

Casey A. Furey  
100 West Broadway, Suite 250  
P.O. Box 2798  
Bismarck, ND 58502-2798  
701.223.6585  
cfurey@crowleyfleck.com

*Via Electronic Mail*

June 22, 2020

Mr. Steve Kahl  
Executive Director  
North Dakota Public Service Commission  
600 E. Boulevard, Dept. 408  
Bismarck, North Dakota 58505-0480  
[ndpsc@nd.gov](mailto:ndpsc@nd.gov)

**In re: Northern Divide Wind, LLC  
Northern Divide Wind Energy Center  
Case No. PU-19-376  
Our Matter No. 035218-000045**

Dear Mr. Kahl:

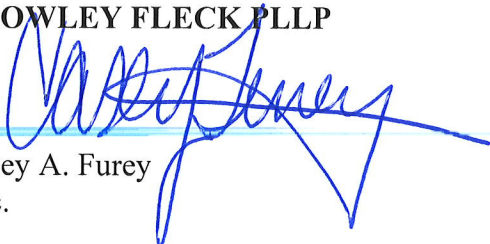
On behalf of Northern Divide Wind, LLC, please find enclosed for filing in Case No. PU-19-376 electronic copies of the following:

- Burke County Permits;
- North Dakota Dept. of Transportation Driveway Permits;
- Road Use Agreements (Burke County, Keller Township, Harmonious Township);
- Stormwater Pollution Prevention Plan; and,
- Federal Aviation Administration Determinations of No Hazard.

Please feel free to contact me with any questions.

Sincerely,

**CROWLEY FLECK PLLP**

  
Casey A. Furey  
Enc.

cc: Tracy Davis (via e-mail)  
Jerry Lein (via e-mail)

# DRIVEWAY APPLICATION & PERMIT

North Dakota Department of Transportation, Maintenance  
SFN 5918 (3-2016)

Permit Number			
2	0	0	3
District Number			
6	7		

Applicant Northern Divide Wind, LLC			
Address 700 Universe Boulevard	City Juno Beach	State FL	ZIP Code 33048

## Driveway Information on State Highway Right of Way

Number of Driveways 1	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Commercial	Direction <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	side of Route   40
Location Westside of Highway 40 in Section 8, Township 161N, Range 93W, near Highway Marker 38			
Town Leaf Mountain Township	Highway 40	Junction	Mile Marker Number 37.66 LT
Description of proposed work on state right of way and type of business served. Northern Divide Wind, LLC is seeking to install 1 driveway accesses to the west side of State Highway 40 in support of wind farm construction and operations. The driveway is to be located 0.33 miles south of mile marker 38 in line with County Road 10. The road is requested to be 24 feet in width permanently.			

Applicant agrees that any permit issued and any entrance built or work done shall be in accordance with plans attached hereto and made a part hereof, and Permit Specifications, printed on the reverse side of this sheet. If the applicant fails to construct the drive to the specified dimensions, including the proper culvert length and inslopes, the Department of Transportation, hereinafter referred to as NDDOT, will either cancel this permit and remove the drive or make the necessary corrections and the Applicant will reimburse NDDOT for such work.

### APPLICANT

Kevin Gildea  
Name (Type or Print)

X  
Signature

Vice President  
Title

Date

### NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

Joel M. Wilt  
District Engineer (Type or Print)

X *Joel M. Wilt*  
Signature

6/5/20  
Date

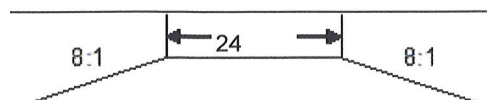
### Permit granted

6/5/20  
Date

### Construction shall be completed by

12/31/2020  
Date

### Sketch



Original to District File, copy to Applicant

Please send completed form to Pavement Management Engineer

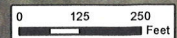
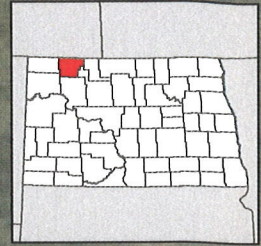
## DRIVEWAY PERMIT SPECIFICATIONS

1. The total cost of all construction and maintenance of the work specified shall be borne by the Applicant, his grantees, successors, and assigns: except that the state will maintain the shoulder of the roadway.
2. The applicant shall be required to wear an ANSI/ISEA 107-2004 Class II high visibility garment while within the highway right-of-way as per the requirements of 23 CFR 634.
3. It is understood by the Applicant that the state does not assume any responsibility for the removal or clearance of snow, ice, or sleet, or the opening of windrows of such materials, upon any portion of the driveway even though snow, ice, or sleet is deposited or windrowed on said drive by its authorized representative engaged in normal winter maintenance operation.
4. No driveway shall be considered as completed until checked and approved by NDDOT. Surfacing may be omitted on field entrances if so specified in the application.
5. A driveway, as referred to in this permit, shall be the traveled area between the highway roadway surface and the adjacent right-of-way line. Said driveway shall be used only for the purpose of providing entrance to and exit from the Applicant's property.
6. No driveway, or improvement constructed on the highway right-of-way shall be altered or relocated without permission of the district engineer of NDDOT.
7. The Applicant agrees to perform all work in accordance with this permit, and to indemnify and hold harmless NDDOT, its officers, and employees from any and 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 driveways.
8. It is understood by the Applicant that the location, construction, and maintenance of driveways are under the supervision of NDDOT at all times, and that in granting this permit NDDOT waives none of its powers or rights to direct the removal, relocation, or proper maintenance in the future of any driveways within the right of way of the state highway.
9. The granting of this permit does not vest the Applicant with the exclusive use of the driveway. NDDOT retains the right to diminish and expand the use of the driveway as required in the interest of the safety of highway traffic.
10. Wetland: The applicant shall certify that no wetlands will be impacted by the installation of the driveway. If wetlands are impacted, the applicant shall coordinate with the US Army Corps of Engineers (USACE), North Dakota Regulatory Office to determine if a permit is required or mitigation is needed. Certification of avoidance, a wetland delineation, or a permit (if required) from the USACE shall be attached to the application.
11. The Applicant, for him or herself, his or her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree that 1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, 2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, 3) that the Applicant will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities set forth in this Assurance.
12. That in the event of breach of any of the above non-discrimination covenants, NDDOT will have the right to terminate this Permit and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said Permit had never been made or issued.
13. Risk Management Appendix, attached, is hereby incorporated and made a part of this agreement.
14. District Engineer to provide copy of approved permit to NDDOT, Planning and Asset Management, Pavement Management Division.

# Northern Divide Wind State Highway 40 Driveway Access Exhibit





Burke County, North Dakota

Issue Date:  
5/28/2020  
Atwell, LLC Project:  
17002309



38 Mile-Marker Reference

**Proposed Facilities**

-  Permanent Access Road
-  Temporary Access Road
-  Substation
-  Operations and Maintenance Building



The information contained on this map is proprietary and confidential. The use or disclosure of this information by you to third parties is prohibited by law and may give rise to civil or criminal liability.

SOURCE: USGS TNM ORTHOIMAGERY, 2019

207

### Risk Management Appendix

#### **Permits and Licenses with Private Individuals, Companies, Corporations, Etc. (referred to as Recipient):**

Recipient agrees to defend, indemnify, and hold harmless the state of North Dakota, its agencies, officers and employees (State), from and against claims based on the vicarious liability of the State or its agents, but not against claims based on the State's contributory negligence, comparative and/or contributory negligence or fault, sole negligence, or intentional misconduct. The legal defense provided by the Recipient to the State under this provision must be free of any conflicts of interest, even if retention of separate legal counsel for the State is necessary. Recipient also agrees to defend, indemnify, and hold the State harmless for all costs, expenses and attorneys' fees incurred if the State prevails in an action against the Recipient in establishing and litigating the indemnification coverage provided herein. This obligation shall continue after the termination of this agreement.

