings on the proposed project. The Commission granted Basin Electric a Certificate of Site Compatibility for the project on August 12, 2009.

PUBLIC REVIEW

RUS published a Notice of Intent (NOI) to conduct a public scoping meeting and prepare an Environmental Assessment in the *Federal Register* on March 20, 2008. The notice included a 30-day public comment period from the scoping meeting date of April 3, 2008. A copy of the Alternative Evaluation and Site Selection Study was sent to the Minot Public Library on March 11, 2008 requesting that it be made available for public review until May 3, 2008. Public notification for the scoping meeting appeared as a legal notice in the *Minot Daily News* on Sunday, March 23, 2008. Separate advertisements were also run on March 23 and April 2, 2008 in the same newspaper. Approximately 70 people attended the scoping meeting in Minot. In addition, comments, concerns and information were solicited from Federal, State and local agencies. All comments and concerns were addressed in the Environmental Assessment.

The availability of the Environmental Assessment was announced in the June 24, 2009 *Federal Register* and in the *Minot Daily News*. The Environmental Assessment was made available for review at Basin Electric's Headquarters, RUS' headquarters and at the Minot Public Library. It was also available for review on RUS' website. Comment letters were received from the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency. Comments from both agencies have been adequately addressed.

No other potential impacts resulting from the project have been identified. Therefore, RUS has determined that this finding of no significant impact fulfills its obligations under the National Environmental Policy Act, as amended (42 §§U.S.C. 4321 *et seq.*), the Council on Environmental Quality Regulations (40 CFR §§1500-1508), and RUS's Environmental Policies and Procedures (7 CFR Part 1794) for its action related to the project.

**PRAIRIEWINDS ND-1 PROJECT – WARD COUNTY, NORTH DAKOTA
FINDING OF NO SIGNIFICANT IMPACT**

The decision of RUS is that the NEPA process is satisfied with respect to a possible request for financing assistance from Basin Electric for the construction of the PrairieWinds - ND 1 project. RUS is satisfied that the environmental impacts of the proposed project have been adequately addressed and, therefore, reaches a finding of no significant impact. Since RUS's Federal action will not result in significant impacts to the quality of the human environment, the preparation of an Environmental Impact Statement related to the proposed project is not necessary.

Approved by: _____


Nivin Elgohary
Acting Assistant Administrator - Electric
Rural Utilities Service

8/14/09
Date

Public Service Commission Pre-Construction Meeting
August 13, 2009, 8:30 a.m.
Doublewood Inn, Bismarck, ND

Attendees:

Mark Nygard	Jerry Lein	Tyler Schilke	Adam Wallace
Maria Barnhardt	Tim McCoy	Jim C. Sheldon	Amanda Wangler
Eric Currie	Gus Mueller	Rick Skruch	Mark Young
Dan Hendley	Aaron Ramsdell	Kevin Solie	Shawnel Huber
Jon Klein	Ron Rebenitsch	Paul Telehey	
Kelly Krebsbach	Kelly Schafer	Kevin Tschosik	

1. Introductions

2. Public Service Commission

- a. The Board Order was received yesterday. Jerry read the order (copy attached).
- b. A copy of the meeting minutes will be sent to the PSC .An intent to start construction notice will be sent when all permit approvals are in place.
- c. Weekly Construction Reports will need to be sent to the PSC at ndpsc@nd.gov.

3. Safety and Guidelines

- a. Safety and Site Requirements Standards and Site Rules Handout (attached)
- b. A site specific safety management plan has been submitted and is in place.
- c. ECCS Guidelines (attached) – they have been submitted and approved.
- d. Whooping Crane Training – there is a 12 minute Powerpoint presentation that will be required to be viewed. Migration for the Whooping Cranes in North Dakota begins September 10 and is usually 4-6 weeks.
- e. Oil and Chemical Spills – RMT will have everything on site to take care of any spills.
- f. BEPC must be notified immediately of any injuries, whether they are serious or first aid.

4. Contractors

- a. Site Personnel organization chart has been submitted.
- b. RMT will be working 6 10-hour days. They will work more as needed, but no more than 16-hours per day. If night lifts are required, they are prepared to accommodate that schedule as well. Timber Line will be working 5 12-hour days, but will also work what is needed.
- c. RMT will be ready to start work on August 17, as will Timber Line, pending the FONSI.
- d. Cable has been delivered to the Glen Harold Mine site. Contractors will work with Perry Kress to have it delivered to the site. Deliveries can start on August 21 and we would like all the cable removed from the Glen Harold Mine site by September 21.
- e. Pinnacle Steel is ready to ship the substation steel. We will try to hold this off until the second week of September.

5. Site Coordination and Communication

- a. RMT will coordinate all communications with Paul Telehey.
- b. All engineering communication should go through Amanda Wangler
- c. All contract communication should go through Jon Klein.

6. Division of Responsibilities

- a. Potable Water – RMT will provide their own.
- b. Construction Power – Verendrye is providing a source.
- c. Phone and Internet – SRT will put in the fiber and phone lines.
- d. Construction Trailer Layout – RMT has this and will give a copy to Jim C. Sheldon.
- e. Elevation and Site Coordinate Benchmarks – this has been taken care of.

7. Engineering Changes

- a. If there are changes, an RFI will be submitted and the proper procedures will be followed.

8. Open Discussion

- a. SAFETY IS THE BIGGEST AND MOST IMPORTANT ISSUE!
- b. GE will have a commissioning team on site with a daily layout when commissioning is ready to begin.
- c. Every tower will be modeled like the first tower once the walk-through is complete and approved.
- d. All signs need to be obeyed.



May 18, 2009

North Dakota Pollutant Discharge Elimination System (NDPDES)
General Permit for Stormwater Discharges from Construction Activity
NOTICE OF COVERAGE

Permittee(s)

Owner Contact: Maria Barnhardt, P.E.
Basin Electric Power Cooperative
1717 E Interstate Ave
Bismarck, ND 58501

Operator Contact: Kate Martin
RMT, Inc.
744 Heartland Trail
Madison, WI 53717

Permit coverage is identified as follows:

Permit ID: Site Name:
NDR102689 **PrairieWinds I and Minot Winds II**

Please remember to update the Storm Water Pollution Prevention (SWPP) plan as appropriate for site conditions. The best management practices (BMPs) and temporary structures must be inspected, maintained and adjusted until the site is stabilized following construction activities. Once the site is stabilized as outlined in the general permit, you may end permit coverage by filing a termination notice. Cities or counties may impose additional requirements and/or specific BMPs for construction affecting their storm drainage system. Please check with the local officials to be sure all local storm water management considerations are addressed.

Additional Information

The permit conditions, forms and related information may be found on our web site at:

<http://www.ndhealth.gov/wq/Storm/Construction/ConstructionHome.htm>

Should you have any questions on the permit, please contact the stormwater staff person listed below.

Dallas Grossman
Division of Water Quality
Phone: 701-328-5242
Email: dgrossma@nd.gov

c.c. Jan Kucher – RMT, Inc.

**BASIN ELECTRIC
POWER COOPERATIVE**

1717 EAST INTERSTATE AVENUE
BISMARCK, NORTH DAKOTA 58503-0564
PHONE: 701-223-0441
FAX: 701-557-5336



May 21, 2009

Chad Ness
Gasman Township President
3701 205th Ave SW
Max, ND 58759

Dear Mr. Ness:

Basin Electric Power Cooperative (Basin Electric) proposes to construct and operate a wind turbine generation facility referred to as the PrairieWinds - ND1 Project, consisting of a 77-turbine, 115 megawatt (MW) facility in Ward County, North Dakota. Basin Electric is in the process of completing an Environmental Assessment with the Rural Utilities Service as the lead Federal Agency. An application for a Certificate of Site Compatibility was submitted to the North Dakota Public Service Commission (PSC) on March 13, 2009; the hearing is scheduled for May 26, 2009 in Minot. In addition to approvals required by Gasman Township, the project must receive approvals on both state and federal levels before construction may begin.

In addition to the PrairieWinds Project, Basin Electric is proposing to construct a three-turbine, 4.5 MW wind energy project (Minot Wind II) in Ward County, located adjacent to Basin's existing two-turbine site along US Highway 83. Pending the required approvals, construction is anticipated to begin in summer 2009.

Application for Gasman Township Conditional Use Permit

Forty-one turbines and associated facilities for the PrairieWinds project are proposed to be located in Gasman Township. Two of the Minot Wind II turbines would also be located in Gasman Township. We understand that Gasman Township has local zoning authority and must issue a Conditional Use Permit before construction may begin. As such, Basin Electric is requesting a Conditional Use Permit for the forty-three turbines described in this letter. We have enclosed a set of twenty-one drawings to facilitate the review of the permit application. The drawings depict the locations of towers, underground collector lines, access roads, and existing roads and infrastructure. An application processing fee consistent with Ward County building permit processing fees for wind turbines (\$500 per turbine up to a maximum of \$2500) is also enclosed.

Description of Structures

Each generator will have a hub height of 80 meters (262 feet) and a turbine rotor diameter of 77 meters (252 feet). The total height of each wind turbine would be 118.5 meters (389 feet) with a blade in the vertical position. The towers will be constructed of tubular steel, approximately 15 feet in diameter at the base, with internal joint flanges. The color of the towers and rotors will be standard white or off-white.

May 21, 2009
Page 2

The turbine foundations would typically be mat foundations (inverted T-foundations) or a concentric ring shell foundation. Pad mounted transformers would be placed next to each turbine. In some cases, a small area around a turbine may be covered in 4 inches of gravel, river rock, or crushed stone.

Please contact me at 701.557.5495 or ksolie@bepec.com if you have any questions, comments, or concerns regarding the application materials.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Solie', written over a faint horizontal line.

Kevin L. Solie
Environmental Analyst

/gmj
Enclosures

Conditional Use Permit
Gasman Township
Ward County

Name of Applicant: Basin Electric Power Cooperative

Application Date: May 21, 2009

Conditional Use: Utility. Forty-one (41) wind turbines and associated facilities.

Special Conditions: *None*

Township Approval:

Chad Ness

Signature

5-21-09

Date

Signature

Date

Signature

Date

Minutes of Gasman Township meeting of September 5, 2008

Meeting participants: Chad Ness, Byron Bjordahl, Robert Gasmann, Glen Dunkel (Gasman Township); Kevin Solie, Ron Rebenitsch, Jack Holt (Basin Electric Power Cooperative); various interested parties.

Meeting called to order: 8:30 a.m., September 5, 2008

Basin Electric provided information on proposed wind developments in Ward County (Prairie Winds ND-1 and Minot Wind II) and answered questions from Board and interested parties.

Chad Ness: Motion to approve Basin Electric wind energy project zoning in Gasman Township (up to 50 wind turbines and associated facilities)

Second by: Byron Bjordahl

Called vote: All approve

Meeting adjourned: 10:30 a.m.

Chad Ness, Chairman of Gasman Township

Chad Ness Chair
Byron Bjordahl
Robert Gasman

CONDITIONAL USE REQUIREMENTS
Newman Township
Ward County

To Accompany Building Permit No. #001

Name of Applicant Warren Hankel

Having reviewed the conditional use with respect to the provisions of Article 4, Section 6 of the Newman Township Zoning Regulation, the Newman Township Supervisors agree to the issuance of a building permit to the above named applicant, contingent upon the following conditions:

*For Turbine Numbers
A06 and A03 see Attached Form*

Should the applicant violate any or all of the above stated conditions, the building permit shall be declared invalid and appropriate action will be instituted by the Township Supervisors.

Warren Hankel 5-6-09
Signature of Applicant Date

Jay Neuman 05/08/09
Signature/Twp. Supervisor Date

VARIANCE APPLICATION

In order to be considered for a variance from the Ward County ~~zoning~~ Regulations which apply to your property, it will be necessary for you to complete the following questions. The answers to these questions will be taken into consideration by the Ward County Commissioners on whether to grant your request.

Name of Applicant: Basin Electric Power Cooperative

Mailing Address: 1717 East Interstate Avenue
Bismarck ND 58503-0564

Legal description of property involved in this application:

SE 1/4 Section 22 T152 R83 (Turbine B19)

1. What exceptional hardships would result to the applicant from a failure to grant a variance on the above mentioned property:

The cost of moving a turbine to the 390-foot set back distance depends on the amount of additional access road and collector line length needed, as well as the loss in generation due to moving a turbine to a location of lesser wind resource potential. Turbine B19 is proposed to be 220 feet from a section line with no existing road. The cost in lost generation over a 25 year period and for additional road and collector line length is estimated to be \$258,200 if turbine B19 is moved to a setback distance of 390 feet.

2. What improvements are planned to the above mentioned property that would be in conflict with the zoning regulations:

The construction of the wind turbine would not be "a minimum of the height of the structure" from the road right-of-way.

3. Why would the granting of a variance not result in a hardship to other members of the community and the county as a whole? (Answer this question by considering the possibility of increase flood heights, additional threats to public safety, extra ordinary public expense, possibility of creating a public nuisance, conflict with other zoning resolutions.)


The likelihood of a structure falling over is extremely low. If a tower was to fall, it would not necessarily fall toward the road. In the rare case where a wind turbine tower has fallen (we are aware of an occurrence in Oregon), the tower essentially bent over at its midpoint; tower and turbine components did not fall far from the tower base.

I, the undersigned, do hereby certify that the statements contained herein are true and correct to the best of my knowledge.

Date: March 4, 2009


Signature of Applicant

Approved Denied by Ward County Commissioners on this 7 day of April 2009.


4-7-09

DIRECTOR OF TAX EQUALIZATION
MICHAEL B. VENDSEL
Ward County Courthouse
Minot, ND 58701

VARIANCE APPLICATION

In order to be considered for a variance from the Ward County ~~Regulations~~ Regulations which apply to your property, it will be necessary for you to complete the following questions. The answers to these questions will be taken into consideration by the Ward County Commissioners on whether to grant your request.

Name of Applicant: Basin Electric Power Cooperative
Mailing Address: 1717 East Interstate Avenue
Bismarck ND 58503-0564

Legal description of property involved in this application:

NW¹/₄ Section 13 T 152 R 83 (Turbine A16)

1. What exceptional hardships would result to the applicant from a failure to grant a variance on the above mentioned property:

The cost of moving a turbine to the 390-foot set back distance depends on the amount of additional access road and collector line length needed, as well as the loss in generation due to moving a turbine to a location of lesser wind resource potential. Turbine A16 is proposed to be 145 feet from a gravel road. The cost in lost generation over a 25 year period and for additional road and collector line length is estimated to be \$147,000 if turbine A16 is moved to a setback distance of 390 feet.

2. What improvements are planned to the above mentioned property that would be in conflict with the zoning regulations:

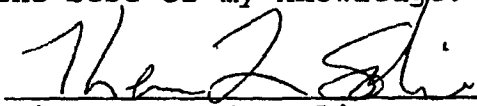
The construction of the wind turbine would not be "a minimum of the height of the structure" from the road right-of-way.

3. Why would the granting of a variance not result in a hardship to other members of the community and the county as a whole? (Answer this question by considering the possibility of increase flood heights, additional threats to public safety, extra ordinary public expense, possibility of creating a public nuisance, conflict with other zoning resolutions.)

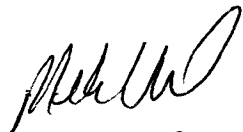
The likelihood of a structure falling over is extremely low. If a tower was to fall, it would not necessarily fall toward the road. In the rare case where a wind turbine tower has fallen (we are aware of an occurrence in Oregon), the tower essentially bent over at its midpoint; tower and turbine components did not fall far from the tower base.

I, the undersigned, do hereby certify that the statements contained herein are true and correct to the best of my knowledge.

Date: March 4, 2009


Signature of Applicant

Approved X Denied by Ward County Commissioners on this 7 day of April 2009.


4-7-09

DIRECTOR OF TAX EQUALIZATION
MICHAEL B. VENDSEL
Ward County Courthouse
Minot, ND 58701

VARIANCE APPLICATION

In order to be considered for a variance from the Ward County ~~Regulations~~ Regulations which apply to your property, it will be necessary for you to complete the following questions. The answers to these questions will be taken into consideration by the Ward County Commissioners on whether to grant your request.

Name of Applicant: Basin Electric Power Cooperative

Mailing Address: 1717 East Interstate Avenue
Bismarck ND 58503-0564

Legal description of property involved in this application:

SE 1/4 Section 14 T151 R83 (Turbine E74)

1. What exceptional hardships would result to the applicant from a failure to grant a variance on the above mentioned property:

The cost of moving a turbine to the 390-foot set back distance depends on the amount of additional access road and collector line length needed, as well as the loss in generation due to moving a turbine to a location of lesser wind resource potential. Turbine E74 is proposed to be 240 feet from a gravel road. The cost in lost generation over a 25 year period and for additional road and collector line length is estimated to be \$72,400 if turbine E74 is moved to a setback distance of 390 feet.

2. What improvements are planned to the above mentioned property that would be in conflict with the zoning regulations:

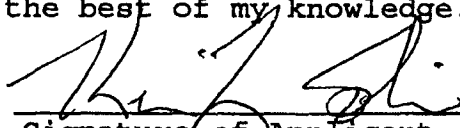
The construction of the wind turbine would not be "a minimum of the height of the structure" from the road right-of-way.

3. Why would the granting of a variance not result in a hardship to other members of the community and the county as a whole? (Answer this question by considering the possibility of increase flood heights, additional threats to public safety, extra ordinary public expense, possibility of creating a public nuisance, conflict with other zoning resolutions.)

The likelihood of a structure falling over is extremely low. If a tower was to fall, it would not necessarily fall toward the road. In the rare case where a wind turbine tower has fallen (we are aware of an occurrence in Oregon), the tower essentially bent over at its midpoint; tower and turbine components did not fall far from the tower base.

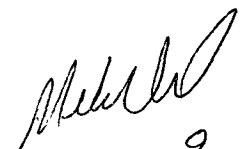
I, the undersigned, do hereby certify that the statements contained herein are true and correct to the best of my knowledge.

Date: March 4, 2009

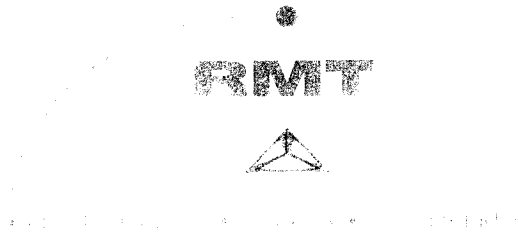


Signature of Applicant

Approved Denied by Ward County Commissioners on this 7 day of April 2009.


4-7-09

DIRECTOR OF TAX EQUALIZATION
MICHAEL B. VENDSEL
Ward County Courthouse
Minot, ND 58701



Storm Water Pollution Prevention Plan (SWPPP)

PrairieWinds 1 and Minot Wind 2 Wind Farms Construction Project

May 2009

RMT, Inc. | *PrairieWinds 1 and Minot Wind 2 Wind Farms*

Final

E:\WPMSN\PJT\00-08083\06\R000808306-001.DOC

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**Storm Water Pollution Prevention Plan (SWPPP)
PrairieWinds 1 and Minot Wind 2 Wind Farms
Construction Project
Ward County, North Dakota**

As required by the General National Pollutant Discharge Elimination System (NPDES) Permit for storm water discharges from construction activities (Permit No. NDR10 in Appendix A), a Notice of Intent (NOI) (Appendix B) must be submitted and a Storm Water Pollution Prevention Plan (SWPPP) must be developed for the site covered by the permit. Permit coverage will become effective 7 days after submittal of the NOI unless notified by the North Dakota Department of Health. When the site has been stabilized and all storm water discharges from the construction site that are authorized by this Permit are eliminated, a Notice of Termination (Appendix C) must be submitted. The aforementioned SWPPP includes the following:

- A. Permittee Certification Statement
- B. Site Description
- C. Construction Activities
- D. Best Management Practices (BMPs) During Construction
- E. Operational Controls During Construction
- F. Inspections and Maintenance
- G. Final Stabilization

List of Appendices

- Appendix A General NPDES Permit No. NDR10
- Appendix B Notice of Intent (NOI)
- Appendix C Notice of Termination
- Appendix D Wind Farm Site Map
- Appendix E Erosion Control Details
- Appendix F Site Inspection Form
- Appendix G SWPPP Amendments
- Appendix H Site Soil Map

Storm Water Pollution Prevention Plan (SWPPP)

A. Permittee Certification Statement

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name

Official Title

Area Code and Telephone Number

Date

Signature

This document is intended to be a "living document." Amendments to this document will be incorporated as Appendix G. Permittee certification statements will be included with each amendment. The following table will also be completed as amendments are made to this document.

B. Site Description		
Project Name		
PrairieWinds 1 and Minot Wind 2 Wind Farms Construction Project		
Project Location		
<ul style="list-style-type: none"> Wind Farm Construction is to occur in Sections T15IN, R83W, Sections 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 16, 20, 21, 22, 27; T151N, R82W, Sections 6, 7, 18; T152N, R83W, Sections 3, 10, 13, 14, 15, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36; T152N, R82W, Section 31; T153N, R83W, Section 36; T153N, R82W, Section 31. Appendix D contains a site map for the wind farm. 		
City or Village	State	
Max	North Dakota	
All Counties Where Construction Will Occur	All Townships Where Construction Will Occur	
Ward County	Townships of Willis, Freedom, Newman, Gasman, Rushville, and Iota Flat	
Project Size (number of acres to be disturbed)		
Approximately 134 acres will be temporarily disturbed.		
Project Type		
<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial/Industrial	<input type="checkbox"/> Road Construction
<input checked="" type="checkbox"/> Other (describe) Wind energy farm construction (laydown yard, turbines, access roads, crane walks, portable concrete batch plant, and buried electrical conveyance lines)		
Cumulative Impervious Surface		
Existing area of impervious surface <u>0</u> (to the nearest acre)		
Post-construction area of impervious surface <u>6</u> (to the nearest acre)		
Receiving Waters		
Name of Water Body:	Type (ditch, pond, wetland, lake, stream, river):	
Description of Soil Types Found at the Project Site		
<p>Topsoil generally extends from ground surface to a maximum depth of approximately 3 feet, with an average depth of 0 to 1 foot. Underlying the topsoil is typically sandy lean clay to lean clay with sand, with few to some silt, trace to few gravel, and trace lignite coal. The clay is typically classified as sandy lean clay (CL) to lean clay with sand (CL) according to the Unified Soil Classification System (USCS). The clay ranges in color from brown to gray, and consistency varies from medium stiff to hard, but is typically very stiff. The majority of the project site classifies as hydrologic soil group B according to the Web Soil Survey. See soils map in Appendix H.</p>		

C. Construction Activities	
Dates of Construction	
Construction Start Date	Estimated Completion Date
June 15, 2009	June 1, 2010 (restoration)
General Construction Project Information	
<p>The PrairieWinds 1 and Minot Wind 2 Wind Farms Construction Project will consist of the construction of 80 wind turbines in Ward County, North Dakota. The PrairieWinds 1 Wind Farm will include 77 wind turbines, and Minot Wind 2 Wind Farm will consist of three wind turbines. Approximately 134 acres of the project site will be temporarily disturbed: 1.6 acre per wind turbine, 4 acres for the portable batch plant, and 2 acres for the staging/laydown areas. Additional areas will be disturbed due to access road, staging/laydown area, crane walks, and electrical collector system. An operation and maintenance building and substation are to be permitted by Basin Electric Power Cooperative.</p>	
Access Road (Temporary and Permanent)	
<p>Construction of access roads to turbine pads will consist of stripping topsoil, removing unsuitable sub-soils, installing culverts, and placing aggregate on soil or geotextile. Temporary turnaround roads will be constructed of compacted native soil. Permanent and temporary roads will be kept in good working condition until site restoration. When restoration occurs, the temporary turnaround roads will be loosened by ripping or chisel plowing, restored to pre-construction grades, and topsoiled and seeded. The permanent roads will be narrowed, and compacted soil will be loosened by ripping or chisel plowing and the roads will be restored to pre-construction grades, and topsoiled and seeded. Erosion and sediment controls for access road construction include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▪ Construction entrance maintenance ▪ Slope barriers ▪ Ditch checks ▪ Soil stockpile protection ▪ Straw wattles ▪ Temporary seeding ▪ Mulching ▪ Culvert outlet protection ▪ Erosion control blanket ▪ Dust Control 	

Temporary Public Road Improvements

Construction of the temporary road improvements will consist of stripping topsoil, removing unsuitable sub-soils, installing temporary culvert extensions, and placing aggregate on soil or geotextile material. The temporary improvements and the adjacent public road will be kept in good working condition until restoration and the improvement to the public road is no longer needed. When the improvement is no longer necessary, the temporarily improved area will be restored to pre-construction grades, the culvert extensions will be removed, the compacted soil will be loosened by ripping or chisel plowing and the area will be topsoiled and seeded. Erosion and sediment controls for temporary public road improvements include, but are not limited to, the following:

- Construction entrance maintenance
- Slope barriers
- Ditch check
- Soil stockpile protection
- Straw wattles
- Temporary seeding
- Mulching
- Culvert outlet protection
- Erosion control blanket
- Dust Control

Turbine Pad and Temporary Crane Pad Construction

Construction of the turbine pads/foundations will consist of stripping topsoil and excavating for the foundations. Excavation will remove approximately 800 cubic yards (cy) of soil per turbine foundation. The surplus excavated topsoil will be thin-spread within the easement, blending with the natural contours of the land. Subbase soil may be used for appropriate backfill such as access road embankments. Excess or unsuitable soil will be promptly removed from the site or stockpiled until removal is possible. Temporary crane pad construction will consist of stripping topsoil, and compacting subbase soil for the erection crane to construct the turbine. Erosion and sediment controls for turbine pad and temporary crane pad construction include, but are not limited to, the following:

- Slope barriers
- Ditch check
- Soil stockpile protection
- Straw wattles
- Dewatering BMP (if needed)
- Temporary seeding
- Mulching
- Erosion control blanket
- Dust control

Crane Walk Construction

Construction of crane walks to the turbine pads will consist of stripping topsoil, removing unsuitable sub-soils, compacting soil, installing temporary culverts, and protecting roads with mats. Crane walks will be kept in good working condition until the walks are no longer needed. When restoration occurs, the crane walks will be loosened by ripping or chisel plowing, the temporary culverts will be removed, and the area will be restored to pre-construction grades. Erosion and sediment controls for crane walk construction include, but are not limited to, the following:

- Construction entrance maintenance
- Slope barriers
- Ditch check
- Soil stockpile protection
- Straw wattles
- Temporary seeding
- Mulching
- Culvert outlet protection
- Erosion control blanket
- Dust control

Underground Electrical Cable Installation

Electrical conveyance cable will be installed underground, generally along access roads, using a combination of a trenching machine, directional boring rig, and excavation and backfill. Erosion and sediment controls for underground electrical cable installation include, but are not limited to, the following:

- Construction entrance maintenance
- Slope barriers
- Soil stockpile protection
- Straw wattles
- Dewatering BMP
- Temporary seeding
- Mulching
- Erosion control blanket
- Dust control

D. Best Management Practices (BMPs) During Construction

Construction Entrance Maintenance

Construction entrance maintenance includes the removal of sediment tracked onto area roads by vehicles exiting the construction site. Construction entrances include temporary and permanent access roads, crane walks, and other egresses to a public road for wind farm construction equipment. Additional aggregate placed will be placed on access roads that rut or become covered with soil. Gravel county and township roads will be bladed as necessary.

Paved roads adjacent to an active construction entrance will be inspected at the end of each work day. Tracked soil will be removed within 48 hours.

Access road entrances will be narrowed at the end of the project. Areas outside of the permanent roadway shoulder may require regrading. Compacted soil will be loosened by ripping or chisel plowing, and then revegetated and mulched.

Crane walk and other temporary entrances may require the grading and compacting of soil. These entrances will be restored by ripping or chisel plowing, and then seeding, revegetating, and mulching.

Slope Barriers

Slope barriers will be installed to intercept sheet flow and pond sediment-laden runoff. Ponding the runoff reduces the velocity and allows for some settling of sediment. Slope barriers may be hay bales or straw wattles installed parallel to the contours.

Slope barriers will be installed around turbine sites that are adjacent to streams, swales, or wetlands, and downslope from turbine sites for staging areas and stockpiles. Slope barriers will be installed on the downstream side of the access roads when adjacent to or crossing area streams or swales. Maximum spacing of slope barriers is 75 feet on a 3:1 slope or steeper.

In disturbed areas within 200 feet of a surface water, slope barriers will be installed within 21 days of completing or ceasing earthmoving activities.

Slope barriers will be repaired, replaced, or supplemented when they become nonfunctional or when the sediment reaches one third of the height of the barrier. The repairs will be made within 24 hours of discovery, or as soon as field conditions allow access.

Slope barriers may be removed when a uniform perennial vegetative cover with a density of 70 percent has been achieved and the permanent structures (roads, turbines, etc.) are completed upslope from the barrier. Captured sediment may need to be removed prior to the removal of the barrier.

Ditch Check

Ditch checks are to be installed to intercept concentrated flow and pond sediment-laden runoff. Ponding the runoff reduces the velocity and allows for some settling of sediment.

Ditch checks will be installed where swales or ditches flow through or are adjacent to construction activities.

Ditch checks will be made from silt fencing, bales, rock or Triangular Silt Dike (TSD), or equivalent materials.

Ditches with a slope of 5% or flatter will have ditch checks of straw wattles, bales, or TSD (or equivalent). Ditches with a slope of greater than 5% or where high flows are expected will have rock ditch checks. Spacing of ditch checks will conform to the North Dakota Department of Health's "A Guide to Temporary Erosion-Control Measures for Contractors, Designers and Inspectors" and all other applicable regulations.

Ditch checks will be repaired, replaced, or supplemented when they become nonfunctional or when the sediment reaches one third of the height of the ditch check. The repairs will be made within 24 hours of discovery, or as soon as field conditions allow access.

Ditch checks may be removed when a uniform perennial vegetative cover with a density of 70 percent has been achieved and the permanent structures (roads, turbines, etc.) are completed upslope. Captured sediment may need to be removed prior to the removal of the ditch check.

Soil Stockpile Protection

Soil stockpile protection will assist in the migration of sediment.

Stripped topsoil and organic soil will be stockpiled separately from materials suitable for backfill or access road embankment. Soil stockpiles will not be placed in surface waters, wetlands, ditches, or roads.

Silt fencing or straw wattles will be installed downslope of the stockpiles if stockpiles are to be left in-place for greater than 14 days.

Silt fencing or straw wattles will be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches one third of the height of the fence. The repairs will be made within 24 hours of discovery, or as soon as field conditions allow access.

Soil stockpiles will be removed for proper disposal or spread over a designated area, and seeded and mulched.

Dewatering BMP

Dewatering of the site may be required during construction due to high groundwater levels or precipitation. Water will be pumped to a structure that will capture sediment and provide a safe discharge that will not cause erosion. A temporary filter, as shown in Appendix E or other BMP will be used when dewatering is required.

Water will be pumped to a BMP feature that will dissipate the pumped water's energy and capture sediment. The BMP will not be placed in surface waters, wetlands, ditches, or roads. Dewatering operations will not adversely affect the receiving water or downstream landowners

The BMP will be monitored during pumping operations. Pumping operations will cease if erosion occurs or sediment is released, and the BMP will be repaired, replaced, or supplemented.

The BMP will be removed once pumping operations cease. Accumulated sediment will be removed for proper disposal, and the BMP area will be repaired as needed, and seeded and mulched.

Seeding

Establishing vegetation, temporary or permanent, is the most efficient and cost-effective means to control erosion.

In disturbed areas within 200 feet of a surface water temporary seeding will be installed within 21 days of completing or ceasing earthmoving activities.

When the establishment of permanent vegetation is not possible, then the appropriate temporary seeding mix for the time of year and straw mulch will be applied.

Seeded areas may require water during extended dry periods and additional seeding if the area is disturbed or damaged.

Seed mix and placement will be one of the applicable requirements.

- Disturbed public right-of-ways shall be seeded in accordance with NDOT requirements.
- Disturbed grasslands shall be seeded in accordance with the USFWS.
- Cultivated and pasture areas shall be seeded in accordance with NRCS guidelines.
- Unregulated private property shall be seeded in accordance with the landowner's agreement.

Mulching

Mulch protects the soil surface from the impact of rain and overland flow. Mulch also fosters the growth of vegetation.

In disturbed areas within 200 feet of a surface water, mulch will be installed within 21 days of completing or ceasing earthmoving activities.

Mulch will be placed over seeded areas.

Mulch will consist of native hay, straw from oats or barley, or hydro-mulching. To prevent the spread of weeds, the mulch will meet the rules and regulations of the North Dakota Department of Agriculture.

Additional mulch may be required if the mulch blows away, washes away, or is damaged.

Culvert Outlet Protection

Culvert outlet protection significantly reduces erosion at the end of the culvert.

Riprap will be used to protect the soil at the end of the culverts. Temporary or permanent outlet protection will be installed within 24 hours of culvert installation.

Riprap will be replaced or supplemented where it becomes nonfunctional.

Temporary Sediment Basin

A temporary sediment basin is an effective means to trap sediment from a large disturbed area. The State requires a sediment basin where 10 or more acres of disturbed area drain to a common area.

No continuous project feature will disturb 10 acres that drains to a common area.

Erosion Control Blankets

Erosion control blankets protect the soil surface from the impact of rain and overland flow. Erosion control blankets also foster the growth of vegetation.

The normal wetted perimeter of a constructed ditch will be stabilized within 200 feet of a property boundary or from a surface water. Erosion control blankets will be used to stabilize the ditch. Erosion control blankets will be repaired, replaced, or supplemented when they become nonfunctional. Stabilization will be installed a 24 hours of ditch construction.

Dust Control

The amount of airborne particulates due to land disturbance activities will be reduced.

The project will be monitored for dust control, and areas will be addressed when dust becomes an issue.

Phasing

The construction will be phased based on the following principles:

- Install key sediment controls before the land-disturbing activity occurs.
- Delineate areas not to be disturbed (e.g., with flags, stakes, signs, silt fence, etc.) before work begins.
- Do not disturb an area until it is necessary for construction to proceed.
- Minimize clearing.
- Cover or stabilize disturbed areas as soon as practical.
- Time construction activities so as to limit impact from seasonal climate changes or weather events.

E. Operational Controls During Construction

The following measures will be employed to properly manage and dispose of solid waste, including trash:

- The Contractor will keep the work site clean.
- Trash and debris will not be buried within fill or backfill.
- Construction and demolition debris, debris from clearing and grubbing, trash, and other waste will be collected at least weekly for disposal off-site.
- No on-site burning will be permitted.
- The Contractor will comply with federal, state, and local requirements for the disposal of solid waste.

The following measures will be employed to properly manage hazardous materials:

- Oils, fuels, and any hazardous substances will be properly stored, including secondary containment for tanks larger than 55 gallons, to prevent spills.
- Access to storage areas will be restricted to prevent vandalism.
- Hazardous materials will be stored and disposed in compliance with federal, state, and local regulations.

The following measures will be employed for external washing of trucks and other construction vehicles:

- If required, a location will be set aside for washing concrete trucks.
- Discharge from the wash will be directed into a sediment trap that will also receive waste concrete.
- The trap will be cleaned out at least weekly, and the material will be disposed off-site in compliance with federal, state, and local regulations.

The following measure will be employed to address petroleum spills:

- Petroleum spills will be promptly cleaned up by placing contaminated soil in a labeled drum for proper disposal off-site in compliance with federal, state, and local regulations.

The following measure will be employed to address sanitary and septic waste:

- All sanitary waste will be collected from the portable units a minimum of two times per week, or as required by local regulations, by a sanitary waste management contractor.

F. Inspections and Maintenance

Periodic inspections of erosion and sediment control measures will be conducted by personnel who are familiar with permit conditions and the proper installation and operation of BMPs. Inspections will occur at least once every 14 calendar days during construction and within 24 hours after any storm event of greater than 0.50 inch of rain in a 24-hour period. The permittee will have the option of maintaining a rain gauge at their site or using the nearest National Weather Service precipitation gauge station. Any gauge station used will be located within 10 miles of the storm water discharge.

Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month. Completed areas that have been stabilized, but do not meet the 70 percent vegetative cover criteria for final stabilization, are also eligible for once-per-month inspections. Inspections may be suspended where work has been suspended due to frozen ground conditions. The required inspections and maintenance will resume as soon as runoff occurs at the site or prior to resuming construction, whichever comes first.

There may be times when a site inspection may not be practical at the specified time. Adverse climatic conditions, such as flooding, high winds, tornadoes, electrical storms, etc., may prohibit inspections. Should this occur, the permittee will record the reason why the inspection(s) could not be performed at the designated time. Any available documentation of the events that did not allow for the inspection will also be available.

Records will be kept for each inspection and maintenance activity, and will contain the following information:

- Date and time of inspection
- Name of inspector and signature
- Findings of inspection, including recommendations for corrective action
- Date and amount of all rainfall events greater than 0.5 inch in a 24-hour period
- Documentation that the SWPPP Plan has been amended when substantial changes are made to the erosion and sediment controls or other BMPs in response to inspections

A Site Inspection Form is included in Appendix F.

Reports and Record Keeping

A copy of the signed SWPPP will be retained at the construction site from the date of project initiation to the date of final stabilization. All reports, including the SWPPP, Notice of Intent, Notice of Termination, certifications, and inspection reports, will be maintained as part of the SWPPP for at least 3 years from the date on which the permit coverage expires or is terminated.

- **Notice of Intent-** A Notice of Intent (Appendix B) will be submitted at least 30 days prior to the start of construction.
- **Notice of Termination** – A Notice of Termination (Appendix C) will be submitted when the site has been stabilized and all storm water discharges from the construction site that are authorized by this permit are eliminated.
- **Contractor's Certification** - All contractors and subcontractors identified in this SWPPP will sign a copy of the Contractor's Certification Statement located in Appendix G.
- **Certification of the SWPPP** - See Section A, Permittee Certification Statement, for Certification of the SWPPP form to be signed by the permittee per Section IV.E of General NPDES Permit No. NDR10 located in Appendix A
- **Inspection Reports** – As stated in Inspections and Maintenance section. See Appendix F.

The SWPPP will be amended if there is a change in design, construction, operation, or maintenance that has a significant effect on the potential for the discharge of pollutants from the site and that has not otherwise been addressed in the Plan, or if the SWPPP proves to be ineffective in eliminating or significantly minimizing pollutants, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with the construction site activity. In addition, the Plan will be amended to identify any new contractor and/or subcontractor who will implement a measure of the SWPPP. A copy of the letter of notification of coverage or other indication that storm water discharges from the site are covered under an NPDES permit will be posted at the site in a prominent place for public viewing (such as alongside a building permit).

G. Final Stabilization

1. All soil-disturbing activities at the site have been completed, and a uniform perennial vegetative cover with a density of 70 percent of the native cover for unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles), have been employed.
2. For areas with an average annual rainfall of less than 20 inches only, all soil disturbing activities at the site have been completed and temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed, along with an appropriate seed base, to provide erosion control for at least 3 years and to achieve 70 percent vegetative coverage within 3 years without active maintenance.
3. For soil-disturbing activities on land used for agricultural purposes, final stabilization may be accomplished by returning the disturbed land to its predisturbance agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to "waters of the state," and areas that are not being returned to their predisturbance agricultural use, will meet the final stabilization criteria in (1) or (2) above.

Permanent Turf Establishment

Disturbed portions of the site that will not be converted back to agricultural land will be stabilized with permanent seed upon agreement with the landowner. Final stabilization will be done no later than 21 days after the last construction activity, or as noted below. If the site cannot be seeded because of the time of the season, a temporary seeding mix according to the construction plan set will be planted and maintained until the appropriate season is reached to plant the permanent seed mixture.

Prior to turf establishment, sediment may be removed from low areas, ditches, and temporary BMPs.

The turf areas will be maintained until the site has undergone final stabilization. Maintenance includes watering, reseeding, and reapplying mulch as needed.

Permanent Structure

Roads and crane pads may be regraded and reduced to final configuration. Adjacent disturbed areas will be restored as mentioned.

Turbine foundations will be backfilled and will be covered with aggregate or vegetation.

Appendix A
General NPDES Permit No. NDR10

Table of Contents

Part		Page
I	Permit Coverage	3
	Discharges Covered	3
	Limitations on Coverage	3
	Authorization Effective Date	4
	Application Requirements	4
	Termination of Coverage	6
	Transfer of Ownership or Control	6
II	Storm Water Discharge Requirements	7
	Storm Water Pollution Prevention Plans	7
	Additional Terms and Conditions	10
III	Monitoring and Reporting	11
	Inspection Requirements	11
	Annual Reporting Requirements	11
IV	Standard Conditions	12
	Records Retention	12
	Signatory Requirements	13
	Immediate Notification	13
	Transfers	14
V	Definitions	16
	Appendix 1 - Erosion and Sediment Control Guidelines	19
	Appendix 2 – Basic SWPP Measures for Small Construction Sites	21

PART I - PERMIT COVERAGE AND LIMITATIONS

A. Discharges Covered

1. This permit applies to all areas within the jurisdiction of the state of North Dakota.
2. This permit applies to storm water discharges associated with large construction activity and with small construction activity as defined in 40 C.F.R. part 122.26(b)(14)(x) and (b)(15), respectively.
 - a. Large construction activity includes clearing, grading and excavation, that disturbs land of equal to or greater than five (5) acres and includes the disturbance of less than five (5) acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five (5) acres or more.
 - b. Small construction activity includes clearing, grading and excavation, that disturbs land of equal to or greater than one (1) acre, and includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five (5) acres.
3. Storm water discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) may be covered by this permit as part of a related construction site.
4. Certain non-storm water discharges from facilities covered by this permit and meeting the requirements specified in Part II.A.

B. Discharges Not Covered

1. Storm water discharges associated with industrial activity from any source other than construction activities described in Part I.A.
2. Post-construction discharges from industrial activity that originate from the site after construction activities have been completed and final stabilization at the site is achieved. Industrial and post-construction storm water discharges may need to be covered by a separate storm water permit.
3. The placement of fill into waters of the state requiring local, state, or federal authorizations (such as U.S. Army Corps of Engineers Section 404 permits).
4. This permit does not substitute for obligations under the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), or National Historic Preservation Act (NHPA), it is your responsibility to ensure the project and resulting discharges comply with the respective requirements.
5. Discharges to waters for which there is a total maximum daily load (TMDL) allocation for sediment and/or parameters associated with sediment transport are not covered unless you develop a SWPP plan that is consistent with the assumptions, allocations and requirements in the approved TMDL. If a specific numeric wasteload allocation has been established that would apply to the project's discharges, the permittee(s) must incorporate that allocation into its SWPP plan and implement necessary steps to meet that allocation.
6. Storm water discharges that the Department determines will cause, or have the reasonable potential to cause or contribute to, violations of water quality standards.

C. Obtaining Coverage and Authorization Effective Date

1. To obtain authorization under this general permit for storm water discharges you must submit a complete application and develop a Storm Water Pollution Prevention (SWPP) plan in accordance with Part II.C of this permit. A plan must be in place as a condition of this permit and a copy of the plan must be retained by the operator of the facility. A copy of the plan must be submitted with the application for certain facilities as described in Part I.D.
2. Permit coverage will become effective 7 days after you submit a complete application unless otherwise notified by the Department (based on the earlier of postmarked date or department date-stamp).
3. Upon the effective date of permit coverage you, as the permit applicant, are authorized to discharge storm water from eligible activities under the terms and conditions of this permit.

D. Application Contents

1. You may use a Notice of Intent (NOI) form for Construction Activity (or photo copy thereof) to complete your application. The NOI form (or a replacement application form) will be available on the state's website at <http://www.health.state.nd.us/wq/Storm>.

2. Large Construction Activity Coverage

Large construction activity involves land disturbance of equal to or greater than 5 acres. Large construction activity also includes the disturbance of less than 5 acres of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than 5 acres.

- a. The owner or the owner jointly with the operator (usually the general contractor) shall submit a completed application for this permit. The owner is responsible for compliance with all terms and conditions of this permit. The operator has day to day supervision of construction activities and is jointly responsible with the owner for compliance with the permit conditions as they pertain to the construction activities delegated to the operator.
- b. The application for large construction activity shall contain, at a minimum, the following information:
 - (1) Owner name, mailing address and phone number;
 - (2) Project contact name and phone number;
 - (3) Project/site name;
 - (4) Project/site location (street address; section, township, range; or latitude and longitude), county;
 - (5) A brief description of the construction activity;
 - (6) The anticipated starting date and the anticipated completion date for the project;
 - (7) The estimated total area of disturbance in acres;
 - (8) Name of receiving water(s) or the name of the municipal storm sewer system and receiving water(s);
 - (9) List of contractors/subcontractors working at the site (if known);
 - (10) The signature of the applicant(s), owner (and operator if co-applicants) signed in accordance with Part IV.E of this permit.

- c. A storm water pollution prevention plan (Part II.C) for the project must be prepared and available for review by the Department at the time of application. A partially complete plan is acceptable when it clearly identifies the item(s) to be completed, the person(s) responsible for completing the item(s) and the deadline for completing the item(s). The SWPP plan must be completed prior to the start of construction.
- d. You must include a copy of the Storm Water Pollution Prevention (SWPP) plan if the project involves 50 or more acres; or the project will have a discharge point located within 2000 ft of, and flow to, a water body listed as impaired under section 303(d) of the Federal CWA due to sediment or parameters associated with sediment transport (see 303(d) List on Department's web site).

3. Small Construction Activity Coverage

Small construction activity involves land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than one and less than five acres.

- a. An operator must submit one single NOI form to the Department to obtain coverage for storm water discharges from all of their small construction sites. An operator is the individual who has day to day supervision and control of activities occurring at the construction sites and is responsible for compliance with all terms and conditions of this permit. This can be the owner, developer, the general contractor or, in some circumstances, the agent of one of these parties.
 - b. The application for small construction activity shall contain, at a minimum, the following information:
 - (1) Name and mailing address of the owner or operator;
 - (2) Contact name and phone number;
 - (3) A brief description of the construction activity type;
 - (4) The signature of the applicant(s), signed in accordance with Part IV.E of this permit.
 - c. The application for small construction activity shall be submitted to the Department prior to the start of construction. The operator is responsible for implementing a storm water pollution prevention plan (Part II.C) for all their small construction sites. The operator shall provide a copy of the SWPP plan to the Department upon request.
 - d. Operators of small construction activity shall maintain an up-to-date record of site locations they operate. Operators are required to submit an Annual Location Record (see Part III.D) to the Department by January 31.
4. Completed applications, and any reports required by this permit shall be submitted, by mail or hand delivery, to:
- North Dakota Department of Health
Division of Water Quality
1200 Missouri Avenue
PO Box 5520
Bismarck, ND 58506-5520
5. Local Authority. This permit does not preempt or supersede the authority of local agencies to prohibit, restrict, or control discharges of storm water to storm sewer systems or other water courses within their jurisdiction.

E. Notice of Termination (NOT)

1. Permittees wishing to terminate coverage under this permit must submit a Notice of Termination (NOT) or other written request identifying the facility, reason why the permit is no longer needed and signed in accordance with Part IV-E of this permit. Compliance with the conditions of this permit is required until a NOT is submitted.
2. Permittees may only submit a NOT after one of the following conditions have been met.
 - a. Final stabilization (see Part II.E and definitions) has been achieved on all portions of the site for which the permittee is responsible.
 - b. Another operator/permittee has assumed control, in accordance with the Transfer provisions (Part IV.M), over all areas of the site that have not been finally stabilized.
 - c. For residential construction only, temporary erosion protection and down gradient perimeter control for individual lots has been completed and the residence has been transferred to the homeowner. Additionally, the Permittee must distribute a "homeowner factsheet" to the homeowner to inform the homeowner of the need for, and benefits of, final stabilization.
3. Operators of small construction activity are not required to submit NOTs for their individual small construction sites, however, final stabilization is required on all sites. If an operator ceases all of its small construction activity and wishes to terminate coverage under the permit, an NOT must be submitted along with the Annual Location Record (see Part III.B) that certifies final stabilization has been completed on its small construction sites.

F. Transfer of Ownership or Control

1. When the owner or operator of a construction project changes, the new owner or operator must submit a written request for permit transfer/modification within 7 days of assuming control of the site or commencing work on-site, or of the legal transfer, sale or closing on the property. Late submittals will not be rejected; however, the department reserves the right to take enforcement for any unpermitted discharges or permit noncompliance. For storm water discharges from construction activities where the owner or operator changes, the new owner or operator can implement the original SWPP plan created for the project or develop and implement their own SWPP plan. Permittee(s) shall ensure either directly or through coordination with other operators that their SWPPP meets all terms and conditions of this permit and that their activities do not interfere with another party's erosion and sediment control practices.
2. For the transfer of properties in a development (e.g., an original developer sells portions of the property to various homebuilders) the new owner(s) must obtain permit coverage for the property by one of the following methods.
 - a. If the new owner or operator has existing permit coverage for small construction, the new operator can begin activities on individual lots or tracts of less than 5 acres under the provisions for small construction. The new operator must comply with the permit conditions and enter the site on the location record within 7 days of the transfer.
 - b. If the new owner does not have applicable permit coverage or the tract consists of 5 or more acres, a new application must be filed by the new owner or operator within 7 days of the transfer.

PART II – STORM WATER DISCHARGE REQUIREMENTS

A. Prohibition of Non-Storm Water Discharges

The discharge of wastewater from processing operations or sanitary facilities is not authorized by this permit. The following non-storm water discharges may be authorized if the non-storm water sources are identified in the SWPP plan with a description of the pollution prevention measures to be implemented: fire-fighting, fire hydrant flushing, potable water line flushing, infrequent building and equipment wash down without detergents, uncontaminated foundation drains, springs, lawn watering and air conditioning condensate.

B. Releases in Excess of Reportable Quantities

This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302. Any release of a hazardous substance, including a release in a storm water discharge, must be reported to the agencies identified in Part IV.F. The discharge of hazardous substances in storm water discharges shall be minimized in accordance with the applicable SWPP Plan for the facility. Should a reportable quantity release occur, the SWPP Plan shall be revised to prevent the recurrence of such a release.

C. Storm Water Pollution Prevention Plans

All facilities covered by this permit shall prepare and implement Storm Water Pollution Prevention (SWPP) Plans prior to beginning any construction requiring this permit. The SWPP plan and revisions are subject to review by the Department. The objectives of the plan are to identify potential sources of sediment or other pollution from construction activity and to ensure practices are used to reduce the contribution of pollutants from construction site runoff. Storm water management measures developed under other regulatory programs can be included in the SWPP plan or incorporated by reference.

The SWPP plan must incorporate the guidelines provided in Appendix 1, to the extent practicable, and shall include the following information.

1. **Site Description.** Each plan shall provide a description of the construction site and potential pollutant sources as indicated below:
 - a. A description of the overall project and the type of construction activity;
 - b. Estimates of the total area of the site and the total area that is expected to be disturbed by excavation, grading, grubbing, or other activities during the life of the project;
 - c. A proposed timetable of activities that disturb soils for major portions of the site;
 - d. A description of the soil within the disturbed area(s);
 - e. The name of the surface water(s) or municipal storm sewer systems at or near the disturbed area that may receive discharges from the project site; and

- f. A site map indicating:
 - (1) Drainage patterns including flow direction, dividing lines, and the existing and final grades
 - (2) Construction site boundaries and areas of soil disturbance;
 - (3) Location of major structural and nonstructural controls identified in the plan;
 - (4) Location of areas where stabilization practices are expected to occur;
 - (5) Surface waters, including an aerial extent of wetland acreage;
 - (6) Locations where storm water is discharged to surface water;
 - (7) Where included as part of the project, the site maps for offsite concrete/asphalt batch plants, equipment staging areas, borrow sites or excavated fill material disposal.
2. **Operational Controls.** The plan shall describe the Best Management Practices (BMPs) used in day to day operations on the project site that reduce the contribution of pollutants in storm water runoff.
 - a. Good housekeeping practices to maintain a clean and orderly facility. Litter, debris, chemicals and parts must be handled properly to minimize the exposure to storm water. This includes measures to reduce and clean up vehicle tracking of sediment off-site and generation of dust.
 - b. Preventive maintenance practices must be followed. Routine inspections and maintenance are necessary to ensure the proper operation of storm water management devices (oil water separators, catch basins, and silt fences) as well as equipment used at a site.
 - c. Spill prevention and response procedures must be developed where potential spills can occur. Where appropriate, specific handling procedures, storage requirements, spill containment and cleanup procedures shall be identified.
 - d. Employee training informs personnel of their responsibility in implementing the practices and controls included in the plan such as spill response, good housekeeping, and sediment control practices.
3. **Erosion and Sediment Controls.** An erosion and sediment control plan shall be developed to identify the appropriate control measures and when they will be implemented during the project for each major phase of site activity. The erosion and sediment control plan must conform to the guidelines provided in Appendix 1. The basic elements for erosion and sediment controls are indicated below.
 - a. Sediment basins, or an appropriate combination of equivalent sediment controls such as smaller sediment basins, and/or sediment traps, silt fences, fiber logs, vegetative buffer strips, berms, etc., are required for all down slope boundaries of the disturbance area and for those side slope boundaries as may be appropriate for site conditions.
 - b. Temporary erosion protection (such as cover crop planting or mulching) or permanent cover must be provided for the exposed soil areas where activities have been completed or temporarily ceased. These areas include graded slopes, pond embankments, ditches, berms and soil stockpiles.
 - c. All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control for site situations.

- d. If sediment escapes from the site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts. The plan must be modified to prevent further sediment deposition off-site.
4. **Storm Water Management.** The plan shall include a description of practices that will be installed during the construction process to control pollutants in storm water discharges occurring after construction operations have been completed. Such practices may include:
 - a. Storm water ponds; flow reduction by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems which combine several practices. The plan shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed predevelopment levels.
 - b. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to minimize erosion and protect the receiving water. Under this permit, permittees are responsible for the installation and maintenance of storm water management measures prior to final stabilization of the site and until the submittal of a NOT. However, post-construction storm water BMPs that discharge pollutants from point sources once construction is completed, may in themselves, need authorization under a separate permit.
 5. **Maintenance.** All erosion and sediment control measures and other protective measures identified in the plan must be maintained in effective operating condition. The plan must indicate, as appropriate, the maintenance or clean out interval for sediment controls. If site inspections, required in this permit, identify BMPs that are not operating effectively, maintenance shall be arranged and accomplished as soon as practicable.
 6. **Inspections.** The plan must provide for site inspections to monitor the condition of storm water discharge outlets and effectiveness of BMPs. The permittee shall ensure that personnel conducting site inspections are familiar with permit conditions and the proper installation and operation of control measures. Site inspections shall be conducted according to the schedule outlined in Part III.
 7. **Plan Review and Revisions.**
 - a. The plan shall be signed in accordance with the signatory requirements, Part IV-E, and retained on-site for the duration of activity at the permitted location.
 - b. The permittee shall make plans available upon request to the Department, EPA, or, in the case of discharges to a municipal separate storm sewer system, to the operator of the municipal system.
 - c. The permittee shall amend the SWPP plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the state. The plan shall also be amended if the plan is found to be ineffective in controlling pollutants present in storm water.

D. Additional Terms and Conditions

1. If any measurable quantity of sediment leaves the site because of structural failure or lack of design capacity of the BMPs, the sediment shall be placed back on the site or properly disposed of, as soon as conditions allow. Under no conditions shall the sediment be washed into the storm sewers or drainage ways.
2. Concrete wash water shall not be discharged to waters of the state, storm sewer systems or allowed to drain onto adjacent properties.
3. Bulk storage structures for petroleum products and other chemicals shall have adequate leak and spill protection to prevent any spilled materials from entering waters of the state.
4. The storm water controls are expected to withstand and function properly during precipitation events of up to the 2 year, 24 hour storm event. Visible or measurable erosion which leaves the construction site from such storm events should be minimal. The 2 year, 24 hour rainfall event in North Dakota ranges from about 1.9 inches in the west to 2.3 inches in the east.
5. Dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) related to the permitted activity must be managed with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream landowners. The Permittee(s) must operate the discharge to minimize the release of sediment and provide energy dissipation measures to adequately protect the outlet from erosion. The dewatering is limited to storm water and small amounts of ground water that may collect on a site and those sources identified in Part II.A. A separate permit must be obtained for the release of water from other sources.
6. All storm water discharges must comply with the requirements, policies, or guidelines, of municipalities and other local agencies. Any discharges of storm water to storm drainage systems or other water courses under their jurisdiction, including applicable requirements in municipal storm water management programs developed to comply with NDPDES permits, must comply with their local requirements.