Recipient shall secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds authorized to do business in North Dakota, the following insurance coverages:

- 1) **Commercial general liability and automobile liability insurance** – minimum limits of liability required are **\$250,000 per person and \$1,000,000 per occurrence.**
- 2) **Workers compensation insurance** meeting all statutory limits.
- 3) The State of North Dakota and its agencies, officers, and employees (State) shall be endorsed as an **additional insured** on the commercial general liability and automobile liability policies.
- 4) Said endorsements shall contain a **"Waiver of Subrogation"** in favor of the state of North Dakota.
- 5) The policies and endorsements may not be canceled or modified without **thirty (30) days prior written notice** to the undersigned State representative.

**Recipient shall furnish a certificate of insurance evidencing the requirements in 1, 3, and 4 above to the undersigned State representative prior to commencement of this agreement.**

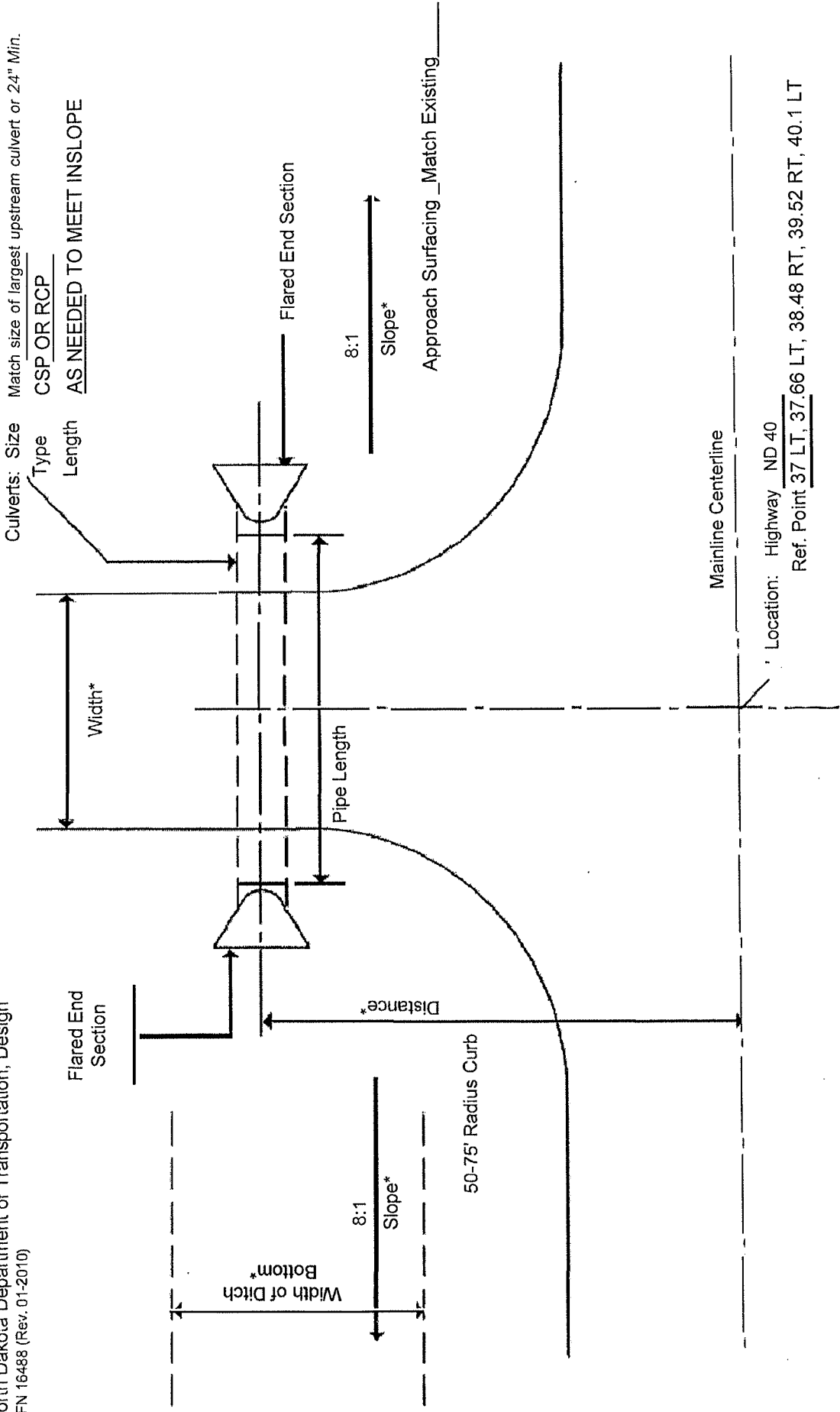
The State reserves the right to obtain complete, certified copies of all required insurance documents, policies, or endorsements at any time. If Recipient's insurance will expire prior to the term of this agreement, Recipient shall renew the above requirements and furnish a certificate of insurance evidencing the renewal to the undersigned State representative prior to the expiration of the insurance. Any attorney who represents the State under this policy must first qualify as and be appointed by the North Dakota Attorney General as a Special Assistant Attorney General as required under N.D.C.C. Section 54-12-08.

When a portion of a Contract is sublet, the Recipient shall obtain insurance protection (as outlined above) to provide liability coverage to protect the Recipient and the State as a result of work undertaken by the Subcontractor. In addition, the Recipient shall ensure that any and all parties performing work under the Contract are covered by public liability insurance as outlined above. All Subcontractors performing work under the Contract are required to maintain the same scope of insurance required of the Recipient. The Recipient shall be held responsible for ensuring compliance with those requirements by all Subcontractors.

Recipient's insurance coverage shall be primary (i.e., pay first) as respects any insurance, self-insurance or self-retention maintained by the State. Any insurance, self-insurance or self-retention maintained by the State shall be excess of the Recipient's insurance and shall not contribute with it. The insolvency or bankruptcy of the insured Recipient shall not release the insurer from payment under the policy, even when such insolvency or bankruptcy prevents the insured Recipient from meeting the retention limit under the policy. Any deductible amount or other obligations under the policy(ies) shall be the sole responsibility of the Recipient. This insurance may be in policy or policies of insurance, primary and excess, including the so-called umbrella or catastrophe form and be placed with insurers rated "A-" or better by A.M. Best Company, Inc. The State will be indemnified, saved, and held harmless to the full extent of any coverage actually secured by the Recipient in excess of the minimum requirements set forth above.

**APPROACHES**

North Dakota Department of Transportation, Design  
SFN 16488 (Rev. 01-2010)



\*Enter dimension above line.

Reference Plans

Remarks  
Erosion Control should be installed according to Best Management Practices (BMPs) and Seeding of the disturbed area according to Section 251 of Standard Specifications for Road and Bridge Construction that specifies Class II Seed Mixture.

Section Line
Private Drive

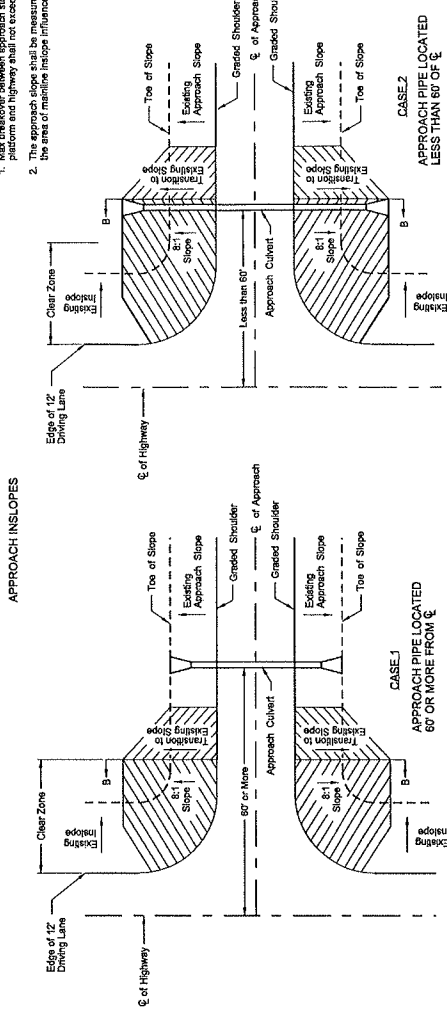
# STANDARD RURAL APPROACHES

D-203-8

**NOTES:**

1. Max breakover between approach storage platform and highway shall not exceed 5%.
2. The approach slope shall be measured outside the area of mainline inslope influence.

**APPROACH INSLOPES**



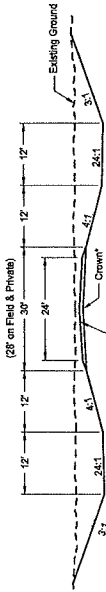
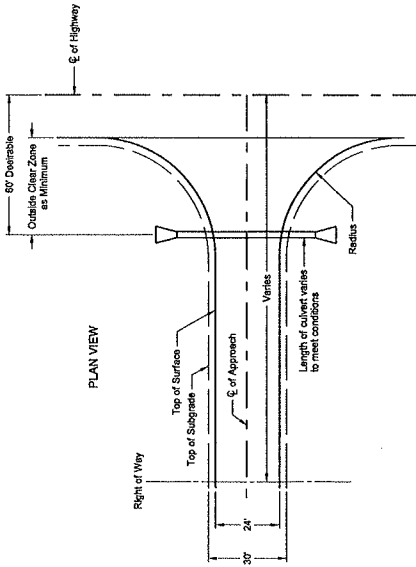
**CASE 1**  
APPROACH PIPE LOCATED  
60' OR MORE FROM  $\mathcal{C}$

**CASE 2**  
APPROACH PIPE LOCATED  
LESS THAN 60'  $\mathcal{C}$

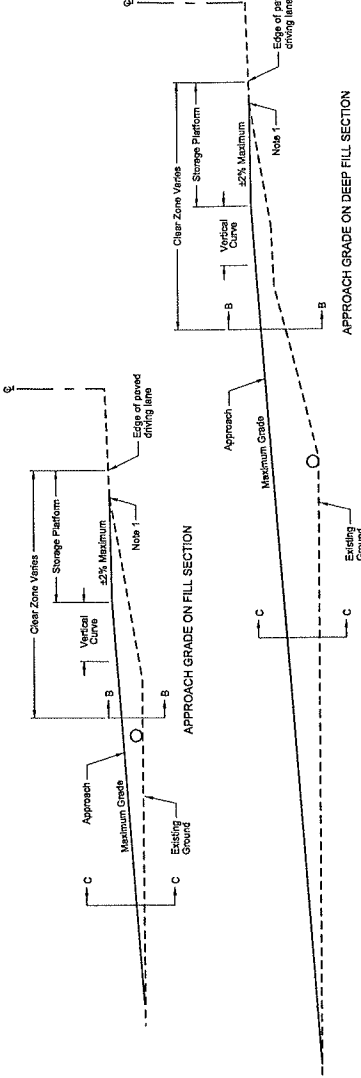
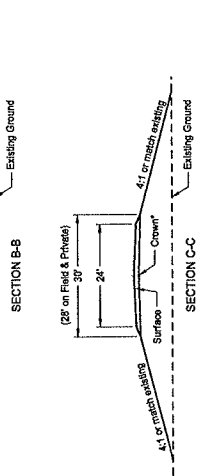
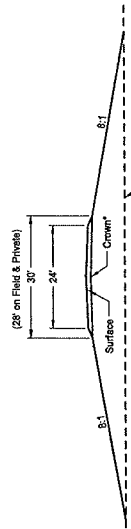
**CRITERIA FOR RURAL APPROACH TYPES**

Field Drives	Private Drives	Low Volume Public Roads
Radius	R=24 ft	R=30 ft
Maximum Grade	10%	7%
Storage Platform	20 ft	24 ft
Vertical Curve Length	10 ft	Varies (Min. 20 mph)

**PLAN VIEW**



2.1% crown for paved surface  
3.0% crown for gravel surface

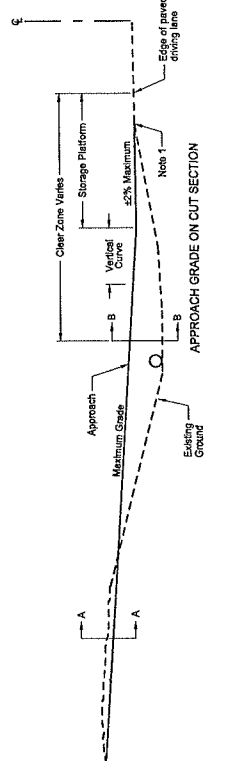


**APPROACH GRADE ON FILL SECTION**

**APPROACH GRADE ON DEEP FILL SECTION**

This document was originally issued and sealed by  
**Roger Weigel**  
Registration Number  
PE-2930,  
on 02/25/14, and the original document is stored at the  
North Dakota Department  
of Transportation

DATE	REVISIONS
2-22-14 <td>CHANGE</td>	CHANGE



**APPROACH GRADE ON CUT SECTION**



# DRIVEWAY APPLICATION & PERMIT

North Dakota Department of Transportation, Maintenance  
SFN 5918 (3-2016)

Permit Number			
2	0	0	4
District Number			
6	7		

Applicant Northern Divide Wind, LLC			
Address 700 Universe Boulevard	City Juno Beach	State FL	ZIP Code 33048

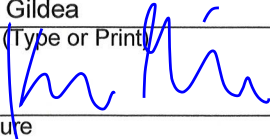
## Driveway Information on State Highway Right of Way

Number of Driveways 2	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Commercial	Direction <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	side of Route   40
Location Westside of Highway 40 in Section 17, Township 161N, Range 93W, near Highway Marker 37			
Town Leaf Mountain Township	Highway 40	Junction	Mile Marker Number 1) 36.8 LT & 2) 37.0 LT
Description of proposed work on state right of way and type of business served. Northern Divide Wind, LLC is seeking to install 2 driveway accesses to the west side of State Highway 40 in support of wind farm construction and operations:  Driveway 1 (Temporary): Located 811 feet south of mile marker 37. The road is requested to be 48 feet across during construction, and be removed and restored after construction.  Driveway 2 (Permanent): Located approximately at mile marker 37. The road is requested to be 48 feet across during construction, and permanently reduced to 24 feet wide post-construction.			

Applicant agrees that any permit issued and any entrance built or work done shall be in accordance with plans attached hereto and made a part hereof, and Permit Specifications, printed on the reverse side of this sheet. If the applicant fails to construct the drive to the specified dimensions, including the proper culvert length and inslopes, the Department of Transportation, hereinafter referred to as NDDOT, will either cancel this permit and remove the drive or make the necessary corrections and the Applicant will reimburse NDDOT for such work.

### APPLICANT

Kevin Gildea  
Name (Type or Print)

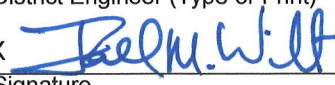
X   
Signature

Vice President  
Title

6/5/2020  
Date

### NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

Joel M. Wilt  
District Engineer (Type or Print)