E. Final Stabilization

The Permittee(s) must ensure final stabilization of the site. The Permittee(s) should submit a NOT within 30 days after final stabilization is complete, or another owner/operator (Permittee) has assumed control according to Part I.D over all areas of the site that have not undergone final stabilization. Final stabilization can be achieved in one of the following ways.

1. All soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and;
 - a. All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to preclude erosion;
 - b. All temporary synthetic, and structural erosion prevention and sediment control BMPs (such as silt fence) must be removed as part of the site final stabilization; and
 - c. The Permittee(s) must clean out all sediment from conveyances and from temporary sedimentation basins that are to be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin, conveyances or drainageways discharging off-site or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity.

2. For residential construction only, final stabilization has been achieved when temporary erosion protection and down gradient perimeter control for individual lots has been completed and the residence has been transferred to the homeowner. Additionally, the Permittee must distribute a "homeowner factsheet" to the homeowner to inform the homeowner of the need for, and benefits of, final stabilization.

PART III SELF MONITORING AND REPORTING

A. Inspection Requirements

1. Inspections shall be performed by or under the direction of the permittee at least once every 14 calendar days and within 24 hours after any storm event of greater than 0.50 inches of rain per 24-hour period during active construction. The permittee shall have the option of maintaining a rain gauge at their site or utilizing the nearest National Weather Service precipitation gauge station. Any gauge station used shall be located within 10 miles of the storm water discharge.
2. All inspections and maintenance conducted during construction must be recorded in writing and these records must be retained in accordance with Part IV.D. Records of each inspection and maintenance activity shall include:
 - a. Date and time of inspections;
 - b. Name of person(s) conducting inspections;
 - c. Findings of inspections, including recommendations for corrective actions;
 - d. Corrective actions taken (including dates, times, and party completing maintenance activities);
 - e. Date and amount of all rainfall events greater than 1/2 inch (0.5 inches) in 24 hours; and
 - f. Documentation that the SWPP plan has been amended when substantial changes are made to the erosion and sediment controls or other BMPs in response to inspections.
3. Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month. Completed areas that have been stabilized but do not meet the 70% perennial vegetative cover criteria for final stabilization are also eligible for once per month inspections. Inspections may be suspended where work has been suspended due to frozen ground conditions. The required inspections and maintenance must resume as soon as runoff occurs at the site or prior to resuming construction, whichever comes first.
4. There may be times when a site inspection may not be practical at the specified time. Adverse climatic conditions, such as flooding, high winds, tornadoes, electrical storms, etc., may prohibit inspections. Should this occur, the permittee must make a record of the description of why the inspection(s) could not be performed at the designated time. Any available documentation of the events which did not allow for the inspection should also be available.
5. A permittee may submit an alternative inspection plan for long, narrow, linear construction projects such as pipeline or utility line installation, and similar projects in remote areas where vehicle traffic is restricted or could compromise native vegetation or stabilization measures. A copy of the SWPP plan and proposed inspections plan shall be submitted to the Department 30 days prior to implementing an alternative inspection plan. Any alternative plan must provide for the timely recognition and repair of erosion and sediment damage.

B. Annual Location Record - (Small Construction Activity only)

Operators of Small Construction Activity shall maintain a Location Record that shows the locations they operated small construction activity.

1. Contents of the Location Record

The Location Record shall contain the following:

- a. Permit number;
- b. Name and mailing address of the owner or operator;
- c. Name of each small construction site;
- d. Location of each site (street address, latitude and longitude, or legal land description of township, range, section, and 1/4 section);
- e. Start date of each site;
- f. The estimated area of total disturbance, in acres, of each site;
- g. Status of each site (in progress, grading complete, final stabilization date).

2. Submittal

A copy of the Annual Location Record shall be submitted to the Department by January 31 of each year, covering the small construction sites operated during the preceding calendar year (January 1 through December 31). The report shall be submitted to the Department at the following address:

North Dakota Department of Health
Division of Water Quality
1200 Missouri Avenue
PO Box 5520
Bismarck, ND 58506-5520

PART IV – STANDARD CONDITIONS

- A. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give the Department advance notice of any planned changes at the permitted facility or of any activity which may result in permit noncompliance.
- B. **Operation and Maintenance.** The permittee shall at all times maintain in good working order, and operate as efficiently as possible, all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit and with the requirement of the SWPP Plans. If necessary to achieve compliance with the conditions of this permit, this shall include the operation and maintenance of backup or auxiliary systems.
- C. **Duty to Provide Information.** The permittee shall furnish to the Department, upon request, copies of records required to be kept by this permit. When a permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or any report, it shall promptly submit such facts or information.
- D. **Records Retention.** All records and information (including calibration and maintenance) required by this permit shall be kept for at least three years or longer if requested by the Department or EPA.

E. **Signatory Requirements.** All applications, reports or information submitted to the Department shall be signed and certified.

1. All permit applications shall be signed by a responsible corporate officer, a general partner, or a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (a) The authorization is made in writing by a person described above and submitted to the Department; and
 - (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

If an authorization under item 2 above is no longer accurate for any reason, a new authorization satisfying the above requirements must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

F. **Immediate Notification.** The permittee shall report any noncompliance of discharge which may seriously endanger health or the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstance. The report shall be made to the EPA, Region VIII, National Emergency Response Center, at 1-800-424-8802 and the State of North Dakota, Division of Emergency Management, 1-800-472-2121. In addition, a written submission to both the Department and EPA shall be provided within five days of the time that the permittee became aware of the circumstances. The submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the estimated time noncompliance is expected to continue if it has not been corrected; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

G. **Bypassing.** Any bypass is prohibited except where unavoidable to prevent loss of life, personal injury, or severe property damage, and there were no feasible alternatives to the bypass. The permittee shall provide notification of unanticipated bypasses as may be required by Part IV.F, Immediate Notification. If, for other reasons, a bypass is considered necessary, a request to bypass shall be submitted, at least 15 days in advance if possible, to the Department. No bypass of this type shall occur until permission has been obtained from the Department.

H. **Upset Conditions.** An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of the following paragraph are not met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final

administrative action subject to judicial review.

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

1. An upset occurred and the permittee can identify its cause(s);
2. The permitted facility was, at the time, being properly operated;
3. The permittee submitted notice of the upset as may be required under Part IV.F, Immediate Notification; and
4. The permittee complied with any remedial measures required under Part IV.I, Duty to Mitigate.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

- I. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee, at the Department's request, shall provide accelerated or additional monitoring as necessary to determine the nature and impact of any discharge.
- J. **Removed Materials.** Collected screening, grit, solids, sludge, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner to prevent any pollutant from entering waters of the state or creating a health hazard.
- K. **Right of Entry.** The permittee shall allow Department and EPA representatives, at reasonable times and, if requested, upon the presentation of credentials, to inspect any facilities or equipment (including monitoring and control equipment), to sample discharges, and to have access to and copy any records required to be kept by this permit. For facilities which discharge to a municipal or other separated storm sewer, this shall also pertain to authorized representatives of the municipal operator or the separate storm sewer receiving the discharge.
- L. **Availability of Reports.** Except for data determined to be confidential under 40 CFR, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.
- M. **Transfers.** This permit is not transferable except upon the filing of a Statement of Acceptance by the new party and subsequent Department approval. The Department may require the new operator to file a new application as stated in Part I.D, or apply for a transfer or modification as stated in Part I.F. The current permit holder should inform the new controller, operator, or owner of the existence of this permit and also notify the Department of the possible change.
- N. **New Limitations or Prohibitions.** The permittee shall comply with any effluent standards or prohibitions established under Section 306(a), Section 307 (a), of Section 405 of the Act for any pollutant (toxic or conventional) present in the discharge or removed substances within the time identified in the regulations, even if the permit has not yet been modified to incorporate the requirements.

- O. **Permit Actions.** This permit may be modified, revoked and reissued, or terminated for cause. Also, if there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with industrial activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or coverage under an alternative general permit in accordance with this Part. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. The following pertains to individual or alternative general permits:
1. The Department may, at any time and by written notification only, require any person authorized by this permit to apply for and obtain either an individual NDPDES permit or to seek coverage under an alternative NDPDES general permit. Any person covered by this general permit may request to be excluded from such coverage by either applying for an individual NDPDES permit, or filing a Notice of Intent to be covered under an alternative NDPDES general permit.
 2. When an individual NDPDES permit is issued to a person otherwise subject to this permit or the person is approved for coverage under an alternative NDPDES general permit, the applicability of this permit to the individual permittee is automatically terminated upon the effective date of the individual permit or the date of approval for coverage under the alternative general permit. When an individual NDPDES permit is denied to a person otherwise subject to this permit, or the person is denied for coverage under an alternative NDPDES general permit, the applicability of this permit remains in effect, unless otherwise specified by the Department.
- P. **Need to Halt or Reduce.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- Q. **State Laws.** Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation preserved under Section 510 of the Act.
- R. **Oil and Hazardous Substance Liability.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation preserved under Section 311 of the Act.
- S. **Property Rights.** The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges; nor does it authorize any injury to private property or any invasion of personal rights; nor any infringement of federal, state, or local laws or regulations.
- T. **Severability.** The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

PART V - DEFINITIONS

"303d List" or Section 303d List" means a list of North Dakota's water quality-limited waters needing total maximum daily loads or TMDLs developed to comply with section 303d of the Clean Water Act. A copy of the list is available on the state's web site at:

http://www.health.state.nd.us/wq/sw/Z7_Publications/A_Publications.htm

"BMP" or "Best Management Practices" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

"Common Plan of Development or Sale" means a contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.

"Construction Activity" means construction activity as defined in 40 C.F.R. part 122.26(b)(14)(x) and small construction activity as defined in 40 C.F.R. part 122.26(b)(15). This includes a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated storm water runoff, leading to soil erosion and movement of sediment into surface waters or drainage systems. Examples of construction activity may include clearing, grading, filling and excavating. Construction activity includes the disturbance of less than one acre of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) acre or more

"Department" means the North Dakota Department of Health, Division of Water Quality.

"Energy Dissipation" means methods employed at pipe outlets to prevent erosion. Examples include, but are not limited to: concrete aprons, riprap, splash pads, and gabions that are designed to prevent erosion.

"Final Stabilization" means that:

1. All soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of 70 percent of the native cover for unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
2. For areas with an average annual rainfall of less than 20 inches only, all soil disturbing activities at the site have been completed and temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years and achieve 70 percent vegetative coverage within three years without active maintenance.
3. For soil disturbing activities on land used for agricultural purposes, final stabilization may be accomplished by returning the disturbed land to its pre-disturbance agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to "waters of the state," and areas which are not being returned to their pre-disturbance agricultural use must meet the final stabilization criteria in (1) or (2) above.

"Large Construction Activity" means land disturbance of equal to or greater than 5 acres. Large construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than five acres.

"Normal Wetted Perimeter" means the area of a conveyance, such as a ditch, channel, or pipe that is in contact with water during flow events that are expected to occur once every year.

"Non-Storm Water Discharges" means discharges other than storm water. The term includes both process and non-process sources. Process waste water sources that require a separate NDPDES permit include, but are not limited to industrial processes, domestic facilities and cooling water. Non-storm water sources that may be addressed in this permit include, but are not limited to: fire hydrant flushing and testing, potable water line flushing, infrequent building and pavement washdowns without detergents, uncontaminated foundation drains, springs, lawn watering and air conditioning condensate.

"Operator" means the person (usually the general contractor), designated by the owner, who has day to day operational control and/or the ability to modify project plans and specifications related to the SWPP plan. The person must be knowledgeable in those areas of the permit for which the operator is responsible and must perform those responsibilities in a workmanlike manner.

"Owner" means the person or party possessing the title of the land on which the construction activities will occur; or if the construction activity is for a lease holder, the party or individual identified as the lease holder; or the contracting government agency responsible for the construction activity.

"Permanent Cover" means final stabilization. Examples include grass, gravel, asphalt, and concrete.

"Severe Property Damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"Significant Materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

"Significant Spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4).

"Small Construction Activity" means land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than one and less than five acres.

"Stabilized" means the exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, wood fiber blanket, or other material that prevents erosion from occurring. Grass seeding alone is not stabilization.

"Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm Water Associated with Industrial Activity" means storm water runoff, snow melt runoff, or surface runoff and drainage from industrial activities as defined in 40 CFR § 122.26(b)(14).

"Storm Water Associated with Small Construction Activity" means the discharge of storm water from:

(i) Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

(ii) Any other construction activity designated by EPA or the Department, based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the state.

"Temporary Erosion Protection" means methods employed to prevent erosion. Examples of temporary cover include: straw, wood fiber blanket, wood chips, and erosion netting.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Waters of the state" means any and all surface waters that are contained in or flow in or through the state of North Dakota as defined in NDCC 61-28-02. This definition includes all water courses, even if they are usually dry.

Appendix 1 - Erosion and sediment control guidelines for construction activity

The following are guidelines for designing, implementing and maintaining effective erosion and sediment controls.

- 1) Temporary (or permanent) sediment basins must be provided, where practical, when ten (10) or more acres of disturbed area drain to a common location prior to the runoff leaving the site or entering surface waters. The Permittee is encouraged, but not required, to install temporary sediment basins where appropriate in areas with steep slopes or highly erodible soils even if less than ten (10) acres drains to one area. The design and construction of the basins must include following:

The basins shall be sized to provide 3,600 cubic feet of storage below the outlet pipe per acre drained to the basin. Alternative designs may be used which provide storage below the outlet for a calculated volume of runoff from a 2 year, 24 hour storm and provides not less than 1800 cubic feet of storage below the outlet pipe from each acre drained to the basin.

Basin outlets must be designed to avoid short-circuiting and the discharge of floating debris. The basin must be designed with the ability to allow complete basin drawdown (e.g., perforated riser pipe wrapped with filter fabric and covered with crushed gravel, pumps or other means) for maintenance activities. The drawdown should be designed to release the storage volume in a 24 hour or longer period. The basin must have a stabilized emergency overflow to prevent failure of pond integrity. Energy dissipation must be provided for the basin outlet.

- 2) Where a temporary sediment basin is not practical due to site limitations or the nature of disturbance (such a developing a roadway, pipeline, or diversion) a combination of measures must be used to provide equivalent sediment control for all down slope boundaries of the construction area and for side slope boundaries as deemed appropriate by individual site conditions. Equivalent sediment controls include such things as smaller sediment basins, and/or sediment traps, silt fences, vegetative buffer strips. In determining whether installing a sediment basin is attainable, the permittee must consider public safety and may consider factors such as soils, slope, and available area on site.
- 3) Provide temporary erosion protection or permanent cover for the exposed soil areas where activities have been completed or temporarily ceased. For those areas with a continuous positive slope within 200 lineal feet of a surface water, temporary erosion protection or permanent cover must be applied within 21 days of completing or ceasing earth moving activities. These areas include pond embankments, ditches, berms and soil stockpiles. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) are exempt from this requirement.
- 4) Temporary soil stockpiles must have effective sediment controls, and cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems, or conduits and ditches.
- 5) The normal wetted perimeter of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge to any surface water. Stabilization should be completed within 24 hours of connecting to a surface water.
- 6) Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.

- 7) In order to maintain sheet flow and minimize rills and/or gullies, there should be no unbroken slope length of greater than 75 feet for slopes with a grade of 3:1 or steeper.
- 8) Temporary or permanent drainage ditches and sediment basins that are designed as part of a treatment system (e.g., ditches with rock check dams) require sediment control practices only as appropriate for site conditions.

The following are maintenance and operation considerations for effective sediment and erosion control:

- 1) All erosion prevention and sediment control BMPs must be inspected to ensure integrity and effectiveness. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs. The Permittee(s) must investigate and comply with the following inspection and maintenance requirements:

All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access.

Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches 1/2 the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access.

- 2) Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion. The Permittee(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization should take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The Permittee shall use all reasonable efforts to obtain access. If precluded, removal and stabilization should take place within seven (7) calendar days of obtaining access. The Permittee is responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work.
- 3) Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Accumulations of tracked sediment must be removed from all off-site paved surfaces, within 48 hours, or if applicable, within a shorter time specified by local authorities.

Appendix 2 - Basic storm water pollution prevention measures for small construction sites

These guidelines are intended to serve as a set of operating procedures for small construction activity. For residential or commercial building sites involving one (1) acre or less, the guidelines may serve as a generic SWPP plan by itself or as the majority of the plan with site specific considerations attached as appropriate.

Housekeeping and Standard Operating Practices

1) Minimize sediment and dirt deposits on streets.

If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g., fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).

Vehicle tracking of sediment from the construction site must be minimized by BMPs such as a designated vehicle entrance to the building site and providing aggregate surface on the entrance (driveway) as soon as practical. The building site operator is responsible for (or making the arrangements for) street sweeping and/or scraping if BMPs are not adequate to prevent sediment from being tracked onto the street from his/her building site(s).

2) Properly handle construction debris and waste materials.

Provide appropriate container(s) on-site (or centrally located for several sites) for storing construction debris and other wastes until disposal. Litter and debris shall be picked-up regularly to reduce the chance for materials to be carried off the site by wind or water. Waste shall be disposed-of at a facility appropriate for the type of waste collected.

Liquid or soluble materials including oil, fuel, paint and any other hazardous substances must be properly stored, to prevent spills, leaks or other discharges. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with applicable regulations.

Concrete wash water shall not be discharged to any waters of the state, storm sewer systems or allowed to drain onto adjacent properties. Wash water disposal must be limited to a defined area of the site or to an area designated by the developer for cement washout. The area(s) must be sufficient to contain the wash water and residual cement.

3) Storm water inlet protection.

All storm drain inlets in the immediate vicinity of the building site must be protected by appropriate BMPs during construction until all sources with potential for discharging to the inlet have been stabilized. Grate covers and other means of sediment capture at the inlet are a last line of control. Sediment and erosion control practices must also be used on the building site. Inlet covers or barriers must conform to local ordinances or regulations. In general inlet barriers need to provide for drainage adequate to prevent excessive roadway flooding.

Maintenance and cleaning of inlet protection devices including on-site sediment and erosion controls must be performed in a timely manner.

4) Inspections shall be performed as outlined in the construction storm water permit.

Stage-Specific Controls (Minimum Considerations)

- 1) Excavation soil piles and other temporary soil stockpiles must have silt fence or other effective **sediment controls**, and cannot be placed in **surface waters**, including **storm water** conveyances such as **curb and gutter systems**. The silt fence or other barrier material must be placed between the curb (or other type of storm conveyance) and pile site and the ends must extend back away from the curb to form a generally semi-circular shape. Only a minimal amount of stockpile material should be placed directly against the fence and in no case shall it be more than 1/6 the height of the exposed fence height.

The barrier shall be installed prior to beginning stockpiling and shall be maintained until such time that the piles will be removed. The barriers may be removed to allow backfilling operations or to obtain material from other stockpiles. If all of the material is not removed in one operation or removal will be suspended for more than 7 days, the barrier must be reinstalled.

- 2) Rough graded building sites. Sediment and erosion controls shall be used as appropriate to reduce erosion and the amount of sediment deposited in the street (or other storm conveyance if present). Minimum considerations include:
 - a. Maintaining a 3 to 4 foot wide by 3 to 4 inch drop edge on the back side of the curb and sidewalk (if installed) when the slope of the lot is perpendicular to the curb. For sites where the slopes are appreciably parallel to the street, provide a barrier at the lot edge to curtail down cutting along the curb.
 - b. If boulevard areas have been seeded to temporary cover, maintain cover as much as possible during the building process.
 - c. Temporary Erosion Protection methods may be used as an alternative or replacement to the practices mentioned above to prevent erosion. Examples of temporary cover include: straw, wood fiber blanket, wood chips, and erosion netting.
 - d. Provide splash pads and/or downspout extensions for roof drains sufficient to prevent erosion from roof runoff.
- 3) Final stabilization. Provide final stabilization or landscaping as soon as practical in the building process. Due to varying preferences of buyers, the methods also vary at this stage. Generally one of the following should describe the final stabilization.
 - a. Sod is installed.
 - b. The site is finish graded and seed and/or mulch are applied immediately following the finish grading and topsoil placement.
 - c. If the home buyer (or other building occupant) prefers to complete landscaping, temporary erosion and sediment controls should be left in place and the home buyer shall be provided information ("homeowner factsheet") on the purpose of such controls.

The responsibility under the construction storm water permit does not end until final stabilization has been achieved. Final stabilization is considered achieved when perennial vegetation is established at 70% of preexisting levels over the entire area (excluding paved or roofed areas); or:

For residential construction only, temporary erosion protection and down gradient perimeter control for individual lots has been completed and the residence has been transferred to the homeowner. Additionally, the homeowner is provided with a "homeowner factsheet" informing the homeowner of the need for, and benefits of, final stabilization.

Site specific considerations

- 1) Site map. For residential building sites which are part of a locally approved development, a building lot sitemap is not required unless:
 - a. Requested by local authorities.
 - b. The site requires specific control measures to protect adjoining water bodies.
 - c. The building site involves more than one (1) acre.
 - d. The developer requests one to ensure practices are used as a matter of policy, or to protect structures that have been or are being built to manage storm water from the development as a whole.
- 2) Typically there are multiple operators involved with construction activity in residential developments that may need to place (or may have placed) sediment and erosion controls in or near your work areas. As an operator of a small construction site, you must coordinate with other operators to ensure that your activities (including the removal or modification of existing BMPs) do not interfere with another party's erosion and sediment control practices.

Appendix B
Notice of Intent



**APPLICATION (NOTICE OF INTENT) TO OBTAIN
 COVERAGE UNDER NDPDES GENERAL PERMIT
 FOR STORM WATER DISCHARGES ASSOCIATED
 WITH CONSTRUCTION ACTIVITY (NDR10-0000)**
 NORTH DAKOTA DEPARTMENT OF HEALTH
 DIVISION OF WATER QUALITY
 SFN 19145 (2/05)

FOR DEPT. USE ONLY

Date Received
Application No.

GENERAL INFORMATION

Name of Owner of Construction Project Basin Electric Power Cooperative		Contact Person Name Maria Barnhardt, P.E.	Contact Phone No. 701-557-5136	
Mailing Address 1717 East Interstate Avenue		City Bismark	State ND	Zip Code 58503-0564
Type of Owner or Operator	<input type="checkbox"/> Developer/BUILDER <input type="checkbox"/> State of ND	<input type="checkbox"/> General Contractor <input type="checkbox"/> Federal	<input type="checkbox"/> Municipality	<input checked="" type="checkbox"/> Other (Specify): Electrical Utility
This NOI is to obtain coverage under Small Construction Activity (see Part I.D of permit):		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Small Construction Activity requires the submittal of an Annual Location Record as per Part III.B of the permit
Name of Construction Project (Large Construction Activity Only) PrairieWinds I and Minot Winds II				
Brief Description of Construction Activity (Please fill out for both Large and Small Construction Activity) The PrairieWinds 1 and Minot Wind 2 Wind Farms Construction Project will consist of the construction of 80 wind turbines in Ward County, North Dakota. The PrairieWinds 1 Wind Farm will include 77 wind turbines, and Minot Wind 2 Wind Farm will consist of three wind turbines. Approximately 134 acres of the project site will be temporarily disturbed: 1.6 acre per wind turbine, 4 acres for the portable batch plant, and 2 acres for the staging/laydown areas. Additional areas will be disturbed due to access road, staging/laydown area, crane walks, and electrical collector system. An operation and maintenance building and substation are to be permitted by Basin Electric Power Cooperative.				

LARGE CONSTRUCTION ACTIVITY INFORMATION (Skip for small construction activity)

Name of Operator Working at Site (i.e. general contractor, if known) RMT, Inc.		Contact Person Name Kate Martin	Contact Phone No. 608-662-5119	
Mailing Address 744 Heartland Trail		City Madison	State WI	Zip Code 53717
Project Start Date: June 15, 2009	Estimated Completion Date: June 1, 2010	Estimated Area of Total Disturbance in Acres: 134		
Project Location	Street See Appendix D	City		
	OR	Section ¼ ¼	Township	Range County Ward
Receiving Waters	<input checked="" type="checkbox"/> Natural Surface Drainage	Name or Description of Receiving Waters Tributaries to the Mouse (Souris) River		
	OR	<input type="checkbox"/> Municipal Storm Sewer	Name of City South of Minot	

Signature Information

RETURN COMPLETED APPLICATION TO: North Dakota Department of Health Division of Water Quality, 4 th Floor 918 East Divide Avenue Bismarck, ND 58501-1947 Telephone: (701) 328-5210 Fax: (701) 328-5200	I certify that I am familiar with NDR10-0000 and NDCC 61-28-08, and with the possibility of fines and imprisonment for submitting false information. To the best of my knowledge and belief, the information in this application is true, complete, and accurate.	
	Printed name of Owner(s) MARIA BARNHARDT, BEPC	Title CIVIL ENGINEER
	Signature of Owner(s) <i>Maria Barnhardt</i>	Date 5/14/09
	Printed name of Operator(s)	Title
Signature of Operator(s)	Date	

(Attach additional pages if needed)

Appendix C
Notice of Termination



**NOTICE OF TERMINATION TO CANCEL COVERAGE UNDER
(NDPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH CONSTRUCTION ACTIVITY (NDR10-0000)**
NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF WATER QUALITY
SFN 19146 (2/05)

FOR DEPT. USE ONLY

Date Received: ___/___/___

GENERAL INFORMATION

Name of Construction Project		Permit Number NDR10-	
Name of Owner or Operator of Construction Project		Contact Person	Telephone Number
Mailing Address	City	State	Zip Code
This Notice is to terminate coverage for all Small Construction Activity (see Part I.D of permit):		<input type="checkbox"/> YES	<input type="checkbox"/> NO
		There are special reporting requirements for Small Construction Activity in Part I.E and III.B of the permit.	

LOCATION (Large Construction Activity Only)

SITE LOCATION	Street		City			
	OR	1/4	1/4	Section	Township	Range

CERTIFICATION STATEMENT

I certify under penalty of law that for the construction project(s) and permit described above:

As of _____, disturbed soils at the identified site(s) have been finally stabilized. Seventy-percent restored vegetative coverage as compared to pre-existing vegetation has been achieved, and temporary erosion control measures have been removed. All storm water discharges associated with construction activity from the identified site, authorized by a NDPDES general permit, have been eliminated.

I understand that by submitting this Notice of Termination, that I am no longer authorized to discharge storm water associated with construction activity by the general permit, and that discharging pollutants in storm water to waters of North Dakota is unlawful under North Dakota Century Code 61-28 where the discharge is not authorized by a NDPDES permit.

Return Complete Application to: North Dakota Department of Health Division of Water Quality, 4 th Floor 918 East Divide Avenue Bismarck, ND 58501-1947 Telephone: (701) 328-5210 Fax: (701) 328-5200	I certify that I am familiar with NDR10-0000 and NDCC 61-28-08, and with the possibility of fines and imprisonment for submitting false information. To the best of my knowledge and belief, the information in the application is true, complete, and accurate.	
	Printed Name of Permittee(s)	Title
	Signature of Permittee(s)	Application Date

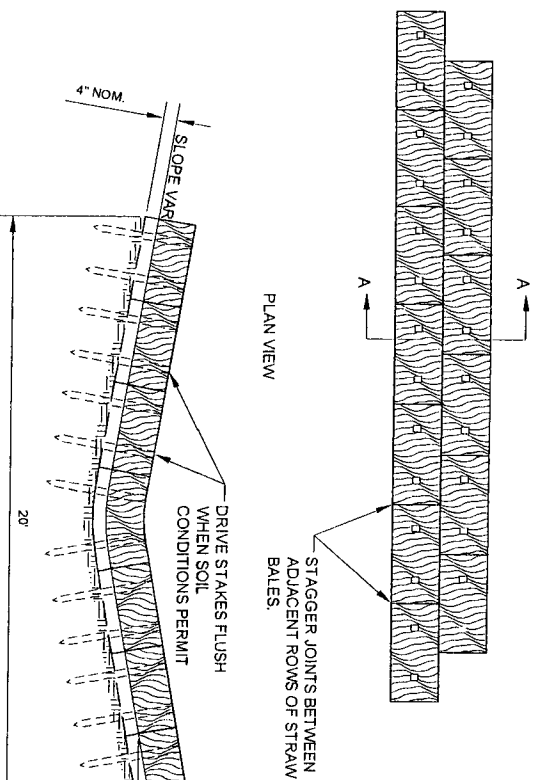
(Attach additional pages if needed)

Appendix E
Erosion Control Details

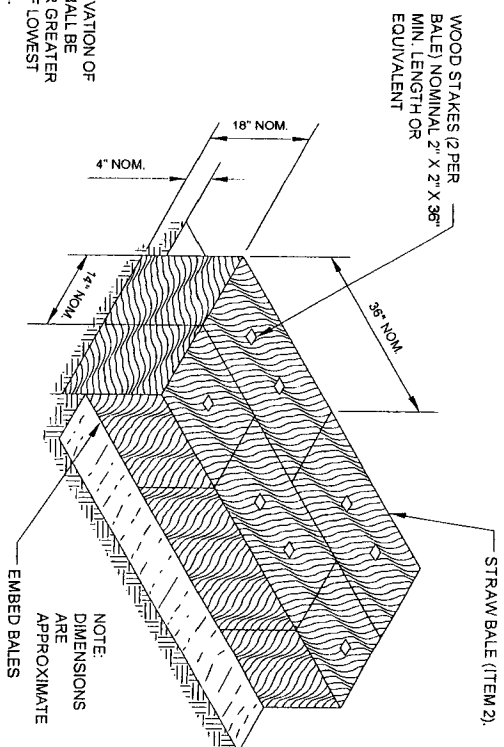
MATERIAL LIST

ITEM DESCRIPTION

- 1 EROSION CONTROL BLANKET, AS SHOWN.
- 2 STRAW BALE, AS SHOWN.
- 3 SILT FENCE, AS SHOWN.



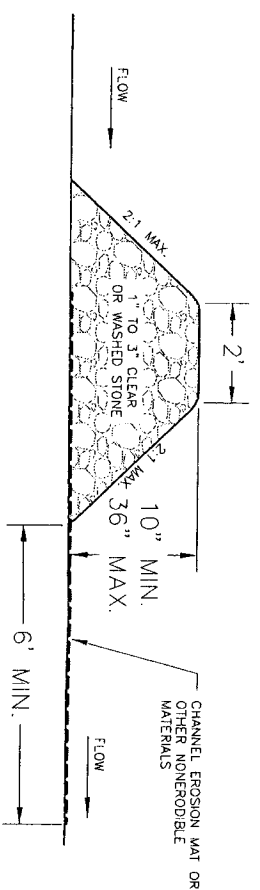
TEMPORARY DITCH CHECK USING EROSION BALES



1
EROSION BALES/TEMPORARY DITCH CHECKS
(NOT TO SCALE)

GENERAL NOTES

1. DITCH CHECKS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER A PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD.
2. REPAIR DAMAGED DITCH CHECKS IMMEDIATELY. ADDITIONAL MEASURES MAY BE REQUIRED IF DITCH CHECK WASHES OUT.
3. SEDIMENT SHALL BE PROPERLY DISPOSED OF ONCE THE DEPOSIT REACHES HALF THE HEIGHT OF THE DITCH CHECK.
4. REMOVE DITCH CHECK WHEN SITE IS STABILIZED UNLESS PART OF PERMANENT STORMWATER MANAGEMENT PLAN.



2
STONE DITCH CHECK
(NOT TO SCALE)

- CHANNEL FLOW MAY ALSO BE MANAGED WITH THE FOLLOWING BEST MANAGEMENT PRACTICES (BMP):
1. DOUBLE ROW OF STRAW BALES IN ACCORDANCE WITH WDRN CONSERVATION PRACTICE STANDARD 106Z.
 2. ENGINEERED PRODUCTS LISTED ON THE WDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL).
 3. ADD ROCK CHECK FOR SLOPES >5%.

NOTES

- DITCH CHECK**
1. SEDIMENT SHALL BE PROPERLY DISPOSED OF ONCE THE DEPOSIT REACHES HALF THE HEIGHT OF THE DITCH CHECK.
 2. REMOVE DITCH CHECK WHEN SITE IS STABILIZED UNLESS PART OF PERMANENT STORMWATER MANAGEMENT PLAN.
 3. BALE CHECKS SHALL BE PLACED IN DITCHES WITH SLOPES OF FIVE PERCENT OR LESS. WHERE SLOPES ARE STEEPER THAN FIVE PERCENT OR WHERE VOLUME AND VELOCITY FLOWS ARE EXPECTED, ROCK CHECKS SHALL BE USED.
 4. SPACING OF DITCH CHECKS SHALL CONFORM WITH NORTH DAKOTA DEPARTMENT OF HEALTH AND HUMAN SERVICES EROSION CONTROL MEASURES FOR CONTRACTORS, DESIGNERS AND INSPECTORS.

EROSION CONTROL INSPECTIONS

1. EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER A PRECIPITATION EVENT OF 1/2\"/>
2. REPAIR DAMAGED EROSION CONTROL MEASURES.
3. REMOVE AND PROPERLY DISPOSE OF SEDIMENT DEPOSIT AS SOON AS POSSIBLE WHEN IT REACHES HALF THE HEIGHT OF THE CONTAINING MEASURE.
4. MAINTAIN TEMPORARY EROSION CONTROL MEASURES UNTIL REVEGETATION HAS REACHED 70% OF ITS MATURE GROWTH.

WORKING COPY

AGREEMENT NO. 589351

RMT CONSULTING
POWER OF ATTORNEY
A Traditional Power Company, Inc.

NO. DATE

REVISION

BY (PRINT NAME) DATE (PRINT NAME)

CONFIDENTIAL

These documents are for the use of the client only. RMT, Inc. disclaims all warranties, both expressed and implied, in any drawings or specifications prepared by RMT, Inc. or its employees. RMT, Inc. is not responsible for any errors or omissions in these documents.

744 Hawthorn Trail
Madison, WI 53717-9314
P.O. Box 8823 53708-8823
For: 608-631-1144

RMT

PRairieWinds 1 Wind Farm WARD COUNTY, NORTH DAKOTA

EROSION CONTROL DETAILS

SCALE: AS SHOWN

PROJECT NO. 808305 DWG. NAME: Details.dwg

SHEET NO. E001

MATERIAL LIST

ITEM	DESCRIPTION
1	FILTER SOCK, TUBULAR-SHAPED MATERIAL, FABRIC EXTERIOR STUFFED WITH WOOD CHIPS. INSTALL THE 8-1/2 INCH SOCK SHALL BE INSTALLED IN LENGTHS OF 16-25 FEET.
2	GEOTEX 401 NON-WOVEN GEOTEXTILE OR ENGINEER APPROVED EQUIVALENT

NOTES

- STRAW WATTLE**
- PROVIDE STRAW WATTLE ON TOP OF THE GROUND ALONG THE DOWN-SLOPE AREAS AND ALONG SIDE SLOPE AREAS AS INDICATED TO PREVENT EROSION. LAP OR BUTT THE ENDS TO CREATE A CONTINUOUS LINE OF DEFENSE.
 - STAKE THE STRAW WATTLE IN STEEP AREAS FOR STABILITY.
 - MAINTAIN EROSION CONTROL MEASURES UNTIL REVEGETATION HAS REACHED 70% OF ITS MATURE GROWTH.

DEWATERING TEMPORARY FILTER

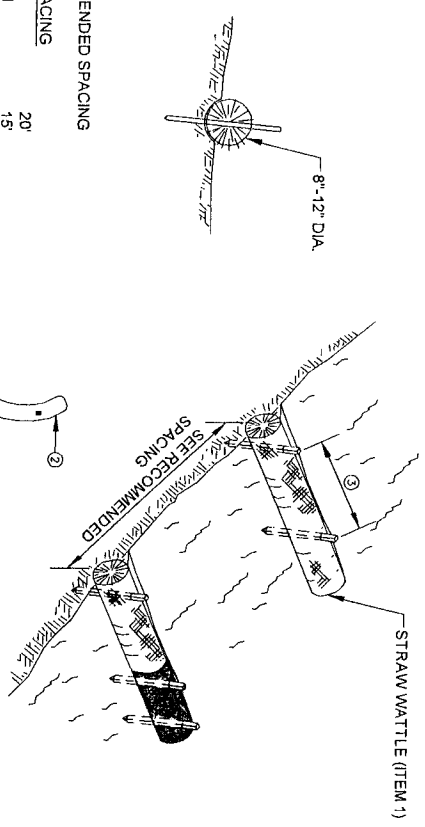
- USE DEWATERING FILTER DURING ANY DEWATERING ON SITE.
- DISCHARGE FLOW FROM DEWATERING HOSE ONTO A METAL OR WOOD PLATE.

STANDPIPE INLET PROTECTION

- WRAP AND BAND GEOSYNTHETIC MATERIAL AROUND EXISTING PERFORATED STANDPIPE WITH PLASTIC TIE-STRAPS AS SHOWN TO PREVENT CLOSING OF STANDPIPE INLET.
- PROTECT STANDPIPES DIRECTLY ADJACENT TO AND DOWNHILL OF A DISTURBED AREA DURING CONSTRUCTION ACTIVITIES.
- REPLACE GEOSYNTHETIC SOCKS/LEVEE AS NEEDED TO PREVENT CLOGGING OF STANDPIPE INLET.

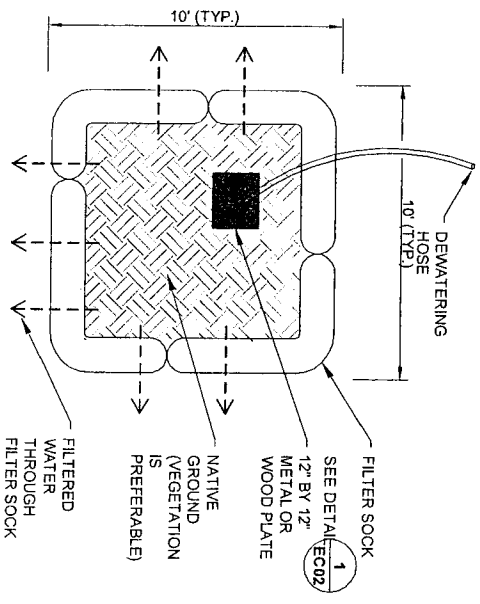
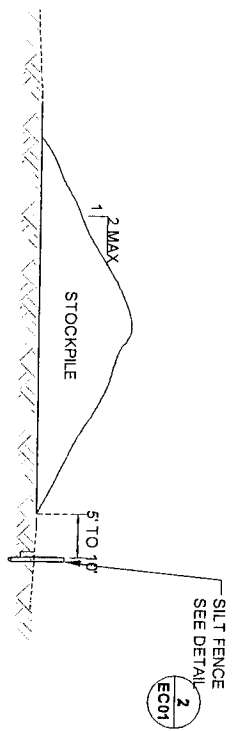
STOCKPILE

- PROVIDE SILT FENCE OR STRAW WATTLES AROUND DOWN-SLOPE SIDE OF STOCKPILE ADJACENT TO STEEP-SLOPES, WETLANDS, WATERWAYS, SWALES, DITCHES, OR TILE INLETS.
- PLACE STOCK PILES AS FAR AWAY AS PRACTICABLE FROM WETLANDS, WATERWAYS, SWALES, DITCHES, OR TILE INLETS.
- IF DISTURBED AREAS WILL BE LEFT BARE FOR MORE THAN 21 DAYS, INSTALL TEMPORARY STABILIZATION BY THE 14TH DAY.
- WINDROWS LESS THAN 2' TALL AND HAVING SLOPES LESS THAN OR EQUAL TO 6:1 ARE NOT CONSIDERED STOCKPILES.

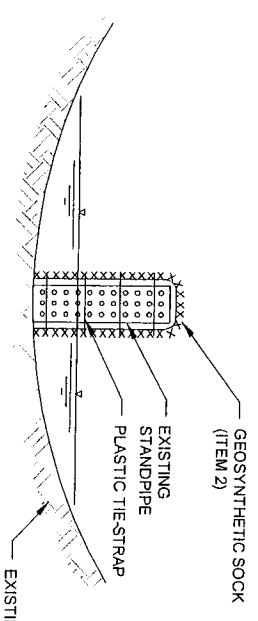


1
EC02
STRAW WATTLE DETAIL
(NOT TO SCALE)

2
EC02
TYPICAL SOIL STOCKPILE DETAIL
(NOT TO SCALE)



3
EC02
TYPICAL DEWATERING TEMPORARY FILTER
(NOT TO SCALE)



4
EC02
TYPICAL STANDPIPE INLET PROTECTION DETAIL
(NOT TO SCALE)

WORKING COPY

AGREEMENT NO. 59351

BASIN ELECTRIC POWER COOPERATIVE
 A Not-for-Profit Corporation

NO.	DATE	REVISION	BY (OR) APP'D

CONFIDENTIAL
 These documents are for the use of RMT, Inc. and its subsidiaries and are not to be distributed or used by anyone other than RMT, Inc. or its subsidiaries.

RMT
 744 Harding Road
 P.O. Box 80231
 Phone: 605-631-4444
 Fax: 605-631-3134

PEARLEWINDS 1 WIND FARM
 WARD COUNTY, NORTH DAKOTA

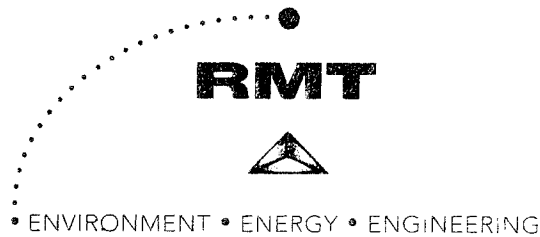
EROSION CONTROL DETAILS

SCALE: AS SHOWN
 PROJ. NO. 809306
 DWG. NAME: Detailing
 SHEET NO. EC02

Appendix F
Site Inspection Form

Appendix G

(Appendix G has been reserved for future revisions and/or amendments to the SWPPP.)



August 7, 2009

Mr. Bob White
North Dakota State Water Commission
900 East Boulevard
State Office Building
Bismarck, ND 58505-0850

**Subject: PrairieWinds 1 and Minot Wind 2 Wind Farms, Ward County, North Dakota
Additional Application for Temporary Water Permit**

Dear Mr. White:

RMT, Inc., is preparing for the construction of the PrairieWinds 1 and Minot Wind 2 Wind Farms for Basin Electric Power Cooperative (BEPC). This letter provides information for permitting the use of surface water sources during construction activities. Attached is one additional application for proposed locations of surface water sources, the estimated water quantities required, and the withdrawal rates anticipated.

Surface water sources will consist of privately owned ponds located at participating landowners' properties. On the basis of using four water trucks per day, at 40,000 gallons each, and working 6 days per week for a period of 3 months, we anticipate requiring an approximate total volume of 12 million gallons of water, depending on the weather. The primary use of this water will be for dust control during construction activities.

Construction is scheduled to start on August 10, so your expeditious review and permit approval would be very much appreciated. You can contact either Kate Martin, at 608-662-5119, or Kevin Kowalchuk, at 608-320-6181, with any questions. We appreciate your assistance.

Sincerely,
RMT, Inc.

A handwritten signature in black ink that reads "Kate".

Katherine E. Martin
Senior Engineering Manager

Attachments: Application for Temporary Water Permit (SWC Form No. 247)

cc: Amanda Wangler, Maria Barnhardt – BEPC
Jan Kucher – RMT
Mark Young – RMT

E:\WPMSN\PTT\00-08083\06\61002\L000808306-015.DOCX

STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

NOTE; Use one application for each type of source (surface water or ground water). Use one application for each different surface water source. Complete all lines. If this application is not satisfactorily completed, it will be returned. If more space is necessary, attach additional sheets. Please type or print in ink. There is no filing fee and no map is required.

Mail completed application to:

State Engineer
North Dakota State Water Commission
State Office Building
900 East Boulevard
Bismarck, ND 58505 - 0850

Name of Applicant RMT, Inc.
Mailing Address 744 Heartland Trail
Madison, WI 53717

Telephone Number (608) 662-5129; (608) 320-6181 (cell)

Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

Source of Water Supply: (check one)

Surface Water Source

Ground Water Source

Name of Source (if surface water): Privately owned pond

Location of Proposed Point of Diversion: County Ward
SW 1/4 Section 3 Township 152N Range 83W

Purpose for Which Water Will be Used: Dust control on gravel roads during construction

Total Quantity of Water required: _____ acre-feet
(complete one) 2,000,000 gallons
_____ barrels

Withdrawal rate at which water is proposed to be diverted at the location listed above: 330 gpm for 2 hours, 4 times per day

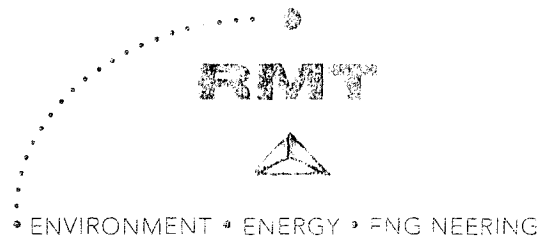
Period of Usage: (up to one year) From August 10, 2009 Through August 10, 2010

Signature: Kate Martin

Date: 8.7.09

Upon receipt of this form, the State Engineer will forward a written response to the applicant within approximately ten days. If the application is approved, the granting of a temporary water permit does not create a water right. If you have any questions, call (701) 328-2754.

SWC Form No. 247



August 4, 2009

Mr. Bob White
North Dakota State Water Commission
900 East Boulevard
State Office Building
Bismarck, ND 58505-0850

**Subject: PrairieWinds 1 and Minot Wind 2 Wind Farms, Ward County, North Dakota
Application for Temporary Water Permit**

Dear Mr. White:

RMT, Inc., is preparing the design and construction for the PrairieWinds 1 and Minot Wind 2 Wind Farms for Basin Electric Power Cooperative (BEPC). The purpose of this letter is to provide information for permitting the use of surface water sources during construction activities. Attached are three applications for the proposed locations of surface water sources and an estimate of the water quantities required and the withdrawal rates anticipated. On July 24, 2009, RMT, Inc., submitted five applications for temporary water use permits, and following a site visit from July 28 through July 30, these additional three areas have been selected as potential surface water sources. Table 1 (attached) provides a summary of surface water locations and application submittal dates.

Surface water sources will consist of privately owned ponds located on participating landowners' property. On the basis of using four water trucks per day, at 40,000 gallons each, and working 6 days per week for a period of 3 months, we anticipate requiring an approximate volume of 12 million gallons of water, depending on the weather. The water will primarily be used for dust control during construction activities.

Construction is scheduled to start on August 10, so your expeditious review and permit approval would be very much appreciated. Please contact Kevin Kowalchuk, at (608) 662-5129 (office), (608) 320-6181 (cell), or at kevin.kowalchuk@rmtinc.com (e-mail), if you have any questions or comments.

We appreciate your assistance.

Sincerely,

RMT, Inc.

Kevin J. Kowalchuk
Staff Engineer

Jan C. Kucher
Senior Engineer

Attachments: Table 1, Sources of Surface Water for Construction Use in Ward County
SWC Form No. 247 (Sheets 1 – 3), Application for a Temporary Water Permit

cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin, Mark Young – RMT

I:\WPMSN\PJT\00-08083\06\61002\L000808306-014.DOCX

Table 1
Sources of Surface Water for Construction Use in Ward County
Prairie Winds 1 and Minot Wind 2 Wind Farms, Minot, ND

QUARTER (1/4)	SECTION	TOWNSHIP	RANGE	APPLICATION SUBMITTAL DATE
NW	9	151N	83W	7/24/2009
SE	16	151N	83W	7/24/2009
NE	16	151N	83W	7/24/2009
SW	26	152N	83W	7/24/2009
NE	20	152N	83W	7/24/2009
NW	23	152N	83W	7/24/2009
SW	11	152N	83W	8/3/2009
SE	11	152N	83W	8/3/2009
NE	2	151N	83W	8/3/2009

STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

NOTE; Use one application for each type of source (surface water or ground water). Use one application for each different surface water source. Complete all lines. If this application is not satisfactorily completed, it will be returned. If more space is necessary, attach additional sheets. Please type or print in ink. There is no filing fee and no map is required.

Mail completed application to:

State Engineer
North Dakota State Water Commission
State Office Building
900 East Boulevard
Bismarck, ND 58505 - 0850

Name of Applicant RMT, Inc.
Mailing Address 744 Heartland Trail
Madison, WI 53717

Telephone Number (608) 662-5129 (office); (608) 320-6181 (cell)

Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

Source of Water Supply: (check one)

Surface Water Source

Ground Water Source

Name of Source (if surface water): Privately owned pond

Location of Proposed Point of Diversion: County Ward
SW 1/4 Section 11 Township 152N Range 83W

Purpose for Which Water Will be Used: Dust control on gravel roads during construction

Total Quantity of Water required: _____ acre-feet
(complete one) 2,000,000 gallons
_____ barrels

Withdrawal rate at which water is proposed to be diverted at the location listed above: 330 gpm for 2 hours, 4 times per day

Period of Usage: (up to one year) From August 3, 2009 Through August 3, 2010

Signature: 

Date: 7/31/2009

Upon receipt of this form, the State Engineer will forward a written response to the applicant within approximately ten days. If the application is approved, the granting of a temporary water permit does not create a water right. If you have any questions, call (701) 328-2754.

STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

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Telephone Number (608) 662-5129; (608) 320-6181 (cell)

Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

Source of Water Supply: (check one)

Surface Water Source

Ground Water Source

Name of Source (if surface water): Privately owned pond

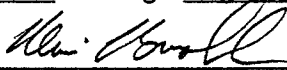
Location of Proposed Point of Diversion: County Ward
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STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

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Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

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Surface Water Source

Ground Water Source

Name of Source (if surface water): Privately owned pond

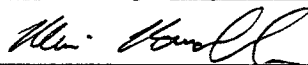
Location of Proposed Point of Diversion: County Ward
NE 1/4 Section 2 Township 151N Range 83W

Purpose for Which Water Will be Used: Dust control on gravel roads during construction

Total Quantity of Water required: _____ acre-feet
(complete one) 2,000,000 gallons
_____ barrels

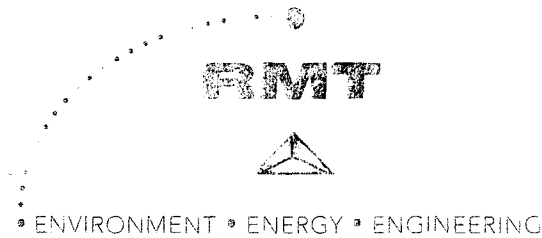
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Period of Usage: (up to one year) From August 3, 2009 Through August 3, 2010

Signature: 

Date: 7/31/2009

Upon receipt of this form, the State Engineer will forward a written response to the applicant within approximately ten days. If the application is approved, the granting of a temporary water permit does not create a water right. If you have any questions, call (701) 328-2754.



August 4, 2009

Mr. Chad Beggs
North Dakota Department of Transportation
1305 Highway 2
Bypass East
Minot, ND 58701

**Subject: PrairieWinds 1 and Minot Wind 2 Wind Farms, Ward County, North Dakota
Access Road and Crane Walk Crossing Changes**

Dear Mr. Beggs:

The purpose of this letter is to request an adjustment to the location of the crane walk crossing near mile marker 176 on U.S. Hwy 83 in Ward County. The revised proposed location of the crane crossing will be approximately 1,900 feet south of the former location and is at the intersection of U.S. Hwy 83 and 345th Ave (see attached site layout drawing). Please provide a permit for this location.

Feel free to call me if you have any questions or comments. I can be contacted at (608) 662-5121 (office), (608) 358-5215 (cell), or at jan.kucher@rmtinc.com (e-mail).

We appreciate your assistance, and we look forward to working closely with you to complete the PrairieWinds 1 Wind Farm.

Sincerely,

RMT, Inc.

Jan C. Kucher, P.E.
Senior Engineer

Attachments: Permitting Site Layout

cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT

PRAIRIEWINDS 1 WIND FARM SPREAD FOUNDATIONS

MINOT, ND
GE 1.5 SLE WIND TURBINES
SPREAD FOUNDATION DRAWINGS

INDEX OF DRAWINGS

- S00 COVER SHEET
- S01 WIND TURBINE FOUNDATION SPECIFICATIONS
- S01A WIND TURBINE FOUNDATION SPECIFICATIONS CONTINUED
- S02 GE 1.5 SLE WIND TURBINE FOUNDATION GENERAL NOTES
- S03 GE 1.5 SLE WIND TURBINE FOUNDATION PLAN AND DETAILS

OWNER



**BASIN ELECTRIC
POWER COOPERATIVE**
A Touchstone Energy® Cooperative

GENERAL CONTRACTOR

RM T

STRUCTURAL ENGINEER



**Larson
Engineering Inc**



JUL 01 2009

**Larson
Engineering Inc**

FACILITY: PRAIRIEWINDS
LOCATION/DIST: 406-PRAIRIEWINDS - 1
BASIN NUMBER: 406-CC-000-0001
1466 Bond Street, Suite 100
Hesperia, Illinois 62533-6503
PHONE: 618-232-0114
FAX: 618-232-0142
TEL. Comm. No. 21090140-000

THIS DRAWING IS CONFIDENTIAL. NO PART OF THIS DRAWING MAY BE COPIED, DISTRIBUTED, OR USED IN CONNECTION WITH ANY PROJECT WORK WITHOUT THE WRITTEN CONSENT OF LARSON ENGINEERING, INC. OR RM T, INC.

**ISSUED FOR
CONSTRUCTION**

NO.	REVISION	DATE
A	30% DESIGN SUBMITTAL	4-15-09
B	60% DESIGN SUBMITTAL	4-24-09
C	90% DESIGN SUBMITTAL	5-16-09
D	ISSUE FOR CONSTRUCTION	6-30-09

981331



**BASIN ELECTRIC
POWER COOPERATIVE**
A Touchstone Energy® Cooperative

COVER SHEET

PRAIRIEWINDS 1 WIND FARM

LOCATION - MINOT, ND

DRAWN BY: RM
CHECKED BY: RM
DATE: 06-30-09

S00

SUBMITTALS:

1. PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED.
2. DESIGN MIXTURES: FOR EACH CONCRETE MIXTURE SUBMIT ALTERNATE DESIGN MIXTURES WHEN CHARACTERISTICS OF MATERIALS, PROJECT CONDITIONS, WEATHER, TEST RESULTS, OR OTHER CIRCUMSTANCES WARRANT ADJUSTMENTS.
 - A. INDICATE AMOUNTS OF MIXING WATER TO BE WITHHELD FOR LATER ADDITION AT PROJECT SITE.
3. STEEL REINFORCEMENT SHOP DRAWINGS: PLACING DRAWINGS THAT DETAIL FABRICATION, BENDING, AND PLACEMENT INCLUDE BAR SIZES, LENGTHS, MATERIAL GRADE, BAR SCHEDULES, STIRROU SPACING, BENT BAR DIAGRAMS, BAR ARRANGEMENT, SPLICES AND LAPS, MECHANICAL CONNECTIONS, THE SPACING, HOOP SPACING, AND SUPPORTS FOR CONCRETE REINFORCEMENT.
4. EMBEDMENT RING SHOP DRAWINGS: SUBMITTED PRIOR TO FABRICATION.
5. WELDING CERTIFICATES.
6. QUALIFICATION DATA: FOR INSTALLER AND MANUFACTURER
7. MATERIAL TEST REPORTS: FOR THE FOLLOWING, FROM A QUALIFIED TESTING AGENCY, INDICATING COMPLIANCE WITH REQUIREMENTS:
 - A. AGGREGATES.
 - B. MATERIAL CERTIFICATES: FOR EACH OF THE FOLLOWING, SIGNED BY MANUFACTURERS:
 1. CEMENTITIOUS MATERIALS.
 2. ADMIXTURES.
 3. FORM MATERIALS AND FORM-RELEASE AGENTS.
 4. STEEL REINFORCEMENT AND ACCESSORIES.
 5. CURING COMPOUNDS.
 6. BONDING AGENTS.
 7. ADHESIVES.
 8. REPAIR MATERIALS.
9. FIELD QUALITY CONTROL TEST AND INSPECTION REPORTS.
10. MINUTES OF PRE-INSTALLATION CONFERENCE.
11. GROUT
12. CONTRACTOR SHALL SUBMIT INDIVIDUAL MILL CERTIFICATION REPORTS FOR STEEL REBAR AT EACH TURBINE FOUNDATION NO LATER THAN THE DELIVERY OF THE STEEL TO THE JOBSITE.