X   
Signature

6/5/20  
Date

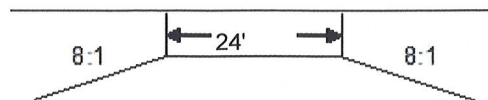
### Permit granted

6/5/20  
Date

### Construction shall be completed by

12/31/2020  
Date

### Sketch



Original to District File, copy to Applicant

Please send completed form to Pavement Management Engineer

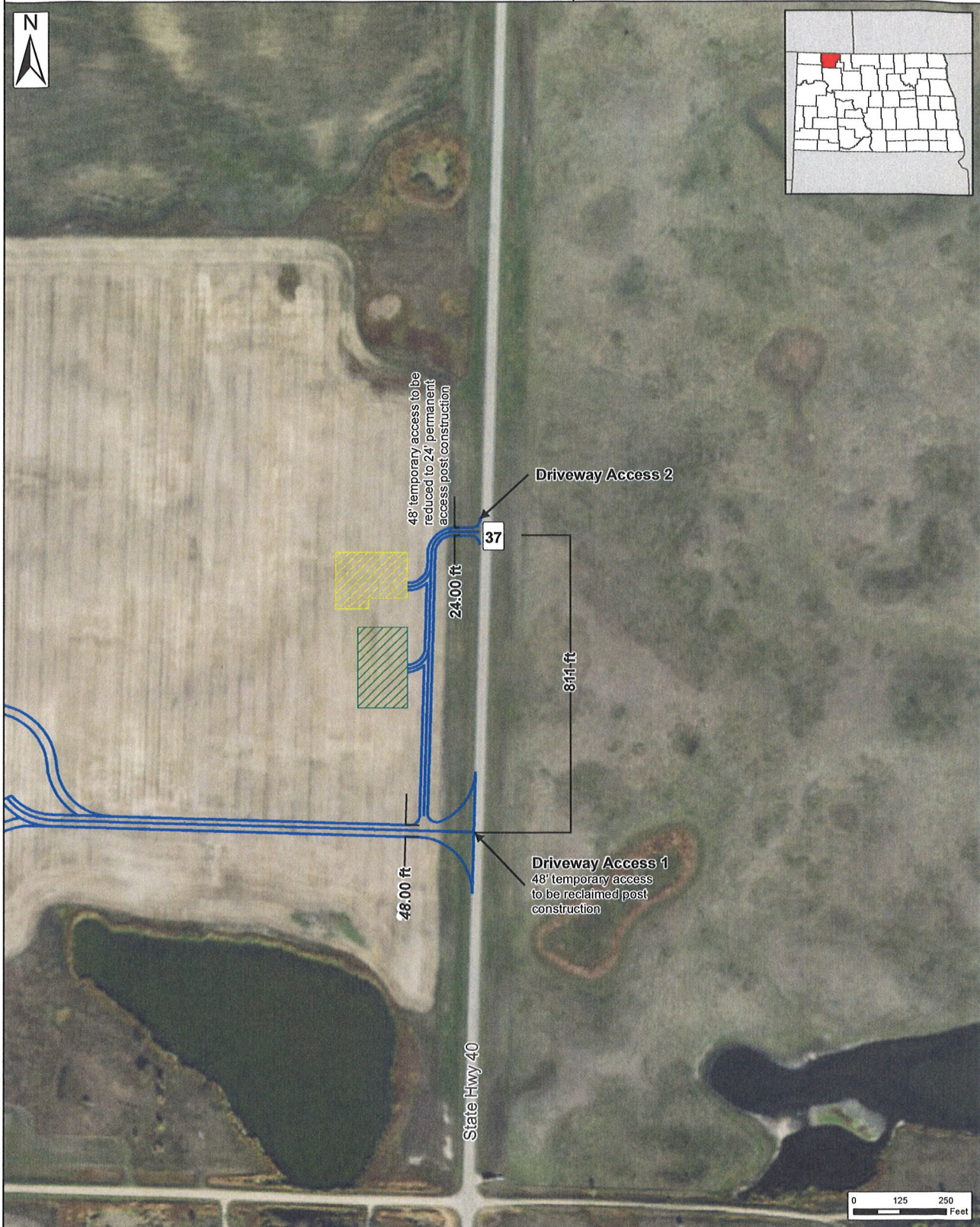
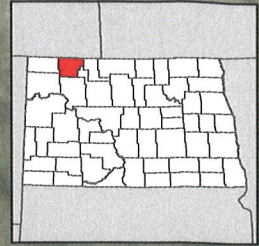
## DRIVEWAY PERMIT SPECIFICATIONS

1. The total cost of all construction and maintenance of the work specified shall be borne by the Applicant, his grantees, successors, and assigns: except that the state will maintain the shoulder of the roadway.
2. The applicant shall be required to wear an ANSI/ISEA 107-2004 Class II high visibility garment while within the highway right-of-way as per the requirements of 23 CFR 634.
3. It is understood by the Applicant that the state does not assume any responsibility for the removal or clearance of snow, ice, or sleet, or the opening of windrows of such materials, upon any portion of the driveway even though snow, ice, or sleet is deposited or windrowed on said drive by its authorized representative engaged in normal winter maintenance operation.
4. No driveway shall be considered as completed until checked and approved by NDDOT. Surfacing may be omitted on field entrances if so specified in the application.
5. A driveway, as referred to in this permit, shall be the traveled area between the highway roadway surface and the adjacent right-of-way line. Said driveway shall be used only for the purpose of providing entrance to and exit from the Applicant's property.
6. No driveway, or improvement constructed on the highway right-of-way shall be altered or relocated without permission of the district engineer of NDDOT.
7. The Applicant agrees to perform all work in accordance with this permit, and to indemnify and hold harmless NDDOT, its officers, and employees from any and 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 driveways.
8. It is understood by the Applicant that the location, construction, and maintenance of driveways are under the supervision of NDDOT at all times, and that in granting this permit NDDOT waives none of its powers or rights to direct the removal, relocation, or proper maintenance in the future of any driveways within the right of way of the state highway.
9. The granting of this permit does not vest the Applicant with the exclusive use of the driveway. NDDOT retains the right to diminish and expand the use of the driveway as required in the interest of the safety of highway traffic.
10. Wetland: The applicant shall certify that no wetlands will be impacted by the installation of the driveway. If wetlands are impacted, the applicant shall coordinate with the US Army Corps of Engineers (USACE), North Dakota Regulatory Office to determine if a permit is required or mitigation is needed. Certification of avoidance, a wetland delineation, or a permit (if required) from the USACE shall be attached to the application.
11. The Applicant, for him or herself, his or her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree that 1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, 2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, 3) that the Applicant will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities set forth in this Assurance.
12. That in the event of breach of any of the above non-discrimination covenants, NDDOT will have the right to terminate this Permit and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said Permit had never been made or issued.
13. Risk Management Appendix, attached, is hereby incorporated and made a part of this agreement.
14. District Engineer to provide copy of approved permit to NDDOT, Planning and Asset Management, Pavement Management Division.

# Northern Divide Wind State Highway 40 Driveway Access Exhibit

Burke County, North Dakota

Issue Date:  
5/28/2020  
Atwell, LLC Project:  
17002309



37 Mile-Marker Reference

**Proposed Facilities**

- Permanent Access Road
- Temporary Access Road
- Substation
- Operations and Maintenance Building

SOURCE: USGS TNM ORTHOIMAGERY, 2019



The information contained on this map is proprietary and confidential. The use or disclosure of this information by you to third parties is prohibited by law and may give rise to civil or criminal liability.

By

## Risk Management Appendix

### **Permits and Licenses with Private Individuals, Companies, Corporations, Etc. (referred to as Recipient):**

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- 5) The policies and endorsements may not be canceled or modified without **thirty (30) days prior written notice** to the undersigned State representative.

**Recipient shall furnish a certificate of insurance evidencing the requirements in 1, 3, and 4 above to the undersigned State representative prior to commencement of this agreement.**

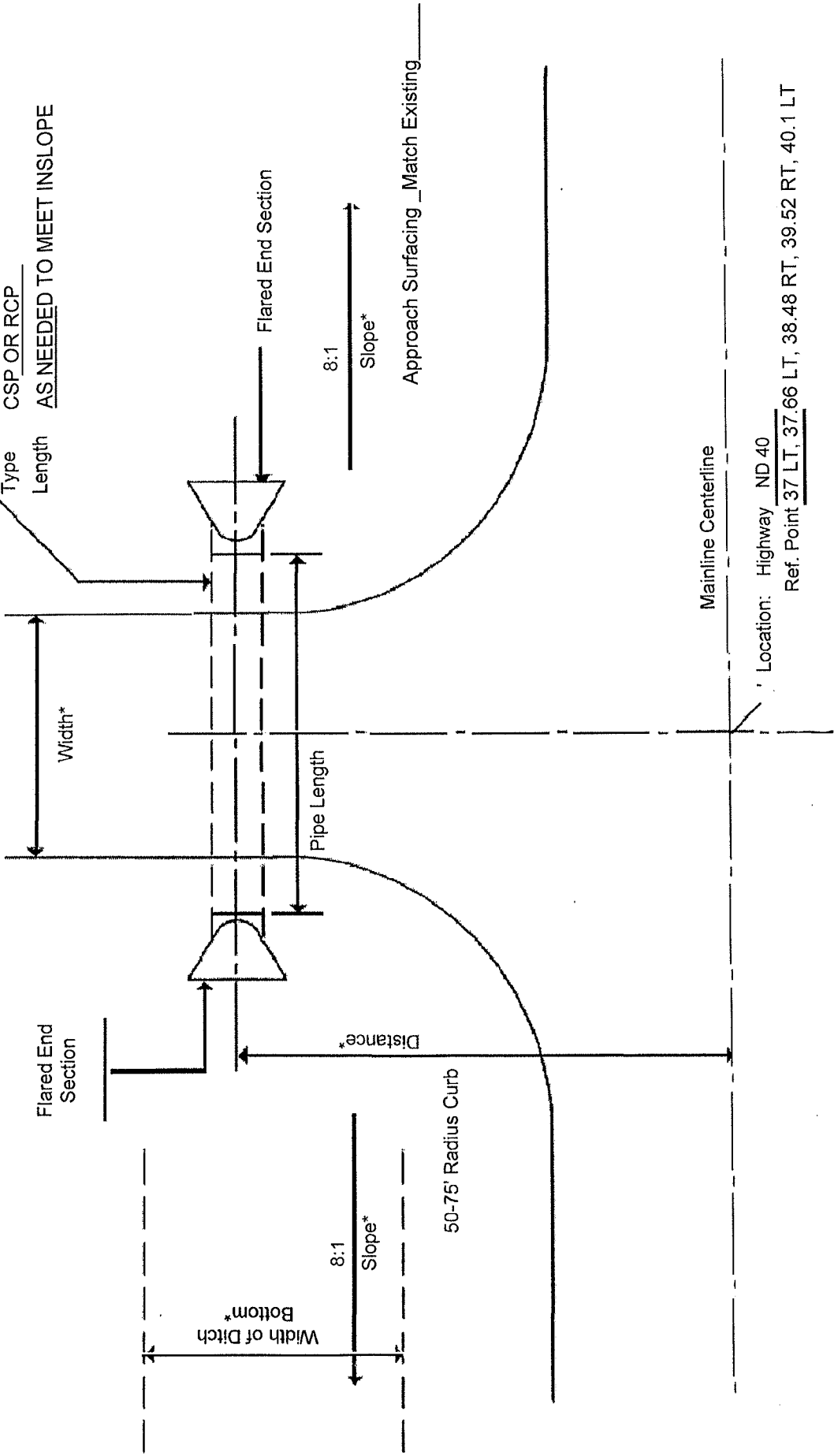
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**APPROACHES**  
 North Dakota Department of Transportation, Design  
 SFN 16488 (Rev. 01-2010)

Culverts: Size \_\_\_\_\_ Match size of largest upstream culvert or 24" Min.  
 Type \_\_\_\_\_ CSP OR RCP  
 Length \_\_\_\_\_ AS NEEDED TO MEET INSLOPE



Location: Highway ND 40  
 Ref. Point 37 LT, 37.66 LT, 38.48 RT, 39.52 RT, 40.1 LT

\*Enter dimension above line.

Reference Plans

Remarks

Erosion Control should be installed according to Best Management Practices (BMPs), and Seeding of the disturbed area according to Section 251 of 'Standard Specifications for Road and Bridge Construction' that specifies Class II Seed Mixture.

Section Line
Private Drive

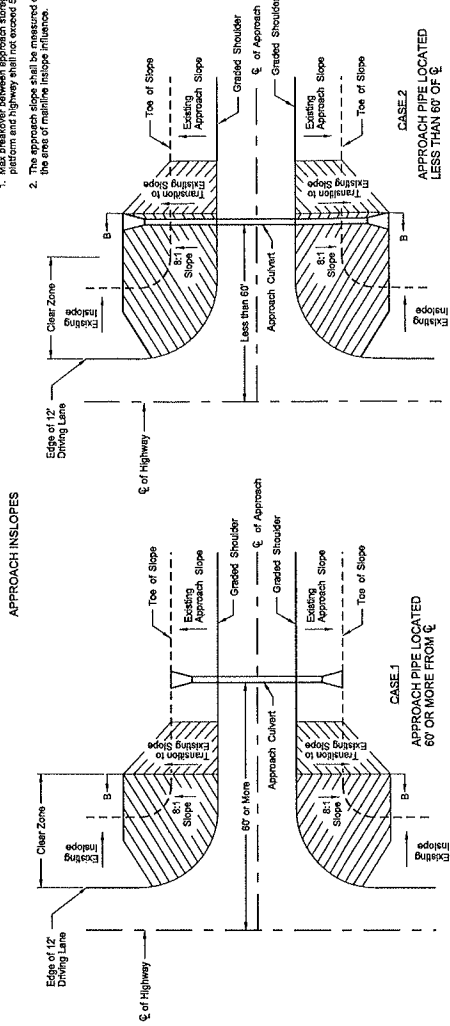
# STANDARD RURAL APPROACHES

D-203-8

**NOTES:**

1. Max breakover between approach storage platform and highway shall not exceed 5%.
2. The approach slope shall be measured outside the area of mainline inslope influence.

**APPROACH INSLOPES**

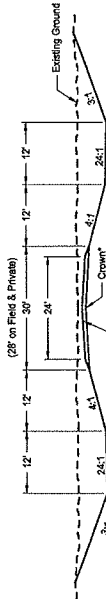


CASE 1  
APPROACH PIPE LOCATED  
60' OR MORE FROM  $\mathcal{C}$

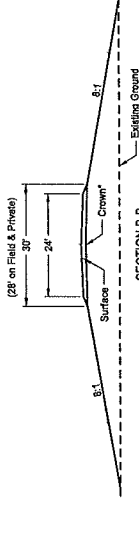
CASE 2  
APPROACH PIPE LOCATED  
LESS THAN 60' OF  $\mathcal{C}$

**CRITERIA FOR RURAL APPROACH TYPES**

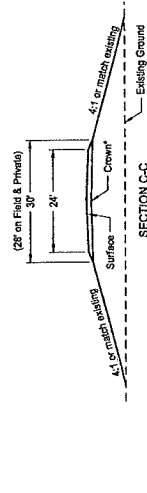
Field Drives	Private Drives	Low Volume Public Roads
Radius	R=24 ft	R=30 ft
Maximum Grade	10%	7%
Storage Platform	20 ft	24 ft
Vertical Curve Length	10 ft	10 ft



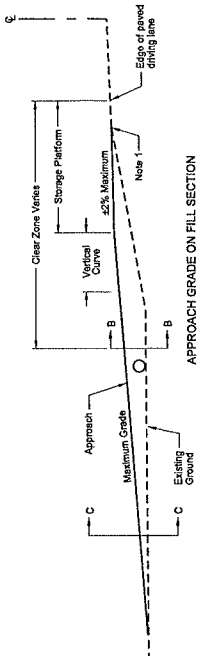
SECTION A-A  
(28' on Field & Private)  
2.1% crown for paved surface  
3.0% crown for gravel surface



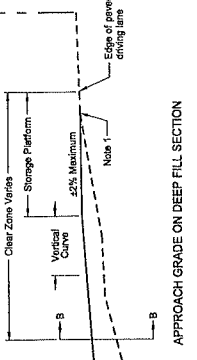
SECTION B-B  
(28' on Field & Private)



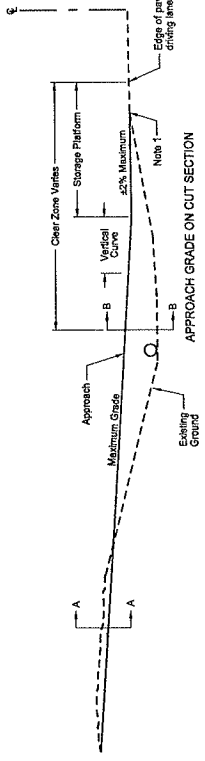
SECTION C-C  
(28' on Field & Private)



APPROACH GRADE ON FILL SECTION



APPROACH GRADE ON DEEP FILL SECTION



APPROACH GRADE ON CUT SECTION

This document was originally issued and sealed by Roger Weigel Registration Number PE-2930, on 02/25/14, and the original document is stored at the North Dakota Department of Transportation

DATE	REVISIONS	CHANGE
2-28-14		

Notes

- Variables:
  - Numerical value of speed limit or 85th percentile.
  - 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, suburban, and rural roads with speeds of 35 mph or less.
  - Barrieraes placed on roadway shall be on a movable assembly.
  - Signs placed on roadway shall be placed on skid mounted assemblies.
  - Delineator drums, barrieraes or cones used for tapering traffic shall be spaced at the dimension "S". Delineator drums or cones used for tapers shall be spaced at the dimension "S".
  - 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 into 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 or less and 750 ADT or less).
- Type B shall be used on roadways with moderate traffic speeds and volumes (over 40 mph or over 5000 ADT).
- Type C shall be used on roadways with high traffic speeds and volumes (over 40 mph or over 5000 ADT). The exact speed limit shall be determined in the field, dependent on location and conditions.
- When necessary, the speed limit shall be reduced in place speed limit below the existing speed limit, unless the design speed of the work zone feature 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 placed at 1/2 mile or longer.
- Use when work area is 1 mile or longer.
- 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 on a 48 inch high post, and shall be placed at the beginning of the work zone above the edge so that when the flag is limp it will not touch the sign. Rural areas will not require flags.
- Existing speed limit signs within a reduced speed zone shall be covered.
- When necessary, site speed to be determined by the Engineer. Existing speed limit signs in accordance with the NDDOT Standard Specifications. G20-55-96 sign is not required if this standard is part of other traffic control layouts, or the work is less than 15 days.