QUALITY ASSURANCE:

1. INSTALLER QUALIFICATIONS: AN EXPERIENCED INSTALLER WHO HAS COMPLETED CONCRETE WORK SIMILAR IN MATERIAL, DESIGN AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WHOSE WORK HAS RESULTED IN CONSTRUCTION WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE. MINIMUM 5 YEARS OF DOCUMENTED EXPERIENCE.
2. MANUFACTURE QUALIFICATIONS: A FIRM EXPERIENCED IN MANUFACTURING READY-MIXED CONCRETE PRODUCTS AND THAT COMPLES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT.
 - A. MANUFACTURER CERTIFIED ACCORDING TO NRMCA'S "CERTIFICATION OF READY MIXED CONCRETE PRODUCTION FACILITIES."
3. TESTING AGENCY QUALIFICATIONS: AN AGENCY, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, QUALIFIED ACCORDING TO ASTM C 1077 AND ASTM E 329 FOR TESTING INDICATED AS DOCUMENTED ACCORDING TO ASTM E 548.
4. SOURCE LIMITATIONS: OBTAIN EACH TYPE OR CLASS OF CEMENTITIOUS MATERIAL OF THE SAME BRAND FROM THE SAME MANUFACTURER'S PLANT, OBTAIN AGGREGATE FROM ONE SOURCE, AND OBTAIN ADMIXTURES THROUGH ONE SOURCE FROM A SINGLE MANUFACTURER.
5. WELDING: QUALITY PROCEDURES AND PERSONNEL ACCORDING TO AWS D1.4, "STRUCTURAL WELDING CODE-REINFORCING STEEL."
6. ACI PUBLICATIONS: COMPLETELY WITH THE FOLLOWING UNLESS MODIFIED BY REQUIREMENTS IN THE CONTRACT DOCUMENTS:
 - A. ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE," SECTIONS 1 THROUGH 5.
 - B. ACI 117, "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."
 - C. ACI 318, "BUILDING CODE REQUIRED FOR REINFORCED CONCRETE AND COMMENTARY."
 - D. ACI 306, 306.1, "COLD WEATHER CONCRETING."
 - E. ACI 305, 305.1, "HOT WEATHER CONCRETING."

QUALITY ASSURANCE:

7. CONCRETE TESTING SERVICE: COOPERATE WITH THE EPC FIRM'S QUALIFIED INDEPENDENT TESTING AGENCY TO PERFORM MATERIAL EVALUATION TESTS AND TO DESIGN CONCRETE MIXTURES.
8. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE:
 - A. BEFORE SUBMITTING DESIGN MIXTURES, REVIEW CONCRETE DESIGN MIXTURE AND EXAMINE PROCEDURES FOR ENSURING QUALITY OF CONCRETE MATERIALS. REQUIRE REPRESENTATIVES OF EACH ENTITY DIRECTLY CONCERNED WITH CAST-IN-PLACE CONCRETE TO ATTEND, INCLUDING THE FOLLOWING:
 - CONTRACTOR'S SUPERINTENDENT.
 - INDEPENDENT TESTING AGENCY.
 - READY-MIX CONCRETE MANUFACTURER RESPONSIBLE FOR CONCRETE DESIGN MIXTURES.
 - B. REVIEW SPECIAL INSPECTION AND TESTING AND INSPECTING AGENCY PROCEDURES FOR FIELD QUALITY CONTROL. CONCRETE FINISHES AND FINISHING, COLD-AND-HOT-WEATHER CONCRETING PROCEDURES, CURING PROCEDURES, ANCHOR ROD AND ANCHORAGE DEVICE INSTALLATION TOLERANCES, STEEL REINFORCEMENT INSTALLATION, CONCRETE REPAIR PROCEDURES, AND CONCRETE PROTECTION.

FORM-FACING MATERIALS:

1. SMOOTH-FORMED FINISHED CONCRETE: FORM-FACING PANELS THAT WILL PROVIDE CONTINUOUS, TRUE, AND SMOOTH CONCRETE SURFACES. FINISH IN LARGEST PRACTICABLE SIZES TO MINIMIZE NUMBER OF JOINTS.
 - A. PLYWOOD, METAL, OR OTHER APPROVED PANEL MATERIALS.
 - B. EXTERIOR-GRADE PLYWOOD PANELS, SUITABLE FOR CONCRETE FORMS, COMPLYING WITH DOC P1.1, AND AS FOLLOWS:
 1. STRUCTURAL 1, B-B OR BETTER; MILL OILED AND EDGE SEALED.
2. ROUGH-FORMED FINISHED CONCRETE: PLYWOOD, LUMBER, METAL, OR ANOTHER APPROVED MATERIAL. PROVIDE LUMBER DRESSED ON AT LEAST TWO EDGES AND ONE SIDE FOR TIGHT FIT.
3. FORM-RELEASE AGENT: COMMERCIALY FORMULATED FORM-RELEASE AGENT THAT WILL NOT BOND WITH STEEL, OR ADVERSELY AFFECT CONCRETE SURFACES AND WILL NOT IMPAIR SUBSEQUENT TREATMENTS OF CONCRETE SURFACES.
 - A. FORMULATE FORM-RELEASE AGENT WITH RUST INHIBITOR FOR STEEL FORM-FACING MATERIALS.
 4. FORM TIES: FACTORY-FABRICATED, REMOVABLE OR SNAP-OFF METAL OR GLASS-FIBER-REINFORCED PLASTIC FORM TIES DESIGNED TO RESIST LATERAL PRESSURE OF FRESH CONCRETE ON FORMS AND TO PREVENT SPALLING OF CONCRETE ON REMOVAL.
 5. FURNISH UNITS THAT WILL LEAVE NO CORRODIBLE METAL CLOSER THAN 1 INCH (25 MM) TO THE PLANE OF EXPOSED CONCRETE SURFACE.

ADMIXTURES:

1. AIR-ENTRAINING ADMIXTURE: ASTM C 260.
2. CHEMICAL ADMIXTURES: PROVIDE ADMIXTURES CERTIFIED BY MANUFACTURER TO BE COMPATIBLE WITH OTHER ADMIXTURES AND THAT WILL NOT CONTRIBUTE WATER-SOLUBLE CHLORIDE IONS EXCEEDING THOSE PERMITTED IN HARDENED CONCRETE. DO NOT USE CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE.
 - A. WATER-REDUCING ADMIXTURE: ASTM C 494/C 494M, TYPE A.
 - B. RETARDING ADMIXTURE: ASTM C 494/C 494M, TYPE B.
 - C. WATER-REDUCING AND RETARDING ADMIXTURE: ASTM C 494/C 494M, TYPE D.
 - D. HIGH-RANGE WATER-REDUCING ADMIXTURE: ASTM C 494/C 494M, TYPE F.
 - E. HIGH-RANGE WATER-REDUCING AND RETARDING ADMIXTURE: ASTM C 494/C 494M, TYPE G.
 - F. PLASTICIZING AND RETARDING ADMIXTURE: ASTM C 1017/C 1017M, TYPE II.

ADMIXTURES:

3. SET-ACCELERATING CORROSION-INHIBITING ADMIXTURE COMMERCIALY FORMULATED, ANODIC INHIBITOR OR MIXED CATHODIC AND ANODIC INHIBITOR, CAPABLE OF FORMING A PROTECTIVE BARRIER AND MINIMIZING CHLORIDE REACTIONS WITH STEEL REINFORCEMENT IN CONCRETE AND COMPLYING WITH ASTM C 494/C 494M, TYPE C.
 - A. AVAILABLE PRODUCTS:
 1. BORAL MATERIAL TECHNOLOGIES, INC.; BORAL BCN.
 2. EUCILD CHEMICAL COMPANY (THE); EUCON CIA.
 3. GRACE CONSTRUCTION PRODUCTS, W. R. GRACE & CO.; DCI.
 4. MASTER BUILDERS INC.; RHEOCRETE CNI.
 5. SIKA CORROPROTECT; SIKA CNI.
 6. NON-SET-ACCELERATING CORROSION-INHIBITING ADMIXTURE: COMMERCIALY FORMULATED, NON-SET-ACCELERATING, ANODIC INHIBITOR OR MIXED CATHODIC AND ANODIC INHIBITOR, CAPABLE OF FORMING A PROTECTIVE BARRIER AND MINIMIZING CHLORIDE REACTIONS WITH STEEL REINFORCEMENT IN CONCRETE.
 - B. AVAILABLE PRODUCTS:
 1. AXIM CONCRETE TECHNOLOGIES; CATEXOL 1000CI.
 2. BORAL MATERIAL TECHNOLOGIES, INC.; BORAL BCN.
 3. CORTEC CORPORATION; MCI (2000) (2005NS).
 4. GRACE CONSTRUCTION PRODUCTS, W. R. GRACE & CO.; DCI-S.
 5. MASTER BUILDERS, INC.; RHEOCRETE 222+.
 6. SIKA CORROPROTECT; FERROGARD-901.

CURING MATERIALS:

1. EVAPORATION RETARDER: WATERBORNE, MONOMOLECULAR FILM FORMING, MANUFACTURED FOR APPLICATION TO FRESH CONCRETE.
 - A. AVAILABLE PRODUCTS:
 1. AXIM CONCRETE TECHNOLOGIES; CIMEFILM.
 2. BURKE BY EDOCO; BURKEFILM.
 3. CHEMMASTERS; SPRAY-FILM.
 4. CONSPEC MARKETING & CO., INC.; A DAYTON SUPERIOR R COMPANY; AQUAFILM.
 5. DAYTON SUPERIOR CORPORATION; SURE FILM.
 6. EUCILD CHEMICAL COMPANY (THE); EUCOBAR.
 7. KATIPMAN PRODUCTS, INC.; VAPOR AID.
 8. LAMBERT CORPORATION; LAMBDO SKIN.
 9. L&M CONSTRUCTION CHEMICALS, INC.; E-CON.
 10. MBT PROTECTION AND REPAIR, DIV. OF CHEMBEX; CONFILM.
 11. MEADOWS, W. R., INC.; SEALTIGHT EVAPRE.
 12. METALCRETE INDUSTRIES; WATERHOLD.
 13. NOX-CRETE PRODUCTS GROUP; KINSMAN CORPORATION; MONOFILM.
 14. SIKMA CORPORATION, INC.; SIKAFILM.
 15. SYMONS CORPORATION, A DAYTON SUPERIOR COMPANY; FINISHING AID.
 16. UNITEK; PRO-FILM.
 17. US MIX PRODUCTS COMPANY; US SPEC MONOFILM ER.
 18. VEXCON CHEMICALS, INC.; CERTI-VEX ENVIODASSIST.
2. ABSORPTIVE COVER: AASHTO M 182, CLASS 2, BURLAP CLOTH MADE FROM JUTE OR KENAF, WEIGHING APPROXIMATELY 9 OZ./SQ. YD. (305 G/90 M) WHEN DRY.
3. MOISTURE-RETAINING COVER: ASTM C 1171, POLYETHYLENE FILM OR WHITE BURLAP-POLYETHYLENE SHEET.
4. WATER: POTABLE.
5. CLEAR WATERBORNE, MEMBRANE-FORMING CURING COMPOUND: ASTM C 309, TYPE 1, CLASS B.
 - A. PRODUCTS:
 1. ANTI-HYDRO INTERNATIONAL, INC.; AH CURING COMPOUND #2 DR. WB.
 2. BURKE BY EDOCO; AQUA RESIN CURE.
 3. CHEMMASTERS; SAFE-CURE CLEAR.
 4. CONSPEC MARKETING & MANUFACTURING CO., INC.; A DAYTON SUPERIOR COMPANY; W. B. RESIN; CURE.
 5. DAYTON SUPERIOR CORPORATION; DAY CHEM REZ CURE (7-11-W).
 6. EUCILD CHEMICAL COMPANY (THE); KUREZ DR VOX.
 7. KATIPMAN PRODUCTS, INC.; THINFILM 420.
 8. LAMBERT CORPORATION; AQUA CURE-CLEAR.
 9. L&M CONSTRUCTION CHEMICALS, INC.; L&M CURE R.

10. MEADOWS, W. R., INC.; 1100 CLEAR
11. NOX-CRETE PRODUCTS GROUP; KINSMAN CORPORATION; RESIN CURE E.
12. SYMONS CORPORATION; A DAYTON SUPERIOR COMPANY; RESI-CHEM CLEAR CURE.
13. T&M INDUSTRIES, INC.; HORN-CURE WB 30.
14. UNITEK; HYDRO CURE 309.
15. US MIX PRODUCTS COMPANY; US SPEC MAXCURE RESIN CLEAR.
16. VEXCON CHEMICALS, INC.; CERTI-VEX ENVIOCURE 100.
17. SUBSTITUTIONS: SEE SECTION 1600 PRODUCT REQUIREMENT. CONCRETE MATERIALS:

1. CEMENTITIOUS MATERIAL: USE THE FOLLOWING CEMENTITIOUS MATERIALS, OF THE SAME TYPE, BRAND, AND SOURCE, THROUGHOUT PROJECT:
 - A. PORTLAND CEMENT: ASTM C 150, TYPE 1
 1. FLY ASH: ASTM C 618, CLASS C OR F.
 2. GROUND GRANULATED BLAST-FURNACE SLAG: ASTM C 989, GRADE 100 OR 120.
2. SILICA FUME: ASTM C 1240, AMORPHOUS SILICA.
3. NORMAL-WEIGHT AGGREGATES: ASTM C 33, COARSE AGGREGATE OR BETTER, GRADED PROVIDE AGGREGATES FROM A SINGLE SOURCE WITH DOCUMENTED SERVICE RECORD DATA OF AT LEAST 10 YEARS SATISFACTORY SERVICE IN SIMILAR APPLICATIONS AND SERVICE CONDITIONS USING SIMILAR AGGREGATES AND CEMENTITIOUS MATERIALS.
 - A. MAXIMUM COARSE-AGGREGATE SIZE: 1 1/2 IN (38 mm)
 - B. FINE AGGREGATE: FREE OF MATERIALS WITH DELETERIOUS REACTIVITY TO ALKALI IN CEMENT.
4. WATER: ASTM C 94/C 94M AND POTABLE.

STRUCTURAL STEEL MATERIALS:

1. STRUCTURAL STEEL PLATES: AS FOLLOWS:
 - A. CARBON STEEL: ASTM A 572 (ASTM A 572M GRADE 50)
 2. ANCHOR RODS: AS FOLLOWS:
 - A. UNHEADED RODS: SEE CONTRACT DRAWINGS
 - B. HEX NUTS: ASTM A 29
 - C. HARDENED STEEL WASHERS: F436
 3. REMOVE LOOSE RUST, LOOSE MILL SCALE, AND PATTER, SLAG, OR FLUX DEPOSITS PRIOR TO PLACEMENT OF ANCHOR CAGE.
- CONCRETE MIXTURES, GENERAL:
 1. PREPARE DESIGN MIXTURES FOR EACH TYPE AND STRENGTH OF CONCRETE, PROPORTIONED ON THE BASIS OF LABORATORY TRIAL MIXTURE OR FIELD TEST DATA, OR BOTH, ACCORDING TO ACI 301.
 - A. USE A QUALIFIED INDEPENDENT TESTING AGENCY FOR PREPARING AND REPORTING PROPOSED MIXTURE DESIGNS BASED ON LABORATORY TRIAL MIXTURES.
 - B. CONCRETE DESIGN MIX SHALL TEST 15% HIGHER THAN SPECIFIED REQUIREMENTS.
 2. ADMIXTURES: USE ADMIXTURES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - A. USE WATER-REDUCING HIGH-RANGE WATER-REDUCING OR PLASTICIZING ADMIXTURE IN CONCRETE, AS REQUIRED, FOR PLACEMENT AND WORKABILITY.
 - B. USE WATER-REDUCING AND RETARDING ADMIXTURE WHEN REQUIRED BY HIGH TEMPERATURES, LOW HUMIDITY, OR OTHER ADVERSE PLACEMENT CONDITIONS
 - C. USE WATER-REDUCING ADMIXTURE IN PUMPED CONCRETE AND CONCRETE WITH A WATER-CEMENTITIOUS MATERIALS RATIO BELOW 0.44.
 - D. USE CORROSION-INHIBITING ADMIXTURE IN CONCRETE MIXTURES WHERE INDICATED.

1. READY-MIXED CONCRETE: MEASURE, BATCH MIX, AND DELIVER CONCRETE ACCORDING TO ASTM C 94/C 94M AND ASTM C 1116, AND FURNISH BATCH TICKET INFORMATION.
 - A. WHEN AIR TEMPERATURE IS BETWEEN 85 AND 90 DEG F (30 AND 32 DEG C), REDUCE MIXING AND DELIVERY TIME FROM 90 MINUTES TO 75 MINUTES; WHEN AIR TEMPERATURE IS ABOVE 90 DEG F (32 DEG C), REDUCE MIXING AND DELIVERY TIME TO 60 MINUTES.

CONCRETE MIXING:

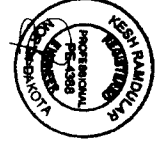
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ISSUED FOR CONSTRUCTION

FACILITY: PRAIRIEWINDS
 LOCATION/UNIT: 406-PRAIRIEWINDS-1
 BASIN NUMBER: 406-CC-000-0002



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JUL 01 2008

DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 DATE: 08-30-08

PRAIRIEWINDS 1 WIND FARM
 LOCATION - MINOT, ND

WIND TURBINE FOUNDATION SPECIFICATIONS



NO.	REVISION	DATE
A	305 DESIGN SUBMITTAL	4-15-08
B	308 DESIGN SUBMITTAL	4-24-08
C	355E DESIGN SUBMITTAL	5-16-08
D	ISSUE FOR CONSTRUCTION	6-30-08

EMBEDDED ITEMS:

1. PLACE AND SECURE ANCHORAGE DEVICES AND OTHER EMBEDDED ITEMS REQUIRED FOR ADJOINING WORK THAT IS ATTACHED TO OR SUPPORTED BY CAST-IN-PLACE CONCRETE. USE SETTING DRAWINGS, TEMPLATES, DIAGRAMS, INSTRUCTIONS, AND DIRECTIONS FURNISHED WITH ITEMS TO BE EMBEDDED.
2. ANCHOR BOLTS ARE TO BE LOCATED WITHIN ± 1/16". ANCHOR BOLT TEMPLATES MUST BE USED AT THE TOP AND BOTTOM OF THE BOLTS FOR PROPER INSTALLATION AND TO MEET THE REQUIRED INSTALLATION TOLERANCES. THE ANCHOR BOLTS ARE NOT TO BE IN CONTACT WITH ANY WIRE TIES OR FOUNDATION REINFORCEMENT BARS.
 - A. THE TREADED PORTIONS OF ALL ANCHOR BOLTS ARE TO BE PROTECTED AGAINST GETTING CONCRETE ON THEM PRIOR TO CONCRETE POURING.
 - B. ANCHOR BOLTS MUST BE FREE TO ELONGATE OVER THE ENTIRE SHANK LENGTH, NO BOND WITH ANY CONCRETE IS ALLOWED.
 - C. ALL ANCHOR BOLTS MUST BE TENSIONED TO THE FORCE SHOWN ON THE CONTACT DOCUMENTS.
 1. PRIOR TO TENSIONING EACH BOLT SHALL BE SNUGGLED UP USING 100 FT.-LB OF TORQUE.
 2. ANCHOR BOLTS SHALL BE PROTECTED AGAINST CORROSION AND FREE FROM RUST PRIOR TO AND IMMEDIATELY AFTER INSTALLATION.

STEEL REINFORCEMENT:

1. GENERAL: COMPLY WITH CRISIS "MANUAL OF STANDARD PRACTICE" FOR PLACING REINFORCEMENT.
2. CLEAN REINFORCEMENT OF LOOSE RUST AND MILL SCALE, EARTH, ICE, AND OTHER FOREIGN MATERIALS THAT WOULD REDUCE BOND TO CONCRETE.
3. ACCURATELY POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. LOCATE AND SUPPORT REINFORCEMENT WITH BAR SUPPORTS TO MAINTAIN MINIMUM CONCRETE COVER. DO NOT TACK WELD CROSSING REINFORCING BARS.
 - A. WELDING OF REINFORCING BARS SHALL NOT BE PERMITTED.
 - B. SET WIRE TIES WITH ENDS DIRECTED INTO CONCRETE, NOT TOWARD EXPOSED CONCRETE SURFACES.

CONCRETE PLACEMENT:

1. BEFORE PLACING CONCRETE, VERIFY THAT INSTALLATION OF FORMWORK, REINFORCEMENT, AND EMBEDDED ITEMS IS COMPLETE AND THAT REQUIRED INSPECTIONS HAVE BEEN PERFORMED.
2. DO NOT ADD WATER TO CONCRETE DURING DELIVERY, AT PROJECT SITE, OR DURING PLACEMENT UNLESS APPROVED BY ENGINEER.
3. DEPOSIT CONCRETE CONTINUOUSLY IN ONE LAYER OR IN HORIZONTAL LAYERS OF SUCH THICKNESS THAT NO NEW CONCRETE WILL BE PLACED ON CONCRETE THAT HAS HARDENED ENOUGH TO CAUSE SEAMS OR PLANES OF WEAKNESS.
 - A. DEPOSIT CONCRETE TO AVOID SEGREGATION.
 - B. DEPOSIT CONCRETE IN HORIZONTAL LAYERS OF DEPTH TO NOT EXCEED FORMWORK DESIGN PRESSURES AND IN A MANNER TO AVOID INCLINED CONSTRUCTION JOINTS.
 - C. CONSOLIDATE PLACED CONCRETE WITH MECHANICAL VIBRATING EQUIPMENT ACCORDING TO ACI 301.
 - D. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE INSIDE FORMS. INSERT AND WITHDRAW VIBRATORS VERTICALLY AT UNIFORMLY SPACED LOCATIONS TO RAPIDLY PENETRATE PLACED LAYER AND AT LEAST 6 INCHES (150 MM) INTO PRECEDING LAYER. DO NOT INSERT VIBRATORS INTO LOWER LAYERS OF CONCRETE THAT HAVE BEGUN TO LOSE PLASTICITY. AT EACH INSERTION, LIMIT DURATION OF VIBRATION TO TIME NECESSARY TO CONSOLIDATE CONCRETE AND COMPLETE EMBEDMENT OF REINFORCEMENT AND OTHER EMBEDDED ITEMS WITHOUT CAUSING MIXTURE CONSTITUENTS TO SEGREGATE.
 - E. CONSOLIDATE CONCRETE DURING PLACEMENT OPERATIONS SO CONCRETE IS THOROUGHLY WORKED AROUND REINFORCEMENT AND OTHER EMBEDDED ITEMS AND INTO CORNERS.
 - F. MAINTAIN REINFORCEMENT IN POSITION ON CHAIRS DURING CONCRETE PLACEMENT.

CONCRETE PLACEMENT:

- G. SCREEN SLAB SURFACES WITH A STRAIGHTEDGE AND STRIKE OFF TO CORRECT ELEVATIONS.
- H. BEGIN INITIAL FLOATING USING BULL FLOATS OR DARBIES TO FORM A UNIFORM AND OPEN-TEXTURED SURFACE PLANE. BEFORE EXCESS BLEEDWATER APPEARS ON THE SURFACE, DO NOT FURTHER DISTURB SLAB SURFACES BEFORE STARTING FINISHING OPERATIONS.
4. COLD-WEATHER PLACEMENT: COMPLY WITH ACI 306.1 AND AS FOLLOWS. PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS, OR LOW TEMPERATURES.
 - A. WHEN AVERAGE HIGH AND LOW TEMPERATURES IS EXPECTED TO FALL BELOW 40 DEG F (4.4 DEG C) FOR THREE SUCCESSIVE DAYS, MAINTAIN DELIVERED CONCRETE MIXTURE TEMPERATURE WITHIN THE TEMPERATURE RANGE REQUIRED BY ACI 301.
 - B. DO NOT USE FROZEN MATERIALS OR MATERIALS CONTAINING ICE OR SNOW. DO NOT PLACE CONCRETE ON FROZEN MATERIALS.
 - C. DO NOT USE CALCIUM CHLORIDE, SALT, OR OTHER MATERIALS CONTAINING ANTIFREEZE AGENTS OR CHEMICAL ACCELERATORS UNLESS OTHERWISE SPECIFIED AND APPROVED IN MIXTURE DESIGNS.
 5. HOT-WEATHER PLACEMENT: COMPLY WITH ACI 301 AND AS FOLLOWS:
 - A. MAINTAIN CONCRETE TEMPERATURE BELOW 90 DEG F (32 DEG C) AT TIME OF PLACEMENT. CHILLED MIXING WATER OR CHOPPED ICE MAY BE USED TO CONTROL TEMPERATURE. PROVIDED WATER EQUIVALENT OF ICE IS CALCULATED TO TOTAL AMOUNT OF MIXING WATER. USING LIQUID NITROGEN TO COOL CONCRETE IS CONTRACTOR'S OPTION.
 - B. FOG-SPRAY FORMS, STEEL REINFORCEMENT, AND SUBGRADE JUST BEFORE PLACING CONCRETE. KEEP SUBGRADE UNIFORMLY MOIST WITHOUT STANDING WATER, SOFT SPOTS, OR DRY AREAS.

CONCRETE PROTECTING AND CURING:

1. GENERAL: PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. COMPLY WITH ACI 306.1 FOR HOT-WEATHER PROTECTION DURING CURING.
2. EVAPORATION RETARDER: APPLY EVAPORATION RETARDER TO UNFORMED CONCRETE SURFACES IF HOT, DRY, OR WINDY CONDITIONS CAUSE MOISTURE LOSS APPROXIMATING 0.2 LB/SQ FT. X H (1 KG/SQ. M X H) BEFORE AND DURING FINISHING OPERATIONS. APPLY ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AFTER PLACING, SCREEDING, AND BULL FLOATING OR DARBIEING CONCRETE, BUT BEFORE FLOAT FINISHING.
3. FORMED SURFACES: IF FORMS REMAIN DURING CURING PERIOD, MOIST CURE AFTER LOOSENING FORMS. IF REMOVING FORMS BEFORE END OF CURING PERIOD, CONTINUE CURING FOR THE REMAINDER OF THE CURING PERIOD.
4. UNFORMED SURFACES: BEGIN CURING IMMEDIATELY AFTER FINISHING CONCRETE. CURE UNFORMED SURFACES. CURE CONCRETE ACCORDING TO ACI 308. BY ONE OR A COMBINATION OF THE FOLLOWING METHODS:
 - A. MOISTURE CURING: KEEP SURFACES CONTINUOUSLY MOIST FOR NOT LESS THAN SEVEN DAYS WITH THE FOLLOWING MATERIALS:
 1. WATER.
 2. CONTINUOUS WATER-FOG SPRAY.
 3. ABSORPTIVE COVER, WATER SATURATED, AND KEPT CONTINUOUSLY WET. COVER CONCRETE SURFACES ADJACENT WITH 1/2-INCH (300-MM) LAP OVER ADJACENT ABSORPTIVE COVERS.
 - B. MOISTURE-RETAINING-COVER CURING: COVER CONCRETE SURFACES WITH MOISTURE-RETAINING COVER FOR CURING CONCRETE. PLACED IN WIDEST PRACTICABLE WIDTH, WITH SIDES AND ENDS LAPPED AT LEAST 12 INCHES (300 MM), AND SEALED BY WATERPROOF TAPE OR ADHESIVE. CURE FOR NOT LESS THAN SEVEN DAYS. IMMEDIATELY REPAIR ANY HOLES OR TEARS DURING CURING PERIOD USING COVER MATERIAL AND WATERPROOF TAPE.

CONCRETE PROTECTING AND CURING:

1. MOISTURE CURE OR USE MOISTURE-RETAINING COVERS TO CURE CONCRETE SURFACES TO RECEIVE FLOOR COVERINGS.
2. MOISTURE CURE OR USE MOISTURE-RETAINING COVERS TO CURE CONCRETE SURFACES TO RECEIVE PENETRATING LIQUID FLOOR TREATMENTS.
3. CURE CONCRETE SURFACES TO RECEIVE FLOOR COVERINGS WITH EITHER A MOISTURE-RETAINING COVER OR A CURING COMPOUND THAT THE MANUFACTURER CERTIFIES WILL NOT INTERFERE WITH BONDING OF FLOOR COVERING USED ON PROJECT.
- C. CURING COMPOUND: APPLY UNIFORMLY IN CONTINUOUS OPERATION BY POWER SPRAY OR ROLLER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. RECOAT AREAS SUBJECTED TO HEAVY RAINFALL WITHIN THREE HOURS AFTER INITIAL APPLICATION. MAINTAIN CONTINUITY OF COATING AND REPAIR DAMAGE DURING CURING PERIOD.
 1. AFTER CURING PERIOD HAS ELAPSED, REMOVE CURING COMPOUND WITHOUT DAMAGING CONCRETE SURFACES BY METHOD RECOMMENDED BY CURING COMPOUND MANUFACTURER UNLESS MANUFACTURER CERTIFIES CURING COMPOUND WILL NOT INTERFERE WITH BONDING OF FLOOR COVERING USED ON PROJECT.

FIELD QUALITY CONTROL:

1. TESTING AND INSPECTING: CONSTRUCTION MANAGER WILL ENGAGE A QUALIFIED TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS.
 - A. TESTING AGENCY WILL CONDUCT AND INTERPRET TESTS AND STATE IN EACH REPORT WHETHER TESTED COMPLEES WITH OR DEVIATES FROM REQUIREMENTS.
 - B. INSPECTIONS:
 1. STEEL REINFORCEMENT PLACEMENT.
 2. ANCHOR BOLTS AND NUTS.
 3. VERIFICATION OF USE OF REQUIRED DESIGN MIXTURE.
 4. CONCRETE PLACEMENT, INCLUDING CONVEYING AND DEPOSITING.
 5. CURING PROCEDURES AND MAINTENANCE OF CURING TEMPERATURE.
 - C. CONCRETE TESTS: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
 1. SLUMP: ASTM C 143/C 143M. ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
 2. AIR CONTENT: ASTM C 231. PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ASTM C 173/C 173M. PRESSURE METHOD, FOR STRUCTURAL NORMAL WEIGHT CONCRETE. ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
 3. CONCRETE TEMPERATURE: ASTM C 1064/C 1064M. ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F (4.4 DEG C) AND BELOW AND WHEN 80 DEG F (27 DEG C) AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.
 4. UNIT WEIGHT: ASTM C 567. FRESH UNIT WEIGHT OF STRUCTURAL NORMAL WEIGHT CONCRETE. ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
 5. COMPRESSIVE-STRENGTH TESTS: ASTM C 39/C 39M.
 - A. TEST ONE FIELD-CURED SPECIMEN AT 7 DAYS AND ONE SET OF TWO LABORATORY CURED SPECIMENS AT 28 DAYS. A FOURTH LABORATORY CURED SPECIMEN SHALL BE TAKEN AND HELD IN THE EVENT AN ADDITIONAL BREAK TEST IS REQUIRED.

CONCRETE PROTECTING AND CURING:

- B. A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM A SET OF TWO SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED.
6. STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI (3.4 MPa).
7. TEST RESULTS SHALL BE REPORTED IN WRITING TO ENGINEER, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIXTURE PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7- AND 28-DAY TESTS.
8. NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BY ENGINEER BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF CONCRETE.
9. ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ENGINEER. TESTING AND INSPECTING AGENCY MAY CONDUCT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLIING WITH ASTM C 42/C 42M OR BY OTHER METHODS AS DIRECTED BY ENGINEER.
10. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.
11. CORRECT DEFICIENCIES IN THE WORK THAT TEST REPORTS AND INSPECTIONS INDICATE DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS.
 - D. PRE-TENSIONING OF ANCHOR BOLTS SHALL BE WITNESSED BY AN INDEPENDENT TESTING AGENCY.
 - E. CORRECT DEFICIENCIES IN OR REMOVE AND REPLACE STRUCTURAL STEEL THAT INSPECTIONS AND TEST REPORTS INDICATE DO NOT COMPLY WITH SPECIFIED REQUIREMENTS.
 - F. ADDITIONAL TESTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF CORRECTED WORK WITH SPECIFIED REQUIREMENTS.

ISSUED FOR CONSTRUCTION

FACILITY: PRAIRIEWINDS
 LOCATION/UNIT: 406-PRAIRIEWINDS - 1
 BASIN NUMBER: 406-CC-000-0005



JUL 14 2008



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DRAWN BY: SR CHECKED BY: SR DATE: 07-14-08	PRAIRIEWINDS 1 WIND FARM	WIND TURBINE FOUNDATION SPECIFICATIONS	561351	<table border="1"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ISSUE FOR CONSTRUCTION</td> <td>07-14-08</td> </tr> </tbody> </table>	NO.	REVISION	DATE	0	ISSUE FOR CONSTRUCTION	07-14-08
NO.	REVISION	DATE								
0	ISSUE FOR CONSTRUCTION	07-14-08								
SOIA	LOCATION - MINOT, ND									

GENERAL STRUCTURAL NOTES

BUILDING CODES USED FOR DESIGN

1. INTERNATIONAL BUILDING CODE, 2006 EDITION

DESIGN LOADS

UNFACTORED SERVICE GE 376 LOADS DUE TO TILTING. (SOIL & STABILITY CHECK):
 OVERTURNING MOMENT, $M_{os} = 25,747$ R-kips = 34,907 kN-m
 HORIZONTAL BASE SHEAR, $F_{os} = 117.5$ kips = 523 kN
 VERTICAL TOWER LOAD, $F_z = 414.7$ kips = 1845 kN

SEISMIC DESIGN CRITERIA:

USGS MAPPED SPECTRAL RESPONSE ACCELERATION:
 $S_s = 7.4\%$
 $S_1 = 2.3\%$
 IMPORTANCE FACTOR = 1.25
 SOIL SITE CLASS D
 $S_D1 = 0.09$
 $S_D1 = 0.04$
 SEISMIC DESIGN CATEGORY A

SOIL LOADS:
 ALLOWABLE SOIL BEARING PRESSURE:
 EXTREME LOADING - 5,000 PSF

CONCRETE

1. ALL CONCRETE WORK INCLUDING FORMING, REINFORCING, MIXING, PLACING AND CURING SHALL BE IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE PRACTICE INCLUDING "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318 AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE," ACI 301.
2. ALL CONCRETE SHALL ATTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH GIVEN BELOW AT 28 DAYS.
3. ALL GROUT SHALL BE MIXED AND PLACED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SHALL DEVELOP COMPRESSIVE STRENGTH AT 28 DAYS. GROUT SHALL DEVELOP MINIMUM 7,000 PSI COMPRESSIVE STRENGTH PRIOR TO TENSIONING ANCHOR BOLTS.
4. CONCRETE SHALL BE VIBRATED INTO FORMS WHILE PLACING WITHOUT OVER-VIBRATING. REINFORCING SHALL BE PROTECTED BY CONCRETE OF THICKNESS AS FOLLOWS:
 CONCRETE CAST AGAINST EARTH 3"
 OTHER FOUNDATIONS 2" BOTH FACES
 EXPOSED EXTERIOR CONCRETE 2"
5. COORDINATE CONCRETE WORK WITH THAT OF OTHER TRADES TO ALLOW FOR SETTING OF SLEEVES, ACCESSORIES, ETC.
6. ALL ANCHOR RODS SHALL BE IN PLACE PRIOR TO POURING OF CONCRETE. PROVIDE WILLIAMS END CAP OR EQUIVALENT TO PREVENT MOISTURE AND DEBRIS FROM ENTERING ANCHOR BOLT SLEEVE. ENDS OF ANCHOR RODS SHALL BE WRAPPED WITH TAPE WHERE THEY ARE EXPOSED TO ISOLATE THEM FROM CONTACT WITH GROUT.
7. PREPARE DESIGN MIXTURES FOR EACH TYPE AND STRENGTH OF CONCRETE, PROPORTIONED ON THE BASIS OF LABORATORY TEST DATA ACCORDING TO ACI 301.
 1. USE A QUALIFIED INDEPENDENT TESTING AGENCY FOR PREPARING AND REPORTING PROPOSED MIXTURE DESIGNS BASED ON LABORATORY TRIAL MIXTURES.
 2. CONCRETE DESIGN MIX SHALL TEST 15% HIGHER THAN SPECIFIED REQUIREMENTS.
 8. CONCRETE FOR FOOTINGS, COMPRESSIVE STRENGTH, WHEN TESTED IN ACCORDANCE WITH ASTM C 39/C 39M AT 28 DAYS: 5,000 PSI.
 CONCRETE WEIGHT: NORMAL (148 LBS. PER CUBIC FOOT)
 CEMENT CONTENT: MINIMUM 520 LB** PER CUBIC YARD.
 WATER-CEMENT RATIO: MAXIMUM 44 PERCENT BY WEIGHT.
 TOTAL AIR CONTENT: 3 PERCENT NATURALLY OCCURRING, PER ASTM C 173. MAXIMUM SLUMP: 4 INCHES, PLUS OR MINUS 1 INCH.
 MAXIMUM AGGREGATE SIZE: 1-1/2 INCH. SIZES SHALL BE WELL GRADED INCLUDING SIZES UP TO 1-1/2 INCH. 3% MIN OF TOTAL AGGREGATE. WATER REDUCING AGENT REQUIRED.
 ** UP TO 20% OF TOTAL CEMENT CONTENT MAY BE SUBSTITUTED WITH CLASS C OR F FLYASH.
 9. CONCRETE FOR PEDESTALS, COMPRESSIVE STRENGTH, WHEN TESTED IN ACCORDANCE WITH ASTM C 39/C 39M AT 28 DAYS: 5,000 PSI.
 CONCRETE WEIGHT: NORMAL (148 LBS. PER CUBIC FOOT) CEMENT CONTENT: MINIMUM 520 LB** PER CUBIC YARD. WATER-CEMENT RATIO: MAXIMUM 44 PERCENT BY WEIGHT. TOTAL AIR CONTENT: 5-1/2 PERCENT, ± 1.5%, PER ASTM C 173. MAXIMUM SLUMP: 4 INCHES, PLUS OR MINUS 1 INCH. MAXIMUM AGGREGATE SIZE: 1-1/2 INCH. SIZES SHALL BE WELL GRADED INCLUDING SIZES UP TO 1-1/2 INCH. 3% MIN OF TOTAL AGGREGATE. WATER REDUCING AGENT REQUIRED. ** UP TO 20% OF TOTAL CEMENT CONTENT MAY BE SUBSTITUTED WITH CLASS C OR F FLYASH.

ENGINEERED FILL

1. SUITABLE STRUCTURAL BACKFILL MATERIALS SHALL BE OF A NATURE THAT WILL COMPACT AND DEVELOP A STABILITY SATISFACTORY TO THE GEOTECHNICAL ENGINEER. SUCH MATERIALS SHALL NOT CONTAIN FROZEN MATERIAL OR ANY MATERIAL WHICH, BY DECAY OR OTHERWISE, MIGHT CAUSE SETTLEMENT.
2. IF ON SITE BACKFILL IS DEEMED UNSUITABLE, PROVIDE A COARSE AGGREGATE THAT COMPLES WITH ASTM-D2487 SOIL CLASSIFICATION GROUP GW. MAXIMUM AGGREGATE SIZE 1 1/2"
3. COMPACT BACKFILL TO STANDARD PROCTOR DENSITY OF 95%.

NEW CONSTRUCTION

1. THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS.
2. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE CONSTRUCTED TO APPLY AT ANY SIMILAR CONDITION ELSEWHERE ON THE JOB EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN.
3. CONTRACTOR SHALL PROVIDE ALL TEMPORARY SHORING AND FORM-WORK REQUIRED DURING CONSTRUCTION.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT ALL ITEMS IN FULL ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS. ANY VARIANCE MUST HAVE WRITTEN APPROVAL BY THE ENGINEER.
5. IF A DISCREPANCY EXISTS BETWEEN THE DETAILS ON S02 AND S03 AND SPECIFICATION SHEET S01, THE DETAILS ON S02 AND S03 SHALL GOVERN.

REINFORCING STEEL

1. THE REINFORCING STEEL CONTRACTOR SHALL FABRICATE ALL REINFORCEMENT AND FURNISH ACCESSORIES, CHAIRS, SPACER BARS AND SUPPORTS NECESSARY TO SECURE THE REINFORCEMENT UNLESS SHOWN OTHERWISE ON THE PLANS AND/OR DETAILS.
2. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
3. CONCRETE REINFORCEMENT SHALL BE PLACED ACCORDING TO CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCEMENT BARS."
4. ALL REINFORCEMENT SPLICES SHALL BE LAPPED AS CLASS B SPLICES PER ACI 318 UNLESS OTHERWISE NOTED.

TESTING:

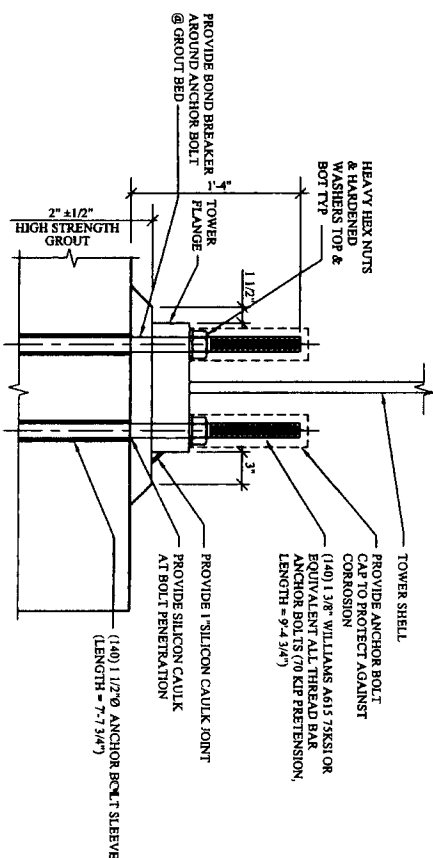
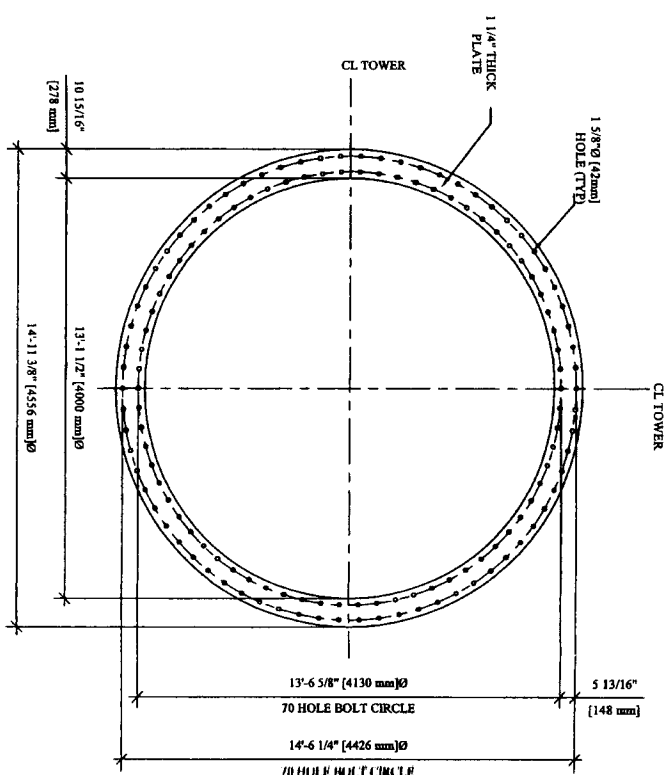
1. CONCRETE CYLINDER COMPRESSION TESTS SHALL BE PERFORMED BY THE EPC FIRM'S INDEPENDENT TESTING AGENCY. SEVEN (7) SETS OF FOUR (4) EACH 6"x12" CONCRETE CYLINDERS PER FOUNDATION INCLUDING PER SHALL BE PREPARED AND TESTED.
2. TOWER BASE GROUT CUBE TESTS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY. FIVE (5) SETS OF THREE (3) EACH 2"x2" GROUT CUBES PER TOWER SHALL BE PREPARED AND TESTED.
3. ANCHOR BOLT TENSION AND PRELOAD SHALL BE CERTIFIED FOR 100% OF THE TOTAL BOLTS PER TOWER BY AN INDEPENDENT TESTING AGENCY. THE DIRECT TENSION METHOD SHALL BE UTILIZED FOR THE ANCHOR BOLTS. ACTUAL TENSIONING OF THE ANCHOR BOLTS SHALL BE DONE BY THE FOUNDATION CONTRACTOR. A TECHNICIAN FROM THE INDEPENDENT TESTING AGENCY WILL OBSERVE AND DOCUMENT THAT THE ANCHOR BOLT TENSIONING IS SATISFACTORY. THE CONTRACTOR SHALL DOCUMENT BOTH THE JACK PRESSURE AND THE BOLT ELONGATION.

WIND TURBINE AND TOWER:

MANUFACTURER: GE
 MODEL: 1.5 SLE
 POWER OUTPUT: 1.5 MW
 TOWER HUB HEIGHT: 80m
 SITE LOCATION: MINOT, ND

REFERENCE DOCUMENTS:

1. FOUNDATION DATA FOR WIND TURBINE GENERATOR SYSTEM, GE 1.5 SLE, DATED 2007.



ISSUED FOR CONSTRUCTION

FACILITY: PRAIRIEWINDS
 LOCATION/UNIT: 406-PRAIRIEWINDS-1
 BASIN NUMBER: 406-CC-000-0003

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 ILLINOIS LICENSE NO. 184-001442
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A	JOB DESIGN SUBMITTAL	4-10-08
B	JOB DESIGN SUBMITTAL	4-24-08
C	JOB DESIGN SUBMITTAL	5-18-08
D	JOB DESIGN SUBMITTAL	6-30-08
O	ISSUE FOR CONSTRUCTION	6-30-08

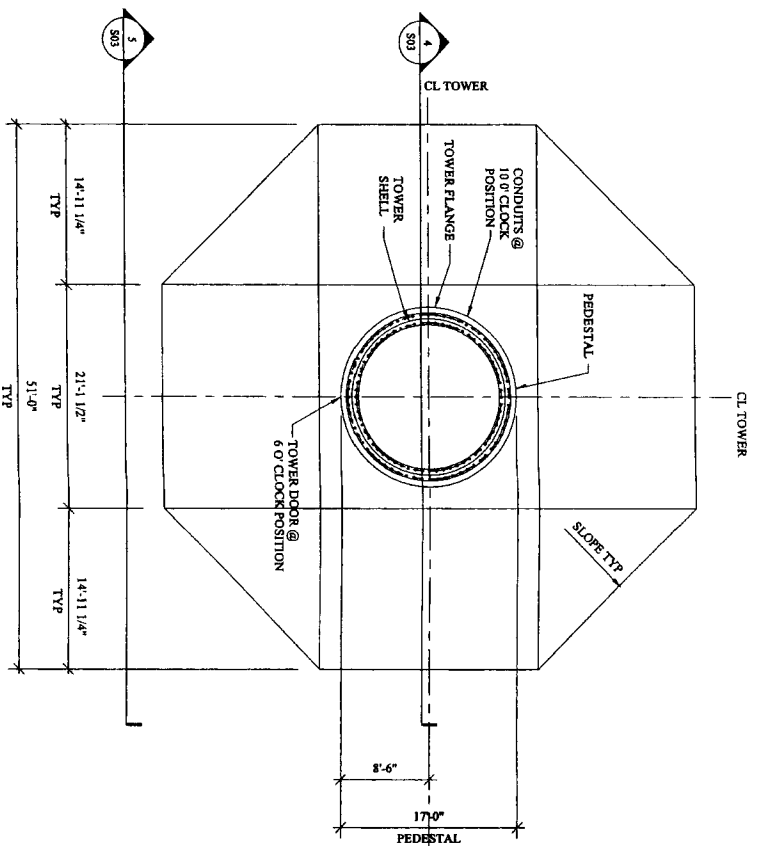


WIND TURBINE FOUNDATION GENERAL NOTES

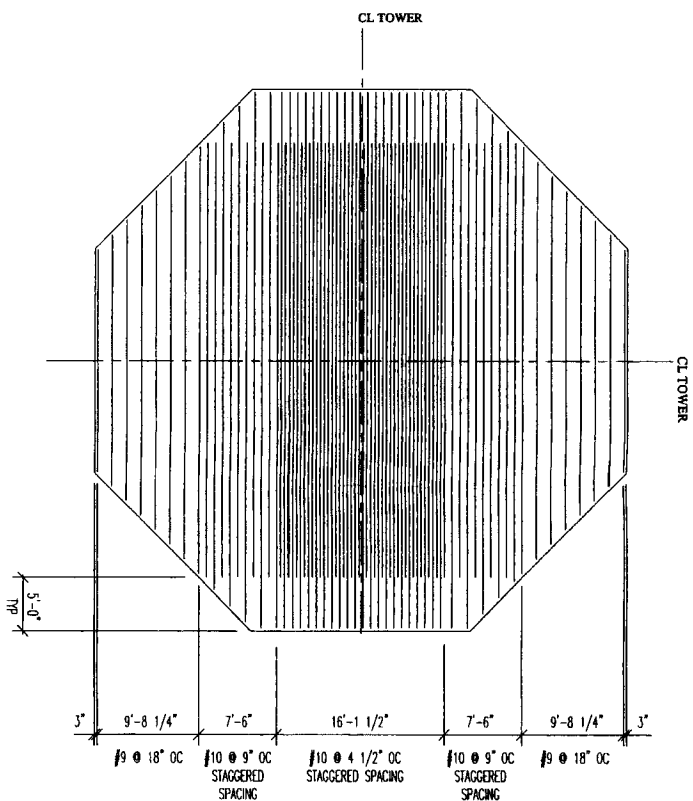
PRAIRIEWINDS 1 WIND FARM

LOCATION - MINOT, ND

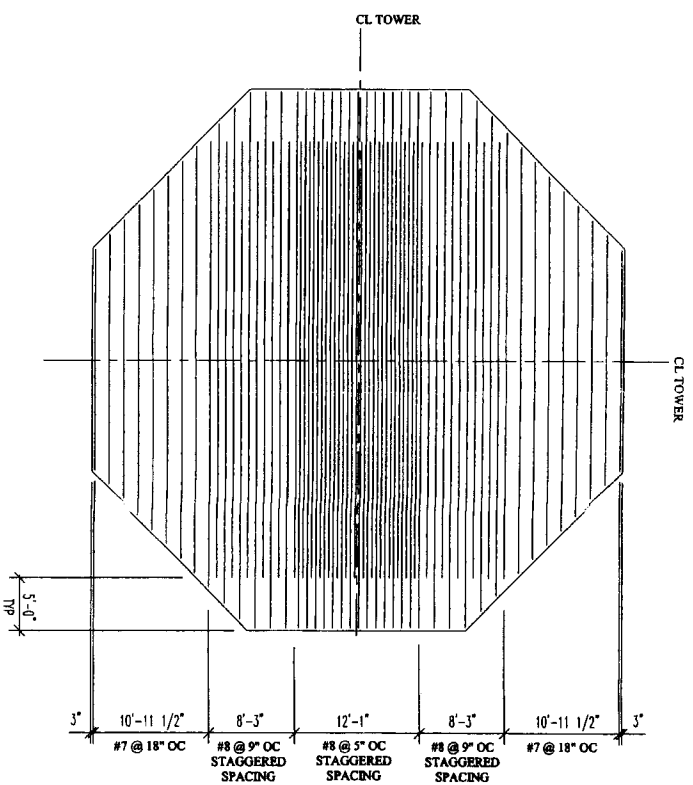
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 DATE: 6/23/08
902



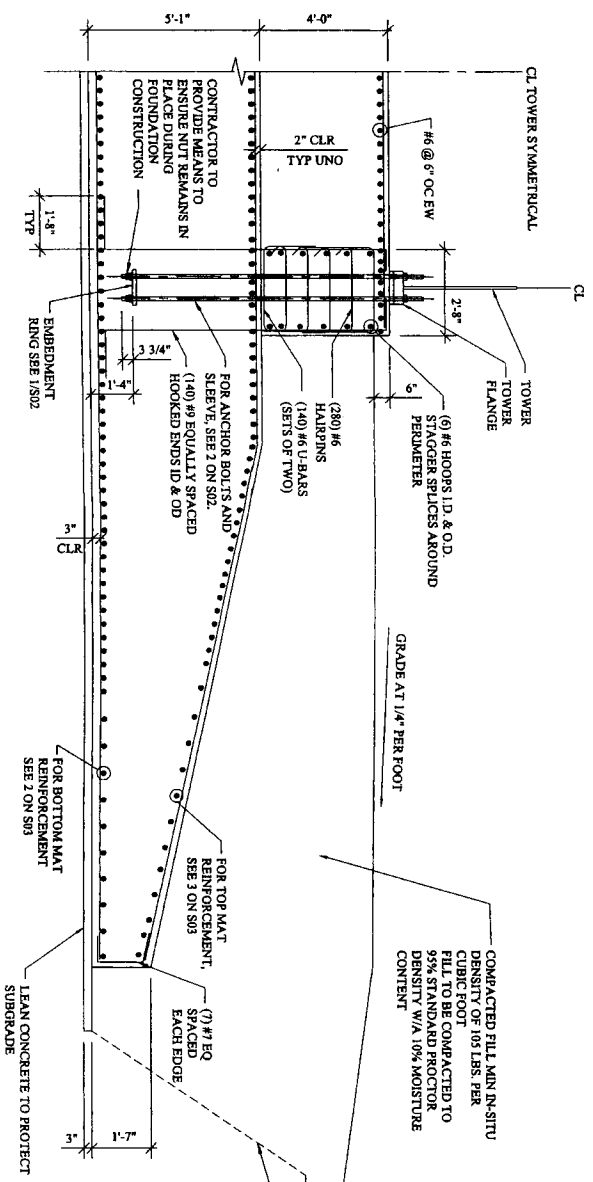
1 PLAN VIEW
NO SCALE



2 BOTTOM MAT REINFORCING PLAN
NO SCALE

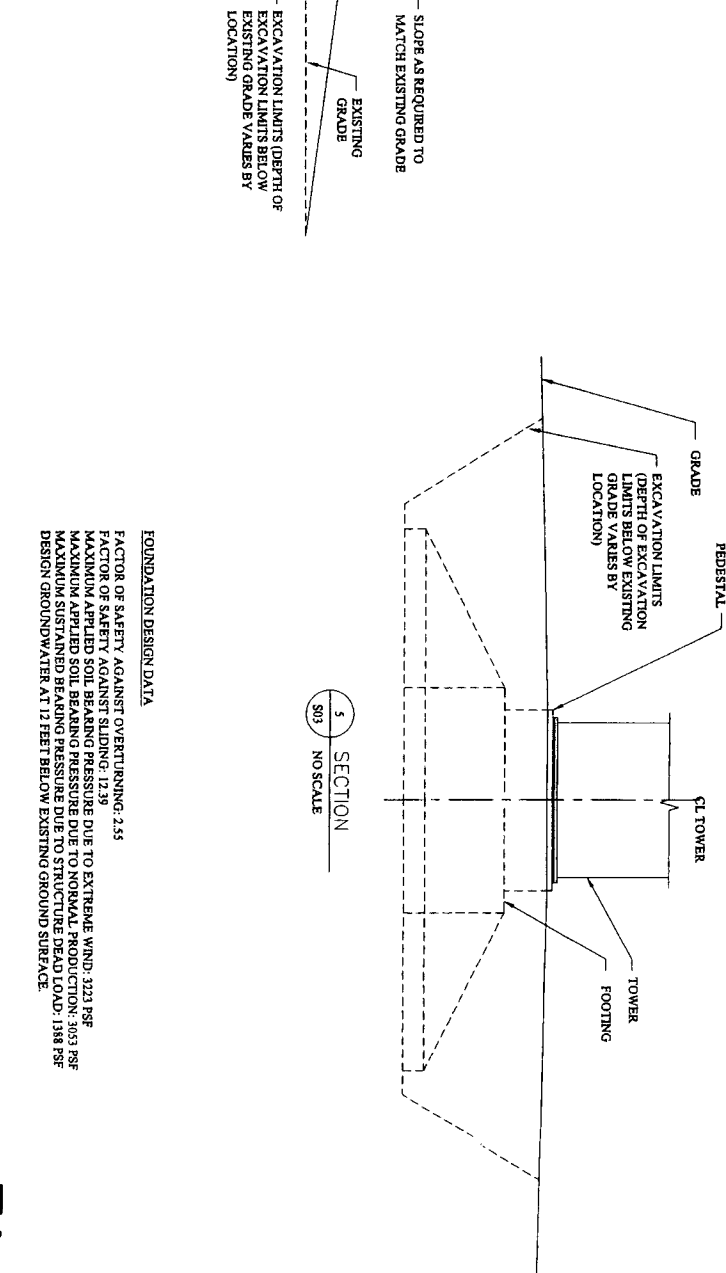


3 TOP MAT REINFORCING PLAN
NO SCALE



4 SECTION
NO SCALE

NOTE: PLACE LEAN CONCRETE ON ACCEPTED SUBGRADE AS SOON AS PRACTICAL TO PREVENT DEGRADATION OF SUB-BASE



5 SECTION
NO SCALE

FOUNDATION DESIGN DATA
FACTOR OF SAFETY AGAINST OVERTURNING: 2.55
FACTOR OF SAFETY AGAINST SLIDING: 1.239
MAXIMUM APPLIED SOIL BEARING PRESSURE DUE TO EXTREME WIND: 3221 PSF
MAXIMUM APPLIED SOIL BEARING PRESSURE DUE TO NORMAL PRODUCTION: 3053 PSF
MAXIMUM SUSTAINED BEARING PRESSURE DUE TO STRUCTURE DEAD LOAD: 1388 PSF
DESIGN GROUNDWATER AT 12 FEET BELOW EXISTING GROUND SURFACE



JUL 01 2008

ISSUED FOR CONSTRUCTION

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ILLINOIS LICENSE NO. 184-001442
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DRAWN BY: RNR
CHECKED BY: RNR
DATE: 06-30-08
503

PRAIRIEWINDS 1 WIND FARM
LOCATION - MINOT, ND

WIND TURBINE FOUNDATION
PLAN AND DETAILS



NO.	REVISION	DATE
A	30% DESIGN SUBMITTAL	4-15-09
B	50% DESIGN SUBMITTAL	4-24-09
C	85% DESIGN SUBMITTAL	5-18-09
D	ISSUE FOR CONSTRUCTION	6-30-09

MINOT WIND 2 WIND FARM SPREAD FOUNDATIONS

MINOT, ND
GE 1.5 SLE WIND TURBINES
SPREAD FOUNDATION DRAWINGS

INDEX OF DRAWINGS

- S00 COVER SHEET
- S01 WIND TURBINE FOUNDATION SPECIFICATIONS
- S01A WIND TURBINE FOUNDATION SPECIFICATIONS CONTINUED
- S02 GE 1.5 SLE WIND TURBINE FOUNDATION GENERAL NOTES
- S03 GE 1.5 SLE WIND TURBINE FOUNDATION PLAN AND DETAILS

OWNER



**BASIN ELECTRIC
POWER COOPERATIVE**
A Touchstone Energy® Cooperative
GENERAL CONTRACTOR

RM/T

STRUCTURAL ENGINEER



**Larson
Engineering Inc**



JUL 01 2008



FACILITY: PEABIREWINDS
LOCATION/UNIT: 441-MINOT WIND2
BASIN NUMBER: 441-CC-000-0001
1488 Bond Street, Suite 103
Minot, ND 58701
(701) 830-3577 / (701) 830-3572 / 0154
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561862



COVER SHEET

MINOT WIND 2 WIND FARM

LOCATION - MINOT, ND

DRAWN BY: RM/T
CHECKED BY: RM/T
DATE: 08-30-08
S00

SUBMITTALS:

1. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
2. DESIGN MIXTURES: FOR EACH CONCRETE MIXTURE SUBMIT ALTERNATE DESIGN MIXTURES WHEN CHARACTERISTICS OF MATERIALS, PROJECT CONDITIONS, WEATHER, TEST RESULTS, OR OTHER CIRCUMSTANCES WARRANT ADJUSTMENTS.
 - A. INDICATE AMOUNTS OF MIXING WATER TO BE WITHHELD FOR LATER ADDITION AT PROJECT SITE.
3. STEEL REINFORCEMENT SHOP DRAWINGS: PLACING DRAWINGS THAT DETAIL FABRICATION, BENDING, AND PLACEMENT. INCLUDE BAR SIZES, LENGTHS, MATERIAL GRADE, BAR SCHEDULES, STRUT SPACING, BENT BAR DIAGRAMS, BAR ARRANGEMENT, SPLICES AND LAPS, MECHANICAL CONNECTIONS, THE SPACING, HOOP SPACING, AND SUPPORTS FOR CONCRETE REINFORCEMENT.
4. EMBEDMENT RING SHOP DRAWINGS: SUBMITTED PRIOR TO FABRICATION.
5. WELDING CERTIFICATES.
6. QUALIFICATION DATA: FOR INSTALLER AND MANUFACTURER.
7. MATERIAL TEST REPORTS: FOR THE FOLLOWING, FROM A QUALIFIED TESTING AGENCY, INDICATING COMPLIANCE WITH REQUIREMENTS:
 - A. AGGREGATES.
 - B. MATERIAL CERTIFICATES: FOR EACH OF THE FOLLOWING, SIGNED BY MANUFACTURERS:
 1. CEMENTITIOUS MATERIALS.
 2. ADMIXTURES.
 3. FORM MATERIALS AND FORM-RELEASE AGENTS.
 4. STEEL REINFORCEMENT AND ACCESSORIES.
 5. CURING COMPOUNDS.
 6. BONDING AGENTS.
 7. ADHESIVES.
 8. REPAIR MATERIALS.
 - C. FIELD QUALITY-CONTROL, TEST AND INSPECTION REPORTS.
 - D. MINUTES OF PRE-INSTALLATION CONFERENCE.
 - E. GROUT.
 - F. CONTRACTOR SHALL SUBMIT INDIVIDUAL MILL CERTIFICATION REPORTS FOR STEEL REBAR AT EACH TURBINE FOUNDATION NO LATER THAN THE DELIVERY OF THE STEEL TO THE JOBSITE.

QUALITY ASSURANCE:

1. INSTALLER QUALIFICATIONS: AN EXPERIENCED INSTALLER WHO HAS COMPLETED CONCRETE WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WHOSE WORK HAS RESULTED IN CONSTRUCTION WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, MINIMUM 5 YEARS OF DOCUMENTED EXPERIENCE.
2. MANUFACTURE QUALIFICATIONS: A FIRM EXPERIENCED IN MANUFACTURING READY-MIXED CONCRETE PRODUCTS AND THAT COMPLES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT.
 - A. MANUFACTURER CERTIFIED ACCORDING TO NRMCA'S "CERTIFICATION OF READY MIXED CONCRETE PRODUCTION FACILITIES."
3. TESTING AGENCY QUALIFICATIONS: AN AGENCY, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, QUALIFIED ACCORDING TO ASTM C 1077 AND ASTM E 329 FOR TESTING INDICATED, AS DOCUMENTED ACCORDING TO ASTM E 348.
4. SOURCE LIMITATIONS: OBTAIN EACH TYPE OR CLASS OF CEMENTITIOUS MATERIAL OF THE SAME BRAND FROM THE SAME MANUFACTURER'S PLANT. OBTAIN AGGREGATE FROM ONE SOURCE, AND OBTAIN ADMIXTURES THROUGH ONE SOURCE FROM A SINGLE MANUFACTURER.
5. WELDING: QUALIFY PROCEDURES AND PERSONNEL ACCORDING TO AWS D1.4, "STRUCTURAL WELDING CODE-REINFORCING STEEL."
6. ACI PUBLICATIONS: COMPLY WITH THE FOLLOWING UNLESS MODIFIED BY REQUIREMENTS IN THE CONTRACT DOCUMENTS:
 - A. ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE," SECTIONS 1 THROUGH 5.
 - B. ACI 117, "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."
 - C. ACI 318, "BUILDING CODE REQUIRED FOR REINFORCED CONCRETE AND COMMENTARY."
 - D. ACI 306, 306.1, "COLD WEATHER CONCRETING."
 - E. ACI 305, 305.1, "HOT WEATHER CONCRETING."

QUALITY ASSURANCE:

7. CONCRETE TESTING SERVICE: COOPERATE WITH THE EPC FIRMS QUALIFIED INDEPENDENT TESTING AGENCY TO PERFORM MATERIAL EVALUATION TESTS AND TO DESIGN CONCRETE MIXTURES.
8. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE:
 - A. BEFORE SUBMITTING DESIGN MIXTURES, REVIEW CONCRETE DESIGN MIXTURE AND EXAMINE PROCEDURES FOR ENSURING QUALITY OF CONCRETE MATERIALS. REQUIRE REPRESENTATIVES OF EACH ENTITY DIRECTLY CONCERNED WITH CAST-IN-PLACE CONCRETE TO ATTEND, INCLUDING THE FOLLOWING:
 - CONTRACTOR'S SUPERINTENDENT.
 - INDEPENDENT TESTING AGENCY.
 - READY-MIX CONCRETE MANUFACTURER RESPONSIBLE FOR CONCRETE DESIGN MIXTURES.
 - CONCRETE SUBCONTRACTOR.
 - B. REVIEW SPECIAL INSPECTION AND TESTING AND INSPECTING AGENCY PROCEDURES FOR FIELD QUALITY CONTROL, CONCRETE FINISHES AND FINISHING, COLD- AND HOT-WEATHER CONCRETING PROCEDURES.
 - C. CURING PROCEDURES, ANCHOR ROD AND ANCHORAGE DEVICE INSTALLATION TOLERANCES, STEEL REINFORCEMENT INSTALLATION, CONCRETE REPAIR PROCEDURES, AND CONCRETE PROTECTION.

FORM-FACING MATERIALS:

1. SMOOTH-FORMED FINISHED CONCRETE: FORM-FACING PANELS THAT WILL PROVIDE CONTINUOUS, TRUE, AND SMOOTH CONCRETE SURFACES. FURNISH IN LARGEST PRACTICABLE SIZES TO MINIMIZE NUMBER OF JOINTS.
 - A. PLYWOOD, METAL, OR OTHER APPROVED PANEL MATERIALS.
 - B. EXTERIOR-GRADE PLYWOOD PANELS, SUITABLE FOR CONCRETE FORMS, COMPLYING WITH DOC 95 1, AND AS FOLLOWS:
 1. STRUCTURAL 1, B-B OR BETTER; MILL OILED AND EDGE SEALED.
2. ROUGH-FORMED FINISHED CONCRETE: PLYWOOD, LUMBER, METAL, OR ANOTHER APPROVED MATERIAL. PROVIDE LUMBER DRESSED ON AT LEAST TWO EDGES AND ONE SIDE FOR TIGHT FIT.
3. FORM-RELEASE AGENT: COMMERCIALY FORMULATED FORM-RELEASE AGENT THAT WILL NOT BOND WITH STEEL, OR ADVERSELY AFFECT CONCRETE SURFACES AND WILL NOT IMPAIR SUBSEQUENT TREATMENTS OF CONCRETE SURFACES.
 - A. FORMULATE FORM-RELEASE AGENT WITH RUST INHIBITOR FOR STEEL FORM-FACING MATERIALS.
4. FORM TIES: FACTORY-FABRICATED, REMOVABLE OR SNAP-OFF METAL OR GLASS-FIBER-REINFORCED PLASTIC FORM TIES DESIGNED TO RESIST LATERAL PRESSURE OF FRESH CONCRETE ON FORMS AND TO PREVENT SPALLING OF CONCRETE ON REMOVAL.
 - A. FURNISH UNITS THAT WILL LEAVE NO CORRODIBLE METAL CLOSER THAN 1 INCH (25 MM) TO THE PLANE OF EXPOSED CONCRETE SURFACE.

ADMIXTURES:

1. AIR-ENTRAINING ADMIXTURE: ASTM C 260.
2. CHEMICAL ADMIXTURES: PROVIDE ADMIXTURES CERTIFIED BY MANUFACTURER TO BE COMPATIBLE WITH OTHER ADMIXTURES AND THAT WILL NOT CONTRIBUTE WATER-SOLUBLE CHLORIDE IONS EXCEEDING THOSE PERMITTED IN HARDENED CONCRETE. DO NOT USE CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE.
 - A. WATER-REDUCING ADMIXTURE: ASTM C 494/C 494M, TYPE A.
 - B. RETARDING ADMIXTURE: ASTM C 494/C 494M, TYPE B.
 - C. WATER-REDUCING AND RETARDING ADMIXTURE: ASTM C 494/C 494M, TYPE D.
 - D. HIGH-RANGE, WATER-REDUCING ADMIXTURE: ASTM C 494/C 494M, TYPE F.
 - E. HIGH-RANGE, WATER-REDUCING AND RETARDING ADMIXTURE: ASTM C 494/C 494M, TYPE G.
 - F. PLASTICIZING AND RETARDING ADMIXTURE: ASTM C 1017/C 1017M, TYPE II.

ADMIXTURES:

3. SET-ACCELERATING CORROSION-INHIBITING ADMIXTURE: COMMERCIALY FORMULATED, ANODIC INHIBITOR OR MIXED CATHODIC AND ANODIC INHIBITOR. CAPABLE OF FORMING A PROTECTIVE BARRIER AND MINIMIZING CHLORIDE REACTIONS WITH STEEL REINFORCEMENT IN CONCRETE AND COMPLYING WITH ASTM C 494/C 494M, TYPE C.
 - A. AVAILABLE PRODUCTS:
 1. BORAL MATERIAL COMPANY (THE); BORAL BCN.
 2. EUCILD CHEMICAL COMPANY (THE); EUCON CA.
 3. GRACE CONSTRUCTION PRODUCTS, W. R. GRACE & CO.; DCI.
 4. MASTER BUILDERS INC.; RHEOCRETE CNI.
 5. SIKKA CORPORATION; SIKKA CNI.
 - B. NON-SET-ACCELERATING CORROSION-INHIBITING ADMIXTURE: COMMERCIALY FORMULATED, NON-SET-ACCELERATING, ANODIC INHIBITOR OR MIXED CATHODIC AND ANODIC INHIBITOR, CAPABLE OF FORMING A PROTECTIVE BARRIER AND MINIMIZING CHLORIDE REACTIONS WITH STEEL REINFORCEMENT IN CONCRETE.
 - A. AVAILABLE PRODUCTS:
 1. AXIM CONCRETE TECHNOLOGIES; CATEXOL 1000CI.
 2. BORAL MATERIAL TECHNOLOGIES, INC.; BORAL BCN2.
 3. CORTEC CORPORATION; MCI (2000) [2000SNI].
 4. GRACE CONSTRUCTION PRODUCTS, W. R. GRACE & CO.; DCI-S.
 5. MASTER BUILDERS, INC.; RHEOCRETE 222+.
 6. SIKKA CORPORATION; FERROGARD-901.

CURING MATERIALS:

1. EVAPORATION RETARDER: WATERBORNE, MONOMOLECULAR FILM FORMING, MANUFACTURED FOR APPLICATION TO FRESH CONCRETE.
 - A. AVAILABLE PRODUCTS:
 1. AXIM CONCRETE TECHNOLOGIES; CIMFILM.
 2. BURKE BY EDOCO; BURKEFILM.
 3. CHEMMASTERS; SPRAY-FILM.
 4. CONSPEC MARKETING & CO., INC.; A DAYTON SUPERIOR R COMPANY; AQUAFILM.
 5. DAYTON SUPERIOR CORPORATION; SURE FILM.
 6. EUCILD CHEMICAL COMPANY (THE); EUCOBAR.
 7. KAUFMAN PRODUCTS, INC.; VAPOR AID.
 8. LAMBERT CORPORATION; LAMBRO SKIN.
 9. L&M CONSTRUCTION CHEMICALS, INC.; E-CON.
 10. MBT PROTECTION AND REPAIR, DIV. OF CHEMREX; CONFILM.
 11. MEADOWS, W. R., INC.; SEALTIGHT EVAPRE.
 12. METALCRETE INDUSTRIES; WATERHOLD.
 13. NOX-CRETE PRODUCTS GROUP; KINSMAN CORPORATION; MONOFILM.
 14. SIKKA CORPORATION, INC.; SIKAFILM.
 15. SYMONS CORPORATION, A DAYTON SUPERIOR COMPANY; FINISHING AID.
 16. UNTEX; PRO-FILM.
 17. US MIX PRODUCTS COMPANY; US SPEC MONOFILM.
 18. VEXCON CHEMICALS, INC.; CERTI-VEX ENVIROASSIST.
2. ABSORPTIVE COVER: ASHTO M 182, CLASS 3, BURLAP CLOTH MADE FROM JUTE OR KENAF, WEIGHING APPROXIMATELY 9 OZ./SQ. YD. (305 G/SQ. M) WHEN DRY.
3. MOISTURE-RETAINING COVER: ASTM C 171, POLYETHYLENE FILM OR WHITE BURLAP-POLYETHYLENE SHEET.
4. WATER: POTABLE.
5. CLEAR, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND: ASTM C 309, TYPE I, CLASS B.
 - A. PRODUCTS:
 1. ANTI-HYDRO INTERNATIONAL, INC.; AH CURING COMPOUND #2 DR WB.
 2. BURKE BY EDOCO; AQUA RESIN CURE.
 3. CHEMMASTERS; SAFE-CURE CLEAR.
 4. CONSPEC MARKETING & MANUFACTURING CO., INC.; A DAYTON SUPERIOR COMPANY; W.B. RESIN CURE.
 5. DAYTON SUPERIOR CORPORATION; DAY CHEM REZ CURE (I-11-W).
 6. EUCILD CHEMICAL COMPANY (THE); KUREZ DR VOX.
 7. KAUFMAN PRODUCTS, INC.; THINFILM 420.
 8. LAMBERT CORPORATION; AQUA KURE-CLEAR.
 9. L&M CONSTRUCTION CHEMICALS, INC.; L&M CURE R.

10. MEADOWS, W. R., INC.; 1100 CLEAR.
11. NOX-CRETE PRODUCTS GROUP; KINSMAN CORPORATION; RESIN CURE E.
12. SYMONS CORPORATION, A DAYTON SUPERIOR COMPANY; RESI-CHEM CLEAR CURE.
13. TAMAMS INDUSTRIES, INC.; HORNCURE WB 30.
14. UNTEX; HYDRO CURE 309.
15. US MIX PRODUCTS COMPANY; US SPEC MAXCURE RESIN CLEAR.
16. VEXCON CHEMICALS, INC.; CERTI-VEX ENVIROKURE 100.
17. SUBSTITUTIONS: SEE SECTION 1600 PRODUCT REQUIREMENT. CONCRETE MATERIALS.

1. CEMENTITIOUS MATERIAL: USE THE FOLLOWING CEMENTITIOUS MATERIALS, OF THE SAME TYPE, BRAND, AND SOURCE, THROUGHOUT PROJECT:
 - A. PORTLAND CEMENT: ASTM C 150, TYPE I
 1. FLY ASH: ASTM C 618, CLASS C OR F.
 2. GROUND GRANULATED BLAST-FURNACE SLAG: ASTM C 989, GRADE 100 OR 120.
 - B. SILICA FUME: ASTM C 1240, AMORPHOUS SILICA.
 - C. NORMAL-WEIGHT AGGREGATES: ASTM C 33, COARSE AGGREGATE OR BETTER, GRADED, PROVIDE AGGREGATES FROM A SINGLE SOURCE WITH DOCUMENTED SERVICE RECORD DATA OF AT LEAST 10 YEARS. SATISFACTORY SERVICE IN SIMILAR APPLICATIONS AND SERVICE CONDITIONS USING SIMILAR AGGREGATES AND CEMENTITIOUS MATERIALS.
 - D. MAXIMUM COARSE-AGGREGATE SIZE: 1-1/2 IN (38 mm)
 - A. FINE AGGREGATE: FREE OF MATERIALS WITH DELETERIOUS REACTIVITY TO ALKALI IN CEMENT.
 - E. WATER: ASTM C 94/C 94M AND POTABLE.

4. WATER: ASTM C 94/C 94M AND POTABLE.

STRUCTURAL STEEL MATERIALS:

1. STRUCTURAL STEEL PLATES: AS FOLLOWS:
 - A. CARBON STEEL: ASTM A 572 (ASTM A 572M GRADE 50)
2. ANCHOR RODS: AS FOLLOWS:
 - A. UNHEADED RODS: SEE CONTRACT DRAWINGS
 - B. HEX NUTS: ASTM A 29
 - C. HARDENED STEEL WASHERS: F436
3. REMOVE LOOSE RUST, LOOSE MILL SCALE, AND PATTER, SLAG, OR FLUX DEPOSITS PRIOR TO PLACEMENT OF ANCHOR CAGE.

CONCRETE MIXTURES, GENERAL:

1. PREPARE DESIGN MIXTURES FOR EACH TYPE AND STRENGTH OF CONCRETE, PROPORTIONED ON THE BASIS OF LABORATORY TRIAL MIXTURE OR FIELD TEST DATA, OR BOTH, ACCORDING TO ACT 301.
 - A. USE A QUALIFIED INDEPENDENT TESTING AGENCY FOR PREPARING AND REPORTING PROPOSED MIXTURE DESIGNS BASED ON LABORATORY TRIAL MIXTURES.
 - B. CONCRETE DESIGN MIX SHALL TEST 15% HIGHER THAN SPECIFIED REQUIREMENTS.
2. ADMIXTURES: USE ADMIXTURES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - A. USE WATER-REDUCING HIGH-RANGE WATER-REDUCING OR PLASTICIZING ADMIXTURE IN CONCRETE, AS REQUIRED, FOR PLACEMENT AND WORKABILITY.
 - B. USE WATER-REDUCING AND RETARDING ADMIXTURE WHEN REQUIRED BY HIGH TEMPERATURES, LOW HUMIDITY, OR OTHER ADVERSE PLACEMENT CONDITIONS
 - C. USE WATER-REDUCING ADMIXTURE IN PUMPED CONCRETE AND CONCRETE WITH A WATER-CEMENTITIOUS MATERIALS RATIO BELOW 0.44.
 - D. USE CORROSION-INHIBITING ADMIXTURE IN CONCRETE MIXTURES WHERE INDICATED.



JUL 01 2008

FACILITY: PRAIRIEWINDS
 LOCATION/UNIT: 441-MINOT WIND2
 BASIN NUMBER: 441-CC-000-0002

Larson Engineering Inc
 1488 Bond Street, Suite 100
 Hope, MN 55303
 Phone: 763-350-5252
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 License No. 184-001442
 ETL Comm. No. 21090140.000

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WIND TURBINE FOUNDATION SPECIFICATIONS

MINOT WIND 2 WIND FARM

LOCATION - MINOT, ND

DRAWN BY: RMT
 CHECKED BY: RMT
 DATE: 06-30-08
501

EMBEDDED ITEMS:

1. PLACE AND SECURE ANCHORAGE DEVICES AND OTHER EMBEDDED ITEMS REQUIRED FOR ADJOINING WORK THAT IS ATTACHED TO OR SUPPORTED BY CAST-IN-PLACE CONCRETE. USE SETTING DRAWINGS, TEMPLATES, DIAGRAMS, INSTRUCTIONS, AND DIRECTIONS FURNISHED WITH ITEMS TO BE EMBEDDED.
2. ANCHOR BOLTS ARE TO BE LOCATED WITHIN ± 1/16". ANCHOR BOLT TEMPLATES MUST BE USED AT THE TOP AND BOTTOM OF THE BOLTS FOR PROPER INSTALLATION AND TO MEET THE REQUIRED INSTALLATION TOLERANCES. THE ANCHOR BOLTS ARE NOT TO BE IN CONTACT WITH ANY WIRE TIES OR FOUNDATION REINFORCEMENT BARS.
- A. THE THREADED PORTIONS OF ALL ANCHOR BOLTS ARE TO BE PROTECTED AGAINST GETTING CONCRETE ON THEM PRIOR TO CONCRETE POURING.
- B. ANCHOR BOLTS MUST BE FREE TO ELONGATE OVER THE ENTIRE SHANK LENGTH, NO BOND WITH ANY CONCRETE IS ALLOWED.
- C. ALL ANCHOR BOLTS MUST BE TENSIONED TO THE FORCE SHOWN ON THE CONTRACT DOCUMENTS.
1. PRIOR TO TENSIONING EACH BOLT SHALL BE SNUGGLED UP USING 100 FT.-LB OF TORQUE.
- D. ANCHOR BOLTS SHALL BE PROTECTED AGAINST CORROSION AND FREE FROM RUST PRIOR TO AND IMMEDIATELY AFTER INSTALLATION.

STEEL REINFORCEMENT:

1. GENERAL: COMPLY WITH CRISIS "MANUAL OF STANDARD PRACTICE" FOR PLACING REINFORCEMENT.
2. CLEAN REINFORCEMENT OF LOOSE RUST AND MILL SCALE, EARTH, ICE, AND OTHER FOREIGN MATERIALS THAT WOULD REDUCE BOND TO CONCRETE.
3. ACCURATELY POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. LOCATE AND SUPPORT REINFORCEMENT WITH BAR SUPPORTS TO MAINTAIN MINIMUM CONCRETE COVER. DO NOT TACK WELD CROSSING REINFORCING BARS.
- A. WELDING OF REINFORCING BARS SHALL NOT BE PERMITTED.
4. SET WIRE TIES WITH ENDS DIRECTED INTO CONCRETE, NOT TOWARD EXPOSED CONCRETE SURFACES.

1. BEFORE PLACING CONCRETE, VERIFY THAT INSTALLATION OF FORMWORK, REINFORCEMENT, AND EMBEDDED ITEMS IS COMPLETE AND THAT REQUIRED INSPECTIONS HAVE BEEN PERFORMED.
2. DO NOT ADD WATER TO CONCRETE DURING DELIVERY. AT PROJECT SITE, OR DURING PLACEMENT UNLESS APPROVED BY ENGINEER.
3. DEPOSIT CONCRETE CONTINUOUSLY IN ONE LAYER OR IN HORIZONTAL LAYERS OF SUCH THICKNESS THAT NO NEW CONCRETE WILL BE PLACED ON CONCRETE THAT HAS HARDENED ENOUGH TO CAUSE SEAMS OR PLANES OF WEAKNESS.
- A. DEPOSIT CONCRETE TO AVOID SEGREGATION.
- B. DEPOSIT CONCRETE IN HORIZONTAL LAYERS OF DEPTH TO NOT EXCEED FORMWORK DESIGN PRESSURES AND IN A MANNER TO AVOID INCLINED CONSTRUCTION JOINTS.
- C. CONSOLIDATE PLACED CONCRETE WITH MECHANICAL VIBRATING EQUIPMENT ACCORDING TO ACI 301.
- D. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE INSIDE FORMS. INSERT AND WITHDRAW VIBRATORS VERTICALLY AT UNIFORM, SPACED LOCATIONS TO RAPIDLY PENETRATE PLACED LAYER AND AT LEAST 6 INCHES (150 MM) INTO PRECEDING LAYER. DO NOT INSERT VIBRATORS INTO LOWER LAYERS OF CONCRETE THAT HAVE BEGUN TO LOSE PLASTICITY. AT EACH INSERTION, LIMIT DURATION OF VIBRATION TO TIME NECESSARY TO CONSOLIDATE CONCRETE AND COMPLETE EMBEDMENT OF REINFORCEMENT AND OTHER EMBEDDED ITEMS WITHOUT CAUSING MIXTURE CONSTITUENTS TO SEGREGATE.
- E. CONSOLIDATE CONCRETE DURING PLACEMENT OPERATIONS SO CONCRETE IS THOROUGHLY WORKED AROUND REINFORCEMENT AND OTHER EMBEDDED ITEMS AND INTO CORNERS.
- F. MAINTAIN REINFORCEMENT IN POSITION ON CHAIRS DURING CONCRETE PLACEMENT.

CONCRETE PLACEMENT:

- G. SCREEN SLAB SURFACES WITH A STRAIGHTEDGE AND STRIKE OFF TO CORRECT ELEVATIONS.
- H. BEGIN INITIAL FLOATING USING BULL FLOATS OR DARBIES TO FORM A UNIFORM AND OPEN-TEXTURED SURFACE PLANE. BEFORE EXCESS BLEED WATER APPEARS ON THE SURFACE. DO NOT FURTHER DISTURB SLAB SURFACES BEFORE STARTING FINISHING OPERATIONS.
4. COLD-WEATHER PLACEMENT: COMPLY WITH ACI 306.1 AND AS FOLLOWS. PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS, OR LOW TEMPERATURES.
- A. WHEN AVERAGE HIGH AND LOW TEMPERATURES IS EXPECTED TO FALL BELOW 40 DEG F (4.4 DEG C) FOR THREE SUCCESSIVE DAYS, MAINTAIN DELIVERED CONCRETE MIXTURE TEMPERATURE WITHIN THE TEMPERATURE RANGE REQUIRED BY ACI 301.
- B. DO NOT USE FROZEN MATERIALS OR MATERIALS CONTAINING ICE OR SNOW. DO NOT PLACE CONCRETE ON FROZEN SURFACES.
- C. DO NOT USE CALCIUM CHLORIDE, SALT, OR OTHER MATERIALS CONTAINING ANTI-FREEZE AGENTS OR CHEMICAL ACCELERATORS UNLESS OTHERWISE SPECIFIED AND APPROVED IN MIXTURE DESIGNS.
5. HOT-WEATHER PLACEMENT: COMPLY WITH ACI 301 AND AS FOLLOWS:
- A. MAINTAIN CONCRETE TEMPERATURE BELOW 90 DEG F (32 DEG C) AT TIME OF PLACEMENT. CHILLED MIXING WATER OR CHOPPED ICE MAY BE USED TO CONTROL TEMPERATURE. PROVIDED WATER EQUIVALENT OF ICE IS CALCULATED TO TOTAL AMOUNT OF MIXING WATER. USING LIQUID NITROGEN TO COOL CONCRETE IS CONTRACTOR'S OPTION.
- B. FOG-SPRAY FORMS, STEEL REINFORCEMENT, AND SUBGRADE JUST BEFORE PLACING CONCRETE. KEEP SUBGRADE UNIFORMLY MOIST WITHOUT STANDING WATER, SOFT SPOTS, OR DRY AREAS.

CONCRETE PROTECTING AND CURING:

1. GENERAL: PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. COMPLY WITH ACI 306.1 FOR HOT-WEATHER PROTECTION DURING CURING.
2. EVAPORATION RETARDER: APPLY EVAPORATION RETARDER TO UNFORMED CONCRETE SURFACES IF HOT, DRY, OR WINDY CONDITIONS CAUSE MOISTURE LOSS APPROXIMATELY 0.2 LB/SQ FT. X H (1 KG/SQ. M X H) BEFORE AND DURING FINISHING OPERATIONS. APPLY ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AFTER PLACING, SCREEDING, AND BULL FLOATING OR DABBING CONCRETE. BUT BEFORE FLOAT FINISHING.
3. FORMED SURFACES: IF FORMS REMAIN DURING CURING PERIOD, MOIST CURE AFTER LOOSENING FORMS. IF REMOVING FORMS BEFORE END OF CURING PERIOD, CONTINUE CURING FOR THE REMAINDER OF THE CURING PERIOD.
4. UNFORMED SURFACES: BEGIN CURING IMMEDIATELY AFTER FINISHING CONCRETE. CURE UNFORMED SURFACES.
5. CURE CONCRETE ACCORDING TO ACI 308. BY ONE OR A COMBINATION OF THE FOLLOWING METHODS:
- A. MOISTURE CURING: KEEP SURFACES CONTINUOUSLY MOIST FOR NOT LESS THAN SEVEN DAYS WITH THE FOLLOWING MATERIALS:
 1. WATER.
 2. CONTINUOUS WATER-FOG SPRAY.
 3. ABSORPTIVE COVER, WATER SATURATED, AND KEPT CONTINUOUSLY WET. COVER CONCRETE SURFACES AND EDGES WITH 12-INCH (300-MM) LAP OVER ADJACENT ABSORPTIVE COVERS.
- B. MOISTURE-RETAINING-COVER CURING: COVER CONCRETE SURFACES WITH MOISTURE-RETAINING COVER FOR CURING CONCRETE. PLACED IN WIDEST PRACTICABLE WIDTH, WITH SIDES AND ENDS LAPPED AT LEAST 12 INCHES (300 MM), AND SEALED BY WATERPROOF TAPE OR ADHESIVE. CURE FOR NOT LESS THAN SEVEN DAYS. IMMEDIATELY REPAIR ANY HOLES OR TEARS DURING CURING PERIOD USING COVER MATERIAL AND WATERPROOF TAPE.

CONCRETE PROTECTING AND CURING:

1. MOISTURE CURE OR USE MOISTURE-RETAINING COVERS TO CURE CONCRETE SURFACES TO RECEIVE FLOOR COVERINGS.
2. MOISTURE CURE OR USE MOISTURE-RETAINING COVERS TO CURE CONCRETE SURFACES TO RECEIVE PENETRATING LIQUID FLOOR TREATMENTS.
3. CURE CONCRETE SURFACES TO RECEIVE FLOOR COVERINGS WITH EITHER A MOISTURE-RETAINING COVER OR A CURING COMPOUND THAT THE MANUFACTURER CERTIFIES WILL NOT INTERFERE WITH BONDING OF FLOOR COVERING USED ON PROJECT.
- C. CURING COMPOUND: APPLY UNIFORMLY IN CONTINUOUS OPERATION BY POWER SPRAY OR ROLLER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. RECOAT AREAS SUBJECTED TO HEAVY RAINFALL WITHIN THREE HOURS AFTER INITIAL APPLICATION. MAINTAIN CONTINUITY OF COATING AND REPAIR DAMAGE DURING CURING PERIOD.
1. AFTER CURING PERIOD HAS ELAPSED, REMOVE CURING COMPOUND WITHOUT DAMAGING CONCRETE SURFACES BY METHOD RECOMMENDED BY CURING COMPOUND MANUFACTURER UNLESS MANUFACTURER CERTIFIES CURING COMPOUND WILL NOT INTERFERE WITH BONDING OF FLOOR COVERING USED ON PROJECT.

FIELD QUALITY CONTROL:

1. TESTING AND INSPECTING: CONSTRUCTION MANAGER WILL ENGAGE A QUALIFIED TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS.
- A. TESTING AGENCY WILL CONDUCT AND INTERPRET TESTS AND STATE IN EACH REPORT WHETHER TESTED COMPLEES WITH OR DEVIATES FROM REQUIREMENTS.
- B. INSPECTIONS:
 1. STEEL REINFORCEMENT PLACEMENT.
 2. ANCHOR BOLTS AND NUTS.
 3. VERIFICATION OF USE OF REQUIRED DESIGN MIXTURE.
 4. CONCRETE PLACEMENT, INCLUDING CONVEYING AND DEPOSITING.
 5. CURING PROCEDURES AND MAINTENANCE OF CURING TEMPERATURE.
- C. CONCRETE TESTS: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
 1. SLUMP: ASTM C 143/C 143M. ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
 2. AIR CONTENT: ASTM C 231, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ASTM C 173/C 173M, PRESSURE METHOD, FOR STRUCTURAL NORMAL WEIGHT CONCRETE. ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
 3. CONCRETE TEMPERATURE: ASTM C 1064/C 1064M. ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F (4.4 DEG C) AND BELOW AND WHEN 80 DEG F (27 DEG C) AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.
 4. UNIT WEIGHT: ASTM C 567, FRESH UNIT WEIGHT OF STRUCTURAL NORMAL WEIGHT CONCRETE. ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
 5. COMPRESSIVE-STRENGTH TESTS: ASTM C 39/C 39M.
 - A. TEST ONE FIELD-CURED SPECIMEN AT 7 DAYS AND ONE SET OF TWO LABORATORY CURED SPECIMENS AT 28 DAYS. A FOURTH LABORATORY CURED SPECIMEN SHALL BE TAKEN AND HELD IN THE EVENT AN ADDITIONAL BREAK TEST IS REQUIRED.

CONCRETE PROTECTING AND CURING:

- B. A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM A SET OF TWO SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED.
6. STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI (3.4 MPa).
7. TEST RESULTS SHALL BE REPORTED IN WRITING TO ENGINEER, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIXTURE PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7- AND 28-DAY TESTS.
8. NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BY ENGINEER BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF CONCRETE.
9. ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ENGINEER. TESTING AND INSPECTING AGENCY MAY CONDUCT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLIING WITH ASTM C 42/C 42M OR BY OTHER METHODS AS DIRECTED BY ENGINEER.
10. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.
11. CORRECT DEFICIENCIES IN THE WORK THAT TEST REPORTS AND INSPECTIONS INDICATE DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS.
- D. PRE-TENSIONING OF ANCHOR BOLTS SHALL BE WITNESSED BY AN INDEPENDENT TESTING AGENCY.
- E. CORRECT DEFICIENCIES IN OR REMOVE AND REPLACE STRUCTURAL STEEL THAT INSPECTIONS AND TEST REPORTS INDICATE DO NOT COMPLY WITH SPECIFIED REQUIREMENTS.
- F. ADDITIONAL TESTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF CORRECTED WORK WITH SPECIFIED REQUIREMENTS.

ISSUED FOR CONSTRUCTION

FACILITY: PRAIRIEWINDS
 LOCATION/UNIT: 441-MINOT WIND2
 BASIN NUMBER: 441-CC-000-0003



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DRAWN BY: RWR CHECKED BY: RWF DATE: 07-14-08	MINOT WIND 2 WIND FARM	WIND TURBINE FOUNDATION SPECIFICATIONS		561862	<table border="1"> <thead> <tr> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ISSUE FOR CONSTRUCTION</td> <td>07-14-08</td> </tr> </tbody> </table>	NO.	REVISION	DATE	0	ISSUE FOR CONSTRUCTION	07-14-08
NO.	REVISION	DATE									
0	ISSUE FOR CONSTRUCTION	07-14-08									

LOCATION - MINOT, ND

SOIA

GENERAL STRUCTURAL NOTES

BUILDING CODES USED FOR DESIGN

1. INTERNATIONAL BUILDING CODE, 2006 EDITION

DESIGN LOADS

UNFACTORED SERVICE GE 37c LOADS DUE TO TILTING (SOIL & STABILITY CHECK):
 OVERTURNING MOMENT: $M_{res} = 25,747$ ft-kips = $34,907$ kN-m
 HORIZONTAL BASE SHEAR: $F_{res} = 117.5$ kips = 523 kN
 VERTICAL TOWER LOAD: $F_z = 414.7$ kips = 1845 kN

SEISMIC DESIGN CRITERIA:

USGS MAPPED SPECTRAL RESPONSE ACCELERATION:
 $S_s = 7.8\%$
 $S_1 = 2.3\%$
 IMPORTANCE FACTOR = 1.25
 SOIL SITE CLASS D
 $S_Ds = 0.09$
 $S_{D1} = 0.04$
 SEISMIC DESIGN CATEGORY A

SOIL LOADS:
 ALLOWABLE SOIL BEARING PRESSURE:
 EXTREME LOADING - 5,000 PSF

CONCRETE

1. ALL CONCRETE WORK INCLUDING FORMING, REINFORCING, MIXING, PLACING AND CURING SHALL BE IN ACCORDANCE WITH THE ACT MANUAL OF CONCRETE PRACTICE INCLUDING "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318 AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE," ACI 301.
2. ALL CONCRETE SHALL ATTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH GIVEN BELOW AT 28 DAYS.
 3. ALL GROUT SHALL BE MIXED AND PLACED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SHALL DEVELOP 8,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. GROUT SHALL DEVELOP MINIMUM 7,000 PSI COMPRESSIVE STRENGTH PRIOR TO TENSIONING ANCHOR BOLTS.
 4. CONCRETE SHALL BE VIBRATED INTO FORMS WHILE PLACING, WITHOUT OVER-VIBRATING. REINFORCING SHALL BE PROTECTED BY CONCRETE OF THICKNESS AS FOLLOWS:
 - 3" CONCRETE CAST AGAINST EARTH
 - 2" BOTH FACES OTHER FOUNDATIONS
 - 2" EXPOSED EXTERIOR CONCRETE
 5. COORDINATE CONCRETE WORK WITH THAT OF OTHER TRADES TO ALLOW FOR SETTING OF SLEEVES, ACCESSORIES, ETC.
 6. ALL ANCHOR RODS SHALL BE IN PLACE PRIOR TO POURING OF CONCRETE. PROVIDE WILLIAMS ENDCAP OR EQUIVALENT TO PREVENT MOISTURE AND DEBRIS FROM ENTERING ANCHOR BOLT SLEEVE. ENDS OF ANCHOR RODS SHALL BE WRAPPED WITH TAPE WHERE THEY ARE EXPOSED TO ISOLATE THEM FROM CONTACT WITH GROUT.
 7. PREPARE DESIGN MIXTURES FOR EACH TYPE AND STRENGTH OF CONCRETE, PROPORTIONED ON THE BASIS OF LABORATORY TEST DATA ACCORDING TO ACI 301.
 1. USE A QUALIFIED INDEPENDENT TESTING AGENCY FOR PREPARING AND REPORTING PROPOSED MIXTURE DESIGNS BASED ON LABORATORY TRIAL MIXTURES.
 2. CONCRETE DESIGN MIX SHALL TEST 15% HIGHER THAN SPECIFIED REQUIREMENTS.
 8. CONCRETE FOR FOOTINGS, COMPRESSIVE STRENGTH, WHEN TESTED IN ACCORDANCE WITH ASTM C 39/C 39M AT 28 DAYS: 5,000 PSI. CONCRETE WEIGHT: NORMAL (148 LBS. PER CUBIC FOOT) CEMENT CONTENT: MINIMUM 520 LB** PER CUBIC YARD. WATER-CEMENT RATIO: MAXIMUM 44 PERCENT BY WEIGHT. TOTAL AIR CONTENT: 5-1/2 PERCENT, ± 1.3%, PER ASTM C 173. MAXIMUM SLUMP: 4 INCHES. PLUS OR MINUS 1 INCH. MAXIMUM AGGREGATE SIZE: 1-1/2 INCH. SIZES SHALL BE WELL GRADED INCLUDING SIZES UP TO 1-1/2 INCH. 3% MIN OF TOTAL AGGREGATE. WATER REDUCING AGENT REQUIRED. ** UP TO 20% OF TOTAL CEMENT CONTENT MAY BE SUBSTITUTED WITH CLASS C OR F FLYASH.
 9. CONCRETE FOR PEDESTALS, COMPRESSIVE STRENGTH, WHEN TESTED IN ACCORDANCE WITH ASTM C 39/C 39M AT 28 DAYS: 5,000 PSI. CONCRETE WEIGHT: NORMAL (148 LBS. PER CUBIC FOOT) CEMENT CONTENT: MINIMUM 520 LB** PER CUBIC YARD. WATER-CEMENT RATIO: MAXIMUM 44 PERCENT BY WEIGHT. TOTAL AIR CONTENT: 5-1/2 PERCENT, ± 1.3%, PER ASTM C 173. MAXIMUM SLUMP: 4 INCHES. PLUS OR MINUS 1 INCH. MAXIMUM AGGREGATE SIZE: 1-1/2 INCH. SIZES SHALL BE WELL GRADED INCLUDING SIZES UP TO 1-1/2 INCH. 3% MIN OF TOTAL AGGREGATE. WATER REDUCING AGENT REQUIRED. ** UP TO 20% OF TOTAL CEMENT CONTENT MAY BE SUBSTITUTED WITH CLASS C OR F FLYASH.

ENGINEERED FILL

1. SUITABLE STRUCTURAL BACKFILL MATERIALS SHALL BE OF A NATURE THAT WILL COMPACT AND DEVELOP A STABILITY SATISFACTORY TO THE GEOTECHNICAL ENGINEER. SUCH MATERIALS SHALL NOT CONTAIN FROZEN MATERIAL OR ANY MATERIAL WHICH, BY DECAY OR OTHERWISE, MIGHT CAUSE SETTLEMENT.
2. IF ON SITE BACKFILL IS DEEMED UNSUITABLE, PROVIDE A COARSE AGGREGATE THAT COMPLES WITH ASTM-D2487 SOIL CLASSIFICATION GROUP GW. MAXIMUM AGGREGATE SIZE 1 1/2"
3. COMPACT BACKFILL TO STANDARD PROCTOR DENSITY OF 95%.

NEW CONSTRUCTION

1. THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS.
2. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE CONSTRUCTED TO APPLY AT ANY SIMILAR CONDITION ELSEWHERE ON THE JOB EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN.
3. CONTRACTOR SHALL PROVIDE ALL TEMPORARY SHORING AND FORM-WORK REQUIRED DURING CONSTRUCTION.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT ALL ITEMS IN FULL ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS. ANY VARIANCE MUST HAVE WRITTEN APPROVAL BY THE ENGINEER.
5. IF A DISCREPANCY EXISTS BETWEEN THE DETAILS ON S02 AND S03 AND SPECIFICATION SHEET S01, THE DETAILS ON S02 AND S03 SHALL GOVERN.

REINFORCING STEEL

1. THE REINFORCING STEEL CONTRACTOR SHALL FABRICATE ALL REINFORCEMENT AND FURNISH ACCESSORIES, CHAIRS, SPACER BARS AND SUPPORTS NECESSARY TO SECURE THE REINFORCEMENT UNLESS SHOWN OTHERWISE ON THE PLANS AND/OR DETAILS.
2. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
3. CONCRETE REINFORCEMENT SHALL BE PLACED ACCORDING TO CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCEMENT BARS."
4. ALL REINFORCEMENT SPLICES SHALL BE LAPPED AS CLASS B SPLICES PER ACI 318 UNLESS OTHERWISE NOTED.

TESTING:

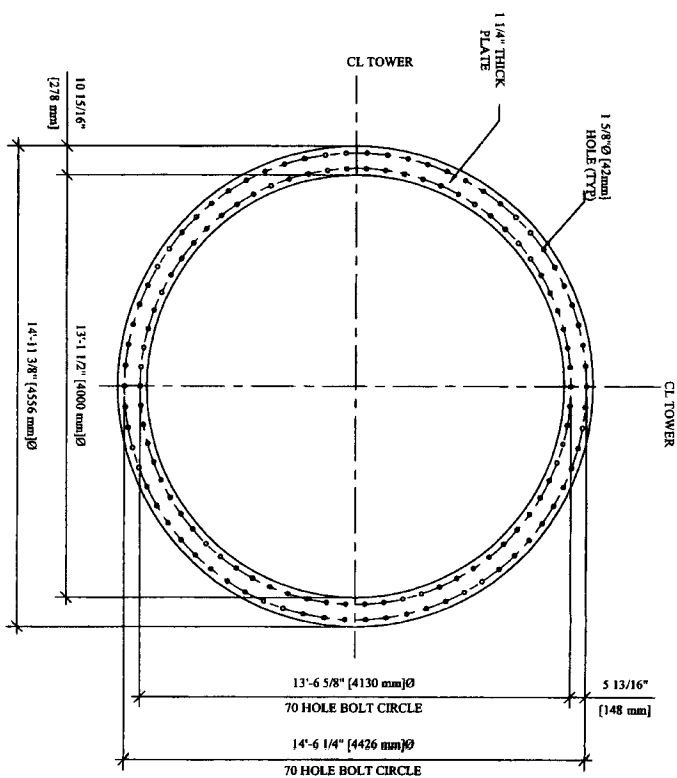
1. CONCRETE CYLINDER COMPRESSION TESTS SHALL BE PERFORMED BY THE EPC FIRMS INDEPENDENT TESTING AGENCY. SEVEN (7) SETS OF FOUR (4) EACH 6"x12" CONCRETE CYLINDERS PER FOUNDATION INCLUDING FIBER SHALL BE PREPARED AND TESTED.
2. TOWER BASE GROUT CUBE TESTS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY. FIVE (5) SETS OF THREE (3) EACH 2"x2" GROUT CUBES PER TOWER SHALL BE PREPARED AND TESTED.
3. ANCHOR BOLT TENSION AND PRELOAD SHALL BE CERTIFIED FOR 100% OF THE TOTAL BOLTS PER TOWER BY AN INDEPENDENT TESTING AGENCY. THE DIRECT TENSION METHOD SHALL BE UTILIZED FOR THE ANCHOR BOLTS. ACTUAL TENSIONING OF THE ANCHOR BOLTS SHALL BE DONE BY THE FOUNDATION CONTRACTOR. A TECHNICIAN FROM THE INDEPENDENT TESTING AGENCY WILL OBSERVE AND DOCUMENT THAT THE ANCHOR BOLT TENSIONING IS SATISFACTORY. THE CONTRACTOR SHALL DOCUMENT BOTH THE JACK PRESSURE AND THE BOLT ELONGATION.