Advance Warning Sign Spacing	Distance Between Signs Min. (ft)
Urban - Low Speed (over 35 to 42 mph)	150
Urban - Low Speed (over 35 to 42 mph)	200
Urban - High Speed (over 45 mph to 55 mph)	300
Rural - High Speed (over 55 mph to 65 mph)	350
Rural - High Speed (over 55 mph to 65 mph)	400
Rural - High Speed (over 55 mph to 65 mph)	450
Rural - High Speed (over 55 mph to 65 mph)	500
Rural - High Speed (over 55 mph to 65 mph)	550
Rural - High Speed (over 55 mph to 65 mph)	600
Rural - High Speed (over 55 mph to 65 mph)	650
Rural - High Speed (over 55 mph to 65 mph)	700
Rural - High Speed (over 55 mph to 65 mph)	750
Rural - High Speed (over 55 mph to 65 mph)	800
Rural - High Speed (over 55 mph to 65 mph)	850
Rural - High Speed (over 55 mph to 65 mph)	900
Rural - High Speed (over 55 mph to 65 mph)	950
Rural - High Speed (over 55 mph to 65 mph)	1000
Rural - High Speed (over 55 mph to 65 mph)	1050
Rural - High Speed (over 55 mph to 65 mph)	1100
Rural - High Speed (over 55 mph to 65 mph)	1150
Rural - High Speed (over 55 mph to 65 mph)	1200
Rural - High Speed (over 55 mph to 65 mph)	1250
Rural - High Speed (over 55 mph to 65 mph)	1300
Rural - High Speed (over 55 mph to 65 mph)	1350
Rural - High Speed (over 55 mph to 65 mph)	1400
Rural - High Speed (over 55 mph to 65 mph)	1450
Rural - High Speed (over 55 mph to 65 mph)	1500

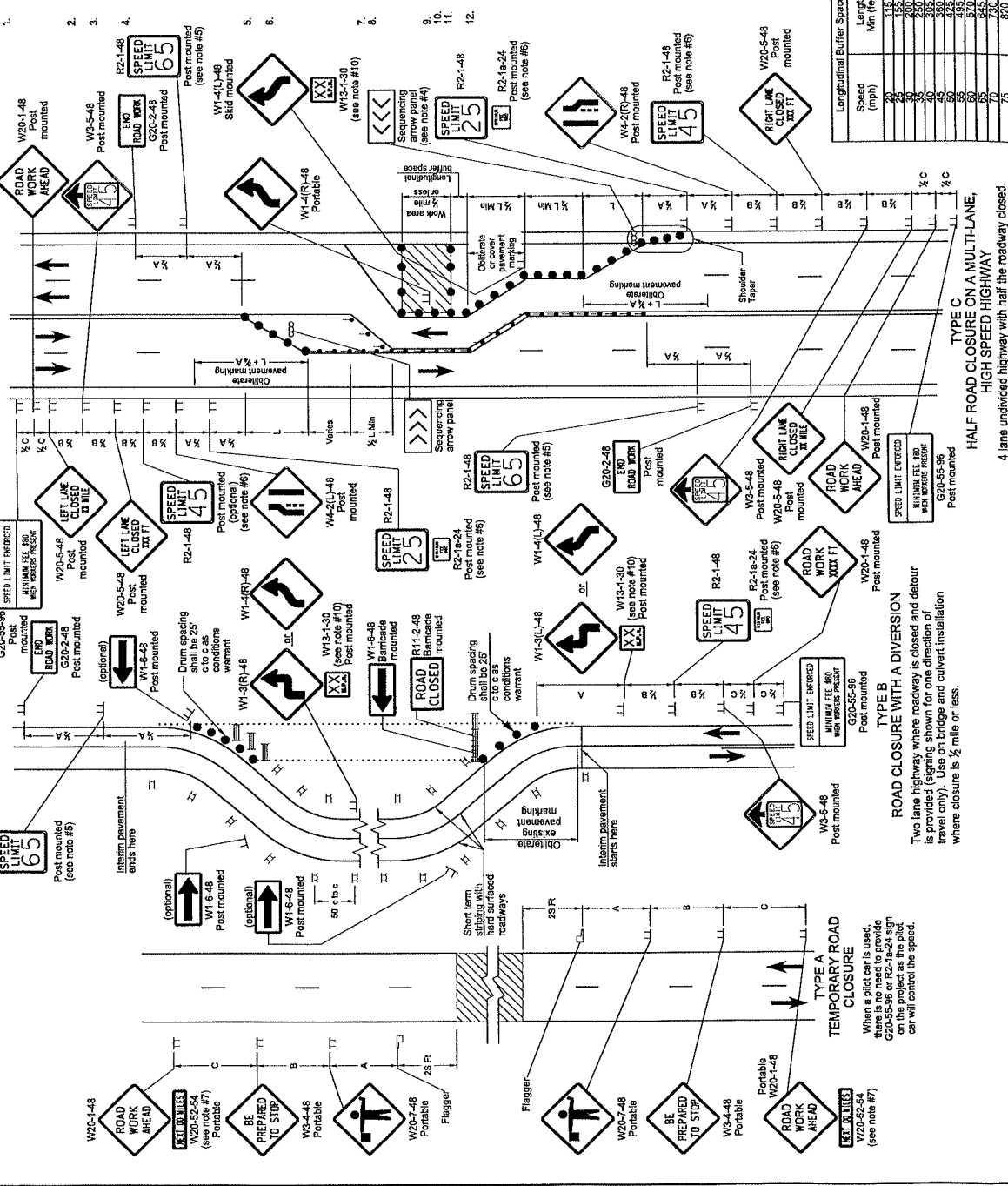
KEY

- Type III barricade
- Sign
- Delineator drum
- Tubular markers
- Work area
- Flagger
- Sequencing arrow panel
- Vertical panels back to back

This document was originally issued and sealed by Roger Weigel  
 Registration Number PE-2930,  
 on 09/27/13 and the original document is stored at the North Dakota Department of Transportation

DEPARTMENT OF TRANSPORTATION  
 DATE: \_\_\_\_\_  
 REASON: \_\_\_\_\_  
 CHANGE: \_\_\_\_\_

ROAD CLOSURE LAYOUTS



Longitudinal Buffer Space

Speed (mph)	Length (feet)
20	115
25	135
30	155
35	175
40	195
45	215
50	235
55	255
60	275
65	295
70	315
75	335
80	355

TYPE A  
 TEMPORARY ROAD CLOSURE  
 When a flagger is used, there is no need to provide G20-55-96 or R2-1a-24 sign on the project as the flag car will control the speed.

TYPE B  
 ROAD CLOSURE WITH A DIVERSION  
 Two lane highway where roadway is closed and detour is provided (signing shown for one direction of travel only). Use on bridge and culvert installation where closure is 1/2 mile or less.

TYPE C  
 HALF ROAD CLOSURE ON A MULTILANE HIGH SPEED HIGHWAY  
 4 lane undivided highway with half the roadway closed.