WIND TURBINE AND TOWER:

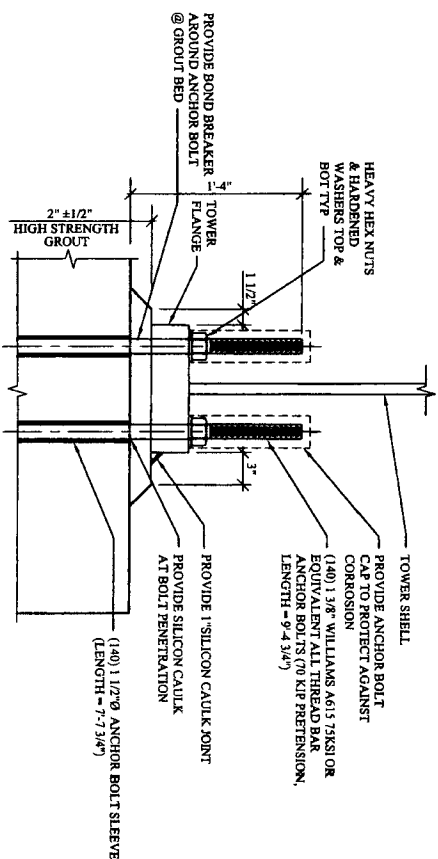
MANUFACTURER: GE
 MODEL: 1.5 SLE
 POWER OUTPUT: 1.5 MW
 TOWER HUB HEIGHT: 80m
 SITE LOCATION: MINOT, ND

REFERENCE DOCUMENTS:

1. FOUNDATION DATA FOR WIND TURBINE GENERATOR SYSTEM, GE 1.5 SLE, DATED 2007.



1 EMBEDMENT RING DETAIL
 NO SCALE



2 ANCHOR BOLT DETAIL
 NO SCALE

ISSUED FOR CONSTRUCTION

FACILITY: PRAIRIEWINDS
 LOCATION/UNIT: 441-MINOT WIND2
 BASIN NUMBER: 441-CC-000-0003



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JUL 01 2009

DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 DATE: 06-30-09

MINOT WIND 2 WIND FARM

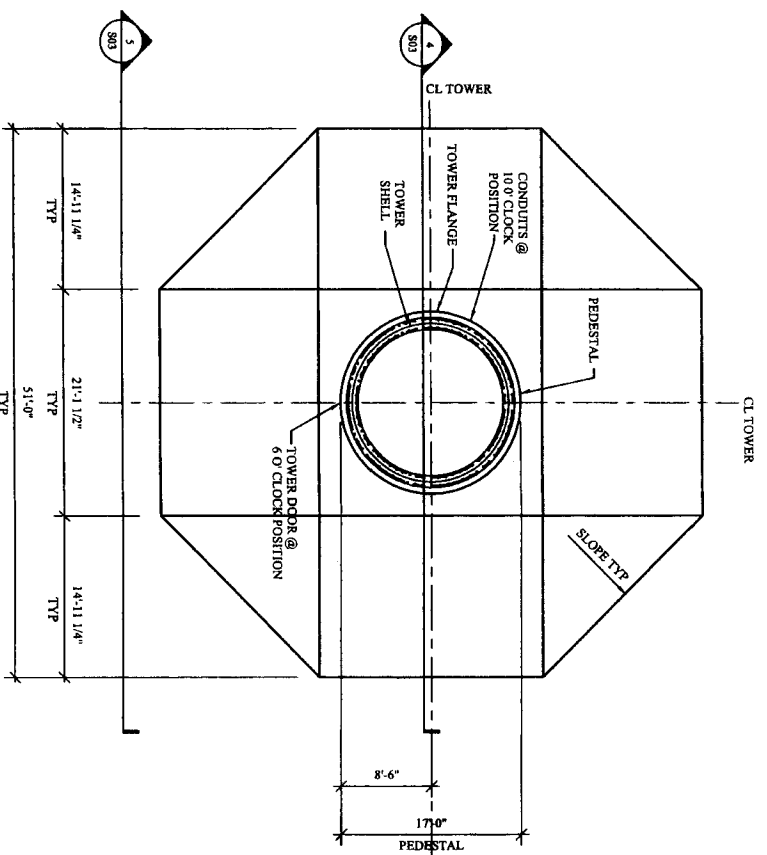
WIND TURBINE FOUNDATION
 GENERAL NOTES

LOCATION - MINOT, ND

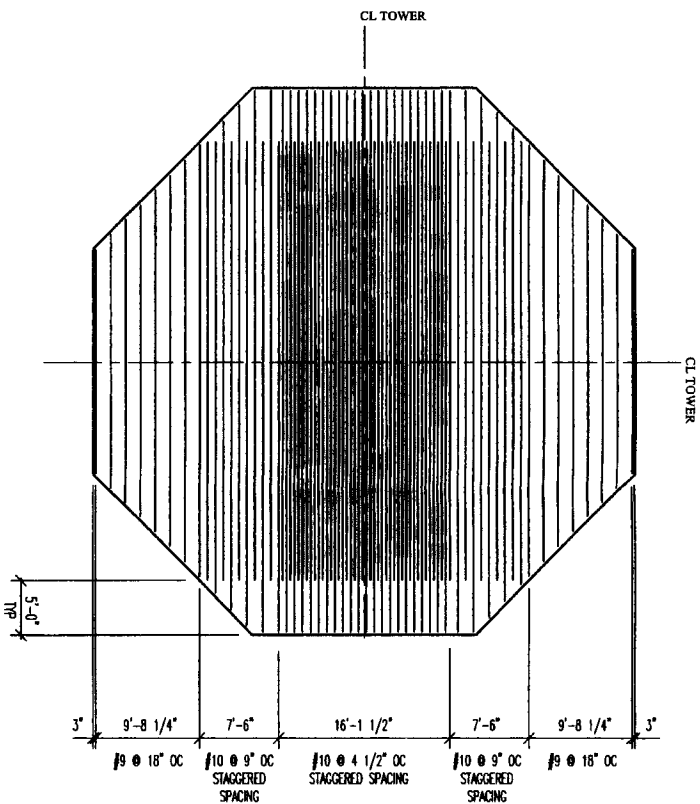


NO.	REVISION	DATE
A	30% DESIGN SUBMITTAL	6-15-09
B	50% DESIGN SUBMITTAL	6-24-09
C	80% DESIGN SUBMITTAL	5-18-09
D	95% DESIGN SUBMITTAL	6-30-09
E	ISSUE FOR CONSTRUCTION	6-30-09

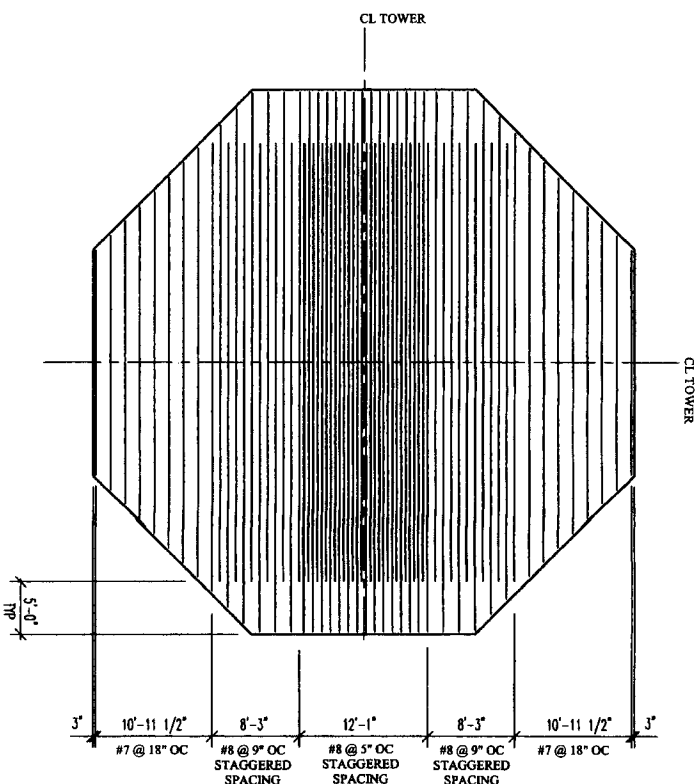
S02



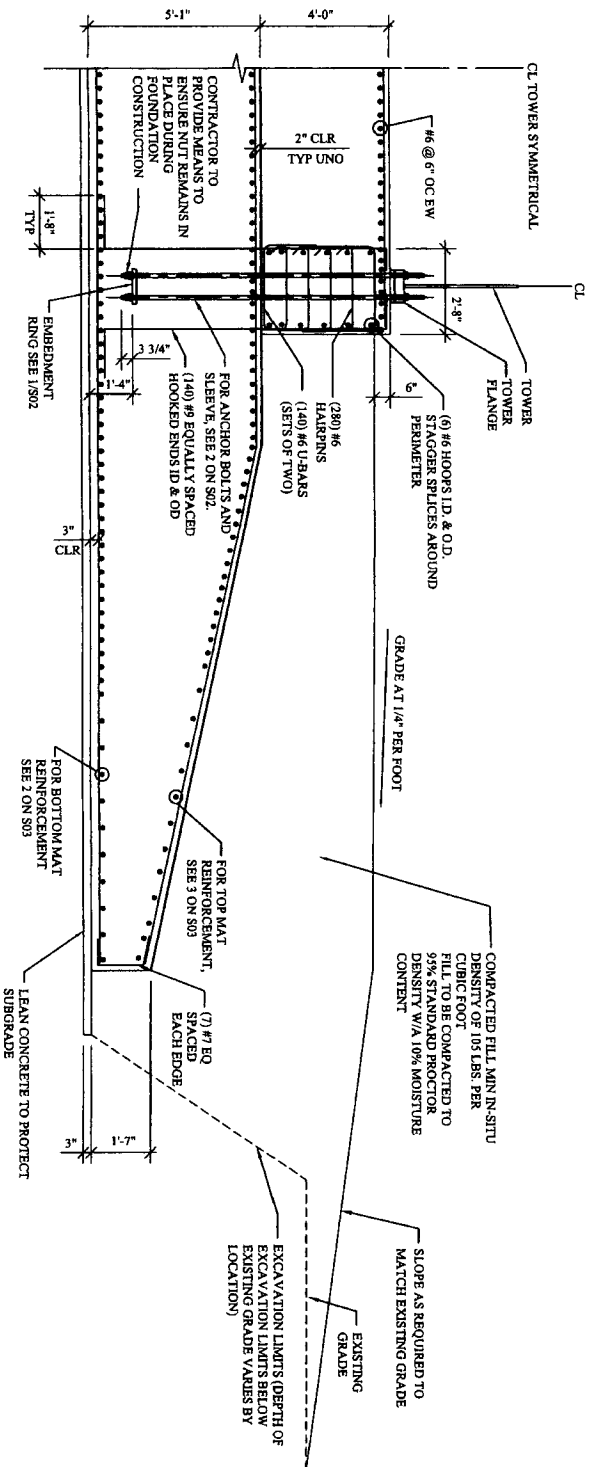
1 PLAN VIEW
NO SCALE



2 BOTTOM MAT REINFORCING PLAN
NO SCALE

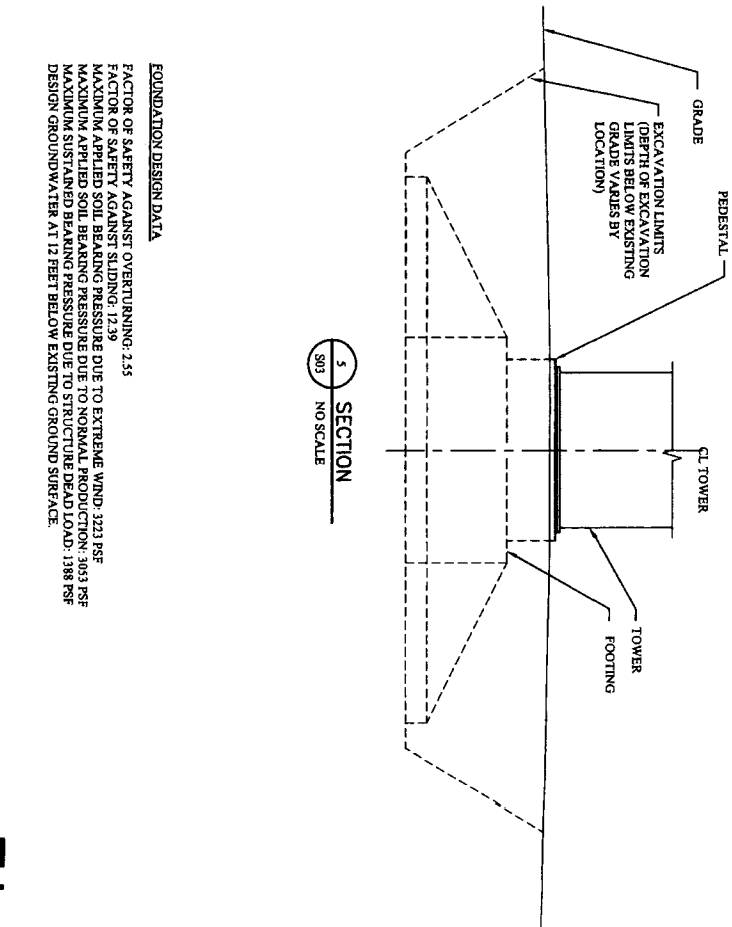


3 TOP MAT REINFORCING PLAN
NO SCALE



4 SECTION
NO SCALE

NOTE: PLACE LEAN CONCRETE ON ACCEPTED SUBGRADE AS SOON AS PRACTICAL TO PREVENT DEGRADATION OF SUB-BASE



5 SECTION
NO SCALE

FOUNDATION DESIGN DATA
 FACTOR OF SAFETY AGAINST OVERTURNING: 2.55
 FACTOR OF SAFETY AGAINST SLIDING: 12.39
 MAXIMUM APPLIED SOIL BEARING PRESSURE DUE TO NORMAL PRODUCTION: 3053 PSF
 MAXIMUM SUSTAINED BEARING PRESSURE DUE TO STRUCTURE DEAD LOAD: 1388 PSF
 DESIGN GROUNDWATER AT 12 FEET BELOW EXISTING GROUND SURFACE.

JUL 01 2009



ISSUED FOR CONSTRUCTION

FACILITY: PRAIRIEWINDS
 LOCATION/UNIT: 441-MINOT WIND2
 BASIN NUMBER: 441-CC-000-0004



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 IEL Comm. No. 21090140/000

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DRAWN BY: RMT
 CHECKED BY: RMT
 DATE: 6/1/09

MINOT WIND 2 WIND FARM

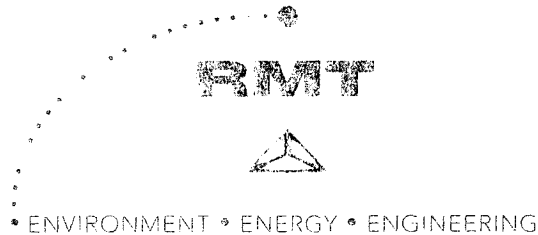
LOCATION - MINOT, ND

WIND TURBINE FOUNDATION
 PLAN AND DETAILS



NO.	REVISION	DATE
A	JOB DESIGN SUBMITTAL	4-15-08
B	BASE DESIGN SUBMITTAL	4-24-08
C	BASE DESIGN SUBMITTAL	5-16-08
D	ISSUE FOR CONSTRUCTION	8-30-08

503



May 13, 2009

Mr. Chad Beggs
North Dakota Department of Transportation
1305 Highway 2
Bypass East
Minot, ND 58701

**Subject: PrairieWinds 1 and Minot Wind 2 Wind Farms, Ward County, North Dakota
Access Road and Crane Walk Crossing Permitting**

Dear Mr. Beggs:

RMT is preparing the design and construction plans for the PrairieWinds 1 and Minot Wind 2 Wind Farms for Basin Electric Power Cooperative (BEPC). The purpose of this letter is to provide information as a follow-up to our meeting on April 22, 2009, regarding permitting the access road and crane walk crossings of STH 23 and U.S. Hwy 83 in Ward County.

We are concurrently submitting a separate permit application package to Mr. Kevin Dahley of the North Dakota Department of Transportation (NDDOT) to address electrical collector crossings of STH 23 and 83.

Attached is a site plan layout showing the proposed locations of the access road and the crane walk crossings. Large wind turbine component deliveries will be delivered from the south. As discussed in our meeting, we located access roads and crane crossings on STH 83 at locations where an access or farm apron already exists.

Permanent access roads will consist of a 16-foot-wide gravel surface. On the basis of a prescribed wind turbine component delivery route from the south, we will need to add a temporary 136-foot radius to access roads at key locations to accommodate long delivery trailers (a detail is attached for temporary intersection widening). After turbine installation, these temporary intersection modifications will be removed, and the area will be restored and re-vegetated.

Crane walks are temporary and consist of a 36-foot-wide path of compacted earth. Where crane walks cross asphalt or concrete roads, heavy matting (timber or steel) is used to protect the road and to distribute the load. As discussed, we plan on moving the crane across STH 83 between 2:00 and 4:00 a.m. to minimize traffic disruption.

The crane will cross at four locations for STH 83 and at one location for STH 23 as noted on the Permitting Site Layout drawing (attached). The crane will cross STH 83 once at each location except the crossing near mile marker 181 (crane crossing #2), which will be crossed twice.

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Mr. Chad Beggs
North Dakota Department of Transportation
May 13, 2009
Page 2

We have prepared a crane crossing sequence for STH 83 crossings, which includes a summary of the construction required and the associated traffic controls (see attached crane Crossing Sequence and Traffic Controls). We request that the crane crossings at STH 83 be performed with restoration in a 1 hour period per 2 lane crossing. Crane crossings of STH 23 are the same, except that we propose crossing STH 23 during daylight hours.

We understand that the NDDOT will review the proposed crossing locations, size the culverts, prepare Permit Form 5918 for each crossing, and coordinate insurance with the property owners. Crossing locations were based on using the existing access aprons and avoiding wetlands. We understand that the NDDOT environmental group will review the access road and crane walk locations. We do not anticipate any work in wetlands located in the right-of-way (ROW).

Erosion controls will follow the NDDOT standard specification requirements. Biodegradable straw wattles will be used to minimize erosion. Dust controls will be used as well. We plan on extending existing culverts and diameters at crossings (with a NDDOT minimum of 24 inches in diameter).

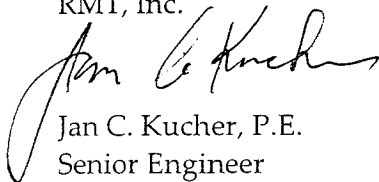
Construction is scheduled to start on June 15, so your expeditious review and approval would be very much appreciated. Per your request, a certificate of liability insurance is also attached.

Please call me if you have any questions or comments. I can be contacted at (608) 662-5121 (office), (608) 358-5215 (cell), or at jan.kucher@rmtinc.com (e-mail).

We appreciate your assistance, and we look forward to working closely with you to complete the PrairieWinds 1 Wind Farm.

Sincerely,

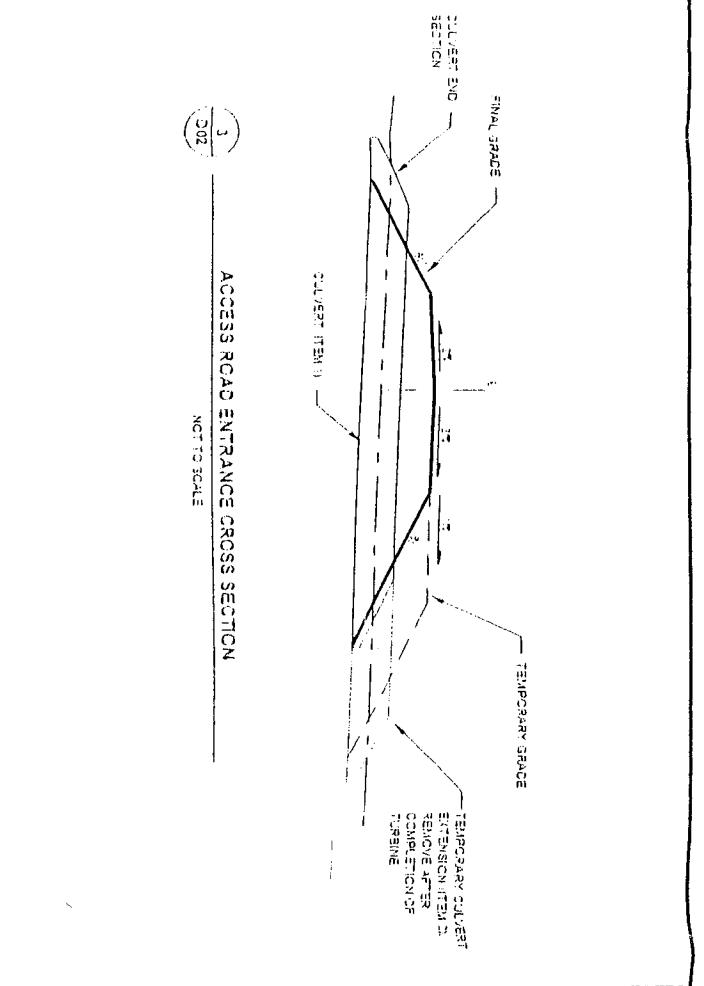
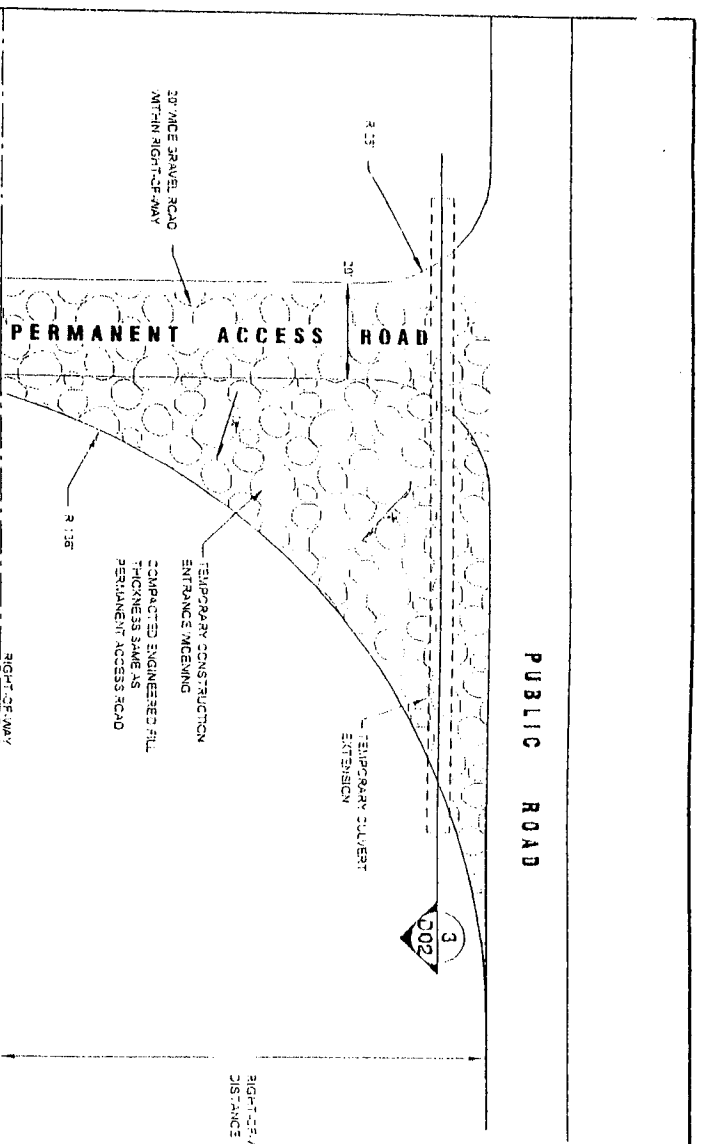
RMT, Inc.



Jan C. Kucher, P.E.
Senior Engineer

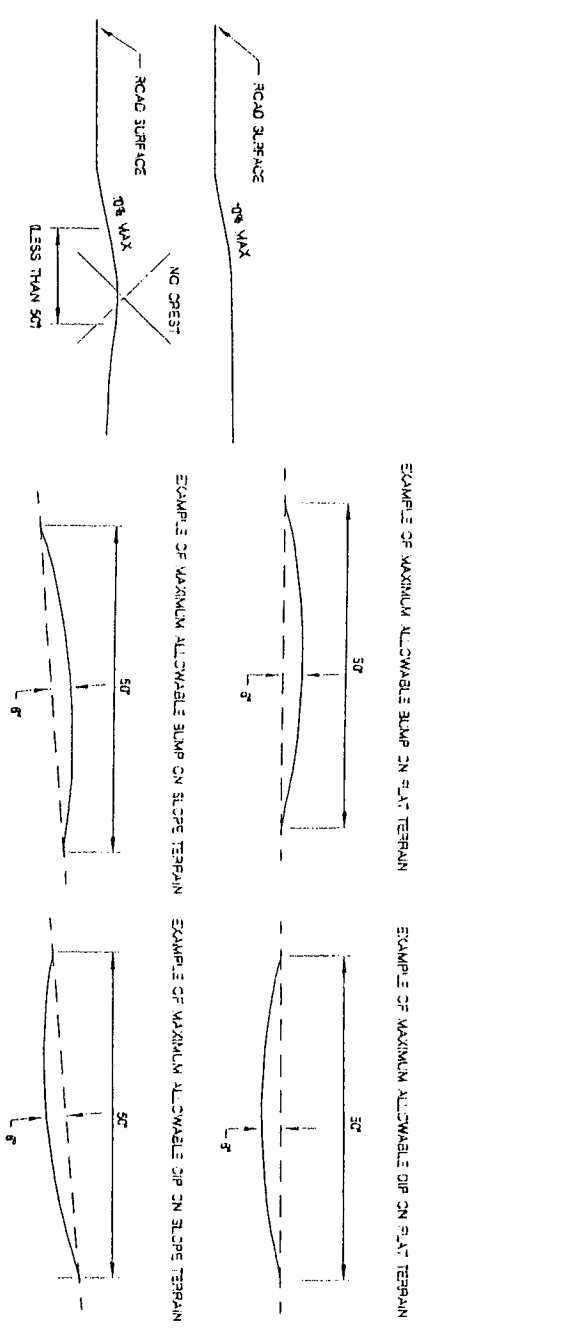
Attachments: Permitting Site Layout
Detail of Temporary Road Widening
Crane Crossing Sequence and Traffic Controls
NDDOT Figure D-704-15
Certificate of Liability Insurance

cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT



1
D02
ACCESS ROAD ENTRANCE
NOT TO SCALE

3
D02
ACCESS ROAD ENTRANCE CROSS SECTION
NOT TO SCALE



2
D02
TYPICAL ACCESS ROAD ALLOWABLE GRADES
NOT TO SCALE

30% ISSUED FOR REVIEW

		AGREEMENT NO. 59482 BASIN ELECTRIC POWER COOPERATIVE A Division of Basin Electric, Inc.
NO.	DATE	BY
3	4/15/2009	SJC (JL) SSS
JOB: 59482 FOR REVIEW		REVISION

CONFIDENTIAL
 These documents are for the use of Basin Electric Power Cooperative, Inc. and its subsidiaries. All information contained herein is confidential and shall remain the property of Basin Electric Power Cooperative, Inc. If it is used for any other purpose, the user shall be held responsible for any and all consequences.

RMV
 244 West 10th St
 Rapid City, SD 57701
 Phone: 605-342-4444
 Fax: 605-342-1211

ITEM	DESCRIPTION
1	CULVERT (SEE DETAIL: ON SHEET D051)
1	TEMPORARY CULVERT EXTENSION (SEE DETAIL: ON SHEET D08)

- NOTES**
- ACCESS ROAD ENTRANCE TO BE 20' WIDE FROM PUBLIC ROAD TO THE RIGHT-OF-WAY LINE THEN TAPERED BACK TO 18' WIDTH.
 - PAVING IS INCHES MINIMUM COVER OVER CULVERT TO FINISHED GRADE.
 - MAINTAIN ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OR SLUING OF SEDIMENT INTO PUBLIC ROAD. REMOVE IMMEDIATELY. EQUIPMENT SHALL BE OPERATED WASHED OR TRACKED ONTO PUBLIC ROAD.
 - NOTIFY PERMITTING AUTHORITY, NOTICED OR WARD COUNTY, PRIOR TO CONSTRUCTION OF ACCESS POINT AS REQUIRED BY PERMIT.
 - FILL OUTSIDE OF PERMANENT ACCESS ROAD LIMITS TO BE REMOVED. CULVERT SHORTENED AND GROUND SURFACE RESTORED TO FINAL GRADE UPON PROJECT COMPLETION.
 - COMPLY WITH INTERSECTION SPECIFIC NOTICED OR WARD COUNTY PERMIT REQUIREMENTS.
 - OBTAIN RIGHT-OF-WAY PERMIT FROM WARD COUNTY HIGHWAY DEPARTMENT OR NOTICED BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 - MODIFY INTERSECTIONS OF NEW ACCESS ROADS AND EXISTING HIGHWAYS TO ACCOMMODATE LONG LOADS BY CONSTRUCTING TEMPORARY BRIDGE ACCESS WITH MINIMUM 18 FT RADII AND SUITABLE CURVES (CLASS AND COVERAGE PER NOTICED OR COUNTY HIGHWAY PERMIT).

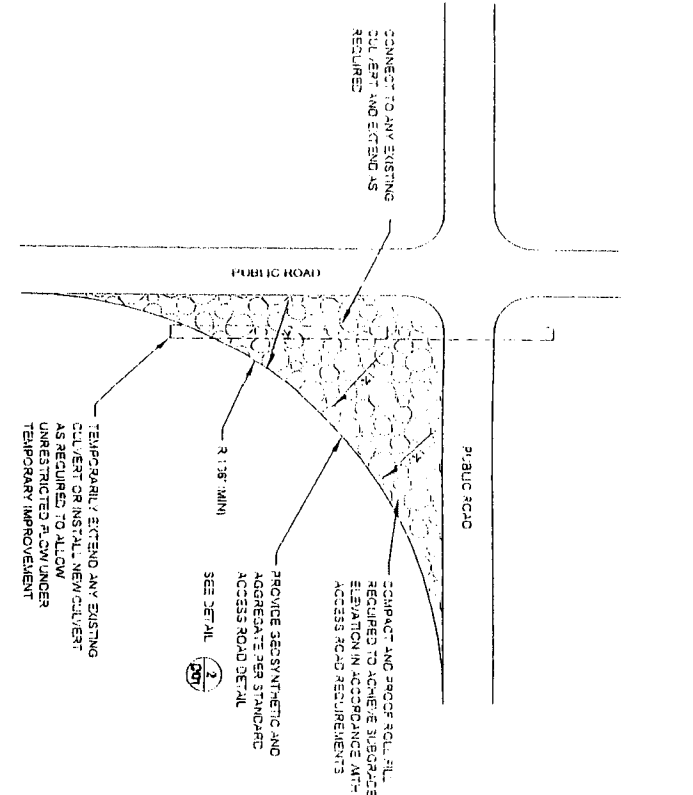
MINOT WIND 2 WIND FARM
 WARD COUNTY, NORTH DAKOTA
 ACCESS ROAD ENTRANCE DETAILS
 SCALE: AS SHOWN
 PLOT NO: 089006
 DWG NO: 089006
 DATE: 04/15/09
 SHEET NO: D02

MATERIAL LIST

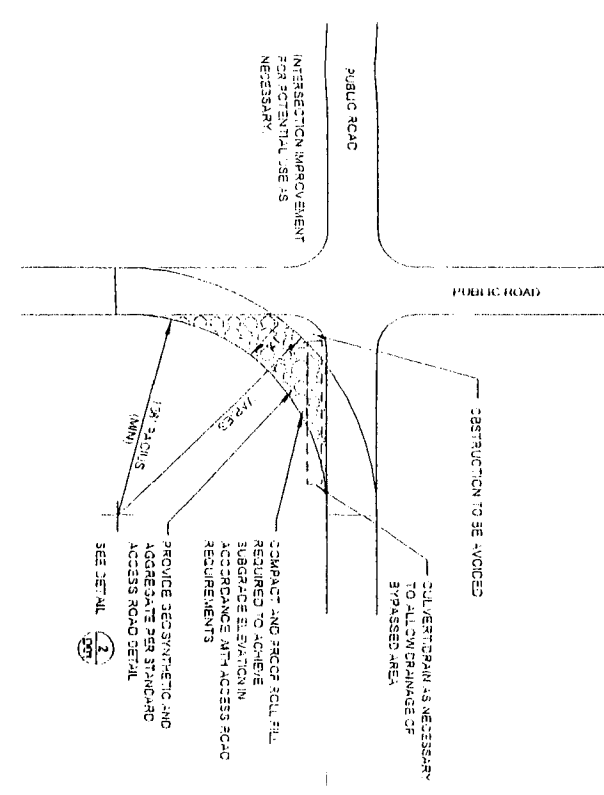
ITEM	DESCRIPTION
1	INTERSECTION IMPROVEMENT AGGREGATE ACCESS ROAD SURFACE COURSE, NOT TYPE 3 AGGREGATE (NODOT SECTION 318)
2	GEOSYNTHETIC TENSAR BX400 GEOTEXT OR ENGINEER APPROVED EQUIVALENT
3	TEMPORARY CULVERT EXTENSION, SEE DETAIL 1 ON SHEET 005
4	TEMPORARY BARRICADES

NOTES

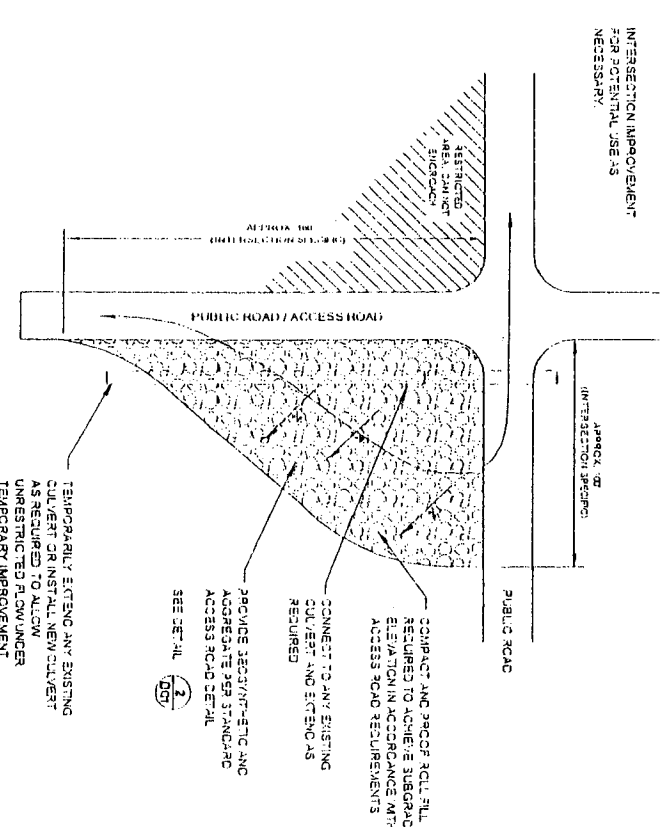
- TEMPORARY IMPROVEMENTS**
1. COMPLY WITH SPECIFIC NODOT OR WARD COUNTY PERMIT REQUIREMENTS.
 2. COMPLY WITH SPECIFIC NODOT AND COUNTY HIGHWAY REQUIREMENTS FOR SIGNAGE REGULATION.
 3. OBTAIN RIGHT-OF-WAY PERMIT FROM COUNTY HIGHWAY DEPARTMENT OR NODOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 4. OBTAIN PERMIT FROM WARD COUNTY OR NODOT BEFORE BEGINNING CULVERT INSTALLATION WITHIN RIGHT-OF-WAY.
 5. REMOVE TOPSOIL BEFORE REPARATION OF SUBGRADE. PROVIDE GEOSYNTHETIC AND AGGREGATE PER STANDARD ACCESS ROAD DETAIL, COMPACT AND PROOF ROLL TEMPORARY ACCESS AREA IN ACCORDANCE WITH STANDARD ACCESS ROAD REQUIREMENTS. (SEE SHEET 001)
 6. PROVIDE TEMPORARY BARRICADES AT PUBLIC ROAD IMPROVEMENT AREAS TO PREVENT USE BY GENERAL PUBLIC.
 7. REMOVE TEMPORARY ACCESS ROAD IMPROVEMENTS AS PART OF FINAL SITE RESTORATION. REMOVE ALL SHORTEN CULVERT AND RESTORE GROUND SURFACE TO ORIGINAL GRADE UPON PROJECT COMPLETION.



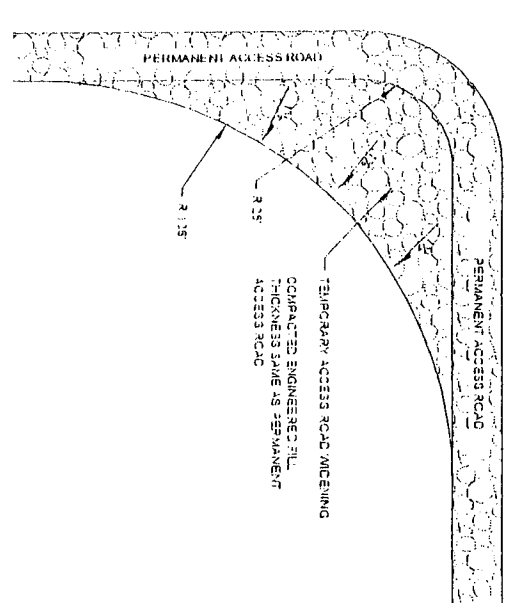
1
D04
TYPICAL PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



2
D04
TYPICAL "CUT-THROUGH" PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



3
D04
TYPICAL "SWING WIDE" PUBLIC ROAD/ACCESS ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



4
D04
TYPICAL INTERIOR ACCESS ROAD WIDENING ALONG 90° CURVES
(NOT TO SCALE)

30% ISSUED FOR REVIEW

AGREEMENT NO. 1898Z

 BASIN ELECTRIC
 POWER COOPERATIVE
 A Not-for-Profit Corporation, N.D.

NO.	DATE	REVISION
1	4/15/2009	30% ISSUED FOR REVIEW
2		
3		
4		
5		
6		
7		
8		
9		
10		

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 These documents are for the use of RMT, Inc. and its employees only. No part of these documents may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of RMT, Inc.

RMT
 744 Main Street
 Bismarck, ND 58101-1934
 P.O. Box 8922 Bismarck, ND 58108-8922
 Phone: 701-221-1144
 Fax: 701-221-1113

MINOT WIND 2 WIND FARM	WARD COUNTY, NORTH DAKOTA
SCALE: AS SHOWN	PROJECT: PUBLIC ROAD/ACCESS ROAD TEMPORARY IMPROVEMENTS
DATE: 4/15/09	DESIGNED BY: [Redacted]
BY: [Redacted]	CHECKED BY: [Redacted]
DATE: 4/15/09	DATE: 4/15/09

PrairieWinds 1 Project

Crane Crossing Sequence and Traffic Controls

Summary

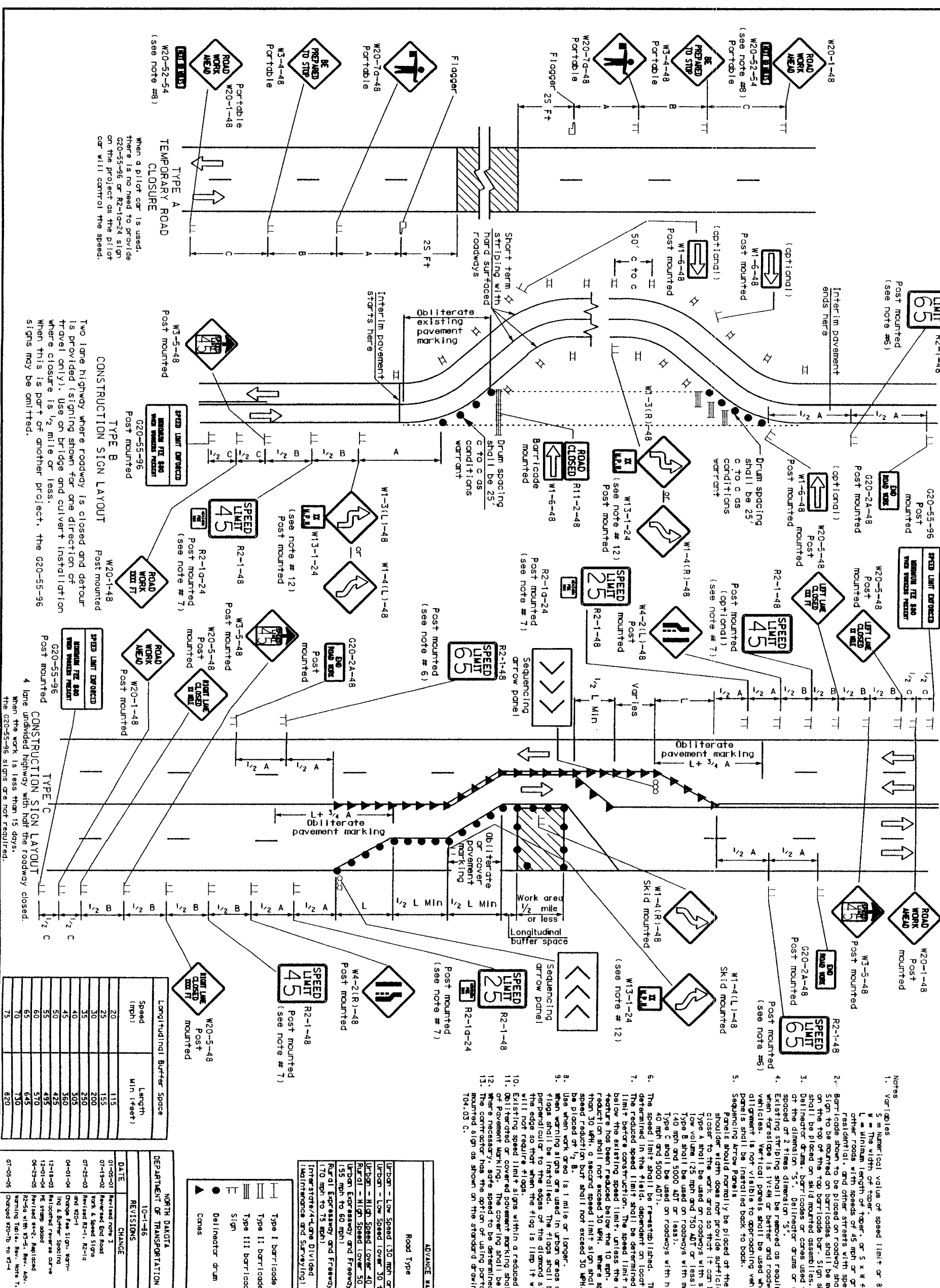
RMT plans to cross U.S. Route 23 and 83 with critical lift cranes during the construction of the PrairieWinds 1 Wind Farm. The crossing of the cranes will be scheduled with the North Dakota Department of Transportation (NDDOT), so as to minimize the amount of time that the northbound and southbound sections of the highway will be closed. Only two lanes in either the northbound or the southbound direction will be closed at one time.

Sequence

Following is a summary of the construction sequence for the crane crossing of STH 23 and 83:

1. RMT will notify the NDDOT, the sheriff, the state police, and the local fire department at least 3 days prior to crane crossing to allow for the NDDOT to publish a lane closure notice. The crane crossing will be planned for between 2:00 and 4:00 a.m.
2. Prior to the crossing all rights-of-way, earthen ramps, temporary culverts, and the widening of the median crossings will have been completed. Additionally, pavement protective steel plating will be staged adjacent to the crossing area.
3. A small crane will be mobilized to the crossing location to facilitate the movement of the steel plates.
4. One hour prior to the actual movement of the crane, temporary signage in accordance with NDDOT criteria, as shown on document D-704-15 "Type A Temporary Road Closure," will be placed along both the northbound and the southbound shoulders at distances as noted. This signage will be key to providing ample warning to motorists.
5. When the crane is in position to cross, the applicable northbound or southbound lanes will be closed utilizing flagmen and vehicles with flashing roof-mounted lights to notify approaching vehicles of the lane closures. We anticipate assistance from the Ward County Sheriff, as well.
6. One-inch-thick steel plates will then be placed on the paved shoulders, paved lanes, and paved median. The crane will then be moved from the right-of-way to the median between the northbound and southbound lanes.
7. Once the crane is in the median and the protective plating has been removed, the closed lanes will be reopened to vehicle traffic and the lanes in the opposite direction will be closed utilizing flagmen and vehicles with flashing roof-mounted lights.
8. The process will be repeated with the placement of protective plates, the movement of the crane, the removal of the protective plates, and the reopening of the vehicle lanes to traffic. The closed traffic lanes will be kept to a minimum, and at no time will both the northbound and the southbound lanes be closed at the same time.

CONSTRUCTION SIGN AND BARRICADE LOCATION DETAILS



- Notes:
1. Variables:
 - S = Numerical value of speed limit or 85th percentile.
 - N = Width of road.
 - L = Minimum length of taper, or S x W for freeways, expressways, and all other roads with speeds of 45 mph or greater, or W x S/60 for urban, residential, and other streets with speeds of 40 mph or less.
 2. Barricade shown to be placed on roadway shall be on a moveable assembly. Sign to be mounted on barricade shall be placed on the sign post on the top of the top of the barricade bar. Sign shown to be placed on roadway shall be placed on skid mounted assemblies.
 3. Delineator drums, barricades or cones used for tapering traffic shall be spaced at 2 times dimension "S".
 4. Existing striping shall be removed as required. Delineators will only be used when for slope is 1V:4H or better and roadway alignment is visible to approaching vehicles. Vertical panels shall be used where roadways has steep slopes and alignment is not visible to approaching vehicles. Delineators and vertical panels shall be installed back to back.
 5. Sequencing Arrow Panels
 - Panel should normally be placed at the beginning of the taper. Where shoulder width does not provide sufficient room, the panel should be moved closer to the work area so that it can be placed on the roadway surface.
 - Type A shall be used on roadways with slow moving traffic speeds and low volume (25 mph and 750 ADT or less).
 - Type B shall be used on roadways with moderate traffic speeds and volumes (40 mph and 5000 ADT or less).
 - Type C shall be used on roadways with high traffic speeds and volumes (over 40 mph and 5000 ADT).
 6. The speed limit shall be re-established. The exact speed limit shall be determined in the field, dependent on location and conditions.
 7. The reduced speed limit shall be determined dependent on the in place speed limit before construction. The speed limit reduction should not exceed 10 mph below the existing speed limit. Unless the design speed of the work zone reduction has been reduced below the 10 mph. In this case, the speed limit reduction shall not exceed 30 mph. Where speed limits are to be reduced more than 30 mph, a second speed limit sign shall be installed with the desired speed reduction but shall not exceed 30 mph. The second speed limit sign shall be placed at 1/2 B.
 8. Use when work area is 1 mile or longer.
 9. When warning signs are used in urban areas and the signs are not portable, flags shall be installed. The flags shall be 24 inches square, mounted perpendicular to the edges of the flag is limp it will not touch the sign. Rural areas will not require flags.
 10. Existing speed limit signs within a reduced speed zone shall be covered.
 11. Obliterated or covered pavement marking shall be paid for as obliteration or pavement marking. The covering shall be approved by the Engineer.
 12. Where necessary, some speed to be determined by the Engineer.
 13. The contractor has the option of using portable sign supports. In lieu of post mounted signs as shown on the standard drawings as specified in section 704.05 C.

Road Type	Distance Between Signs Min. (ft)		
	A	B	C
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40 mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	350	350	350
Rural - High Speed (over 50 mph to 60 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Multi-lane and Surveying)	750	1000	1500

	Work area
	Flagger
	Sequencing arrow panel
	Type A delineator or vertical panel back to back
	Cones

Speed (mph)	Length Min. (feet)
20	115
25	135
30	200
35	250
40	305
45	360
50	425
55	490
60	570
65	645
70	730
75	820

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

10-1-85

REVISIONS:

DATE	CHANGE
01-05-01	Revised note 3
07-15-02	Revised End Road Sign & Speed Signs
07-25-03	Revised R2-1, R2-1a
04-01-04	Change Fee Sign, Kerning & Buffer Spacing
12-18-05	Revised R2-1a, R2-1b, R2-1c, R2-1d, R2-1e, R2-1f, R2-1g, R2-1h, R2-1i, R2-1j, R2-1k, R2-1l, R2-1m, R2-1n, R2-1o, R2-1p, R2-1q, R2-1r, R2-1s, R2-1t, R2-1u, R2-1v, R2-1w, R2-1x, R2-1y, R2-1z, R2-2, R2-3, R2-4, R2-5, R2-6, R2-7, R2-8, R2-9, R2-10, R2-11, R2-12, R2-13, R2-14, R2-15, R2-16, R2-17, R2-18, R2-19, R2-20, R2-21, R2-22, R2-23, R2-24, R2-25, R2-26, R2-27, R2-28, R2-29, R2-30, R2-31, R2-32, R2-33, R2-34, R2-35, R2-36, R2-37, R2-38, R2-39, R2-40, R2-41, R2-42, R2-43, R2-44, R2-45, R2-46, R2-47, R2-48, R2-49, R2-50, R2-51, R2-52, R2-53, R2-54, R2-55, R2-56, R2-57, R2-58, R2-59, R2-60, R2-61, R2-62, R2-63, R2-64, R2-65, R2-66, R2-67, R2-68, R2-69, R2-70, R2-71, R2-72, R2-73, R2-74, R2-75, R2-76, R2-77, R2-78, R2-79, R2-80, R2-81, R2-82, R2-83, R2-84, R2-85, R2-86, R2-87, R2-88, R2-89, R2-90, R2-91, R2-92, R2-93, R2-94, R2-95, R2-96, R2-97, R2-98, R2-99, R2-100

PE-4518.

ON 07/05/05 and the original document is stored at the North Dakota Department of Transportation

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE
7/11/2008

PRODUCER Hays Companies 1000 S Center, Suite 700 100 South 8 th Street Minneapolis, MN 55402		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
PHONE NO. 612-333-3323 FAX NO. 612-373-7270		INSURERS AFFORDING COVERAGE	
INSURED Basin Electric Power Cooperative Dakota Gasification Company Attn: John Frank 1717 East Interstate Ave. Bismarck, ND 58501-0564		INSURER A: Old Republic Insurance Co.	NAIC # 24147
		INSURER B:	
		INSURER C:	
		INSURER D:	
		INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADDL INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A		GENERAL LIABILITY	MWZY57902	07/01/08	07/01/09	EACH OCCURRENCE \$2,000,000
		<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000
		<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person) 10000
						PERSONAL & ADV INJURY \$2,000,000
						GENERAL AGGREGATE \$6,000,000
						PRODUCTS-COMP/OP AGG \$6,000,000
						GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC
		AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT (Ea Accident)
		<input type="checkbox"/> ANY AUTO				BODILY INJURY (Per Person)
		<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per Accident)
		<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per Accident)
		<input type="checkbox"/> HIRED AUTOS				
		<input type="checkbox"/> NON-OWNED AUTOS				
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT
		<input type="checkbox"/> ANY AUTO				OTHER THAN EA ACC
						AUTO ONLY: AGG
		EXCESS/UMBRELLA LIABILITY				EACH OCCURRENCE
		<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE
		<input type="checkbox"/> DEDUCTIBLE				
		<input type="checkbox"/> RETENTION				
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATUTORY LIMITS
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISION BELOW				OTH-ER
		OTHER				E.L. EACH ACCIDENT
						E.L. DISEASE - EA EMPLOYEE
						E.L. DISEASE - POLICY LIMIT

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

State of North Dakota, its agencies, officers, and employees are included as Additional Insureds as respects all permitted activity of Basin Electric Power Cooperative or Dakota Gasification Company. Waiver of Subrogation applies.

CERTIFICATE HOLDER

40.

CANCELLATION

NDDOT
Utilities
608 E. Blvd. Ave.
Bismarck, ND 58505-0700

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED SIGNATURE

John Frank



**North Dakota
Workforce Safety
& Insurance**
Putting Safety to Work

**CERTIFICATE OF
PREMIUM PAYMENT**
WORKFORCE SAFETY & INSURANCE
EMPLOYER SERVICES
SFN 4920 (04/2007)

1600 EAST CENTURY AVENUE, SUITE 1
PO BOX 5585
BISMARCK ND 58506-5585
Telephone 1-800-777-5033
Toll Free Fax 1-888-786-8695
TTY (hearing impaired) 1-800-366-6888
Fraud and Safety Hotline 1-800-243-3331
www.WorkforceSafety.com

JOHN FRANK DIRECTOR OF RISK & INSURANCE
BASIN ELECTRIC POWER COOP
1717 E INTERSTATE AVE
BISMARCK ND 58503-0542

Employer Account Number: 570200

Issued Date: 01/26/2009

Expiration Date: 03/16/2010

CERTIFICATE OF PREMIUM PAYMENT

This is to certify that North Dakota Workers Compensation coverage is effective for the employer named on this certificate. Employees of the named employer are entitled to apply for the rights and benefits of Workforce Safety and Insurance.

Coverage under this certificate extends to North Dakota based employers for their North Dakota exposure. Limited coverage extends beyond the physical boundaries of North Dakota. Contact the Policyholder Services Department of Workforce Safety and Insurance at 1-800-777-5033 for further information on coverage issues or to inquire into the status of the holder of this certificate.

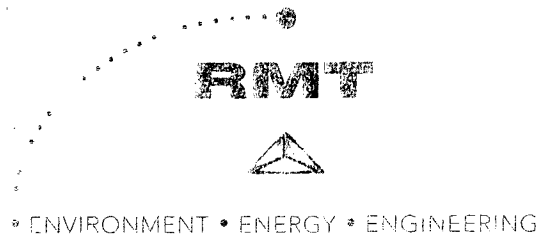
North Dakota Century Code § 65-04-04 requires that each employer post this Certificate of Premium Payment in a conspicuous manner at the workplace. A penalty of \$250 may apply for failure to comply with this requirement.

A certificate of premium payment may be revoked for failure to make required premium payments.

Barry Schumacher

Barry Schumacher
Chief Of Employer Services

Class	Classification Description
4601	Laboratory Work & Med. Mfg
4740A	Coal Gasification-Plant Opera
5410	Building Construction
5603	Consulting Engineers
7403	Aircraft Ground Crew Operations
7405	Aircraft Flying Operations
7531	Electric Light & Power Co
7720	Law Enforcement
8747	Professional/Business Reps
8747X	Optional Coverage
8805	Clerical Office Employees
9007	Bldg Custodians - Janitorial
9042	Med Clinics-Physicians-Dentists
9071	Restaurants



May 13, 2009

Mr. Ron Novak
Town Chairman
Freedom Township
6901 135th Avenue SW
Minot, ND 58701

**Subject: Minot Wind 2 Wind Farm, Ward County, North Dakota
Access Road Information**

Dear Mr. Novak:

RMT, Inc., is performing the design and construction for the Minot Wind 2 Wind Farm for Basin Electric Power Cooperative (BEPC). We understand that there are no permits needed from Freedom Township and we are providing this letter for your information. A site plan showing the proposed locations of the access road, crane walk, and collector line is attached.

Permanent access roads will consist of a 16-foot-wide gravel surface with permanent culverts as necessary. Given a prescribed wind turbine component delivery route from the south, we will need to add a temporary 136-foot radius to access roads at key locations to accommodate long delivery trailers (details are attached). After turbine installation, these temporary radii will be removed and the ditches will be restored and re-seeded.

Crane walks are temporary and consist of compacted earth 36 feet wide. The crane can move at approximately 3 miles per hour and can make road crossings quickly to minimize traffic disruption.

Electrical collector cables are open cut direct buried, and roads are then restored to their original condition.

Should you have questions, I can be contacted at (608) 662-5121 (office), (608) 358-5215 (cell), or at jan.kucher@rmtinc.com (e-mail).

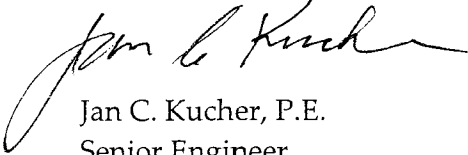
E:\WPMSN\PJT\00-08083\06\L000808306-007.DOC

Mr. Ron Novak
Freedom Township
May 13, 2009
Page 2

We appreciate your assistance.

Sincerely,

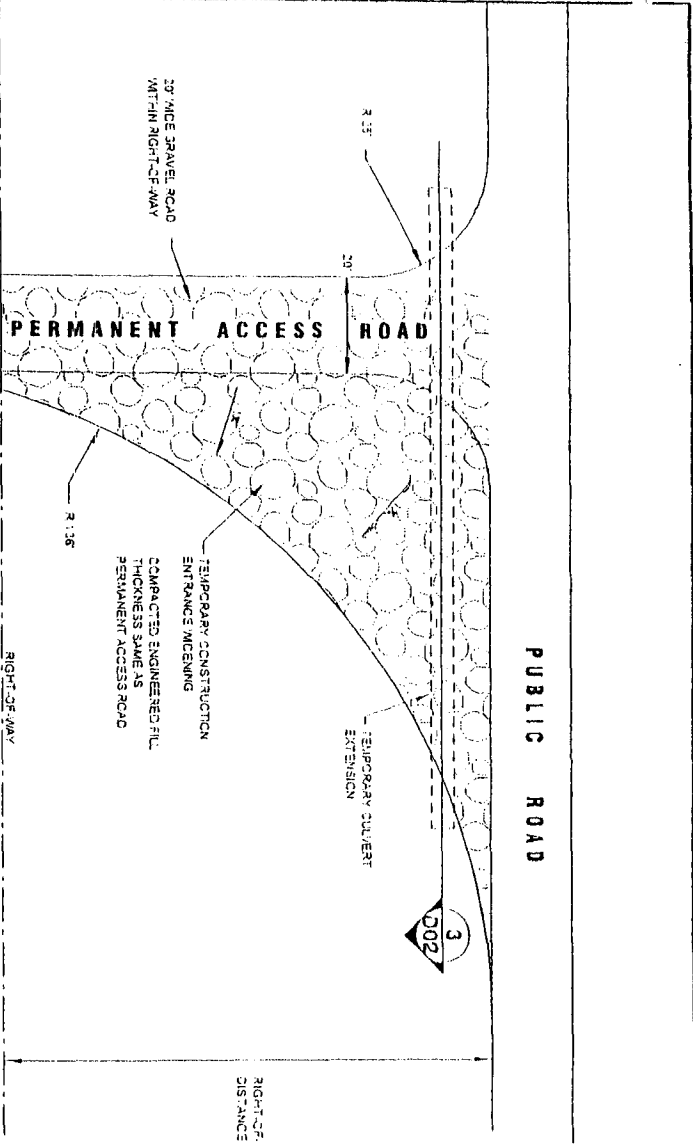
RMT, Inc.



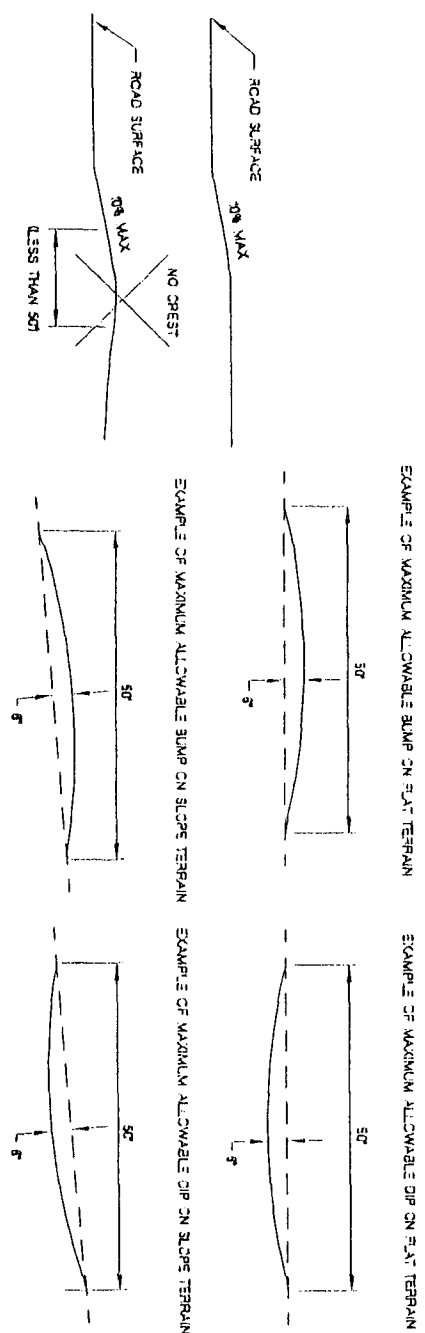
Jan C. Kucher, P.E.
Senior Engineer

Attachments: Site Plan
Details of Temporary Road Widening

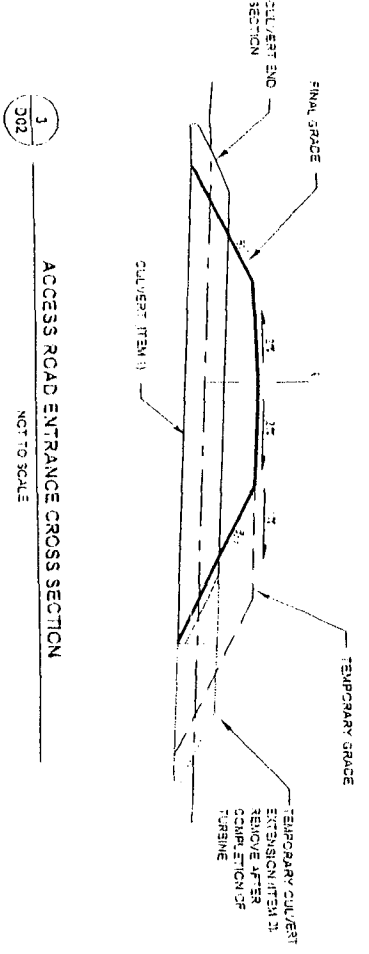
cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT



1
D02
ACCESS ROAD ENTRANCE
NOT TO SCALE



2
D02
TYPICAL ACCESS ROAD ALLOWABLE GRADES
NOT TO SCALE



3
D02
ACCESS ROAD ENTRANCE CROSS SECTION
NOT TO SCALE

MATERIAL LIST

ITEM	DESCRIPTION
1	CULVERT (SEE DETAIL 1 ON SHEET D091)
2	TEMPORARY CULVERT EXTENSION (SEE DETAIL 1 ON SHEET D09)

NOTES

- ACCESS ROAD ENTRANCE**
- ACCESS ROAD ENTRANCE TO BE 30' WIDE FROM PUBLIC ROAD TO THE RIGHT-OF-WAY LINE THEN NARROWED BACK TO 16' WIDTH.
 - PAVING: 12 INCHES MINIMUM COVER OVER CULVERT TO FINISHED GRADE.
 - MAINTAIN ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OR SLUING OF SEDIMENT ONTO PUBLIC ROAD. REMOVE IMMEDIATELY. SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROAD.
 - NOTIFY PERMITTING AUTHORITY, NCDOT OR WARD COUNTY, PRIOR TO CONSTRUCTION OF ACCESS POINT AS REQUIRED BY PERMIT.
 - FILL OUTSIDE OF PERMANENT ACCESS ROAD LIMITS TO BE REMOVED. CULVERT SHORTENED AND GROUND SURFACE RESTORED TO FINAL GRADE UPON PROJECT COMPLETION.
 - COMPLY WITH INTERSECTION SPECIFIC NCDOT OR WARD COUNTY PERMIT REQUIREMENTS.
 - OBTAIN RIGHT-OF-WAY PERMIT FROM WARD COUNTY, HIGHWAY DEPARTMENT OR NCDOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 - VERIFY INTERSECTIONS OF NEW ACCESS ROADS AND EXISTING HIGHWAYS TO ACCOMMODATE LONG LOADS BY CONSTRUCTING TEMPORARY GRAVEL ACCESS WITH MINIMUM 18 FT. RADIIUS AND SUITABLE CULVERTS (CLASS AND COVERAGE PER NCDOT OR COUNTY HIGHWAY PERMITS).

30% ISSUED FOR REVIEW

AGREEMENT NO. 5982

BASIN ELECTRIC POWER COOPERATIVE
A National Rural Electric Cooperative Association Member

NO.	DATE	BY	REVISION
1	4/15/2009	JRE	ISSUED FOR REVIEW

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CONFIDENTIAL

RMT
744 Broadway, NW
P.O. Box 8021
Phone: 608-431-4444
Fax: 608-431-1111

MINOT WIND 2 WIND FARM WARD COUNTY, NORTH DAKOTA

ACCESS ROAD ENTRANCE DETAILS

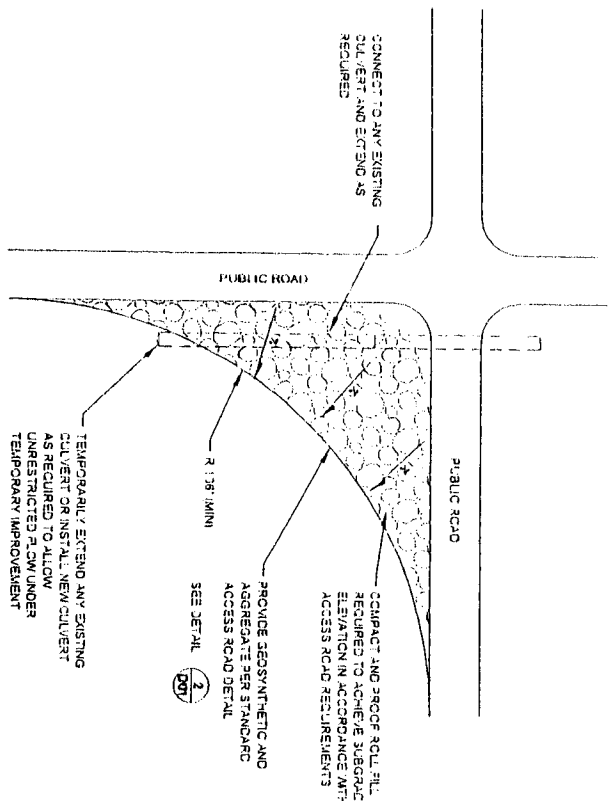
SCALE	REQ. NO.	DWG. NO.	DATE	BY
AS SHOWN	899008	081612DWG		

MATERIAL LIST

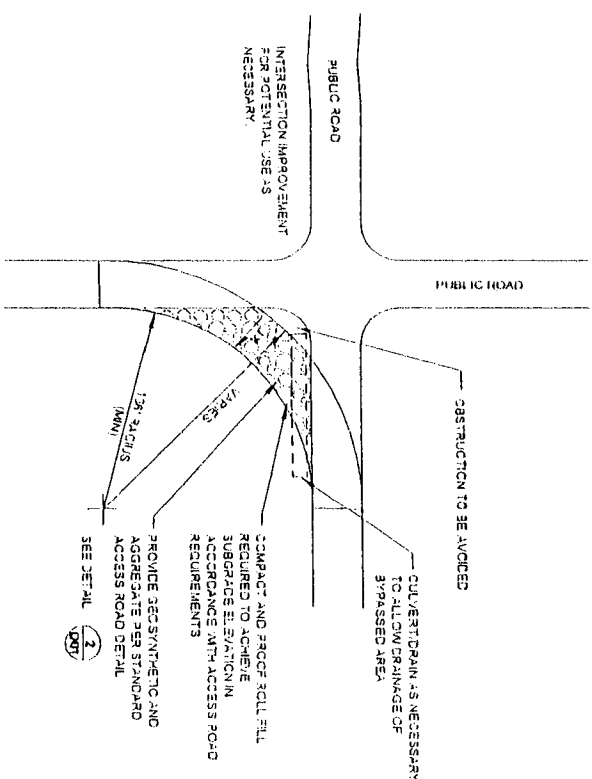
ITEM	DESCRIPTION
1	INTERSECTION IMPROVEMENT AGGREGATE, ACCESS ROAD SURFACE COURSE, DOT TYPE 3 AGGREGATE (NCCOT SECTION 318)
2	GEOSYNTHETIC, TENSAR BX1400 GEOTRID OR ENGINEER APPROVED EQUIVALENT
3	TEMPORARY CULVERT EXTENSION, SEE DETAIL : ON SHEET D05.
4	TEMPORARY BARRICADES

NOTES

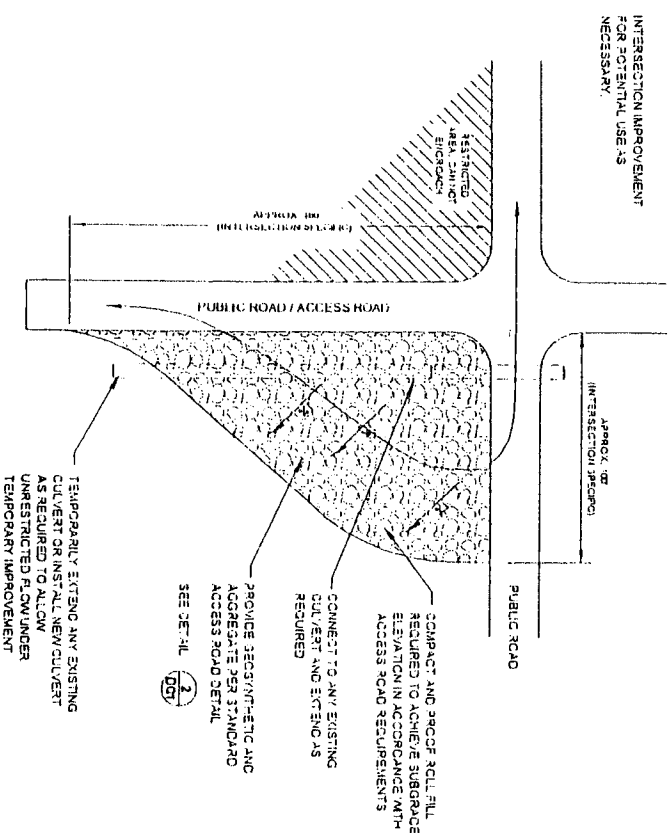
- TEMPORARY IMPROVEMENTS**
1. COMPLY WITH SPECIFIC NCCOT OR WARD COUNTY PERMIT REQUIREMENTS.
 2. COMPLY WITH SPECIFIC NCCOT AND COUNTY HIGHWAY REQUIREMENTS FOR SIGNAGE REGULATION.
 3. OBTAIN RIGHT-OF-WAY PERMIT FROM COUNTY, HIGHWAY DEPARTMENT OR NCCOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 4. OBTAIN PERMIT FROM WARD COUNTY OR NCCOT BEFORE BEGINNING CULVERT INSTALLATION WITHIN RIGHT-OF-WAY.
 5. REMOVE TOPSOIL BEFORE PREPARATION OF SUBGRADE. PROVIDE GEOSYNTHETIC AND AGGREGATE PER STANDARD ACCESS ROAD DETAIL. COMPACT AND PROCF ROLL TEMPORARY ACCESS AREA IN ACCORDANCE WITH STANDARD ACCESS ROAD REQUIREMENTS. (SEE SHEET D01)
 6. PROVIDE TEMPORARY BARRICADES AT PUBLIC ROAD IMPROVEMENT AREAS TO PREVENT USE BY GENERAL PUBLIC.
 7. REMOVE TEMPORARY ACCESS ROAD IMPROVEMENTS AS PART OF FINAL SITE RESTORATION. REMOVE FILL, SHORTEN CULVERT AND RESTORE ORIGINAL SURFACE TO ORIGINAL GRADE UPON PROJECT COMPLETION.



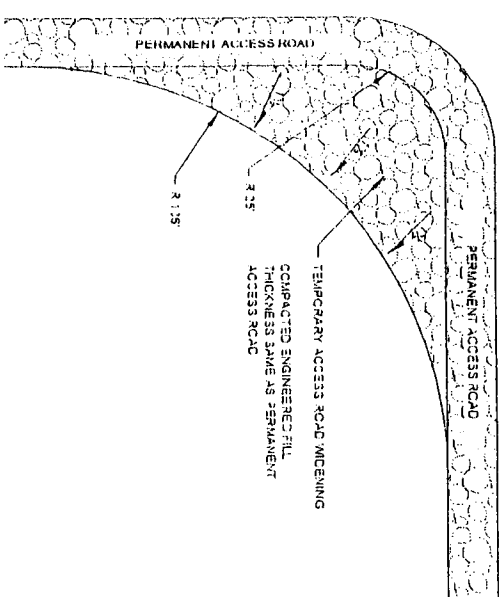
1
D04
TYPICAL PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



2
D04
TYPICAL "CUT-THROUGH"
PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



3
D04
TYPICAL "SWING WIDE" PUBLIC ROAD/ACCESS ROAD
INTERSECTION IMPROVEMENT
(NOT TO SCALE)



4
D04
TYPICAL INTERIOR ACCESS ROAD WIDENING ALONG 90° CURVES
(NOT TO SCALE)

30% ISSUED FOR REVIEW

AGREEMENT NO. 86962

Basin Electric Power Cooperative
A Not-for-Profit Corporation

NO.	DATE	REVISION	BY	CHKD	APP'D
1	4/15/2009	30% ISSUED FOR REVIEW	SPC	MM	BSS

CONFIDENTIAL

Drawings are for the use of RMT, Inc. RMT, Inc. disclaims all liability for errors or omissions in drawings, and shall not be held responsible for any errors or omissions in drawings or for any damages or losses of any kind, in whole or in part, resulting from the use of these drawings.

RMT

244 Main Street, NW
Mason City, IA 50450
P.O. Box 8021, Mason City, IA 50402
Phone: 562-8111, Fax: 562-8111

MINOT WIND 2 WIND FARM WARD COUNTY, NORTH DAKOTA

PUBLIC ROAD/ACCESS ROAD
TEMPORARY IMPROVEMENTS

SCALE: AS SHOWN
PROJECT NO: 800008
DATE: 04/15/09
BY: SPC
CHKD: MM
APP'D: BSS



RMT

ENVIRONMENT • ENERGY • ENGINEERING

May 13, 2009

Mr. Kevin Dahly
North Dakota Department of Transportation
1305 Highway 2
Bypass East
Minot, ND 58701

**Subject: PrairieWinds 1 Wind Farm, Ward County, North Dakota
Collector Crossing Permitting**

Dear Mr. Dahly:

RMT, Inc., is preparing the design and construction for the PrairieWinds 1 Wind Farm for Basin Electric Power Cooperative (BEPC). The purpose of this letter is to provide information for permitting the electrical collector crossings of STH 23 and U.S. 83 in Ward County. Attached is a site plan showing the proposed locations of the collector line crossings.

Also attached is the North Dakota Department of Transportation's (NDDOT's) Form 7995 (separate forms for each state highway crossed). A certificate of liability insurance from BEPC is also included per your request.

Collector locations are shown on the attached drawing with the distance to a mile marker noted. Electrical collector cables are open cut direct buried, except in areas where asphalt roads are crossed. In such instances, a bore is used and the collector lines are pulled through a 6- to 8-inch-diameter HDPE SDR 11 pipe.

We understand that the NDDOT will review the proposed collector crossing locations and prepare the permit (a \$100 permit fee check is included).

Construction is scheduled to start June 15, so your expeditious review and approval would be very much appreciated.

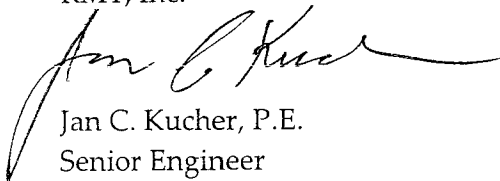
I can be contacted at (608) 662-5121 (office), (608) 358-5215 (cell), or at jan.kucher@rmtinc.com (e-mail).

Mr. Kevin Dahly
North Dakota Department of Transportation
May 13, 2009
Page 2

We appreciate your assistance, and we look forward to working closely with you to complete the PrairieWinds 1 Wind Farm.

Sincerely,

RMT, Inc.



Jan C. Kucher, P.E.
Senior Engineer

Attachments: Permitting Site Layout
Certificate of Liability Insurance (BEPC)
NDDOT Form 7995 Highway 23
NDDOT Form 7995 Highway 83
\$100 Check for Permit Fee

cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE
7/1/2008

PRODUCER Hays Companies 1000 S Center, Suite 700 100 South 8 th Street Minneapolis, MN 55402		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
PHONE NO. 612-333-3323 FAX NO. 612-373-7270		INSURERS AFFORDING COVERAGE	
INSURED Basin Electric Power Cooperative Dakota Gasification Company Attn: John Frank 1717 East Interstate Ave. Bismarck, ND 58501-0564		INSURER A: Old Republic Insurance Co.	NAIC # 24147
		INSURER B:	
		INSURER C:	
		INSURER D:	
		INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADDL INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY	MWZY57902	07/01/08	07/01/09	EACH OCCURRENCE	\$2,000,000
		<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000
		<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person)	10000
						PERSONAL & ADV INJURY	\$2,000,000
						GENERAL AGGREGATE	\$6,000,000
						PRODUCTS-COMP/OP AGG	\$6,000,000
						GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC	
		AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT (Ea Accident)	
		<input type="checkbox"/> ANY AUTO				BODILY INJURY (Per Person)	
		<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per Accident)	
		<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per Accident)	
		<input type="checkbox"/> HIRED AUTOS				AUTO ONLY - EA ACCIDENT	
		<input type="checkbox"/> NON-OWNED AUTOS				OTHER THAN EA ACC	
						AUTO ONLY: AGG	
		GARAGE LIABILITY				EACH OCCURRENCE	
		<input type="checkbox"/> ANY AUTO				AGGREGATE	
		EXCESS/UMBRELLA LIABILITY					
		<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE					
		<input type="checkbox"/> DEDUCTIBLE					
		<input type="checkbox"/> RETENTION					
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATUTORY LIMITS	OTHER
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISION BELOW				E.L. EACH ACCIDENT	
		OTHER				E.L. DISEASE - EA EMPLOYEE	
						E.L. DISEASE - POLICY LIMIT	

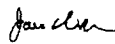
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

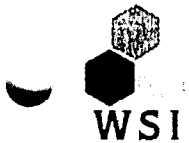
State of North Dakota, its agencies, officers, and employees are included as Additional Insureds as respects all permitted activity of Basin Electric Power Cooperative or Dakota Gasification Company. Waiver of Subrogation applies.

CERTIFICATE HOLDER

40.

CANCELLATION

NDDOT Utilities 608 E. Blvd. Ave. Bismarck, ND 58505-0700	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
	AUTHORIZED SIGNATURE 



**North Dakota
Workforce Safety
& Insurance**
Putting Safety to Work

**CERTIFICATE OF
PREMIUM PAYMENT**
WORKFORCE SAFETY & INSURANCE
EMPLOYER SERVICES
SFN 4920 (04/2007)

1600 EAST CENTURY AVENUE, SUITE 1
PO BOX 5585
BISMARCK ND 58506-5585
Telephone 1-800-777-5033
Toll Free Fax 1-888-786-8695
TTY (hearing impaired) 1-800-366-6888
Fraud and Safety Hotline 1-800-243-3331
www.WorkforceSafety.com

JOHN FRANK DIRECTOR OF RISK & INSURANCE
BASIN ELECTRIC POWER COOP
1717 E INTERSTATE AVE
BISMARCK ND 58503-0542

Employer Account Number: 570200

Issued Date: 01/26/2009

Expiration Date: 03/16/2010

CERTIFICATE OF PREMIUM PAYMENT

This is to certify that North Dakota Workers Compensation coverage is effective for the employer named on this certificate. Employees of the named employer are entitled to apply for the rights and benefits of Workforce Safety and Insurance.

Coverage under this certificate extends to North Dakota based employers for their North Dakota exposure. Limited coverage extends beyond the physical boundaries of North Dakota. Contact the Policyholder Services Department of Workforce Safety and Insurance at 1-800-777-5033 for further information on coverage issues or to inquire into the status of the holder of this certificate.

North Dakota Century Code § 65-04-04 requires that each employer post this Certificate of Premium Payment in a conspicuous manner at the workplace. A penalty of \$250 may apply for failure to comply with this requirement.

A certificate of premium payment may be revoked for failure to make required premium payments.

Barry Schumacher

Barry Schumacher
Chief Of Employer Services

Class	Classification Description
4601	Laboratory Work & Med. Mfg
4740A	Coal Gasification-Plant Opera
5410	Building Construction
5603	Consulting Engineers
7403	Aircraft Ground Crew Operations
7405	Aircraft Flying Operations
7531	Electric Light & Power Co
7720	Law Enforcement
8747	Professional/Business Reps
8747X	Optional Coverage
8805	Clerical Office Employees
9007	Bldg Custodians - Janitorial
9042	Med Clinics-Physicians-Dentists
9071	Restaurants

UTILITY OCCUPANCY APPLICATION AND PERMIT

North Dakota Department of Transportation, Design Division
SFN 7995 (Rev. 11-2008)

Document Number	(FOR STATE USE ONLY)	Permit Number
-----------------	----------------------	---------------

APPLICANT INFORMATION

Owner of Facility Basin Electric Power Cooperative		City Bismarck	State ND	Zip Code 58503-0564
Mailing Address 1717 East Interstate Avenue				Telephone Number (701) 223-0441
Owner's Agent RMT, Inc.	City Madison	State WI	Zip Code 53717	Telephone Number (608) 831-4444
Owner's Contractor RMT, Inc.	City Madison	State WI	Telephone Number (608) 831-4444	

LOCATION NO. 1 (FOR STATE USE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. <u>23</u>	<input type="checkbox"/> Along or <input checked="" type="checkbox"/> Across	Lanes of traffic <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 4
Direction <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	Begin _____ feet from reference marker _____	
Direction <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	End _____ feet from reference marker _____	
<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W from city of _____ or _____ miles from junction highway _____		

TYPE OF FACILITY (Complete appropriate spaces only.)

Description of Proposed Facility <u>Wind farm electrical collector cables to cross STH 23 and 83 with bored crossings.</u>		
Size of Facility 80 wind turbines	Number of Cables 4-6 per crossing	Length of Down Guys --
Pipeline Pressure --	Size of Casing 6-8 inch diameter	Length of Casing To be determined
Location of Pole(s) --	Location of Appurtenances Collector crossings at STH 23 & 83	Location - Others --

TERMS AND CONDITIONS: Installation and maintenance of said facilities on highway right of way shall be subject to the North Dakota Department of Transportation's (NDDOT's) "A Policy for Accommodation of Utilities on State Highway Right of Way", current edition, and the following terms and conditions, attached hereto and made a part hereof.

- (A) Installation/maintenance of said facilities shall be done in a manner satisfactory to the NDDOT district engineer,
- (B) Owner shall notify the NDDOT district engineer forty-eight (48) hours prior to installing, maintaining, relocating, or removing said facilities. All disturbed areas shall be restored to their original condition in a manner satisfactory to the NDDOT district engineer.
- (C) The owner shall be required to wear an ANSI/ISEA 107-2004 Class II height visibility garment while within the highway right-of-way as per the requirements of 23 CFR 634.
- (D) The Risk Management Appendix, attached, is hereby incorporated and made a part of this agreement.
- (E) Owner shall repair or replace highway structures and appurtenances, and any existing facilities located on, over, or under highway right of way, which may be damaged as a result of the installation and maintenance of said facilities on highway right of way.
- (F) Owner shall promptly remove said facilities from highway right of way, or shall relocate or adjust said facilities, at its sole cost and expense when requested to do so by NDDOT.
- (G) NDDOT specifically reserves the right to revoke, or change the terms and conditions of, this Permit with or without cause and upon notice to the Owner.
- (H) The installation shall be completed on or before December 31, 20 09

5/11/09
DATE


OWNER'S SIGNATURE

The Owner is hereby granted permission to install and maintain the facilities applied for, as shown on the plans attached hereto and made a part hereof. Approved by NDDOT this undefined day of _____, 20 ____.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

DISTRICT ENGINEER (TYPE OR PRINT)

SIGNATURE

LOCATION NO. 1 (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. 23 Along or Across Lanes of traffic 2 4

Direction N S E W Begin 36 W feet from reference marker 106

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or 0.37 miles from junction highway 83

LOCATION NO. 2 (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. 23 Along or Across Lanes of traffic 2 4

Direction N S E W Begin 675 W feet from reference marker 107

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or 1.23 miles from junction highway 83

LOCATION NO. _____ (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. _____ Along or Across Lanes of traffic 2 4

Direction N S E W Begin _____ feet from reference marker _____

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or _____ miles from junction highway _____

LOCATION NO. _____ (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. _____ Along or Across Lanes of traffic 2 4

Direction N S E W Begin _____ feet from reference marker _____

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or _____ miles from junction highway _____

LOCATION NO. _____ (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. _____ Along or Across Lanes of traffic 2 4

Direction N S E W Begin _____ feet from reference marker _____

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or _____ miles from junction highway _____

LOCATION NO. _____ (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. _____ Along or Across Lanes of traffic 2 4

Direction N S E W Begin _____ feet from reference marker _____

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or _____ miles from junction highway _____

INTERSTATE HIGHWAYS - Applicant's description of the proposed method of ingress and egress to and from interstate right of way, as attached to the plan.

UTILITY OCCUPANCY APPLICATION AND PERMIT

North Dakota Department of Transportation, Design Division
SFN 7995 (Rev. 11-2008)

Document Number	(FOR STATE USE ONLY)	Permit Number
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APPLICANT INFORMATION

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Mailing Address 1717 East Interstate Avenue			Telephone Number (701) 223-0441
Owner's Agent RMT, Inc.	City Madison	State WI	Zip Code 53717
Owner's Contractor RMT, Inc.			Telephone Number (608) 831-4444
		City Madison	State WI
			Telephone Number (608) 831-4444

LOCATION NO. 1 (FOR STATE USE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. 83 Along or Across Lanes of traffic 2 4

Direction N S E W Begin _____ feet from reference marker _____

Direction N S E W End _____ feet from reference marker _____

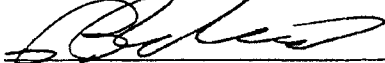
N S E W from city of _____ or _____ miles from junction highway _____

TYPE OF FACILITY (Complete appropriate spaces only.)

Description of Proposed Facility <u>Wind farm electrical collector cables to cross STH 23 and 83 with bored crossings.</u>		
Size of Facility 80 wind turbines	Number of Cables 4-6 per crossing	Length of Down Guys --
Pipeline Pressure --	Size of Casing 6-8 inch diameter	Length of Casing To be determined
Location of Pole(s) --	Location of Appurtenances Collector crossings at STH 23 & 83	Location - Others --

TERMS AND CONDITIONS: Installation and maintenance of said facilities on highway right of way shall be subject to the North Dakota Department of Transportation's (NDDOT's) "A Policy for Accommodation of Utilities on State Highway Right of Way", current edition, and the following terms and conditions, attached hereto and made a part hereof.

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- (B) Owner shall notify the NDDOT district engineer forty-eight (48) hours prior to installing, maintaining, relocating, or removing said facilities. All disturbed areas shall be restored to their original condition in a manner satisfactory to the NDDOT district engineer.
- (C) The owner shall be required to wear an ANSI/ISEA 107-2004 Class II height visibility garment while within the highway right-of-way as per the requirements of 23 CFR 634.
- (D) The Risk Management Appendix, attached, is hereby incorporated and made a part of this agreement.
- (E) Owner shall repair or replace highway structures and appurtenances, and any existing facilities located on, over, or under highway right of way, which may be damaged as a result of the installation and maintenance of said facilities on highway right of way.
- (F) Owner shall promptly remove said facilities from highway right of way, or shall relocate or adjust said facilities, at its sole cost and expense when requested to do so by NDDOT.
- (G) NDDOT specifically reserves the right to revoke, or change the terms and conditions of, this Permit with or without cause and upon notice to the Owner.
- (H) The installation shall be completed on or before December 31, 2009

5/11/09 DATE  OWNER'S SIGNATURE

The Owner is hereby granted permission to install and maintain the facilities applied for, as shown on the plans attached hereto and made a part hereof. Approved by NDDOT this _____ day of _____, 20____.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

DISTRICT ENGINEER (TYPE OR PRINT)

SIGNATURE

LOCATION NO. 3 (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. 83 Along or Across Lanes of traffic 2 4

Direction N S E W Begin 101 N feet from reference marker 182

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or 0.7 miles from junction highway 23

LOCATION NO. 4 (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. 83 Along or Across Lanes of traffic 2 4

Direction N S E W Begin 1167 N feet from reference marker 180

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or 2.5 miles from junction highway 23

LOCATION NO. 5 (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. 83 Along or Across Lanes of traffic 2 4

Direction N S E W Begin 1169 S feet from reference marker 178

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or 4.89 miles from junction highway 23

LOCATION NO. 6 (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. 83 Along or Across Lanes of traffic 2 4

Direction N S E W Begin 802 S feet from reference marker 176

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or 6.7 miles from junction highway 23

LOCATION NO. _____ (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. _____ Along or Across Lanes of traffic 2 4

Direction N S E W Begin _____ feet from reference marker _____

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or _____ miles from junction highway _____

LOCATION NO. _____ (FOR STATEUSE ONLY) Begin Ref. Point _____ End Ref. Point _____

Highway No. _____ Along or Across Lanes of traffic 2 4

Direction N S E W Begin _____ feet from reference marker _____

Direction N S E W End _____ feet from reference marker _____

N S E W from city of _____ or _____ miles from junction highway _____

INTERSTATE HIGHWAYS - Applicant's description of the proposed method of ingress and egress to and from interstate right of way, as attached to the plan.

RMT



RMT, Inc.

744 Heartland Trail
PO Box 8923
Madison, WI 53708

• ENVIRONMENT • ENERGY • ENGINEERING

5125064

Wells Fargo Bank Ohio, N.A. CHECK DATE
56-382/412

May 6, 2009

PAY

One Hundred and 00/100

AMOUNT

\$100.00

TO

NORTH DAKOTA DEPT OF TRANSPORTATION
1305 HIGHWAY 2 BYPASS EAST
MINOT ND 58701

Emily Hansen
VOID AFTER 90 DAYS MP

⑈ 5 1 2 5 0 6 4 ⑈ ⑆ 0 4 1 2 0 3 8 2 4 ⑆ 9 6 0 0 0 2 0 2 5 3 ⑈

RMT, Inc. 744 Heartland Trail PO Box 8923 • Madison, WI 53708

EMILY

5125064

See Remittance Advice

Remittance Advice

Monday, May 04, 2009

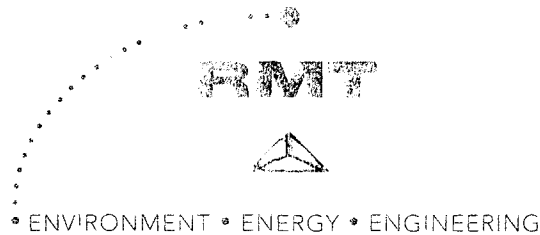
RMT, Inc.

1:37:33 PM

To NORTH DAKOTA DEPT OF TRANSPORTATION
1305 HIGHWAY 2 BYPASS EAST
MINOT, ND 58701
USA

Vendor Number 0037714
Check Number 5125064
Check Date 5/6/09

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
PERMITFEE	4/30/09	0011618	100.00			100.00
Totals			100.00			100.00



May 20, 2009

Mr. Robert Gasmann
Gasman Township
25301 Highway 83 South
Max, ND 58759

**Subject: PrairieWinds 1 Wind Farm - Ward County, North Dakota
Access Road, Electrical Collector, and Crane Walk Crossing Permitting**

Dear Mr. Gasmann:

This letter is in follow-up to our telephone conversation on May 11, 2009. You indicated that the access road, electrical collector, and crane walk crossings of Gasman Township roads are acceptable, as summarized in drawings and details sent to you on April 28, 2009.

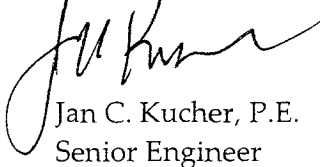
On section lines, permanent access roads will consist of a 16-foot-wide gravel surface. After turbine installation, the temporary road widening at the intersections will be removed, and the ditches will be restored and revegetated.

Please call if you have any questions. I can be contacted, at (608) 662-5121 (office), (608) 358-5215 (cell), or by e-mail at jan.kucher@rmtinc.com.

We appreciate your assistance, and we look forward to working closely with you to complete the PrairieWinds 1 Wind Farm.

Sincerely,

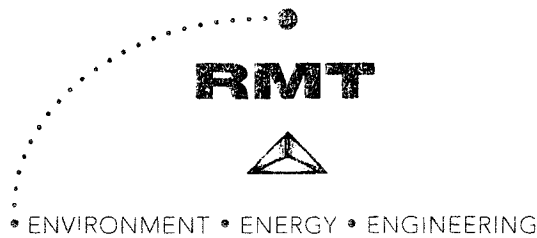
RMT, Inc.



Jan C. Kucher, P.E.
Senior Engineer

cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT, Inc.

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April 28, 2009

Mr. Robert Gasman
Gasman Township
25301 Highway 83 South
Max, ND 58759

**Subject: PrairieWinds 1 Wind Farm, Ward County, North Dakota
Access Road, Electrical Collector, and Crane Walk Crossing Permitting**

Dear Mr. Gasman:

RMT, Inc., is preparing the design and construction for the PrairieWinds 1 Wind Farm for Basin Electric Power Cooperative (BEPC). The purpose of this letter is to provide information for permitting the access road, electrical collector, and crane walk crossings of Gasman Township roads. Attached is a site plan showing the proposed locations of the access road, electrical collector, and the crane walk crossings.

Permanent access roads will consist of a 16-foot-wide gravel surface (detail attached). On the basis of a prescribed wind turbine component delivery route, we will need to add a temporary 136-foot radius to access roads at key locations to accommodate long delivery trailers (a detail is attached). After turbine installation, these temporary radii will be removed, and the ditches will be restored and re-vegetated.

Crane walks are temporary and consist of a 36-foot-wide path of compacted earth. Soil is restored after construction. Electrical collector cables are open cut direct buried, and roads are then restored to their original condition.

Construction is scheduled to start on June 15, so your expeditious review and approval would be very much appreciated.

I can be contacted at (608) 662-5121 (office), (608) 358-5215 (cell), or at jan.kucher@rmtinc.com (e-mail).

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744 Heartland Trail • Madison, WI 53717 • 608.831.4444 • 608.831.3334 FAX • www.rmtinc.com

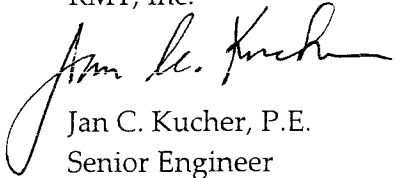
CREATING BY DESIGN

Mr. Robert Gasman
Gasman Township
April 28, 2009
Page 2

We appreciate your assistance, and we look forward to working closely with you to complete the PrairieWinds 1 Wind Farm.

Sincerely,

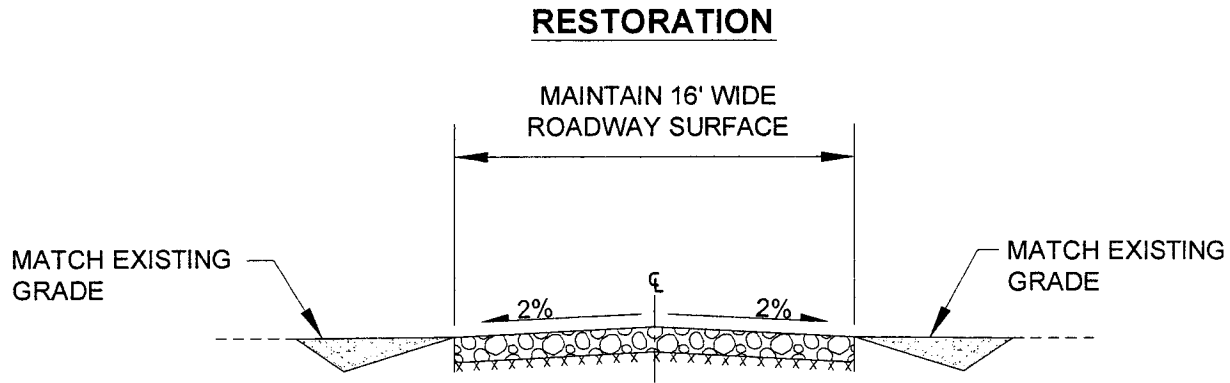
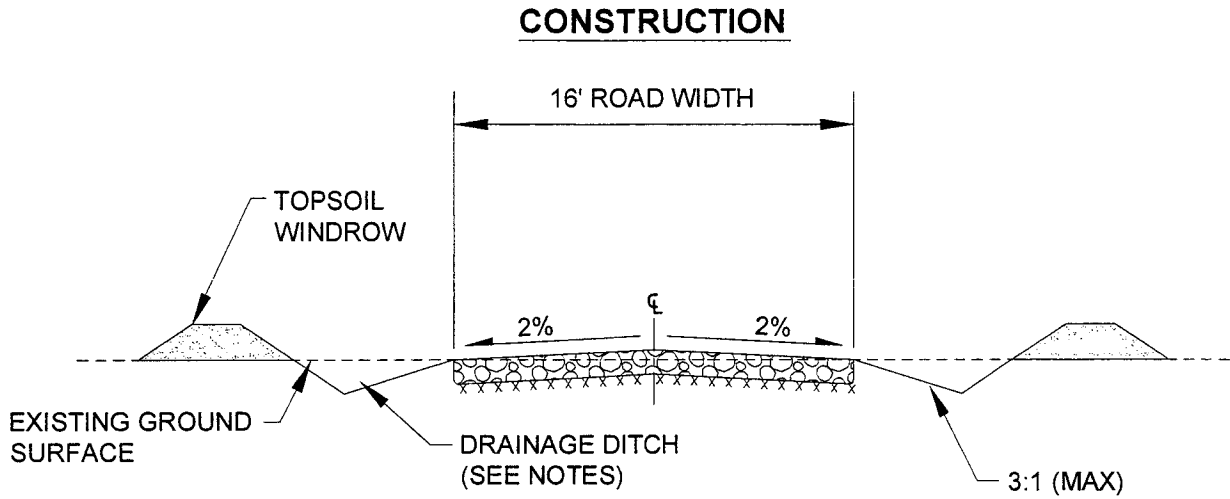
RMT, Inc.



Jan C. Kucher, P.E.
Senior Engineer

Attachments: Site Plan
Access Road Details
Detail of Temporary Road Widening

cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT

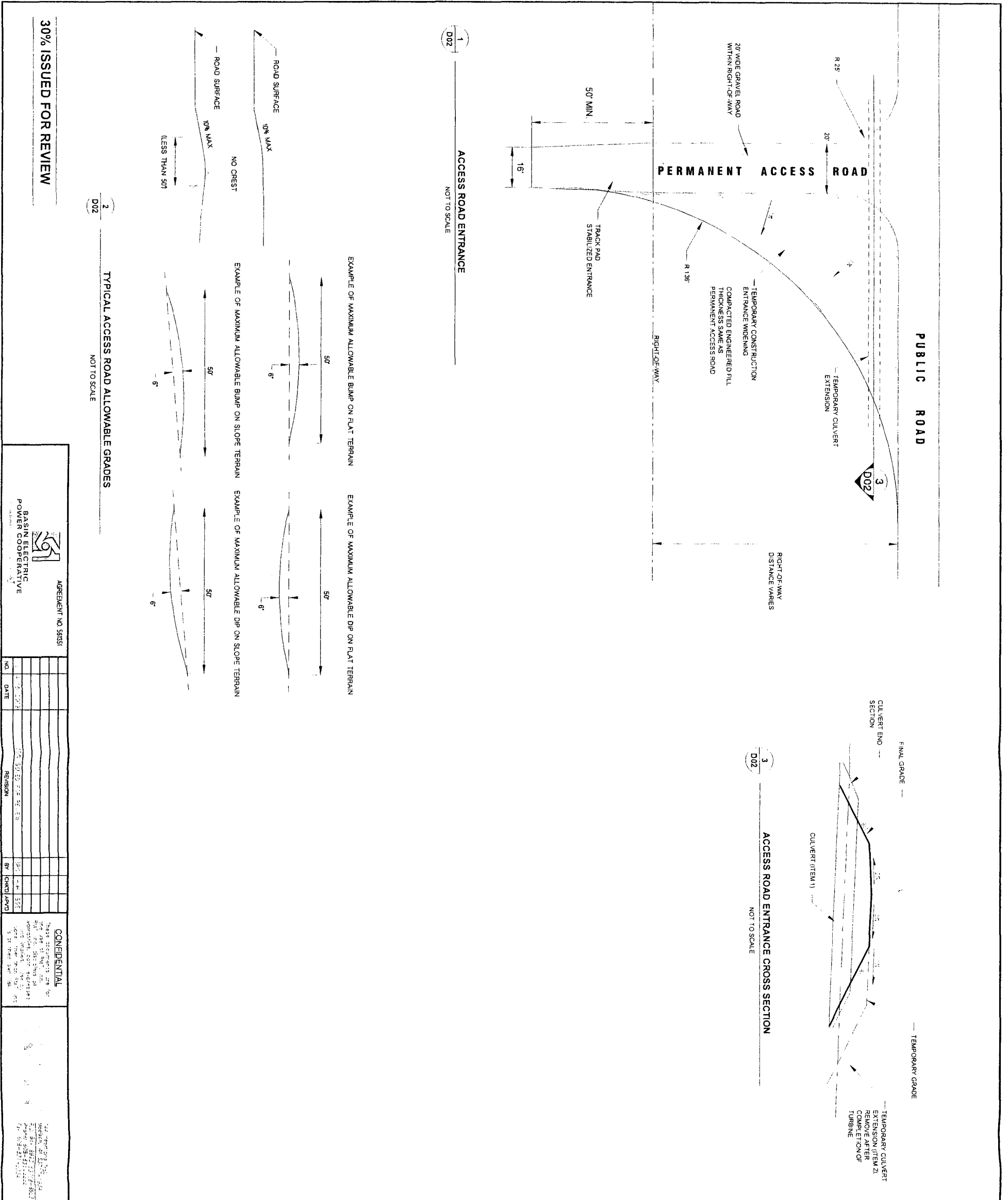


RMT

PRAIRIEWINDS 1 WIND FARM

TYPE 'A' ACCESS ROAD CROSS SECTION

DRAWN BY:	STORMERL
APPROVED BY:	
PROJECT NO.	8083.06
FILE NO.	PERMIT.DWG
DATE:	APRIL 2009



MATERIAL LIST

ITEM	DESCRIPTION
1	CULVERT (SEE DETAIL 1 ON SHEET D05)
2	TEMPORARY CULVERT EXTENSION (SEE DETAIL 1 ON SHEET D05)

- NOTES**
- ACCESS ROAD ENTRANCE**
- ACCESS ROAD ENTRANCE TO BE 20' WIDE FROM PUBLIC ROAD TO THE RIGHT-OF-WAY LINE THEN TAPERED BACK TO 16' WIDTH.
 - PROVIDE 12 INCHES MINIMUM COVER OVER CULVERT TO FINISHED GRADE.
 - MAINTAIN ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROAD. REMOVED IMMEDIATELY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROAD.
 - NOTIFY PERMITTING AUTHORITY, NDDOT OR WARD COUNTY, PRIOR TO CONSTRUCTION OF ACCESS POINT AS REQUIRED BY PERMIT.
 - FILL OUTSIDE OF PERMANENT ACCESS ROAD LIMITS TO BE REMOVED. CULVERT SHORTENED AND GROUND SURFACE RESTORED TO FINAL GRADE UPON PROJECT COMPLETION.
 - COMPLY WITH INTERSECTION SPECIFIC NDDOT OR WARD COUNTY PERMIT REQUIREMENTS.
 - OBTAIN RIGHT-OF-WAY PERMIT FROM WARD COUNTY HIGHWAY DEPARTMENT OR NDDOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 - MODIFY INTERSECTIONS OF NEW ACCESS ROADS AND EXISTING HIGHWAYS TO ACCOMMODATE LONG LOADS BY CONSTRUCTING TEMPORARY GRAVEL ACCESS WITH MINIMUM 138 FT. RADII, AND SUITABLE CULVERTS (CLASS AND COVERAGE PER NDDOT OR COUNTY HIGHWAY PERMITS).

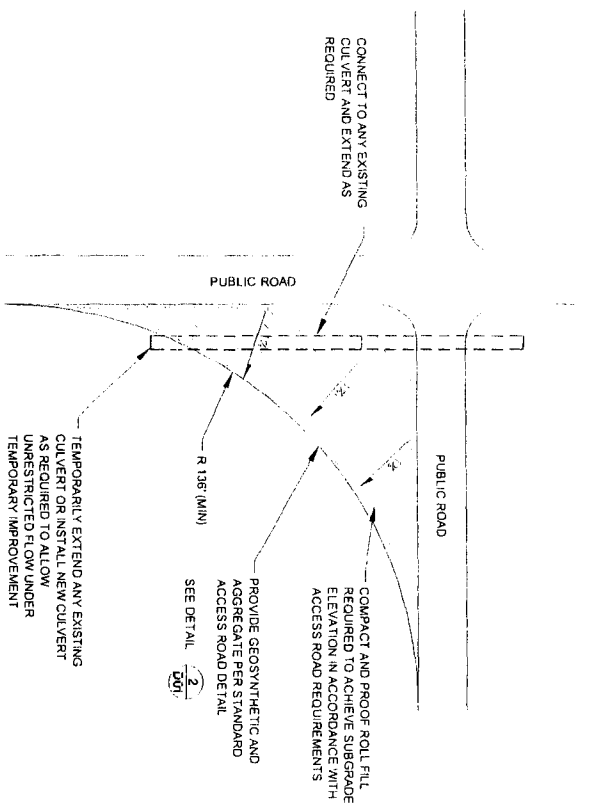
30% ISSUED FOR REVIEW

		AGREEMENT NO. 59351 BASIN ELECTRIC POWER COOPERATIVE
NO.	DATE	REVISION
1	4/15/09	ISSUE FOR REVIEW
2	4/15/09	ISSUE FOR REVIEW
3	4/15/09	ISSUE FOR REVIEW
4	4/15/09	ISSUE FOR REVIEW
5	4/15/09	ISSUE FOR REVIEW
6	4/15/09	ISSUE FOR REVIEW
7	4/15/09	ISSUE FOR REVIEW
8	4/15/09	ISSUE FOR REVIEW
9	4/15/09	ISSUE FOR REVIEW
10	4/15/09	ISSUE FOR REVIEW
11	4/15/09	ISSUE FOR REVIEW
12	4/15/09	ISSUE FOR REVIEW
13	4/15/09	ISSUE FOR REVIEW
14	4/15/09	ISSUE FOR REVIEW
15	4/15/09	ISSUE FOR REVIEW
16	4/15/09	ISSUE FOR REVIEW
17	4/15/09	ISSUE FOR REVIEW
18	4/15/09	ISSUE FOR REVIEW
19	4/15/09	ISSUE FOR REVIEW
20	4/15/09	ISSUE FOR REVIEW

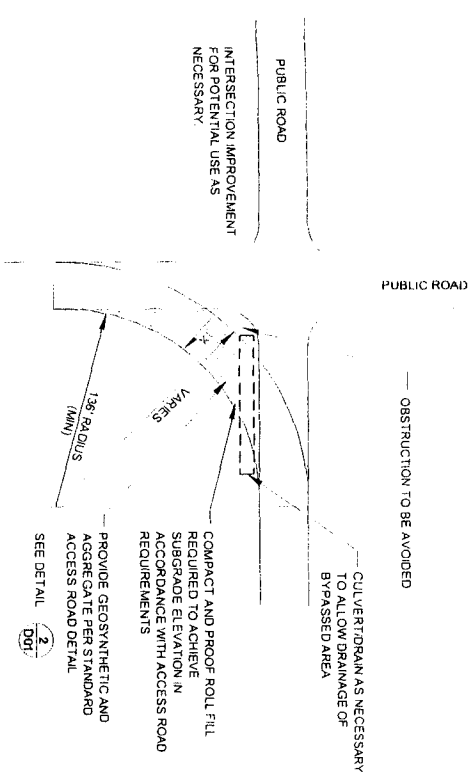
PRAREMINIDS 1 WIND FARM WARD COUNTY, NORTH DAKOTA

ACCESS ROAD ENTRANCE DETAILS

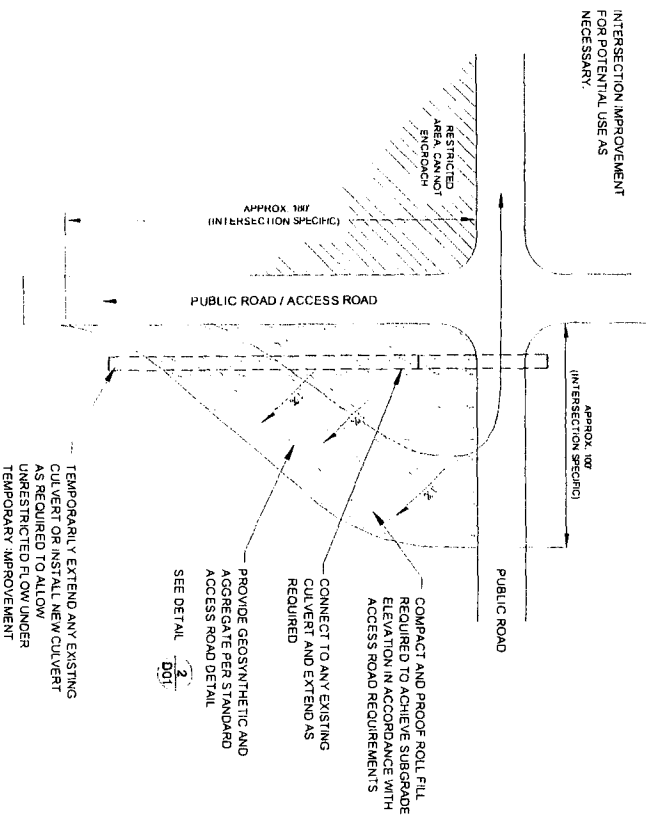
SCALE: AS SHOWN DWG. NAME: 806106 DETAIL: DWG SHEET: D02



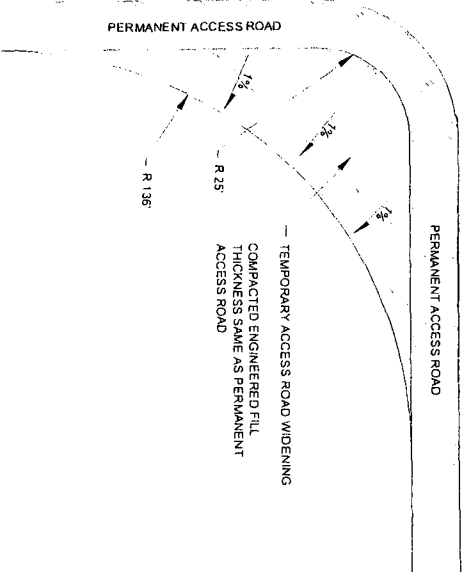
1
D04
TYPICAL PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



2
D04
TYPICAL "CUT-THROUGH"
PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



3
D04
TYPICAL "SWING WIDE" PUBLIC ROAD/ACCESS ROAD
INTERSECTION IMPROVEMENT
(NOT TO SCALE)



4
D04
TYPICAL INTERIOR ACCESS ROAD WIDENING ALONG 90° CURVES
(NOT TO SCALE)

MATERIAL LIST

ITEM	DESCRIPTION
1	INTERSECTION IMPROVEMENT AGGREGATE ACCESS ROAD SURFACE COURSE D01 TYPE 3 AGGREGATE (NDDOT SECTION 318)
2	GEOSYNTHETIC TENSAR B3400 GEGRID OR ENGINEER APPROVED EQUIVALENT
3	TEMPORARY CULVERT EXTENSION SEE DETAIL 1 ON SHEET D05
4	TEMPORARY BARRICADES

NOTES

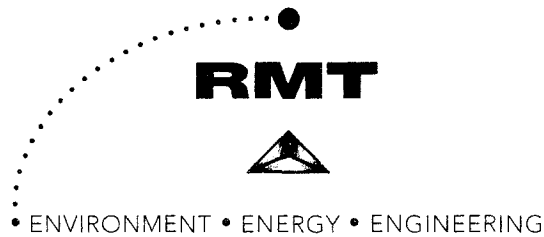
- TEMPORARY IMPROVEMENTS**
- COMPLY WITH SPECIFIC NDDOT OR WARD COUNTY PERMIT REQUIREMENTS
 - COMPLY WITH SPECIFIC NDDOT AND COUNTY HIGHWAY REQUIREMENTS FOR SIGNAGE RELLOCATION
 - OBTAIN RIGHT-OF-WAY PERMIT FROM COUNTY HIGHWAY DEPARTMENT OR NDDOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY
 - OBTAIN PERMIT FROM WARD COUNTY OR NDDOT BEFORE BEGINNING CULVERT INSTALLATION WITHIN RIGHT-OF-WAY
 - REMOVE TOPSOIL BEFORE PREPARATION OF SUBGRADE PROVIDE GEOSYNTHETIC AND AGGREGATE PER STANDARD ACCESS ROAD DETAIL COMPACT AND PROOF ROLL TEMPORARY ACCESS AREA IN ACCORDANCE WITH STANDARD ACCESS ROAD REQUIREMENTS (SEE SHEET D01)
 - PROVIDE TEMPORARY BARRICADES AT PUBLIC ROAD IMPROVEMENT AREAS TO PREVENT USE BY GENERAL PUBLIC
 - REMOVE TEMPORARY ACCESS ROAD IMPROVEMENTS AS PART OF FINAL SITE RESTORATION REMOVE FILL SHORTEN CULVERT AND RESTORE GROUND SURFACE TO ORIGINAL GRADE UPON PROJECT COMPLETION

30% ISSUED FOR REVIEW

		AGREEMENT NO. 88381 WARD COUNTY, NORTH DAKOTA
NO.	DATE	BY (CHD) (LPH)
1	11/11/08	CHD
2	12/15/08	LPH
3	01/22/09	CHD
4	02/11/09	LPH
5	03/02/09	CHD
6	03/11/09	LPH
7	03/18/09	CHD
8	03/25/09	LPH
9	04/01/09	CHD
10	04/08/09	LPH
11	04/15/09	CHD
12	04/22/09	LPH
13	04/29/09	CHD
14	05/06/09	LPH
15	05/13/09	CHD
16	05/20/09	LPH
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18	06/03/09	LPH
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35	09/30/09	CHD
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37	10/14/09	CHD
38	10/21/09	LPH
39	10/28/09	CHD
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41	11/11/09	CHD
42	11/18/09	LPH
43	11/25/09	CHD
44	12/02/09	LPH
45	12/09/09	CHD
46	12/16/09	LPH
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57	03/02/10	CHD
58	03/09/10	LPH
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60	03/23/10	LPH
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80	08/10/10	LPH
81	08/17/10	CHD
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88	10/05/10	LPH
89	10/12/10	CHD
90	10/19/10	LPH
91	10/26/10	CHD
92	11/02/10	LPH
93	11/09/10	CHD
94	11/16/10	LPH
95	11/23/10	CHD
96	11/30/10	LPH
97	12/07/10	CHD
98	12/14/10	LPH
99	12/21/10	CHD
100	12/28/10	LPH

PUBLIC ROAD/ACCESS ROAD
TEMPORARY IMPROVEMENTS

SCALE AS SHOWN
SHEET NO. 004



May 22, 2009

Mr. Dana Larsen, P.E.
Ward County Engineer
P.O. Box 5005
900 13th Street SE
Minot, ND 58702-5005

**Subject: PrairieWinds 1 and Minot Wind 2 Wind Farms, Ward County, North Dakota
Access Road Permitting for Rushville and Iota Flats Townships**

Dear Mr. Larsen:

RMT, Inc., is performing the design and construction for the PrairieWinds 1 and Minot Wind 2 Wind Farms for Basin Electric Power Cooperative (BEPC). This letter provides updated information for permitting the gravel access roads, crane walks, and electrical collector crossings of county roads (updated site plan attached).

We understand that gravel access roads located on section lines in Rushville Township need to be constructed in accordance with the County Township Minimum Subdivision Road Standards (copy attached). Where this occurs, we understand that the County will grade and maintain the roads. Snow will be plowed by BEPC, unless there is a resident on the road, in which case, the County would plow the road.

Permanent access roads that are not on a section line will consist of a 16-foot-wide gravel surface with permanent culverts as needed. On the basis of a prescribed wind turbine component delivery route from the south, we will need to add a temporary 136-foot radius to access roads at key locations to accommodate long delivery trailers (details are attached). After turbine installation, these temporary radii will be removed, and the ditches will be restored and seeded. The approach permit applications are attached (the number in the upper right refers to the location on the permitting site layout). Access road loadings will consist of loads exceeding 105,000 pounds and will range up to approximately 160,000 pounds.

Crane walks are temporary and consist of a 36-foot-wide path of compacted earth. Where crane walks cross asphalt or concrete roads, heavy steel plating or timber matting is used to protect the road and distribute the load. The crane moves at approximately 3 miles per hour, so road crossings are done typically at night or in the early morning, if needed, to minimize traffic disruption. Refer to the attached Crane and Collector Crossing Sequence and Traffic Controls.

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744 Heartland Trail • Madison, WI 53717 • 608.831.4444 • 608.831.3334 FAX • www.rmtinc.com

Mr. Dana Larsen, P.E.
Ward County Engineer
May 22, 2009
Page 2

Electrical collector cables are generally trenched in-place, or open cut. Where asphalt roads are crossed, a bored crossing is used and the collector lines are pulled through a 6- to 8-inch-diameter HDPE SDR 11 carrier pipe. The utility permit applications are attached (the number in the upper right refers to the location on the permitting site layout).

We are requesting that the County approve the open cutting of gravel roads to expedite and simplify collector construction. The open cut would be accomplished quickly with traffic control and public authority notification (see the attached Crane and Collector Crossing Sequence and Traffic Controls attached). This would eliminate the need to remove the heavy 2- to 3-inch-diameter collector cable from the reels and feed it through the bore or to install a junction box. The roads will be restored with 1-foot compacted soil lifts and the replacement of the existing type and thickness of surface stone to avoid future settlement. We request that the County Highway Department review this request at the Commission meeting on June 2, 2009. Refer to the attached Utility permit applications.

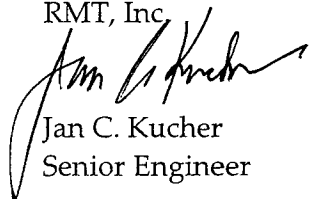
Construction is scheduled to start on June 15, so your expeditious review and permit approval would be very much appreciated. We understand that Ward County administers permitting for Rushville and Iota Flats Townships—please provide any county or town building permits. We understand that you will invoice RMT directly for the permit fees.

Please contact me if you have questions. I can be contacted at (608) 662-5121 (office), (608) 358-5215 (cell), or at jan.kucher@rmtinc.com (e-mail).

We appreciate your assistance, and we look forward to working closely with you to complete the PrairieWinds1 and Minot Wind 2 Wind Farms.