# DRIVEWAY APPLICATION & PERMIT

North Dakota Department of Transportation, Maintenance  
SFN 5918 (3-2016)

Permit Number			
2	0	0	5
District Number			
6	7		

Applicant Northern Divide Wind, LLC			
Address 700 Universe Boulevard	City Juno Beach	State FL	ZIP Code 33048

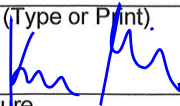
## Driveway Information on State Highway Right of Way

Number of Driveways 1	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Commercial	Direction <input type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W	side of Route   40
Location Westside of Highway 40 in Section 8, Township 161N, Range 93W, near Highway Marker 39			
Town Leaf Mountain Township	Highway 40	Junction	Mile Marker Number 39.52 RT
Description of proposed work on state right of way and type of business served. Northern Divide Wind, LLC is seeking to install 1 driveway accesses to the east side of State Highway 40 in support of wind farm construction and operations. The driveway is to be located 0.52 miles north of mile marker 39. The road is requested to be 24 feet in width permanently.			

Applicant agrees that any permit issued and any entrance built or work done shall be in accordance with plans attached hereto and made a part hereof, and Permit Specifications, printed on the reverse side of this sheet. If the applicant fails to construct the drive to the specified dimensions, including the proper culvert length and inslopes, the Department of Transportation, hereinafter referred to as NDDOT, will either cancel this permit and remove the drive or make the necessary corrections and the Applicant will reimburse NDDOT for such work.

### APPLICANT

Kevin Gildea  
Name (Type or Print)

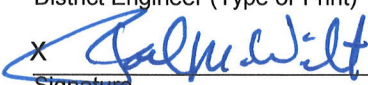
X   
Signature

Vice President  
Title

6/5/2020  
Date

### NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

Joel M. Wilt  
District Engineer (Type or Print)

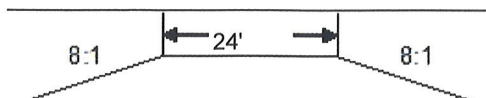
X   
Signature

6/5/20  
Date

Permit granted  
6/5/20  
Date

Construction shall be completed by  
12/31/2020  
Date

### Sketch



Original to District File, copy to Applicant  
Please send completed form to Pavement Management Engineer

## DRIVEWAY PERMIT SPECIFICATIONS

1. The total cost of all construction and maintenance of the work specified shall be borne by the Applicant, his grantees, successors, and assigns: except that the state will maintain the shoulder of the roadway.
2. The applicant shall be required to wear an ANSI/ISEA 107-2004 Class II high visibility garment while within the highway right-of-way as per the requirements of 23 CFR 634.
3. It is understood by the Applicant that the state does not assume any responsibility for the removal or clearance of snow, ice, or sleet, or the opening of windrows of such materials, upon any portion of the driveway even though snow, ice, or sleet is deposited or windrowed on said drive by its authorized representative engaged in normal winter maintenance operation.
4. No driveway shall be considered as completed until checked and approved by NDDOT. Surfacing may be omitted on field entrances if so specified in the application.
5. A driveway, as referred to in this permit, shall be the traveled area between the highway roadway surface and the adjacent right-of-way line. Said driveway shall be used only for the purpose of providing entrance to and exit from the Applicant's property.
6. No driveway, or improvement constructed on the highway right-of-way shall be altered or relocated without permission of the district engineer of NDDOT.
7. The Applicant agrees to perform all work in accordance with this permit, and to indemnify and hold harmless NDDOT, its officers, and employees from any and 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 driveways.
8. It is understood by the Applicant that the location, construction, and maintenance of driveways are under the supervision of NDDOT at all times, and that in granting this permit NDDOT waives none of its powers or rights to direct the removal, relocation, or proper maintenance in the future of any driveways within the right of way of the state highway.
9. The granting of this permit does not vest the Applicant with the exclusive use of the driveway. NDDOT retains the right to diminish and expand the use of the driveway as required in the interest of the safety of highway traffic.
10. Wetland: The applicant shall certify that no wetlands will be impacted by the installation of the driveway. If wetlands are impacted, the applicant shall coordinate with the US Army Corps of Engineers (USACE), North Dakota Regulatory Office to determine if a permit is required or mitigation is needed. Certification of avoidance, a wetland delineation, or a permit (if required) from the USACE shall be attached to the application.
11. The Applicant, for him or herself, his or her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree that 1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, 2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, 3) that the Applicant will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities set forth in this Assurance.
12. That in the event of breach of any of the above non-discrimination covenants, NDDOT will have the right to terminate this Permit and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said Permit had never been made or issued.
13. Risk Management Appendix, attached, is hereby incorporated and made a part of this agreement.
14. District Engineer to provide copy of approved permit to NDDOT, Planning and Asset Management, Pavement Management Division.

# Northern Divide Wind State Highway 40 Driveway Access Exhibit

Burke County, North Dakota

Issue Date:  
5/28/2020  
Atwell, LLC Project:  
17002309



- Mile-Marker Reference
- Proposed Facilities**
- Permanent Access Road
- Temporary Access Road
- Substation
- Operations and Maintenance Building

SOURCE: USGS TNM ORTHOIMAGERY, 2019



The information contained on this map is proprietary and confidential. The use or disclosure of this information by you to third parties is prohibited by law and may give rise to civil or criminal liability.

DF

## Risk Management Appendix

### Permits and Licenses with Private Individuals, Companies, Corporations, Etc. (referred to as Recipient):

Recipient agrees to defend, indemnify, and hold harmless the state of North Dakota, its agencies, officers and employees (State), from and against claims based on the vicarious liability of the State or its agents, but not against claims based on the State's contributory negligence, comparative and/or contributory negligence or fault, sole negligence, or intentional misconduct. The legal defense provided by the Recipient to the State under this provision must be free of any conflicts of interest, even if retention of separate legal counsel for the State is necessary. Recipient also agrees to defend, indemnify, and hold the State harmless for all costs, expenses and attorneys' fees incurred if the State prevails in an action against the Recipient in establishing and litigating the indemnification coverage provided herein. This obligation shall continue after the termination of this agreement.

Recipient shall secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds authorized to do business in North Dakota, the following insurance coverages:

- 1) **Commercial general liability and automobile liability** insurance – minimum limits of liability required are **\$250,000 per person and \$1,000,000 per occurrence.**
- 2) **Workers compensation** insurance meeting all statutory limits.
- 3) The State of North Dakota and its agencies, officers, and employees (State) shall be endorsed as an **additional insured** on the commercial general liability and automobile liability policies.
- 4) Said endorsements shall contain a **"Waiver of Subrogation"** in favor of the state of North Dakota.
- 5) The policies and endorsements may not be canceled or modified without **thirty (30) days prior written notice** to the undersigned State representative.

**Recipient shall furnish a certificate of insurance evidencing the requirements in 1, 3, and 4 above to the undersigned State representative prior to commencement of this agreement.**

The State reserves the right to obtain complete, certified copies of all required insurance documents, policies, or endorsements at any time. If Recipient's insurance will expire prior to the term of this agreement, Recipient shall renew the above requirements and furnish a certificate of insurance evidencing the renewal to the undersigned State representative prior to the expiration of the insurance. Any attorney who represents the State under this policy must first qualify as and be appointed by the North Dakota Attorney General as a Special Assistant Attorney General as required under N.D.C.C. Section 54-12-08.