Sincerely,

RMT, Inc.



Jan C. Kucher
Senior Engineer

Attachments: Permitting Site Layout
Township Road Standards
Details of Temporary Road Widening
Approach Permits
Crane and Collector Crossing Sequence and Traffic Controls
Utility Permit Applications

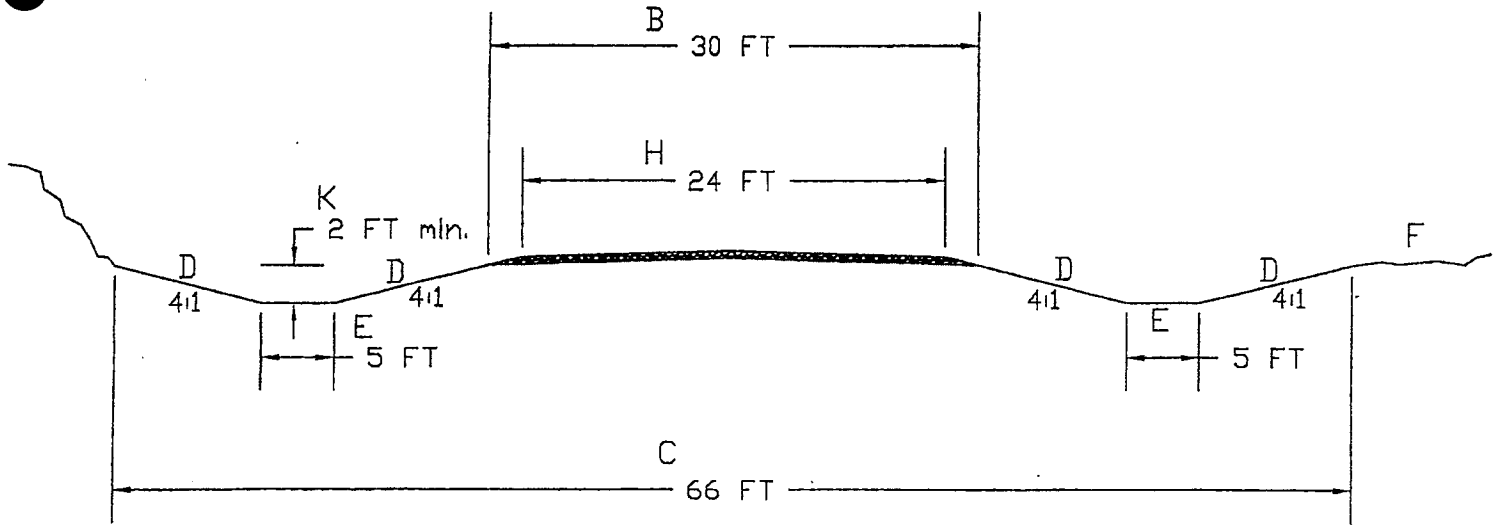
cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT

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TOWNSHIP MINIMUM SUBDIVISION ROAD STANDARDS


Design Features

- A. Culvert Design frequency25 Years
Culvert diameter (with end sections)18 inches
- B. Grade roadbed width30 feet
- C. Right of way width (minimum)66 feet
- D. Slope (In, out, and back)4:1
- E. Base of ditch width5 feet
- F. Roadbed elevation above existing terrain (approx.).....1 foot
- G. Depth of roadbed gravel6 inches
- H. Finished Road surface width24 feet
- I. Cul-de-sac radius of 60' of road surface plus an additional 15' of boulevard to equal75 feet
- J. Ditch depth shall be a minimum of 2 feet below shoulder of new road. If curb and gutter is used then the ditch requirements will be eliminated.



*The road shall be designed by a Registered Professional Engineer and the plans submitted to the Township and the County for review and comment. The design engineer shall also provide certification to the Township and the County after completion of construction that the road was built in accordance with the plans and specifications.

APPROVED BY PLANNING 8-12-04

Approved By:

 Roger E. Kluck P.E.
 Ward County Engineer
 01-14-04 UPDATE
 03-03-04 REVISION

A - Culvert design frequency	25 years
Culvert diameter minimum	18 inches
B - Graded roadbed width	30 feet
C - Right of way width	66 feet
D - Sloped (in, out & back)	4' to 1'
E - Base of ditch width	5 Feet
F - Road bed elevation*	1' above side terrain*
G - Depth of roadbed gravel	6 inches
H - Maximum gradient	6 to 7 percent
	10 percent if not longer than 300'
I - Cul-de-sac radium	60' of road surface plus additional 15' of Boulevard to equal 75'
J - Finished road surface width	24'
K - Ditch depth shall be a minimum of two feet below shoulder of new road. If curb and gutter is used the ditch requirements will be eliminated.	

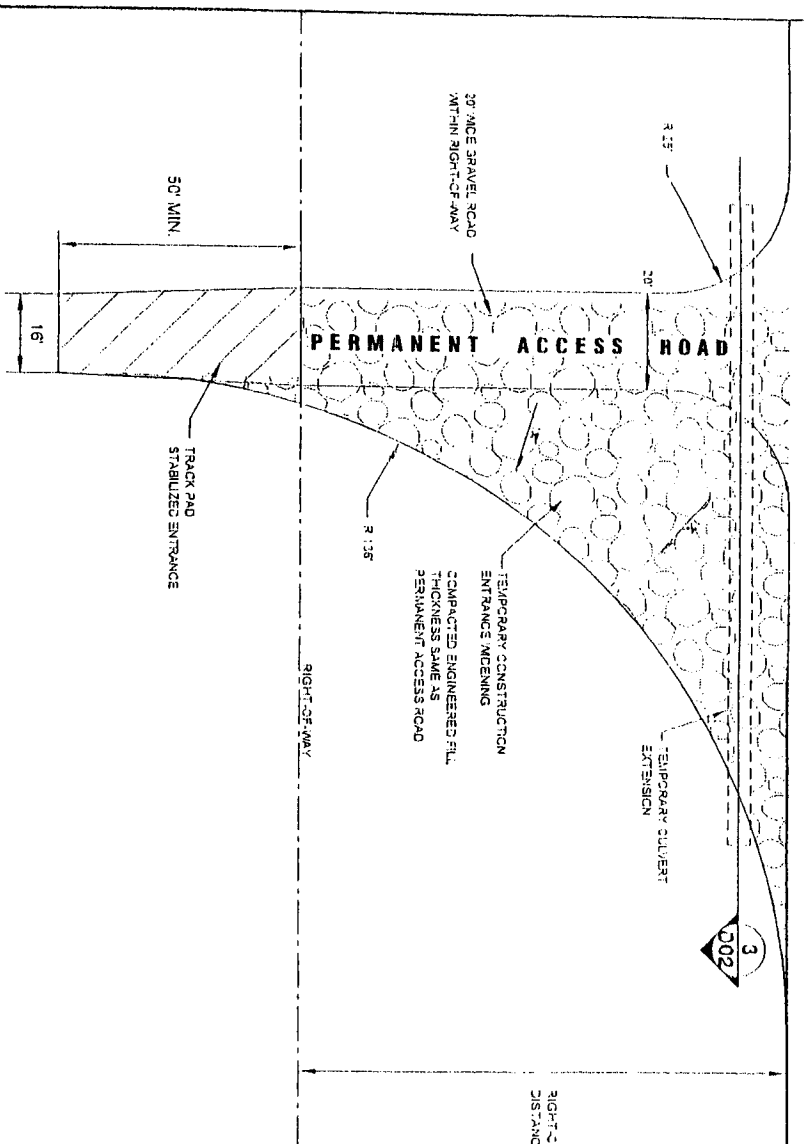
- (21) The platting of land for a rural subdivision that includes public access roads shall have the roads built to the minimum design standards (definition found in paragraph 20). The building of the public access roads is a condition precedent to the recording of the plat. The submitter proposing the rural subdivision shall be required to provide an estimate of the costs to build said road along with a preliminary plan and profile drawing with the preliminary plat for review by the County Engineer. Upon approval of the estimate and preliminary plan by the County Engineer, the submitter will be allowed to post a bond with the submission of the final plat for recording, to assure building of the road. The road will be required to be designed and inspected by a professional engineer so that a certification can be provided at the completion of the road construction. The certification shall provide language that the road was built to generally accepted construction standards including the minimum design standards contained herein.

B. Easements.

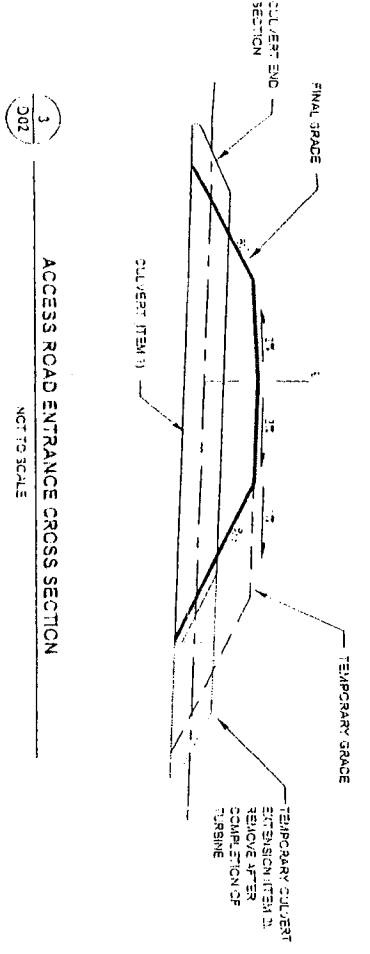
1) Easement across lots or centered on rear or side lot lines shall be provided at least ten feet wide where necessary for overhead or underground utilities.

2) Where a subdivision is traversed by a water course, coulee, drainage way, channel, or stream, there shall be provided a storm water easement or drainage right-of-way conforming substantially with the lines of such water course, and such further width or construction or both that will be adequate for such purpose. Parallel streets or parkways may be required in connection with such drainage easement.

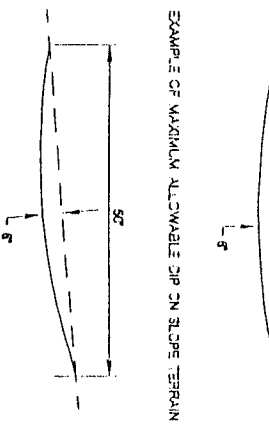
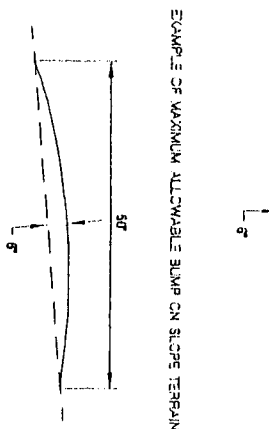
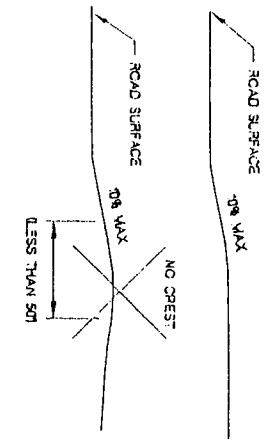
PUBLIC ROAD



1
D02
ACCESS ROAD ENTRANCE
NOT TO SCALE



3
D02
ACCESS ROAD ENTRANCE CROSS SECTION
NOT TO SCALE



EXAMPLE OF MAXIMUM ALLOWABLE BUMP ON FLAT TERRAIN
EXAMPLE OF MAXIMUM ALLOWABLE DIP ON FLAT TERRAIN
EXAMPLE OF MAXIMUM ALLOWABLE BUMP ON SLOPE TERRAIN
EXAMPLE OF MAXIMUM ALLOWABLE DIP ON SLOPE TERRAIN

2
D02
TYPICAL ACCESS ROAD ALLOWABLE GRADES
NOT TO SCALE

30% ISSUED FOR REVIEW

		AGREEMENT NO. 99002 BASIN ELECTRIC POWER COOPERATIVE <small>A Member Energy Cooperative</small>
NO.	DATE	REVISION
1	4/13/2008	JDK ISSUED FOR REVIEW
2		REVISION
3		REVISION
4		REVISION
5		REVISION
6		REVISION
7		REVISION
8		REVISION
9		REVISION
10		REVISION

CONFIDENTIAL
 These documents are for the use of the client only. Basin Electric Power Cooperative, Inc. disclaims all responsibility for any errors or omissions and assumes no liability for any use of the information contained herein.

RMT
 744 Heritage Lane, Suite 100
 Rapid City, SD 57701
 Phone: 605-371-1144
 Fax: 605-371-1111

MATERIAL LIST

ITEM	DESCRIPTION
1	CULVERT (SEE DETAIL 1 ON SHEET D051)
2	TEMPORARY CULVERT EXTENSION (SEE DETAIL 1 ON SHEET D05)

NOTES

- ACCESS ROAD ENTRANCE**
- ACCESS ROAD ENTRANCE TO BE 30' WIDE FROM PUBLIC ROAD TO THE RIGHT-OF-WAY LINE THEN TAPERED DOWN TO 18' WIDTH.
 - REQUIRE 12 INCHES MINIMUM COVER OVER CULVERT TO FINISHED GRADE.
 - MAINTAIN ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROAD. REMOVE IMMEDIATELY SEDIMENT PERMITTED TO ACCUMULATE ON TRACKED ONTO PUBLIC ROAD.
 - NOTIFY PERMITTING AUTHORITY, NDDOT OR WARD COUNTY, PRIOR TO CONSTRUCTION OF ACCESS POINT AS REQUIRED BY PERMIT.
 - FILL CUTSIDE OF PERMANENT ACCESS ROAD LIMITS TO BE REMOVED, CULVERT SHORTENED, AND GROUND SURFACE RESTORED TO FINAL GRADE UPON PROJECT COMPLETION.
 - COMPLY WITH INTERSECTION SPECIFIC NDDOT OR WARD COUNTY PERMIT REQUIREMENTS.
 - OBTAIN RIGHT-OF-WAY PERMIT FROM WARD COUNTY HIGHWAY DEPARTMENT OR NDDOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 - VERIFY INTERSECTIONS OF NEW ACCESS ROADS AND EXISTING HIGHWAYS TO ACCORDANCE WITH SD DOT STANDARDS BY CONDUCTING TRIP SURVEYS WITH MINIMUM 100 FT. RADII AND SUFFICIENT CULVERTS (CLASS AND COVER) PER NDDOT OR COUNTY HIGHWAY PERMITAL.

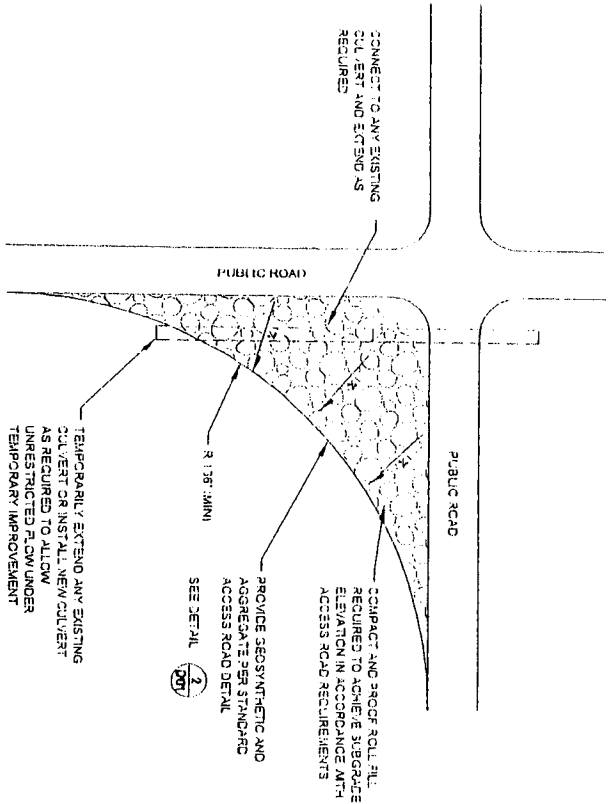
KIND: WIND 2 WIND FARM	WARD COUNTY, NORTH DAKOTA
ACCESS ROAD ENTRANCE DETAILS	
SCALE: AS SHOWN	DWG. NO.: 893008
DATE: 04/13/2008	BY: BJC
PROJECT NO.: 893008	SHEET NO.: D02

MATERIAL LIST

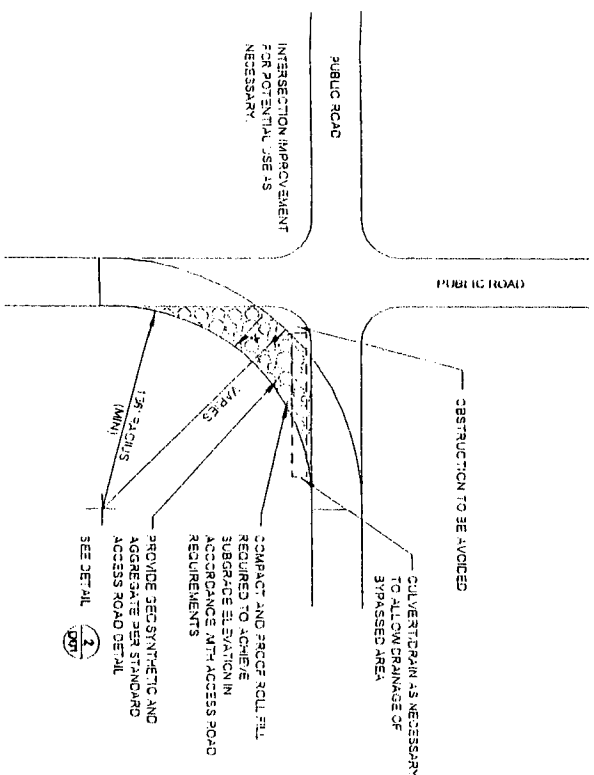
ITEM	DESCRIPTION
1	INTERSECTION IMPROVEMENT AGGREGATE ACCESS ROAD SURFACE COURSE, 30T TYPE 3 AGGREGATE (NDDOT SECTION 218)
2	GEOSYNTHETIC TENSAR BX1400 GEORGRID OR ENGINEER APPROVED EQUIVALENT
3	TEMPORARY CULVERT EXTENSION SEE DETAIL 1 ON SHEET 208.
4	TEMPORARY BARRICADES

NOTES

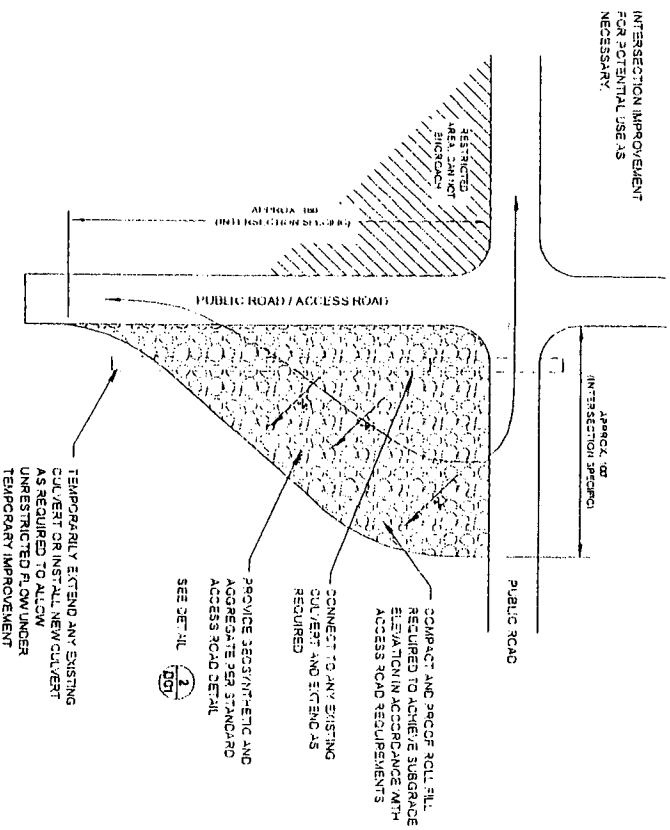
- TEMPORARY IMPROVEMENTS**
1. COMP. / WITH SPECIFIC VDOT OR WARD COUNTY PERMIT REQUIREMENTS.
 2. COMP. / WITH SPECIFIC VDOT AND COUNTY HIGHWAY REQUIREMENTS FOR SHOULDER RELOCATION.
 3. OBTAIN RIGHT-OF-WAY PERMIT FROM COUNTY HIGHWAY DEPARTMENT OR VDOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 4. OBTAIN PERMIT FROM WARD COUNTY OR VDOT BEFORE BEGINNING CULVERT INSTALLATION WITHIN RIGHT-OF-WAY.
 5. REMOVE TOPSOIL BEFORE PREPARATION OF SUBGRADE. PROVIDE GEOSYNTHETIC AND AGGREGATE PER STANDARD ACCESS ROAD DETAIL. COMPACT AND PROOF ROLL TEMPORARY ACCESS AREA IN ACCORDANCE WITH STANDARD ACCESS ROAD REQUIREMENTS. (SEE SHEET 201)
 6. PROVIDE TEMPORARY BARRICADES AT PUBLIC ROAD IMPROVEMENT AREAS TO PREVENT USE BY GENERAL PUBLIC.
 7. REMOVE TEMPORARY ACCESS ROAD IMPROVEMENTS AS PART OF FINAL SITE RESTORATION. REMOVE FILL, SHORTEN CULVERT AND RESTORE GROUND SURFACE TO ORIGINAL GRADE UPON PROJECT COMPLETION.



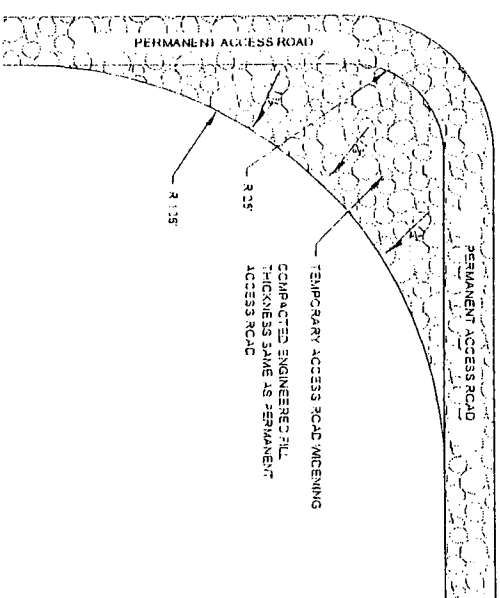
1
DD4
TYPICAL PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



2
DD4
TYPICAL "CUT-THROUGH" PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



3
DD4
TYPICAL "SWING WIDE" PUBLIC ROAD/ACCESS ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



4
DD4
TYPICAL INTERIOR ACCESS ROAD WIDENING ALONG 90° CURVES
(NOT TO SCALE)

30% ISSUED FOR REVIEW

AGREEMENT NO. 59882

 BASIN ELECTRIC
 POWER COOPERATIVE
 A Not-for-Profit Corporation

NO.	DATE	BY	CHKD	APPD	REVISION
1	4/15/2009	JVC	JVC	JVC	30% ISSUED FOR REVIEW

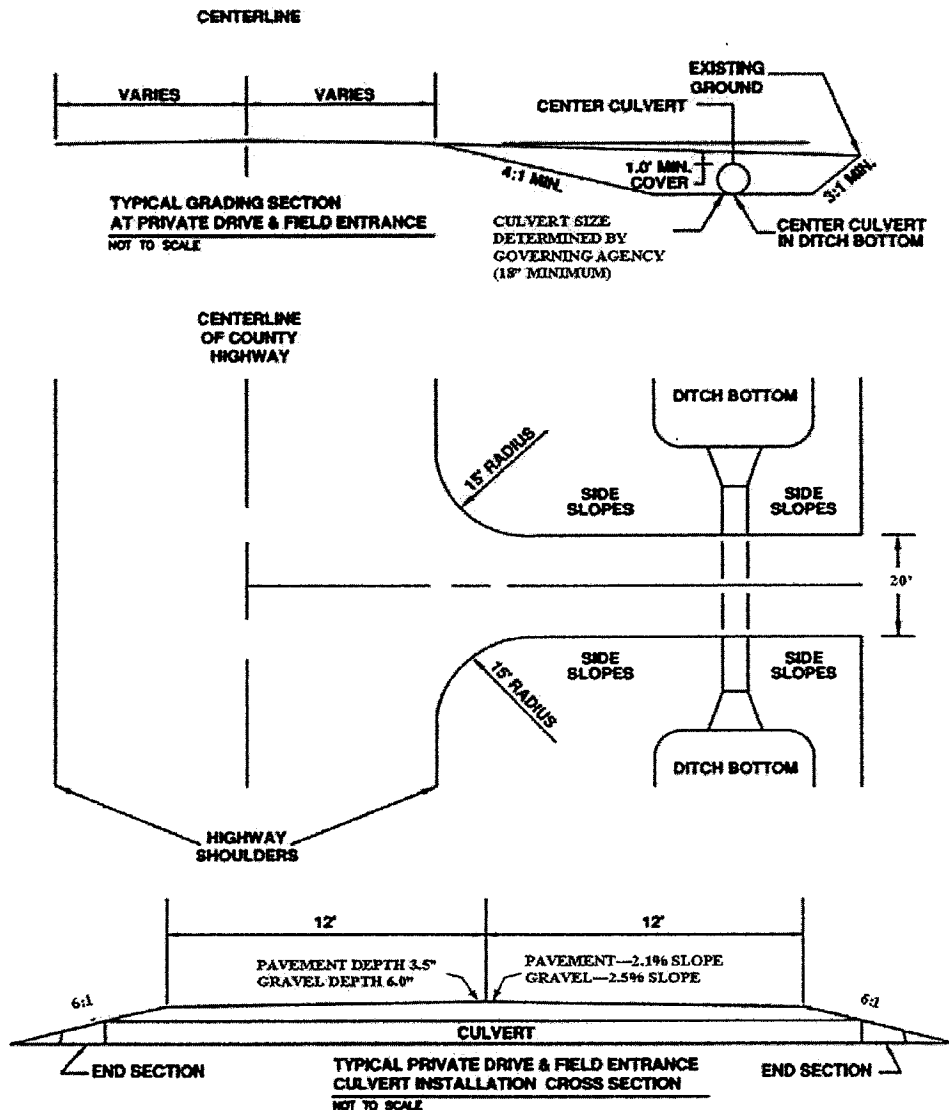
CONFIDENTIAL
 These documents are for the use of RMT, Inc. and its employees only. All other uses are prohibited. Use by anyone other than RMT, Inc. is a violation of the law.

RMT
 744 Howard Ave.
 Bismarck, ND 58102-8922
 P.O. Box 8923 Bismarck, ND 58108-8923
 Tel: 701-781-1111 Fax: 701-781-1112

MINUT WIND 2 WIND FARM	WARD COUNTY, NORTH DAKOTA
PUBLIC ROAD/ACCESS ROAD TEMPORARY IMPROVEMENTS	
SCALE AS SHOWN	800/008
ROLLING	OPEN VALUE
DISTURBING	BEFORE SHOWN VALUE
INT. NO.	DD4

Requirements

1. No work under this application is to be started until the application is approved and the permit is issued.
2. The Owner/Applicant agrees to perform all work in accordance with this Permit, and to indemnify and hold harmless the governing agency, its officers and employees from all liability, judgments, costs, expenses, and claims growing out of damages, or alleged damages, of any nature whatsoever, to any person or property arising out of performance or nonperformance of said work, or the existence of said approaches.
3. The total cost of all construction and maintenance of the work specified shall be borne by the Owner/Applicant, its grantees, successors, and assigns; except that the governing agency will maintain the shoulder of the roadway.
4. It is understood by the Own/Applicant that the governing agency does not assume any responsibility for the removal or clearance of snow, ice or sleet, or the opening of windrows of such material, upon any portion of the approach even though snow, ice or sleet, is deposited or windrowed on said approach by its authorized representative engaged in normal winter maintenance operations.
5. An approach, as referred to in this Permit, shall be the traveled area between the highway roadway-surface and the adjacent right-of-way line. Said approach shall be used only for the purpose of providing entrance to and exit from the Owner/Applicant's property.
6. The granting of this permit does not vest the applicant with the exclusive use of the approach. The governing agency retains the right to diminish and expand the use of the approach as required in the interest of the safety of highway traffic.
7. Where work on or near the traveled roadway is necessary, proper signs, channelizing devices, warning lights, and barricades must be erected to protect traffic, employees, and pedestrians. All traffic control devices and methods shall conform to the Manual on Uniform Traffic Control devise (MUTCD).
8. It is understood by the Owner/Applicant that the location, construction, and maintenance of approaches are under the supervision of the governing agency at all times, and that in granting this permit, the governing agency waives none of its powers or rights to direct the removal, relocation, and/or proper maintenance in the future of any approaches within the right-of-way of the governing agency.
9. No foreign material such as dirt, gravel, or bituminous material shall be deposited or left on the road during the construction of approach or installation of drainage facilities. Roadside must be cleaned up after work is completed.
10. Preferred approach spacing is 1 per ¼ mile, but may be less; however approaches must have sufficient sight distance for the posted speed limit. (55 mph 495ft minimum stopping sight distance and 645ft for a 65mph roadway.)
11. No approach, or improvement constructed on the highway right-of-way shall be altered or relocated without permission of the governing agency.
12. Approach side slopes shall meet the 6:1 minimum standard, unless stated otherwise in the comment section and shall be hand finished and seeded.
13. Proper erosion control and sedimentation devices shall be used as required.
14. No approach shall be considered as completed until checked and approved by the governing agency. Surfacing may be omitted on field entrances if so specified in the application.
15. After approach construction is completed the applicant shall notify the governing agency that the work is completed and is ready for inspection.



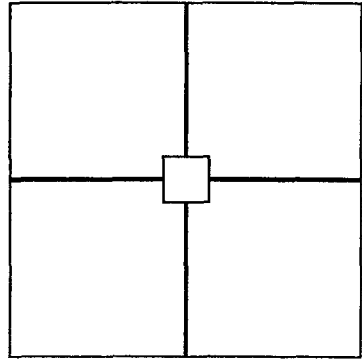
ALL
ACCESS
ROADS
TO BE
GRAVEL

Ward County Approach Permit

Owner Basin Electric Power Cooperative
 Address 1717 East Interstate Avenue
 Home Phone 701-557-5136
 Alternate Phone 701-223-0441
 Contractor RMT INC.
 Contractor Phone # 608-831-4444
 Township Name Rushville Section - Township - Range 22-T151N-R83W
 Location in Section SW 1/4 of SW 1/4
 Subdivision - _____ Lot- _____ Block - _____

Permit # _____
 Ward County Highway Dept.
 PO Box 5005 - 900 13th St SE
 Minot, ND 58702-5005
 Phone: 701-838-2810

Approach Type: New Improved Temporary Other _____
 Approach Use: Residential Commercial Field Access Other Wind Turbine
 Additional Information Approach for access road to Wind Turbine
D60 from 345th SW AVE, see attached Figure for Location.



Location Map

Accessing: County Road Township Road
 Approach Width (20 ft min) 30 ft
 Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section
 Remarks Culvert length to be determined to accommodate grades.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Marti
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section - Township - Range 20-T151N-R83W

Location in Section NE 1/4 of NE 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 - 900 13th St SE

Minot, ND 58702-5005

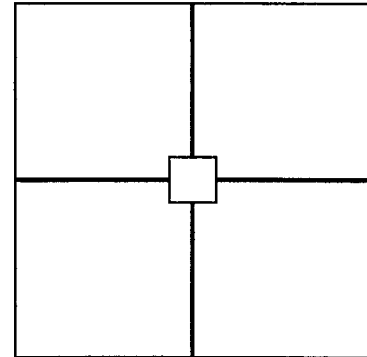
Phone: 701-838-2810

Approach Type: New Improved Temporary Other Existing to be improved

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

D59 from 331st SW AVE, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) _____ CMP Length _____ plus end section

Remarks _____

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.

5/14/09

Owner/Applicant

Date

Kate Martin

Authorized Signature

RMT, Inc

Agency

5/22/09

Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner <u>Basin Electric Power Cooperative</u> Address <u>1717 East Interstate Avenue</u> Home Phone <u>701-557-5136</u> Alternate Phone <u>701-223-0441</u> Contractor <u>RMT INC.</u> Contractor Phone # <u>608-831-4444</u> Township Name <u>Rushville</u> Section - Township - Range <u>16-T151N-R83W</u> Location in Section <u>SE 1/4 of SW 1/4</u> Subdivision - _____ Lot- _____ Block - _____	Permit # _____ Ward County Highway Dept. PO Box 5005 - 900 13 th St SE Minot, ND 58702-5005 Phone: 701-838-2810
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Approach Type: New Improved Temporary Other _____

Approach Use: Residential Commercial Field Access Other Wind Turbine

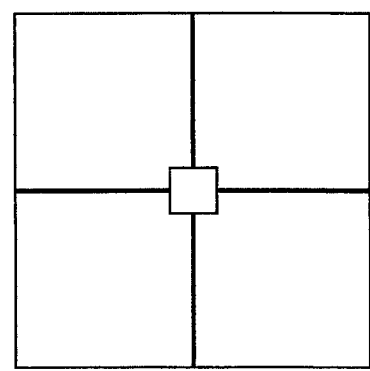
Additional Information Approach for access road to Wind Turbine
D57 from 331st SW AVE, see attached Figure for Location.

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert length to be determined to accommodate grades.



Location Map

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

<u>RMT INC.</u>	<u>5/14/09</u>	
Owner/Applicant	Date	
<u>Kate Marchi</u>	<u>RMT, Inc</u>	<u>5/22/09</u>
Authorized Signature	Agency	Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature	Agency	Date

Ward County Approach Permit

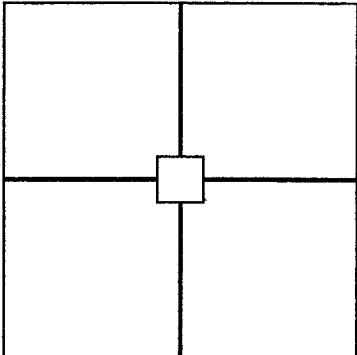
4A

Owner Basin Electric Power Cooperative
 Address 1717 East Interstate Avenue
 Home Phone 701-557-5136
 Alternate Phone 701-223-0441
 Contractor RMT INC.
 Contractor Phone # 608-831-4444
 Township Name Rushville Section - Township - Range 21-T151N-R83W
 Location in Section NW 1/4 of NE 1/4
 Subdivision - _____ Lot- _____ Block - _____

Permit # _____
 Ward County Highway Dept.
 PO Box 5005 - 900 13th St SE
 Minot, ND 58702-5005
 Phone: 701-838-2810

Approach Type: New Improved Temporary Other Existing to be improved.
 Approach Use: Residential Commercial Field Access Other Wind Turbine
 Additional Information Approach for access road to Wind Turbine
D58 from 331st SW AVE, see attached Figure for Location.

 Accessing: County Road Township Road
 Approach Width (20 ft min) 30 ft
 Culvert Required: No Yes Size (18 inch min) _____ CMP Length _____ plus end section
 Remarks _____



Location Map

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Marti
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section - Township - Range 10-T151N-R83W

Location in Section SW 1/4 of SE 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 - 900 13th St SE

Minot, ND 58702-5005

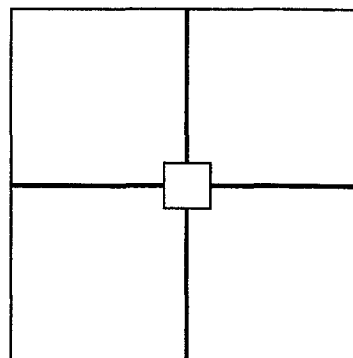
Phone: 701-838-2810

Approach Type: New Improved Temporary Other _____

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

D49 from 317th SE AVE, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert length to be determined to accommodate grades.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.

5/14/09

Owner/Applicant

Date

Kate Marti
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section – Township – Range 10-T151N-R83W

Location in Section SE 1/4 of SE 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 – 900 13th St SE

Minot, ND 58702-5005

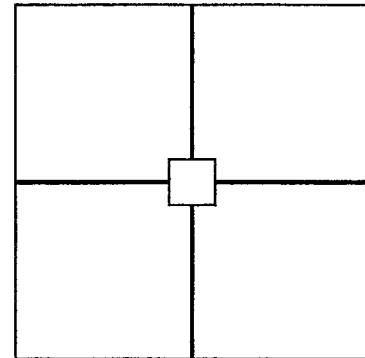
Phone: 701-838-2810

Approach Type: New Improved Temporary Other Existing to be improved

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

D48 & D46 from 317th SE AVE, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) _____ CMP Length _____ plus end section

Remarks May be existing culvert that needs to be extended.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.

5/14/09

Owner/Applicant

Date

Kate Marki
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner <u>Basin Electric Power Cooperative</u> Address <u>1717 East Interstate Avenue</u> Home Phone <u>701-557-5136</u> Alternate Phone <u>701-223-0441</u> Contractor <u>RMT INC.</u> Contractor Phone # <u>608-831-4444</u> Township Name <u>Rushville</u> Section - Township - Range <u>14-T151N-R83W</u> Location in Section <u>NW 1/4 of NE 1/4</u> Subdivision - _____ Lot- _____ Block - _____	Permit # _____ Ward County Highway Dept. PO Box 5005 - 900 13 th St SE Minot, ND 58702-5005 Phone: 701-838-2810
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Approach Type: New Improved Temporary Other _____

Approach Use: Residential Commercial Field Access Other Wind Turbine

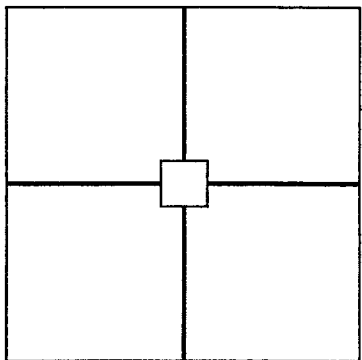
Additional Information Approach for access road to Wind Turbine
E73 from 317th SE AVE, see attached Figure for Location.

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert length to be determined to accommodate grades.



Location Map

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

<u>RMT INC.</u>	<u>5/14/09</u>	
Owner/Applicant	Date	
<u><i>Kate Mark</i></u>	<u>RMT, Inc</u>	<u>5/22/09</u>
Authorized Signature	Agency	Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature	Agency	Date

Ward County Approach Permit

8A

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section - Township - Range 14-T151N-R83W

Location in Section NW 1/4 of NE 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 - 900 13th St SE

Minot, ND 58702-5005

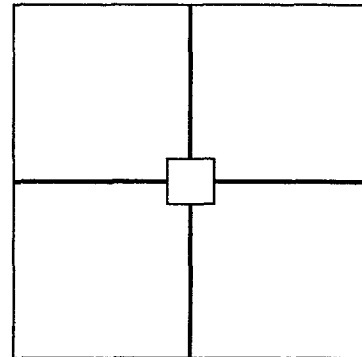
Phone: 701-838-2810

Approach Type: New Improved Temporary Other Existing to be improved

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

E67 from 317th SE AVE, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) _____ CMP Length _____ plus end section

Remarks _____

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.

5/14/09

Owner/Applicant

Date

Kate Mark

Authorized Signature

RMT, Inc

Agency

5/22/09

Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

9A

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section – Township – Range 14-T151N-R83W

Location in Section SE 1/4 of SE 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 – 900 13th St SE

Minot, ND 58702-5005

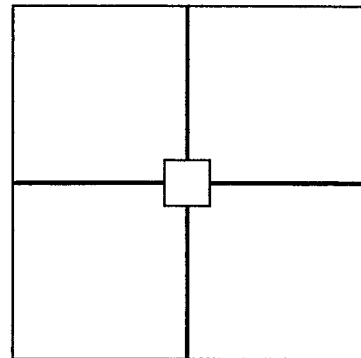
Phone: 701-838-2810

Approach Type: New Improved Temporary Other _____

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

E74 from 37th SE ST, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert length to be determined to accommodate grades.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Marki
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section - Township - Range 13-T151N-R83W

Location in Section NW 1/4 of NW 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 - 900 13th St SE

Minot, ND 58702-5005

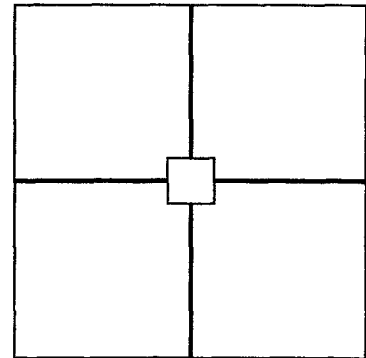
Phone: 701-838-2810

Approach Type: New Improved Temporary Other _____

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

E72 from 317th SE AVE, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30

Culvert Required: No Yes Size (18 inch min) _____ CMP Length _____ plus end section

Remarks _____

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Martin
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section - Township - Range 12-T151N-R83W

Location in Section SE 1/4 of SW 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 - 900 13th St SE

Minot, ND 58702-5005

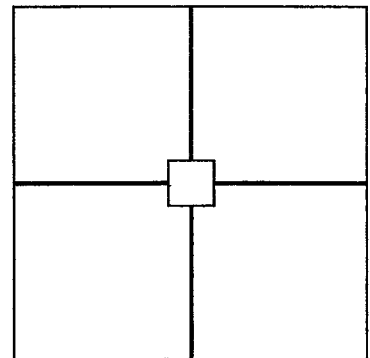
Phone: 701-838-2810

Approach Type: New Improved Temporary Other _____

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

E71 from 317th SE AVE, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert length to be determined to accommodate grades.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Mark
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has been constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Iota Flat

Section - Township - Range 7-T151N-R82W

Location in Section SW 1/4 of SW 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 - 900 13th St SE

Minot, ND 58702-5005

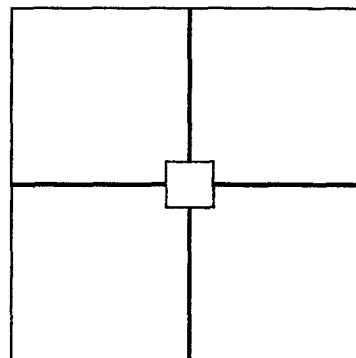
Phone: 701-838-2810

Approach Type: New Improved Temporary Other _____

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

E70 from 42nd SE ST, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 2-18" CMP Length _____ plus end section

Remarks Culvert lengths to be determined to accommodate grades.. two 18 inch diameter CMP required.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Marsh
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Iota Flat

Section - Township - Range 18-T151N-R82W

Location in Section NE 1/4 of SE 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 - 900 13th St SE

Minot, ND 58702-5005

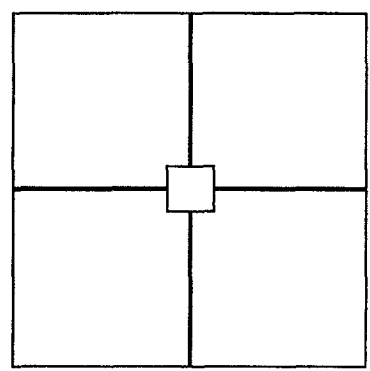
Phone: 701-838-2810

Approach Type: New Improved Temporary Other _____

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

E77 from 55th SE ST, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 3-18" CMP Length _____ plus end section

Remarks Culvert lengths to be determined to accommodate grades. Three 18" CMP culverts are required to accommodate flow.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Marsh
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative
 Address 1717 East Interstate Avenue
 Home Phone 701-557-5136
 Alternate Phone 701-223-0441
 Contractor RMT INC.
 Contractor Phone # 608-831-4444

Permit # _____
 Ward County Highway Dept.
 PO Box 5005 – 900 13th St SE
 Minot, ND 58702-5005
 Phone: 701-838-2810

Township Name Rushville Section – Township – Range 9-T151N-R83W
 Location in Section NW 1/4 of NW 1/4
 Subdivision - _____ Lot- _____ Block - _____

Approach Type: New Improved Temporary Other Existing to be improved
 Approach Use: Residential Commercial Field Access Other Wind Turbine

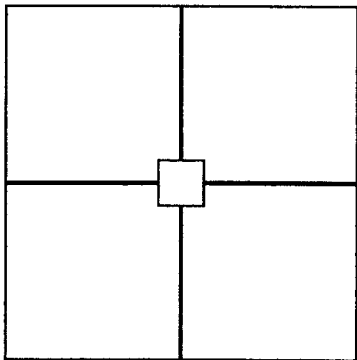
Additional Information Approach for access road to Wind Turbine
D52 from CTH 22, see attached Figure for Location.

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert length to be determined to accommodate grades.



Location Map

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Marsh
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

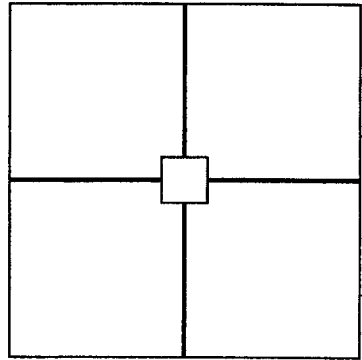
Ward County Approach Permit

Permit # _____
 Ward County Highway Dept.
 PO Box 5005 – 900 13th St SE
 Minot, ND 58702-5005
 Phone: 701-838-2810

Owner Basin Electric Power Cooperative
 Address 1717 East Interstate Avenue
 Home Phone 701-557-5136
 Alternate Phone 701-223-0441
 Contractor RMT INC.
 Contractor Phone # 608-831-4444
 Township Name Rushville Section – Township – Range 4-T151N-R83W
 Location in Section SW 1/4 of SE 1/4
 Subdivision - _____ Lot- _____ Block - _____

Approach Type: New Improved Temporary Other _____
 Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine
D53 from CTH 22, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert length to be determined to accommodate grades.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
 Owner/Applicant

5/14/09
 Date

Kate Marki
 Authorized Signature

RMT, Inc
 Agency

5/22/09
 Date

I attest that the above mentioned approach has been constructed and meets the minimum standards and additional conditions listed above.

 Authorized Signature

 Agency

 Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section - Township - Range 2-T151N-R83W

Location in Section NW 1/4 of NW 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 - 900 13th St SE

Minot, ND 58702-5005

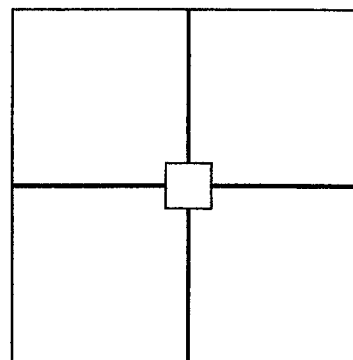
Phone: 701-838-2810

Approach Type: New Improved Temporary Other Existing to be improved

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

C38 from CTH 22, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) _____ CMP Length _____ plus end section

Remarks Extend existing culvert 100 ft.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Marchi
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner Basin Electric Power Cooperative

Address 1717 East Interstate Avenue

Home Phone 701-557-5136

Alternate Phone 701-223-0441

Contractor RMT INC.

Contractor Phone # 608-831-4444

Township Name Rushville

Section – Township – Range 2-T151N-R83W

Location in Section NW 1/4 of NE 1/4

Subdivision - _____ Lot- _____ Block - _____

Permit # _____

Ward County Highway Dept.

PO Box 5005 – 900 13th St SE

Minot, ND 58702-5005

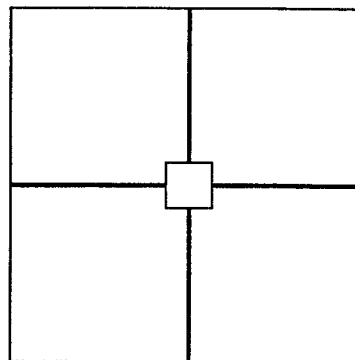
Phone: 701-838-2810

Approach Type: New Improved Temporary Other Existing to be improved.

Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine

C37 from CTH22, see attached Figure for Location.



Location Map

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert length to be determined to accommodate grades.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

RMT INC.
Owner/Applicant

5/14/09
Date

Kate Mark
Authorized Signature

RMT, Inc
Agency

5/22/09
Date

I attest that the above mentioned approach has been constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature

Agency

Date

Ward County Approach Permit

Owner <u>Basin Electric Power Cooperative</u> Address <u>1717 East Interstate Avenue</u> Home Phone <u>701-557-5136</u> Alternate Phone <u>701-223-0441</u> Contractor <u>RMT INC.</u> Contractor Phone # <u>608-831-4444</u>	Permit # _____ Ward County Highway Dept. PO Box 5005 – 900 13 th St SE Minot, ND 58702-5005 Phone: 701-838-2810
Township Name <u>Rushville</u> Section – Township – Range <u>1-T151N-R83W</u> Location in Section <u>NE 1/4 of NE 1/4</u> Subdivision - _____ Lot- _____ Block - _____	

Approach Type: New Improved Temporary Other Existing to be improved.
 Approach Use: Residential Commercial Field Access Other Wind Turbine

Additional Information Approach for access road to Wind Turbine
E65 from CTH 22, see attached Figure for Location.

Accessing: County Road Township Road

Approach Width (20 ft min) 30 ft

Location Map

Culvert Required: No Yes Size (18 inch min) 18" CMP Length _____ plus end section

Remarks Culvert lengths to be determined to accommodate grades.

I, the owner/applicant of the above mentioned property/project, agree to construct the approach for the property noted above, as required by the attached minimum standards and any additional conditions noted above. I also agree that if I don't follow the standards, the Authorizing Agency may construct the approach as needed, or cancel this permit and remove the driveway and charge all costs to the owner/applicant.

<u>RMT INC.</u>	<u>5/14/09</u>	
Owner/Applicant	Date	
<u>Kate Marki</u>	<u>RMT Inc</u>	<u>5/22/09</u>
Authorized Signature	Agency	Date

I attest that the above mentioned approach has be constructed and meets the minimum standards and additional conditions listed above.

Authorized Signature	Agency	Date

PrairieWinds 1 Project

Crane and Collector Crossing Sequence and Traffic Controls

Summary

RMT plans to cross CTH 20 and 22 with critical lift cranes during the construction of the PrairieWinds 1 Wind Farm. The crossing of the cranes will be scheduled with Ward County, so as to minimize the amount of time that the highway will be closed.

Sequence

Following is a summary of the construction sequence for the crane crossing of STH 23 and 83:

1. RMT will notify Ward County, the sheriff, the state police, and the local fire department at least 3 days prior to crane crossing to allow for Ward County to publish a lane closure notice if needed.
2. Prior to the crossing, all rights-of-way, earthen ramps, and temporary culverts will have been completed. Additionally, pavement protective steel plating will be staged adjacent to the crossing area.
3. A small crane will be mobilized to the crossing location to facilitate the movement of the steel plates.
4. One hour prior to the actual movement of the crane, temporary signage in accordance with NDDOT criteria, as shown on document D-704-15 "Type A Temporary Road Closure," will be placed along both the shoulders at distances as noted. This signage will be key to providing ample warning to motorists.
5. When the crane is in position to cross, the applicable lanes will be closed utilizing flagmen and vehicles with flashing roof-mounted lights to notify approaching vehicles of the lane closures. We anticipate assistance from the Ward County Sheriff.
6. One-inch-thick steel plates will then be placed on the paved shoulders, paved lanes, and paved median. The crane will then be moved across the right-of-way.

Once the crane is in the median and the protective plating has been removed, the closed lanes will be reopened to vehicle traffic and the lanes in the opposite direction will be closed utilizing flagmen and vehicles with flashing roof-mounted lights.

7. The process will be repeated with the placement of protective plates, the movement of the crane, the removal of the protective plates, and the reopening of the vehicle lanes to traffic. The closed traffic lanes will be kept to a minimum.

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.

II. Utilities will be allowed to be in a corridor along the outside 10 foot of the right of way as long as it does not interfere with other Highway Department facilities. The utility shall be required to provide detailed as-builts of the construction work including alignment and elevation. These as-builts shall be provided in auto-cadd format and the surveying shall be done in accordance with Ward County Zoning Resolution No. 6 Subsection D of Article 24 Section 5.

III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.

IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.

V. All waterways and lines of drainage shall remain operative.

VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.

VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.

VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.

IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.

X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.

XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

II. When pipes with bells or flanges are installed, the crossings of the roadbeds of the county highway shall be made by boring inside a conduit as provided in paragraph I of this section or jacking a conduit of sufficient diameter to permit threading the carrier pipe through it.

III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 27th SE ST

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 27th in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

COUNTY OF WARD
DEPARTMENT OF HIGHWAYS

11U

APPLICATION FOR UTILITY PERMIT
ON
COUNTY HIGHWAY RIGHT OF WAY

Board of County Commissioners
Minot, North Dakota

Attn: County Highway Engineer

C.R. 27th SE ST

Application is hereby made for permission to place, construct and thereafter maintain a
Wind Turbine Electrical Collector line _____ along/across County Highway 27th SE ST
approximately 3,400 ft south of 317th AVE to Wind Turbine E74, see attached Figure
feet from center line on the East/West (east, west, north or south) side of the county highway in
accordance with the sketch shown on the inside hereof, or attached thereto.

I. AERIAL CONSTRUCTION

Check one Single pole H-Frame Single pole & H-Frame Steel tower Other _____
Check one Open wire Cable Vertical Cross-arm Vertical & cross-arm

VOLTAGE _____ NUMBER OF CONDUCTORS _____ SIZE OF CONDUCTORS _____

Minimum height of conductor: _____ ft. along highway
_____ ft. at crossings over highway

EXTENT & LOCATION OF TREE TRIMMING AND/OR CLEARING: _____

II. UNDERGROUND CONSTRUCTION

CONDUIT

Multiple tile Sectional concrete
 Transite Steel pipe
 Clay tile Other Flexible Electric

CASING

Steel pipe HDPE Innerduct
 Sectional concrete
 Other _____

SIZE _____ DEPTH _____

6 to 8" Dia. _____ Depth of 4 ft where bored _____
VOLTAGE _____ NUMBER OF CONDUCTORS _____ SIZE OF CONDUCTORS _____

35Kv _____ 4 to 6 collectors _____ 1 to 4 inches in diameter _____

METHOD OF INSTALLING UNDER ROADBEDS (if open trench, explain why)

* Open trench _____
 Jacking _____
 Boring _____ Type of casing HDPE SDR 11 _____

* Requesting Special Provision to open trench _____
EXTENT & LOCATION OF TREE CLEARING: _____

III. Work to start on or after June 15, 2009 and to be completed on or before December 31, 09

IV. The applicant in carrying on any and all of the work herein above mentioned or referred to in its application and in the Permit issued herefore, shall strictly conform to the terms of such Permit, and the regulations of the Board of County Commissioners, as set forth herein together with the Special Provisions, all of which are made a part hereof. The applicant specifically agrees to be bound hereby. The applicant shall also comply with the regulations of all other governmental agencies for the protection of the public. The work shall be accomplished in a manner that will not be detrimental to the highway and that will safeguard the public.

Dated this 14 date of May, 2009. Basin Electric Power Cooperative
Name of company making application

Signature Maria Barnhardt By Maria Barnhardt, PE - BEPC
Address 1717 East Interstate Avenue Bismarck, North Dakota 58503-0564

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.

II. Utilities will be allowed to be in a corridor along the outside 10 foot of the right of way as long as it does not interfere with other Highway Department facilities. The utility shall be required to provide detailed as-builts of the construction work including alignment and elevation. These as-builts shall be provided in auto-cadd format and the surveying shall be done in accordance with Ward County Zoning Resolution No. 6 Subsection D of Article 24 Section 5.

III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.

IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.

V. All waterways and lines of drainage shall remain operative.

VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.

VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.

VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.

IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.

X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.

XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

II. When pipes with bells or flanges are installed, the crossings of the roadbeds of the county highway shall be made by boring inside a conduit as provided in paragraph I of this section or jacking a conduit of sufficient diameter to permit threading the carrier pipe through it.

III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 27th SE ST

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 27th in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

- I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.
- II. Utilities will be allowed to be in a corridor along the outside 10 foot of the right of way as long as it does not interfere with other Highway Department facilities. The utility shall be required to provide detailed as-builts of the construction work including alignment and elevation. These as-builts shall be provided in auto-cadd format and the surveying shall be done in accordance with Ward County Zoning Resolution No. 6 Subsection D of Article 24 Section 5.
- III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.
- IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.
- V. All waterways and lines of drainage shall remain operative.
- VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.
- VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.
- VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.
- IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.
- X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.
- XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

II. When pipes with bells or flanges are installed, the crossings of the roadbeds of the county highway shall be made by boring inside a conduit as provided in paragraph I of this section or jacking a conduit of sufficient diameter to permit threading the carrier pipe through it.

III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 317th

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 317th in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

- I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.
- II. Utilities will be allowed to be in a corridor along the outside 10 foot of the right of way as long as it does not interfere with other Highway Department facilities. The utility shall be required to provide detailed as-builts of the construction work including alignment and elevation. These as-builts shall be provided in auto-cadd format and the surveying shall be done in accordance with Ward County Zoning Resolution No. 6 Subsection D of Article 24 Section 5.
- III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.
- IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.
- V. All waterways and lines of drainage shall remain operative.
- VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.
- VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.
- VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.
- IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.
- X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.
- XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

II. When pipes with bells or flanges are installed, the crossings of the roadbeds of the county highway shall be made by boring inside a conduit as provided in paragraph I of this section or jacking a conduit of sufficient diameter to permit threading the carrier pipe through it.

III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 20

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 20 in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

COUNTY OF WARD
DEPARTMENT OF HIGHWAYS

APPLICATION FOR UTILITY PERMIT
ON
COUNTY HIGHWAY RIGHT OF WAY

Board of County Commissioners
Minot, North Dakota

Attn: County Highway Engineer

C.R. 22

Application is hereby made for permission to place, construct and thereafter maintain a
Wind Turbine Electrical Collector line along/across County Highway 22
near Wind Turbine D53 access road approach approx. 3,500 ft west of HWY 83, see attached Figure
feet from center line on the North/South (east, west, north or south) side of the county highway in
accordance with the sketch shown on the inside hereof, or attached thereto.

I. AERIAL CONSTRUCTION

Check one	<input type="checkbox"/> Single pole	Check one	<input type="checkbox"/> Open wire
	<input type="checkbox"/> H-Frame		<input type="checkbox"/> Cable
	<input type="checkbox"/> Single pole & H-Frame		<input type="checkbox"/> Vertical
	<input type="checkbox"/> Steel tower		<input type="checkbox"/> Cross-arm
	<input type="checkbox"/> Other		<input type="checkbox"/> Vertical & cross-arm

VOLTAGE	NUMBER OF CONDUCTORS	SIZE OF CONDUCTORS
---------	----------------------	--------------------

Minimum height of conductor: _____ ft. along highway
 _____ ft. at crossings over highway

EXTENT & LOCATION OF TREE TRIMMING AND/OR CLEARING:

II. UNDERGROUND CONSTRUCTION

CONDUIT

<input type="checkbox"/> Multiple tile	<input type="checkbox"/> Sectional concrete
<input type="checkbox"/> Transite	<input type="checkbox"/> Steel pipe
<input type="checkbox"/> Clay tile	<input checked="" type="checkbox"/> Other Flexible Electric

CASING

<input type="checkbox"/> Steel pipe	<input checked="" type="checkbox"/> HDPE Innerduct
<input type="checkbox"/> Sectional concrete	
<input type="checkbox"/> Other	

SIZE	DEPTH
6 to 8" Dia.	Depth of 4 ft where bored

VOLTAGE	NUMBER OF CONDUCTORS	SIZE OF CONDUCTORS
35Kv	4 to 6 collectors	1 to 4 inches in diameter

METHOD OF INSTALLING UNDER ROADBEDS (if open trench, explain why)

Open trench _____
 Jacking _____
 Boring Type of casing HDPE SDR 11

* Requesting Special Provision to open trench

EXTENT & LOCATION OF TREE CLEARING:

III. Work to start on or after June 15th and to be completed on or before December 31

IV. The applicant in carrying on any and all of the work herein above mentioned or referred to in its application and in the Permit issued herefore, shall strictly conform to the terms of such Permit, and the regulations of the Board of County Commissioners, as set forth herein together with the Special Provisions, all of which are made a part hereof. The applicant specifically agrees to be bound hereby. The applicant shall also comply with the regulations of all other governmental agencies for the protection of the public. The work shall be accomplished in a manner that will not be detrimental to the highway and that will safeguard the public.

Dated this 14 date of May, 2009. Basin Electric Power Cooperative
Name of company making application

Signature Maria Barnhardt By Maria Barnhardt, PE - BEPC
Address 1717 East Interstate Avenue Bismarck, North Dakota 58503-0564

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

- I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.
- II. Utilities will be allowed to be in a corridor along the outside 10 foot of the right of way as long as it does not interfere with other Highway Department facilities. The utility shall be required to provide detailed as-builts of the construction work including alignment and elevation. These as-builts shall be provided in auto-cadd format and the surveying shall be done in accordance with Ward County Zoning Resolution No. 6 Subsection D of Article 24 Section 5.
- III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.
- IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.
- V. All waterways and lines of drainage shall remain operative.
- VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.
- VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.
- VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.
- IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.
- X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.
- XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

II. When pipes with bells or flanges are installed, the crossings of the roadbeds of the county highway shall be made by boring inside a conduit as provided in paragraph I of this section or jacking a conduit of sufficient diameter to permit threading the carrier pipe through it.

III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 22

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 22 in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

APPLICATION FOR UTILITY PERMIT
ON
COUNTY HIGHWAY RIGHT OF WAY

Board of County Commissioners
Minot, North Dakota

Attn: County Highway Engineer

C.R. 317th

Application is hereby made for permission to place, construct and thereafter maintain a Wind Turbine Electrical Collector line along/across County Highway 317th SW Ave approximately 1,300 ft west of HWY 83, see attached Figure feet from center line on the North/South (east, west, north or south) side of the county highway in accordance with the sketch shown on the inside hereof, or attached thereto.

I. AERIAL CONSTRUCTION

Check one	<input type="checkbox"/> Single pole	Check one	<input type="checkbox"/> Open wire
	<input type="checkbox"/> H-Frame		<input type="checkbox"/> Cable
	<input type="checkbox"/> Single pole & H-Frame		<input type="checkbox"/> Vertical
	<input type="checkbox"/> Steel tower		<input type="checkbox"/> Cross-arm
	<input type="checkbox"/> Other _____		<input type="checkbox"/> Vertical & cross-arm

VOLTAGE	NUMBER OF CONDUCTORS	SIZE OF CONDUCTORS
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Minimum height of conductor: _____ ft. along highway
 _____ ft. at crossings over highway

EXTENT & LOCATION OF TREE TRIMMING AND/OR CLEARING:

II. UNDERGROUND CONSTRUCTION

CONDUIT

<input type="checkbox"/> Multiple tile	<input type="checkbox"/> Sectional concrete
<input type="checkbox"/> Transite	<input type="checkbox"/> Steel pipe
<input type="checkbox"/> Clay tile	<input checked="" type="checkbox"/> Other Flexible Electric

CASING

<input type="checkbox"/> Steel pipe	<input checked="" type="checkbox"/> HDPE Innerduct
<input type="checkbox"/> Sectional concrete	
<input type="checkbox"/> Other _____	

SIZE	DEPTH
6 to 8" Dia.	Depth of 4 ft where bored

VOLTAGE	NUMBER OF CONDUCTORS	SIZE OF CONDUCTORS
35Kv	4 to 6 collectors	1 to 4 inches in diameter

METHOD OF INSTALLING UNDER ROADBEDS (if open trench, explain why)

<input type="checkbox"/> Open trench	_____
<input type="checkbox"/> Jacking	_____
<input checked="" type="checkbox"/> Boring	Type of casing <u>HDPE SDR 11</u>

* Requesting Special Provision to open trench
EXTENT & LOCATION OF TREE CLEARING:

III. Work to start on or after June 15, 2009 and to be completed on or before December 31, 09

IV. The applicant in carrying on any and all of the work herein above mentioned or referred to in its application and in the Permit issued herefore, shall strictly conform to the terms of such Permit, and the regulations of the Board of County Commissioners, as set forth herein together with the Special Provisions, all of which are made a part hereof. The applicant specifically agrees to be bound hereby. The applicant shall also comply with the regulations of all other governmental agencies for the protection of the public. The work shall be accomplished in a manner that will not be detrimental to the highway and that will safeguard the public.

Dated this 14 date of May, 2009. Basin Electric Power Cooperative
Name of company making application

Signature *Maria Bamhardt* By Maria Bamhardt, PE - BEPC
Address 1717 East Interstate Avenue Bismarck, North Dakota 58503-0564

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

- I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.
- II. Utilities will be allowed to be in a corridor along the outside 10 foot of the right of way as long as it does not interfere with other Highway Department facilities. The utility shall be required to provide detailed as-builts of the construction work including alignment and elevation. These as-builts shall be provided in auto-cadd format and the surveying shall be done in accordance with Ward County Zoning Resolution No. 6 Subsection D of Article 24 Section 5.
- III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.
- IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.
- V. All waterways and lines of drainage shall remain operative.
- VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.
- VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.
- VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.
- IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.
- X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.
- XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

II. When pipes with bells or flanges are installed, the crossings of the roadbeds of the county highway shall be made by boring inside a conduit as provided in paragraph I of this section or jacking a conduit of sufficient diameter to permit threading the carrier pipe through it.

III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 317th SW Ave

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 317th in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.

II. Utilities will be allowed to be in a corridor along the outside 10 foot of the right of way as long as it does not interfere with other Highway Department facilities. The utility shall be required to provide detailed as-builts of the construction work including alignment and elevation. These as-builts shall be provided in auto-cadd format and the surveying shall be done in accordance with Ward County Zoning Resolution No. 6 Subsection D of Article 24 Section 5.

III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.

IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.

V. All waterways and lines of drainage shall remain operative.

VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.

VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.

VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.

IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.

X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.

XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

II. When pipes with bells or flanges are installed, the crossings of the roadbeds of the county highway shall be made by boring inside a conduit as provided in paragraph I of this section or jacking a conduit of sufficient diameter to permit threading the carrier pipe through it.

III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 331ST SW

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 331 in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

APPLICATION FOR UTILITY PERMIT
ON
COUNTY HIGHWAY RIGHT OF WAY

Board of County Commissioners
Minot, North Dakota

Attn: County Highway Engineer

C.R. 345th ST

Application is hereby made for permission to place, construct and thereafter maintain a Wind Turbine Electrical Collector line along/across County Highway 345th SW Ave approximately 500 ft east of the approach for the access road to Wind Turbine D60, see attached Figure feet from center line on the North/South (east, west, north or south) side of the county highway in accordance with the sketch shown on the inside hereof, or attached thereto.

I. AERIAL CONSTRUCTION

Check one	<input type="checkbox"/> Single pole	Check one	<input type="checkbox"/> Open wire
	<input type="checkbox"/> H-Frame		<input type="checkbox"/> Cable
	<input type="checkbox"/> Single pole & H-Frame		<input type="checkbox"/> Vertical
	<input type="checkbox"/> Steel tower		<input type="checkbox"/> Cross-arm
	<input type="checkbox"/> Other _____		<input type="checkbox"/> Vertical & cross-arm

VOLTAGE	NUMBER OF CONDUCTORS	SIZE OF CONDUCTORS
---------	----------------------	--------------------

Minimum height of conductor: _____ ft. along highway
 _____ ft. at crossings over highway

EXTENT & LOCATION OF TREE TRIMMING AND/OR CLEARING:

II. UNDERGROUND CONSTRUCTION

CONDUIT

<input type="checkbox"/> Multiple tile	<input type="checkbox"/> Sectional concrete
<input type="checkbox"/> Transite	<input type="checkbox"/> Steel pipe
<input type="checkbox"/> Clay tile	<input checked="" type="checkbox"/> Other Flexible Electric

CASING

<input type="checkbox"/> Steel pipe	<input checked="" type="checkbox"/> HDPE Innerduct
<input type="checkbox"/> Sectional concrete	
<input type="checkbox"/> Other _____	

SIZE	DEPTH
6 to 8" Dia.	Depth of 4 ft where bored

VOLTAGE	NUMBER OF CONDUCTORS	SIZE OF CONDUCTORS
35Kv	4 to 6 collectors	1 to 4 inches in diameter

METHOD OF INSTALLING UNDER ROADBEDS (if open trench, explain why)

Open trench _____
 Jacking _____
 Boring Type of casing HDPE SDR 11

* Requesting Special Provision to open trench
 EXTENT & LOCATION OF TREE CLEARING:

III. Work to start on or after June 15, 2009 and to be completed on or before December 31, 09

IV. The applicant in carrying on any and all of the work herein above mentioned or referred to in its application and in the Permit issued herefore, shall strictly conform to the terms of such Permit, and the regulations of the Board of County Commissioners, as set forth herein together with the Special Provisions, all of which are made a part hereof. The applicant specifically agrees to be bound hereby. The applicant shall also comply with the regulations of all other governmental agencies for the protection of the public. The work shall be accomplished in a manner that will not be detrimental to the highway and that will safeguard the public.

Dated this 14 date of May, 2009. Basin Electric Power Cooperative
Name of company making application

Signature Maria Barnhardt By Maria Barnhardt, PE - BEPC
Address 1717 East Interstate Avenue Bismarck, North Dakota 58503-0564

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.

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III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.

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X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.

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XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

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XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

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II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 345th ST

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 345th in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
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Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

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Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

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XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

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XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

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WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 22

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Approved _____
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Permit No. _____

By _____
Ward County Engineer

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IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.

V. All waterways and lines of drainage shall remain operative.

VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.

VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.

VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.

IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.

X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.

XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

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WARD COUNTY
DEPARTMENT OF HIGHWAYS

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Preference: Project Prairie Winds

C.R. 22

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XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

II. When pipes with bells or flanges are installed, the crossings of the roadbeds of the county highway shall be made by boring inside a conduit as provided in paragraph I of this section or jacking a conduit of sufficient diameter to permit threading the carrier pipe through it.

III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 27th SE ST

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 27th in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer

APPLICATION FOR UTILITY PERMIT
ON
COUNTY HIGHWAY RIGHT OF WAY

Board of County Commissioners
Minot, North Dakota

Attn: County Highway Engineer

C.R. 27th SE ST

Application is hereby made for permission to place, construct and thereafter maintain a
Wind Turbine Electrical Collector line _____ along/across County Highway 27th SE ST
approximately 3,300 ft south of CTH 22 to Wind Turbine D46, see attached Figure
feet from center line on the East/West (east, west, north or south) side of the county highway in
accordance with the sketch shown on the inside hereof, or attached thereto.

I. AERIAL CONSTRUCTION

Check one	<input type="checkbox"/> Single pole	Check one	<input type="checkbox"/> Open wire
	<input type="checkbox"/> H-Frame		<input type="checkbox"/> Cable
	<input type="checkbox"/> Single pole & H-Frame		<input type="checkbox"/> Vertical
	<input type="checkbox"/> Steel tower		<input type="checkbox"/> Cross-arm
	<input type="checkbox"/> Other _____		<input type="checkbox"/> Vertical & cross-arm

VOLTAGE	NUMBER OF CONDUCTORS	SIZE OF CONDUCTORS
---------	----------------------	--------------------

Minimum height of conductor: _____ ft. along highway
 _____ ft. at crossings over highway

EXTENT & LOCATION OF TREE TRIMMING AND/OR CLEARING:

II. UNDERGROUND CONSTRUCTION
CONDUIT

<input type="checkbox"/> Multiple tile	<input type="checkbox"/> Sectional concrete
<input type="checkbox"/> Transite	<input type="checkbox"/> Steel pipe
<input type="checkbox"/> Clay tile	<input checked="" type="checkbox"/> Other Flexible Electric

CASING

<input type="checkbox"/> Steel pipe	<input checked="" type="checkbox"/> HDPE Innerduct
<input type="checkbox"/> Sectional concrete	
<input type="checkbox"/> Other _____	

SIZE	DEPTH
6 to 8" Dia.	Depth of 4 ft where bored

VOLTAGE	NUMBER OF CONDUCTORS	SIZE OF CONDUCTORS
35Kv	4 to 6 collectors	1 to 4 inches in diameter

METHOD OF INSTALLING UNDER ROADBEDS (if open trench, explain why)

* Open trench _____
 Jacking _____
 Boring Type of casing HDPE SDR 11 _____

* Requesting Special Provision to open trench

EXTENT & LOCATION OF TREE CLEARING:

III. Work to start on or after June 15, 2009 and to be completed on or before December 31, 09

IV. The applicant in carrying on any and all of the work herein above mentioned or referred to in its application and in the Permit issued herefore, shall strictly conform to the terms of such Permit, and the regulations of the Board of County Commissioners, as set forth herein together with the Special Provisions, all of which are made a part hereof. The applicant specifically agrees to be bound hereby. The applicant shall also comply with the regulations of all other governmental agencies for the protection of the public. The work shall be accomplished in a manner that will not be detrimental to the highway and that will safeguard the public.

Dated this 14 date of May, 2009. Basin Electric Power Cooperative
Name of company making application

Signature Maria Barnhardt
By Maria Barnhardt, PE - BEPC
Address 1717 East Interstate Avenue Bismarck, North Dakota 58503-0564

**Rules and Regulations of Board of County Commissioners
for Utilities on County Highways**

DEFINITIONS

Utility: Under this order "utility" shall mean and include all privately, publicly or co-operatively owned communication lines and facilities, any systems, lines and facilities for the distribution and transmission of electrical energy, oil, gas, water, sewer, steam and other pipe lines, railways, ditches, flumes or other structures which under the laws of this State or the ordinance of any village or city may be constructed, placed or maintained across, along or on county highway right of way. Dependent upon the meaning intended in the context, "Utility" shall also mean the utility company, inclusive of any wholly owned subsidiary.

GENERAL

- I. Except as otherwise permitted, utility construction and relocation on county highway right of way shall not be commenced until an application for a Permit has been made and such permit granted. The Permit sketch shall show the location of the proposed utility with reference to county highway center line. A copy of the sketch shall be provided for each copy of such permit.
- II. Utilities will be allowed to be in a corridor along the outside 10 foot of the right of way as long as it does not interfere with other Highway Department facilities. The utility shall be required to provide detailed as-builts of the construction work including alignment and elevation. These as-builts shall be provided in auto-cadd format and the surveying shall be done in accordance with Ward County Zoning Resolution No. 6 Subsection D of Article 24 Section 5.
- III. All Utilities will be required to comply with US EPA and ND Pollutant Discharge Elimination System requirements on each permitted utility project within County right of ways. This work shall include restoration of all right of ways to preconstruction grass coverage and filling of all trench settlement up to one year after completion of construction of the permitted line. Initial right of way restoration, to include re-topsoiling and seeding shall take place the same year as the construction takes place.
- IV. Burning or disking operations and/or the use of chemicals to control or kill trees, brush and other vegetation is prohibited without prior approval from the County Highway Engineer.
- V. All waterways and lines of drainage shall remain operative.
- VI. Wherever topsoil and sod are disturbed they shall be replaced and maintained satisfactorily until the turf is established.
- VII. The utility facility and installation shall not interfere with any existing utility facilities on the county highway right of way.
- VIII. When necessary, barricades, warning devices and flagmen shall be provided by the Utility during all phases of their construction and maintenance operations on county highway right of way.
- IX. At the time of construction of the utility and at the times of subsequent maintenance, prior approval shall be obtained from the County Highway Engineer for the cutting and trimming of trees within the county highway right of way. Wherever trees are cut the resulting stumps shall be removed unless otherwise provided in the Special Provisions of the Permit. Any holes caused by stump removal shall be backfilled, the area leveled and all materials associated therewith disposed of outside the county highway right of way. The utility shall advise the County Highway Engineer at least 48 hours in advance of its intent to start clearing and grubbing operations so that proper supervision can be provided.
- X. The Utility shall notify the County Highway Engineer of its intent to perform service and maintenance operations which will interfere with the flow of traffic on county highways and shall obtain his approval prior to performing such operations. However, the Company may perform service and maintenance operations on county highways including opening and disturbing the surface of the right of way without prior approval in those instances where an emergency exists that is dangerous to the life or safety of the public and which requires immediate repair. The Utility shall take all necessary and reasonable safety measures to protect the traveling public and shall notify the County Highway Engineer at the earliest possible moment.
- XI. If at any time Ward County, acting through its Board of County Commissioners, shall deem it necessary to make any improvements or changes on all or any part of the right of way of the county highway which affect a utility located on county highway right of way, then and in such event, the owner of the utility shall within 15 days after written notice from the Board of County Commissioners or its authorized agent, proceed to alter, change, vacate or remove said utility from the county highway right of way so as to conform to said county highway changes and as directed by the Board of County Commissioners. Such work shall be done without any cost whatsoever to Ward County and shall be completed within the date specified in said written notice. The Utility shall assume all liability and save Ward County harmless from any and all claims or damage of any nature whatsoever occasioned by reason of not having removed said utility within the time specified in said notice.

XII. The Utility shall assume all liability for and save the County, its agents and employees, harmless from, any and all claims for damages, actions or causes of action arising out of the work to be done herein and the continuing uses by the Utility, including but not limited to the placing, constructing, reconstructing, maintaining and using of said utility under this application and Permit.

XIII. The Board of County Commissioners may require the Utility or its contractor, to furnish a deposit in the form of a certified check, surety bond or corporate undertaking, in favor of the Board of County Commissioners of Ward County, for any expense incurred by the County in the repairing of damage to any portion of the county highway right of way caused by work performed under a Permit, including any out of the ordinary engineering supervision and inspection expense provided by the County. In those instances wherein a deposit is required, the amount of the deposit shall be specified in the Special Provisions of the Permit. If a check is furnished, any monies remaining over and above such expense shall be returned to the applicant.

XIV. The permit issued does not in any way imply an easement on private property.

XV. The installations shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

XVI. Upon completion of an installation, the Utility shall restore the county highway right of way to its original condition. The Utility shall then notify the office of the County Highway Engineer of the completion of the work so that inspection can be made to determine its acceptability.

AERIAL

I. There shall be only a single pole line on the county highway right of way on either side of the center line thereof.

II. Longitudinal installations on county highway shall normally be located in the outer five feet of the right of way. At crossings of the county highway, poles shall be placed at a minimum of thirty feet from the shoulder lines of the through roadbeds unless right of way widths are prohibitive to such location.

III. The location of all brace poles, anchors and anchor poles within the limits of the county highway right-of-way shall be approved by the County Highway Engineer.

IV. In those instances in which a Utility is issued a Permit or Permits for construction on both sides of the county highway right-of-way in a given area, such Permit is conditioned upon the Utility subsequently providing joint use to other Utilities upon reasonable terms mutually agreeable to the Utilities.

UNDERGROUND

I. All crossings of the roadbeds of the county highways shall be made by boring inside a casing or carrier pipe or by jacking, unless this procedure is modified in the Special Provisions of the Permit. The auger shall not lead the casing or carrier pipe by more than one inch. Open trenching shall be restricted to the area from 5 feet beyond the shoulder to the right-of-way line except as modified in the Special Provisions of the Permit.

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III. All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry of at least two sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.

IV. The underground utilities shall be so installed as virtually to preclude any necessity for disturbing the roadbeds to perform maintenance operations.

V. Underground installations shall be accomplished without damaging or destroying the principal root structure of specimen trees.

LOCATION SKETCH

I. A location sketch is required and shall show the location of proposed facility in relation to the center line of the county highway and other pertinent features such as right-of-way line curb line and edge of surfacing. The facility should also be referenced to adjacent land liners.

II. The sketch shall also clearly show the total length of the proposed utility, and clearly label any crossings.

WARD COUNTY
DEPARTMENT OF HIGHWAYS

UTILITY PERMIT

Preference: Project Prairie Winds

C.R. 27th SE ST

In accordance with the application herein, a Utility Permit is granted to Basin Electric Power Cooperative to place, construct and thereafter maintain an electric collector line on or across, or under the right-of-way of County Highway No. 27th in the location shown on the sketch which is part of said application, or in such location as may be specified by the Department of Highways in the Special Provisions hereof. The Applicant herefore further accepts the Additional conditions herein by acceptance of the benefits and authority conferred by the issuance of this permit.

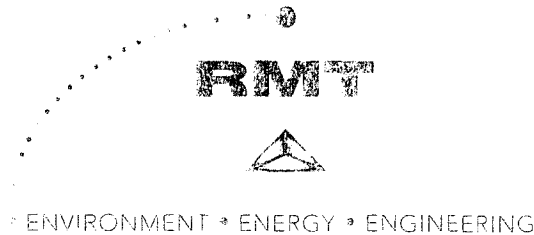
SPECIAL PROVISIONS:

1. IT SHALL BE THE APPLICANT'S COST FOR ADJUSTMENT OF RELOCATION OF THEIR FACILITY ON ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY.
2. THE UTILITY SHALL HOLD WARD COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGE TO SAID UTILITY DUE TO NORMAL MAINTENANCE OF SAID HIGHWAY, HIGHWAY RIGHT-OF-WAY, HIGHWAY DRAINAGE, HIGHWAY SIGNING, ETC.
3. THE UTILITY SHALL ADEQUATELY IDENTIFY LOCATION OF SAID UTILITY FOR REASONABLE PROTECTION BY WARD COUNTY AND/OR ITS REPRESENTATIVES DURING NORMAL MAINTENANCE OPERATIONS. UPON REQUEST WILL SPECIFICALLY LOCATE UTILITIES.
4. THE APPLICANT SHALL BEAR THE COST FOR ADJUSTMENT OR RELOCATION OF ANY OF THEIR FACILITIES PRESENTLY LYING WITHIN THE RIGHT-OF-WAY OF ANY COUNTY HIGHWAY OR LYING WITHIN ANY FUTURE RIGHT-OF-WAY OR BACKSLOPE AREAS ACQUIRED BY THE COUNTY AT ANY TIME.
5. THE UTILITY SHALL HOLD THE COUNTY HARMLESS FROM ANY AND ALL CLAIMS OR DAMAGES TO SAID UTILITY'S FACILITIES REGARDLESS OF WHERE SUCH FACILITY MAY BE LOCATED.
6. ANY UTILITY TRENCH SHALL BE CLOSED WITHIN 30 DAYS FROM DATE OPENED.
7. IT SHALL BE THE POLICY OF WARD COUNTY TO ONLY ALLOW TELEPHONE, ELECTRIC, PETROLEUM PIPELINES AND CABLE UTILITIES TO BE IN A CORRIDOR ALONG THE OUTSIDE 10 FEET OF THE RIGHT-OF-WAY AS LONG AS IT DOES NOT INTERFERE WITH OTHER HIGHWAY DEPARTMENT FACILITIES. UTILITY BOXES MUST ALSO BE LOCATED IN THIS SAME CORRIDOR AND OUTSIDE OF THE ROADWAY CLEAR ZONE. ANY DEVIATION FROM THIS MUST BE APPROVED. THE UTILITY SHALL BE REQUIRED TO PROVIDE DETAILED AS-BUILTS OF THE CONSTRUCTION WORK INCLUDING ALIGNMENT AND EVALUATION. THESE AS-BUILTS SHALL BE PROVIDED IN AUTO-CADD OR SHAPEFILE FORMAT AND THE SURVEYING SHALL BE DONE USING STATE PLANE COORDINATES WITH A MINIMUM OF TWO REFERENCE POINTS LABELED ON THE DRAWING. THE COORDINATE BASIS SHALL BE NORTH AMERICAN DATUM OF 1983 ZONE 3301 (NORTH DAKOTA - NORTH). UNITS USED IN STATE PLANE COORDINATES SHALL BE US SURVEY FEET (1M = 39.37 INCHES)
8. THE UTILITY SHALL PROVIDE TO THE COUNTY ENGINEER THE FOLLOWING CONTACT LIST: THE PROJECT REPRESENTATIVE AND WHO HE REPRESENTS, THE PROJECT SUPERVISOR, THE PROJECT RESPONSIBLE PARTY AUTHORIZED TO COMMIT THE REPAIRS AND A LIST OF THE RESPONSIBLE PARTIES FOR EACH CONTRACTOR WITH ADDRESSES AND TELEPHONE NUMBERS.

Approved _____
(date)

Permit No. _____

By _____
Ward County Engineer



July 24, 2009

Mr. Bob White
North Dakota State Water Commission
900 East Boulevard
State Office Building
Bismarck, ND 58505-0850

**Subject: PrairieWinds 1 and Minot Wind 2 Wind Farms, Ward County, North Dakota
Application for Temporary Water Permit**

Dear Mr. White:

RMT, Inc., is preparing the design and construction for the PrairieWinds 1 and Minot Wind 2 Wind Farms for Basin Electric Power Cooperative (BEPC). The purpose of this letter is to provide information for permitting the use of surface water sources during construction activities. Attached are applications giving the proposed locations of surface water sources, the estimated water quantities required, and the withdrawal rates anticipated.

Surface water sources will consist of privately owned ponds located at participating landowners' properties. On the basis of using four water trucks per day, at 40,000 gallons each, and working 6 days per week for a period of 3 months, we anticipate requiring an approximate volume of 12 million gallons of water, depending on the weather. The primary use of this water will be for dust control during construction activities.

Construction is scheduled to start on August 3, so your expeditious review and permit approval would be very much appreciated. I can be contacted at (608) 662-5129 (office), (608) 320-6181 (cell), or at kevin.kowalchuk@rmtinc.com (e-mail). We appreciate your assistance.

Sincerely,
RMT, Inc.

Kevin J. Kowalchuk
Staff Engineer

Jan C. Kucher
Senior Engineer

Attachments: Application for Temporary Water Permit (SWC Form No. 247 Sheets 1 – 6)

cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT
Mark Young – RMT

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STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

NOTE; Use one application for each type of source (surface water or ground water). Use one application for each different surface water source. Complete all lines. If this application is not satisfactorily completed, it will be returned. If more space is necessary, attach additional sheets. Please type or print in ink. There is no filing fee and no map is required.

Mail completed application to:

State Engineer
North Dakota State Water Commission
State Office Building
900 East Boulevard
Bismarck, ND 58505 - 0850

Name of Applicant RMT, Inc.
Mailing Address 744 Heartland Trail
Madison, WI 53717

Telephone Number (608) 662-5129; (608) 320-6181 (cell)

Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

Source of Water Supply: (check one)

Surface Water Source

Ground Water Source

Name of Source (if surface water): Privately owned pond

Location of Proposed Point of Diversion: County Ward
NW 1/4 Section 9 Township 151N Range 83W

Purpose for Which Water Will be Used: Dust control on gravel roads during construction

Total Quantity of Water required: _____ acre-feet
(complete one) 2,000,000 gallons
_____ barrels

Withdrawal rate at which water is proposed to be diverted at the location listed above: 330 gpm for 2 hours, 4 times per day

Period of Usage: (up to one year) From August 3, 2009 Through August 3, 2010

Signature: 

Date: 7/24/2009

Upon receipt of this form, the State Engineer will forward a written response to the applicant within approximately ten days. If the application is approved, the granting of a temporary water permit does not create a water right. If you have any questions, call (701) 328-2754.

SWC Form No. 247

STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

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North Dakota State Water Commission
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900 East Boulevard
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Madison, WI 53717

Telephone Number (608) 662-5129; (608) 320-6181 (cell)

Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

Source of Water Supply: (check one)

Surface Water Source
 Ground Water Source

Name of Source (if surface water): Privately owned pond

Location of Proposed Point of Diversion: County Ward
SE 1/4 Section 16 Township 151N Range 83W

Purpose for Which Water Will be Used: Dust control on gravel roads during construction

Total Quantity of Water required: _____ acre-feet
(complete one) 2,000,000 gallons
_____ barrels

Withdrawal rate at which water is proposed to be diverted at the location listed above: 330 gpm for 2 hours, 4 times per day

Period of Usage: (up to one year) From August 3, 2009 Through August 3, 2010

Signature: 

Date: 7/24/2009

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SWC Form No. 247

STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

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Madison, WI 53717

Telephone Number (608) 662-5129; (608) 320-6181 (cell)

Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

Source of Water Supply: (check one)

Surface Water Source

Ground Water Source

Name of Source (if surface water): Privately owned pond

Location of Proposed Point of Diversion: County Ward
NE 1/4 Section 16 Township 151N Range 83W

Purpose for Which Water Will be Used: Dust control on gravel roads during construction

Total Quantity of Water required: _____ acre-feet
(complete one) 2,000,000 gallons
_____ barrels

Withdrawal rate at which water is proposed to be diverted at the location listed above: 330 gpm for 2 hours, 4 times per day

Period of Usage: (up to one year) From August 3, 2009 Through August 3, 2010

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STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

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Telephone Number (608) 662-5129; (608) 320-6181 (cell)

Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

Source of Water Supply: (check one)

Surface Water Source

Ground Water Source

Name of Source (if surface water): Privately owned pond

Location of Proposed Point of Diversion: County Ward
SW 1/4 Section 26 Township 152N Range 83W

Purpose for Which Water Will be Used: Dust control on gravel roads during construction

Total Quantity of Water required: _____ acre-feet
(complete one) 2,000,000 gallons
_____ barrels

Withdrawal rate at which water is proposed to be diverted at the location listed above: 330 gpm for 2 hours, 4 times per day

Period of Usage: (up to one year) From August 3, 2009 Through August 3, 2010

Signature: 

Date: 7/24/2009

Upon receipt of this form, the State Engineer will forward a written response to the applicant within approximately ten days. If the application is approved, the granting of a temporary water permit does not create a water right. If you have any questions, call (701) 328-2754.

SWC Form No. 247

STATE OF NORTH DAKOTA
APPLICATION FOR A TEMPORARY WATER PERMIT
SWC Project No. 1400A

NOTE; Use one application for each type of source (surface water or ground water). Use one application for each different surface water source. Complete all lines. If this application is not satisfactorily completed, it will be returned. If more space is necessary, attach additional sheets. Please type or print in ink. There is no filing fee and no map is required.

Mail completed application to:

State Engineer
North Dakota State Water Commission
State Office Building
900 East Boulevard
Bismarck, ND 58505 - 0850

Name of Applicant RMT, Inc.
Mailing Address 744 Heartland Trail
Madison, WI 53717

Telephone Number (608) 662-5129; (608) 320-6181 (cell)

Contact Person (if applicant is not an individual) Kevin Kowalchuk (RMT, Inc.)

Source of Water Supply: (check one)

Surface Water Source

Ground Water Source

Name of Source (if surface water): Privately owned pond

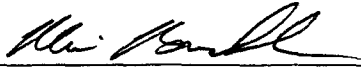
Location of Proposed Point of Diversion: County Ward
NE 1/4 Section 20 Township 152N Range 83W

Purpose for Which Water Will be Used: Dust control on gravel roads during construction

Total Quantity of Water required: _____ acre-feet
(complete one) 2,000,000 gallons
_____ barrels

Withdrawal rate at which water is proposed to be diverted at the location listed above: 330 gpm for 2 hours, 4 times per day

Period of Usage: (up to one year) From August 3, 2009 Through August 3, 2010

Signature: 

Date: 7/24/2009

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Source of Water Supply: (check one)

Surface Water Source

Ground Water Source

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NW 1/4 Section 23 Township 152N Range 83W

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Withdrawal rate at which water is proposed to be diverted at the location listed above: 330 gpm for 2 hours, 4 times per day

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SWC Form No. 247



• ENVIRONMENT • ENERGY • ENGINEERING

May 14, 2009

Mr. Dallas Grossman
North Dakota Department of Health
Division of Water Quality
918 East Divide Avenue, 4th Floor
Bismark, ND 58501-1947

**Subject: PrairieWinds 1 and Minot Wind 2 Wind Farms, Ward County, North Dakota
National Pollution Discharge Elimination System (NPDES) Permitting**

Dear Mr. Grossman:

RMT, Inc., is performing the design and construction for the PrairieWinds 1 and Minot Wind 2 Wind Farms for Basin Electric Power Cooperative (BEPC). The purpose of this letter is to provide information for the National Pollution Discharge Elimination System (NPDES) permit. A site plan is attached showing the proposed infrastructure locations. A Storm Water Pollution Prevention Plan (SWPPP) is attached and Best Management Practices will be followed. The Notice of Intent is included in Appendix B of the SWPPP.

Construction of the wind farm is to include a construction laydown yard, access roads, crane walks, foundations, tower erection, and electrical collector lines (below grade). Construction work includes the following:

- Permanent access roads will consist of a 16-foot-wide gravel surface. On the basis of a prescribed wind turbine component delivery route from the south, a temporary 136-foot radius will be added to key intersection locations to accommodate long delivery trailers (details are attached).
- Foundations include excavation to approximately 9 feet and the construction of an approximately 50-foot-diameter concrete foundation.
- Crane walks are temporary and consist of a 36-foot-wide path of compacted earth.
- The electrical collector line cables are trenched, bored, or open excavated to route the collector lines between the WTGs.

After construction, the areas disturbed by construction will be restored to provide positive drainage and vegetation for erosion control.

Mr. Dallas Grossman
North Dakota Department of Health
May 14, 2009
Page 2

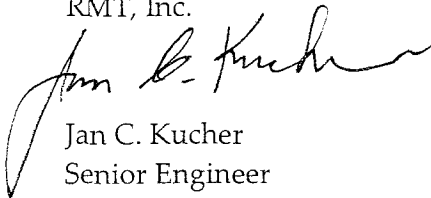
We understand that the North Dakota Department of Health will review the proposed information and issue the NPDES permit. Construction is scheduled to start on June 15, so your expeditious review and approval would be very much appreciated.

Please review the permit application and contact me if you have questions. I can be contacted at (608) 662-5121 (office), (608) 358-5215 (cell), or at jan.kucher@rmtinc.com (e-mail).

We appreciate your assistance, and look forward to working closely with you to complete the PrairieWinds 1 and Minot Wind 2 Wind Farms.

Sincerely,

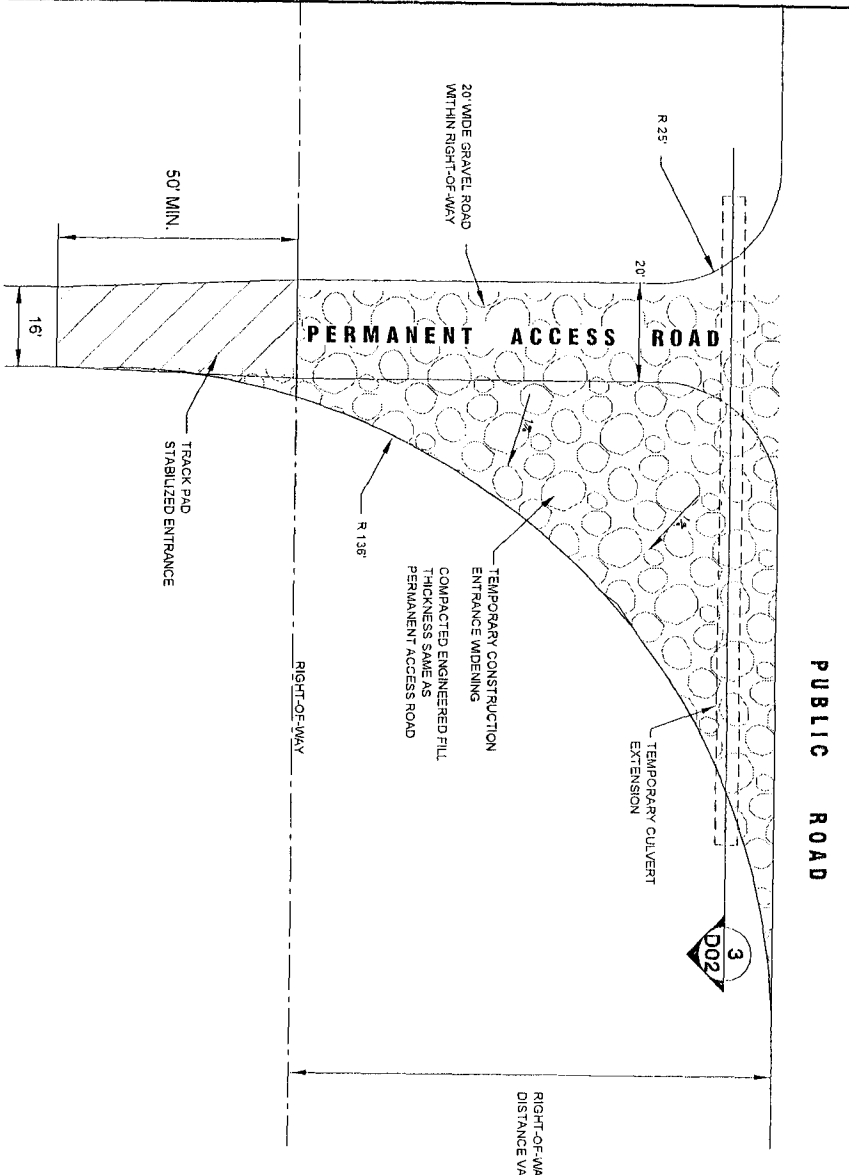
RMT, Inc.

A handwritten signature in black ink, appearing to read "Jan C. Kucher", written over the typed name and title.

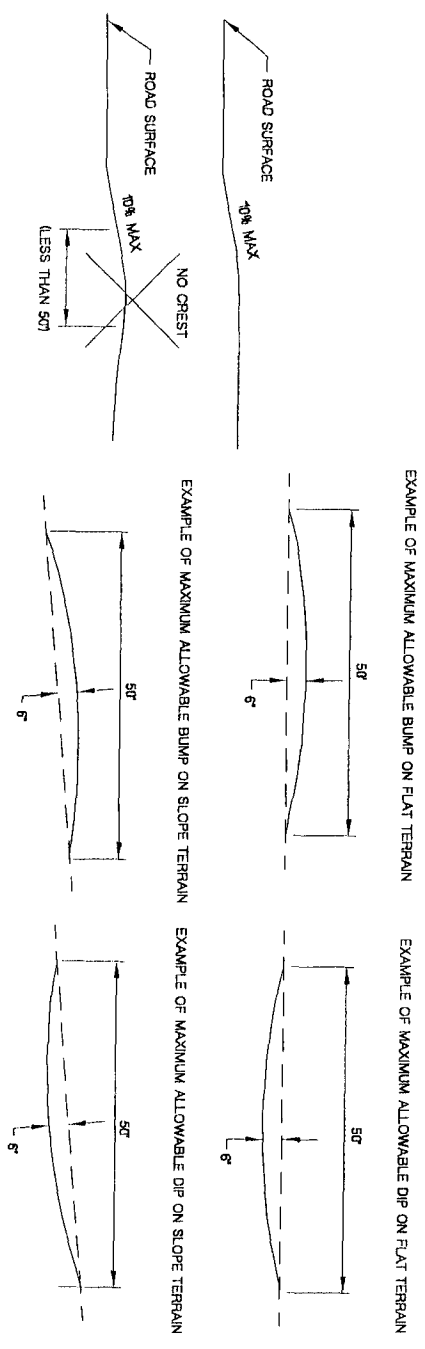
Jan C. Kucher
Senior Engineer

Attachments: Permitting Site Layout
Access Road Details
Storm Water Pollution Prevention Plan (SWPPP)

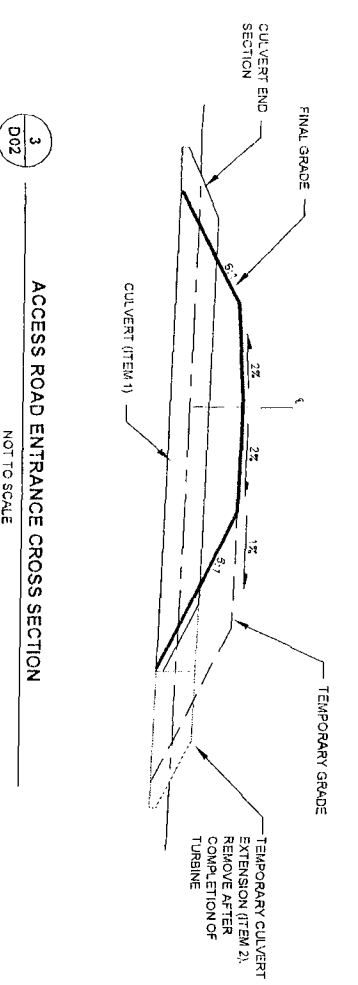
cc: Amanda Wangler, Maria Barnhardt – BEPC
Kate Martin – RMT



1
D02
ACCESS ROAD ENTRANCE
NOT TO SCALE



2
D02
TYPICAL ACCESS ROAD ALLOWABLE GRADES
NOT TO SCALE



3
D02
ACCESS ROAD ENTRANCE CROSS SECTION
NOT TO SCALE

MATERIAL LIST

ITEM	DESCRIPTION
1	CULVERT (SEE DETAIL 1 ON SHEET D05)
2	TEMPORARY CULVERT EXTENSION (SEE DETAIL 1 ON SHEET D05)

NOTES

- ACCESS ROAD ENTRANCE**
- ACCESS ROAD ENTRANCE TO BE 20' WIDE FROM PUBLIC ROAD TO THE RIGHT-OF-WAY LINE THEN TAPERED BACK TO 16' WIDTH.
 - PROVIDE 12 INCHES MINIMUM COVER OVER CULVERT TO FINISHED GRADE.
 - MAINTAIN ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OR BUILDING OF SEDIMENT ON TO PUBLIC ROAD. REMOVED IMMEDIATELY. SEDIMENT SHALL BE DROPPED, WASHED, OR TRACKED ON TO PUBLIC ROAD.
 - NOTIFY PERMITTING AUTHORITY, NDDOT OR WARD COUNTY, PRIOR TO CONSTRUCTION OF ACCESS POINT AS REQUIRED BY PERMIT.
 - FILL OUTSIDE OF PERMANENT ACCESS ROAD LIMITS TO BE REMOVED. CULVERT, SHORTENED AND GROUND SURFACE RESTORED TO FINAL GRADE UPON PROJECT COMPLETION.
 - COMPLY WITH INTERSECTION SPECIFIC NDDOT OR WARD COUNTY PERMIT REQUIREMENTS.
 - OBTAIN RIGHT-OF-WAY PERMIT FROM WARD COUNTY HIGHWAY DEPARTMENT OR NDDOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 - MODIFY INTERSECTIONS OF NEW ACCESS ROADS AND EXISTING HIGHWAYS TO ACCOMMODATE LONG LOADS BY CONSTRUCTING TEMPORARY GRAVEL ACCESS WITH MINIMUM 135 FT. RADIUS AND SUITABLE CULVERTS (CLASS AND COVERAGE PER NDDOT OR COUNTY HIGHWAY PERMITS).

30% ISSUED FOR REVIEW

AGREEMENT NO. 58982

EASIN ELECTRIC POWER COOPERATIVE

744 Harding Ave
Madison, WI 53717-1514
P.O. Box 8821 53708-8821
Phone: 608-331-4444
Fax: 608-331-3134

NO.	DATE	REVISION
1	4/13/2009	30% ISSUED FOR REVIEW

BT (C)RD (ARD)

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MINOT WIND 2 WIND FARM

WARD COUNTY, NORTH DAKOTA

ACCESS ROAD ENTRANCE DETAILS

SCALE: AS SHOWN

PROJ. NO. 090906

DWG. NAME: DETAILS.DWG

DATE: 04/15/09

BY: DMS

CHECKED BY: DMS

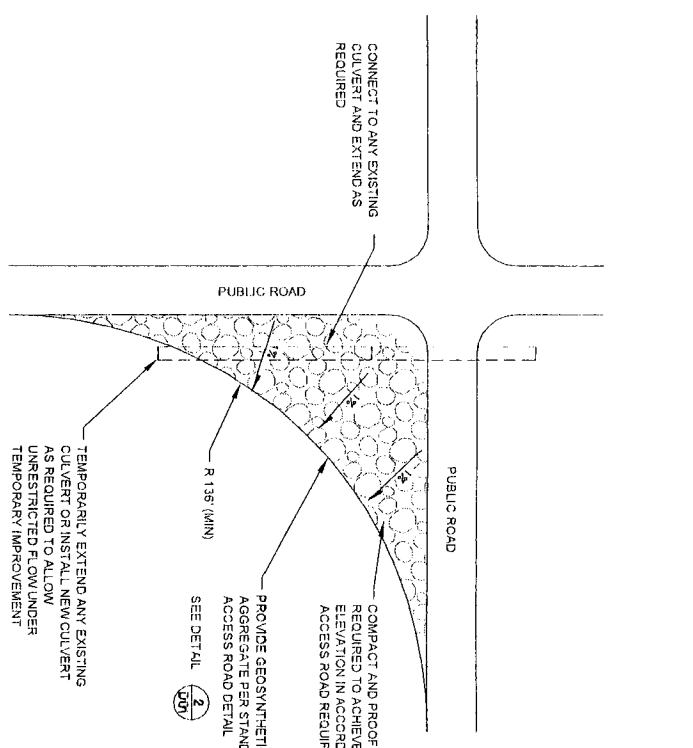
APP. NO. D02

MATERIAL LIST

ITEM	DESCRIPTION
1	INTERSECTION IMPROVEMENT AGGREGATE ACCESS ROAD SURFACE COURSE, DOT TYPE 3 AGGREGATE (MDDOT SECTION 318)
2	GEOSYNTHETIC, TENSAR BX1400 GEGRID OR ENGINEER APPROVED EQUIVALENT
3	TEMPORARY CULVERT EXTENSION, SEE DETAIL 1 ON SHEET D05.
4	TEMPORARY BARRICADES

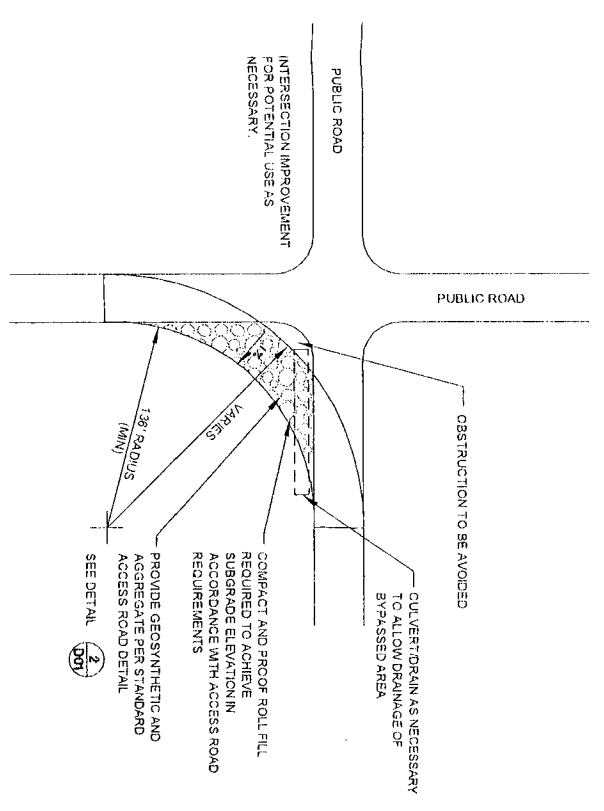
NOTES

- TEMPORARY IMPROVEMENTS**
1. COMPLY WITH SPECIFIC MDDOT OR WARD COUNTY PERMIT REQUIREMENTS.
 2. COMPLY WITH SPECIFIC MDDOT AND COUNTY HIGHWAY REQUIREMENTS FOR SIGNAGE RELOCATION.
 3. OBTAIN RIGHT-OF-WAY PERMIT FROM COUNTY HIGHWAY DEPARTMENT OR MDDOT BEFORE BEGINNING WORK WITHIN THE RIGHT-OF-WAY.
 4. OBTAIN PERMIT FROM WARD COUNTY OR MDDOT BEFORE BEGINNING CULVERT INSTALLATION WITHIN RIGHT-OF-WAY.
 5. REMOVE TOPSOIL BEFORE PREPARATION OF SUBGRADE. PROVIDE GEOSYNTHETIC AND AGGREGATE PER STANDARD ACCESS ROAD DETAIL. COMPACT AND PROOF ROLL TEMPORARY ACCESS AREA IN ACCORDANCE WITH STANDARD ACCESS ROAD REQUIREMENTS. (SEE SHEET D01)
 6. PROVIDE TEMPORARY BARRICADES AT PUBLIC ROAD IMPROVEMENT AREAS TO PREVENT USE BY GENERAL PUBLIC.
 7. REMOVE TEMPORARY ACCESS ROAD IMPROVEMENTS AS PART OF FINAL SITE RESTORATION. REMOVE AND SHORTEN CULVERT AND RESTORE GROUND SURFACE TO ORIGINAL GRADE UPON PROJECT COMPLETION.



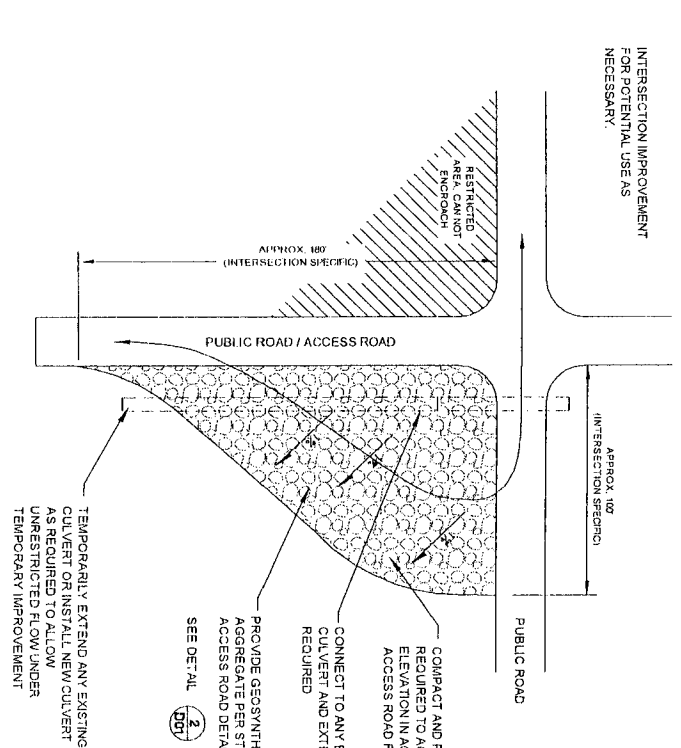
1
D04

TYPICAL PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



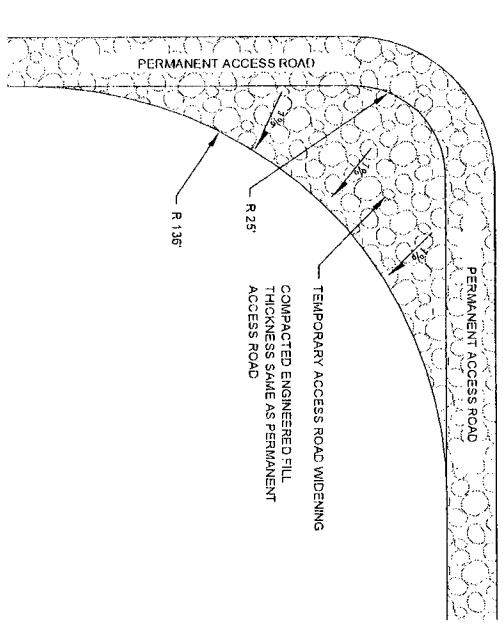
2
D04

TYPICAL "CUT-THROUGH"
PUBLIC ROAD INTERSECTION IMPROVEMENT
(NOT TO SCALE)



3
D04

TYPICAL "SWING WIDE" PUBLIC ROAD/ACCESS ROAD
INTERSECTION IMPROVEMENT
(NOT TO SCALE)



4
D04

TYPICAL INTERIOR ACCESS ROAD WIDENING ALONG 90° CURVES
(NOT TO SCALE)

30% ISSUED FOR REVIEW

AGREEMENT NO. 58982

Basin Electric Power Cooperative
Member of the Northern Plains Power Pool

NO.	DATE	BY	DESCRIPTION
0	4/15/2009	SJC / JLP / BSS	30% ISSUED FOR REVIEW
			REVISION

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244 Harding Trail
Bismarck, ND 58103-1212
Phone: 701-252-5227
Fax: 701-252-5227

MINOT WIND 2 WIND FARM WARD COUNTY, NORTH DAKOTA

**PUBLIC ROAD/ACCESS ROAD
TEMPORARY IMPROVEMENTS**

SCALE: AS SHOWN
PRJ. NO.: 809006
DWG. NAME: D04.dwg
DATE: 4/15/2009
SHEET NO.: D04