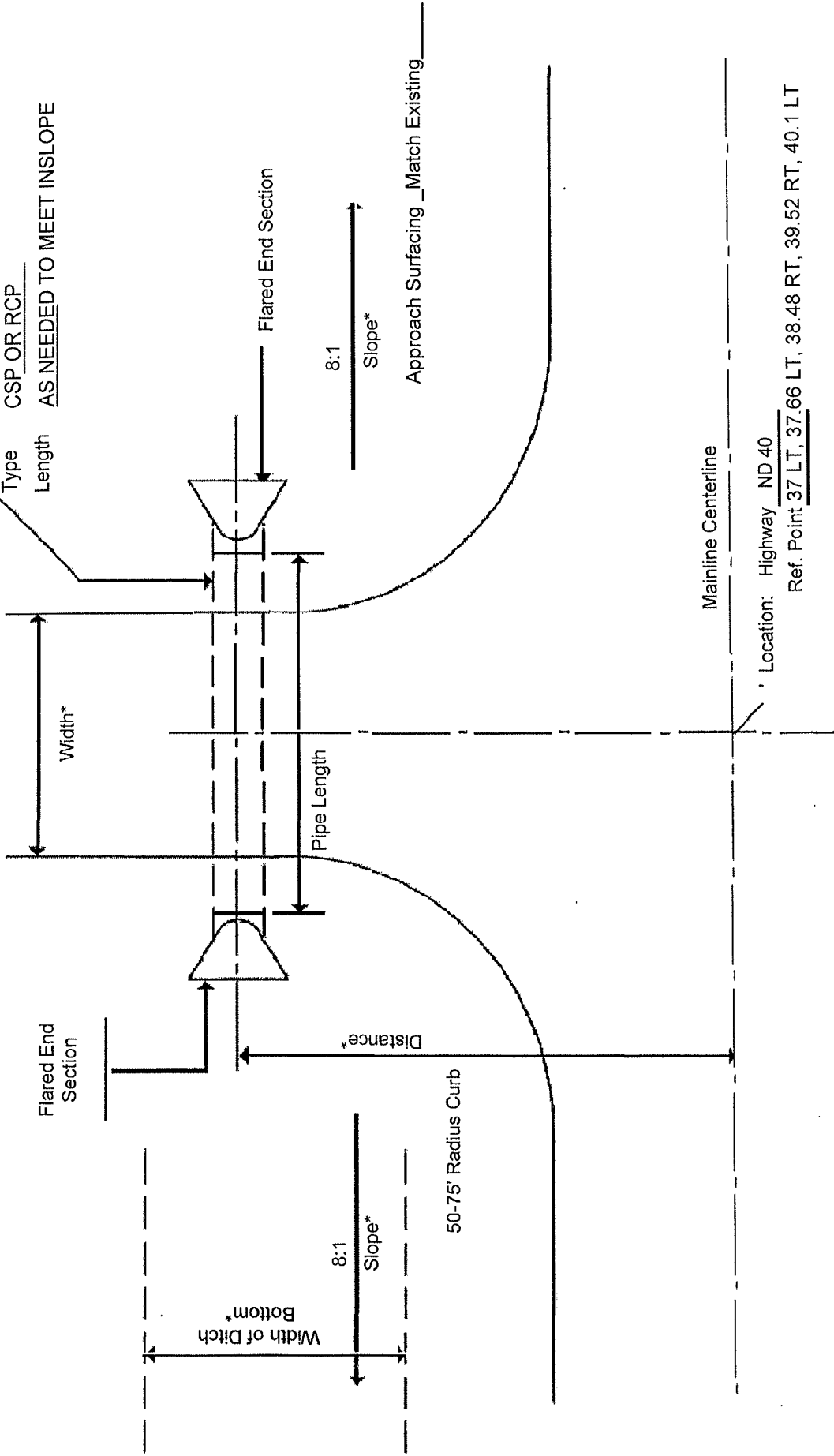
When a portion of a Contract is sublet, the Recipient shall obtain insurance protection (as outlined above) to provide liability coverage to protect the Recipient and the State as a result of work undertaken by the Subcontractor. In addition, the Recipient shall ensure that any and all parties performing work under the Contract are covered by public liability insurance as outlined above. All Subcontractors performing work under the Contract are required to maintain the same scope of insurance required of the Recipient. The Recipient shall be held responsible for ensuring compliance with those requirements by all Subcontractors.

Recipient's insurance coverage shall be primary (i.e., pay first) as respects any insurance, self-insurance or self-retention maintained by the State. Any insurance, self-insurance or self-retention maintained by the State shall be excess of the Recipient's insurance and shall not contribute with it. The insolvency or bankruptcy of the insured Recipient shall not release the insurer from payment under the policy, even when such insolvency or bankruptcy prevents the insured Recipient from meeting the retention limit under the policy. Any deductible amount or other obligations under the policy(ies) shall be the sole responsibility of the Recipient. This insurance may be in policy or policies of insurance, primary and excess, including the so-called umbrella or catastrophe form and be placed with Insurers rated "A-" or better by A.M. Best Company, Inc. The State will be indemnified, saved, and held harmless to the full extent of any coverage actually secured by the Recipient in excess of the minimum requirements set forth above.

**APPROACHES**

North Dakota Department of Transportation, Design  
SFN 16488 (Rev. 01-2010)

Culverts: Size \_\_\_\_\_ Match size of largest upstream culvert or 24" Min.  
Type CSP OR RCP  
Length AS NEEDED TO MEET INSLOPE



Location: Highway ND 40  
Ref. Point 37 LT, 37.66 LT, 38.48 RT, 39.52 RT, 40.1 LT

\*Enter dimension above line.

Reference Plans

Remarks

Erosion Control should be installed according to Best Management Practices (BMPs) and Seeding of the disturbed area according to Section 251 of 'Standard Specifications for Road and Bridge Construction' that specifies Class II Seed Mixture.

Section Line

Private Drive

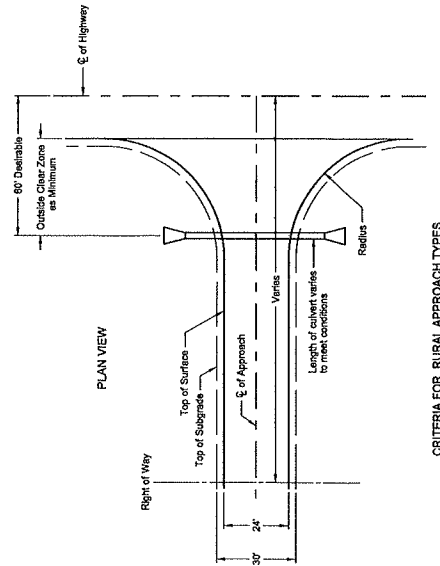
# STANDARD RURAL APPROACHES

D-203-8

**NOTES:**

1. Max. breakover between approach storage platform and highway shall not exceed 5%.
2. The approach slope shall be measured outside the area of mainline inside influence.

**APPROACH INSLOPES**



**CASE 1**

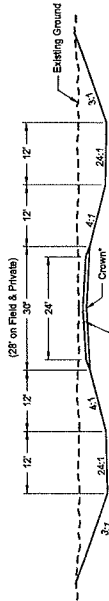
APPROACH PIPE LOCATED 60' OR MORE FROM  $\bar{C}$

**CASE 2**

APPROACH PIPE LOCATED LESS THAN 60' OF  $\bar{C}$

**CRITERIA FOR RURAL APPROACH TYPES**

	Field Drives	Private Drives	Low Volume Public Roads
Radius	R=24 ft	R=30 ft	R=40 ft
Maximum Grade	10%	7%	7%
Storage Platform	20 ft	24 ft	30 ft
Vertical Curve Length	10 ft	10 ft	Varies (Min. 20 mph)



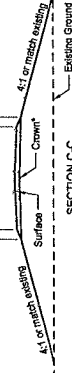
**SECTION A-A**

(28' on Field & Private)

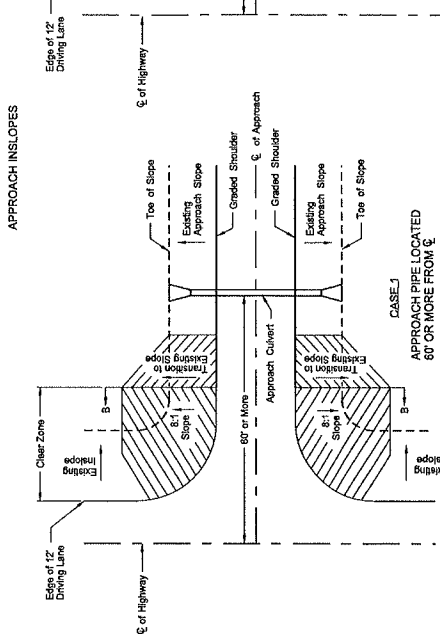
- 2.1% crown for graded surface
- 3.0% crown for gravel surface

**SECTION B-B**

(28' on Field & Private)



**SECTION C-C**

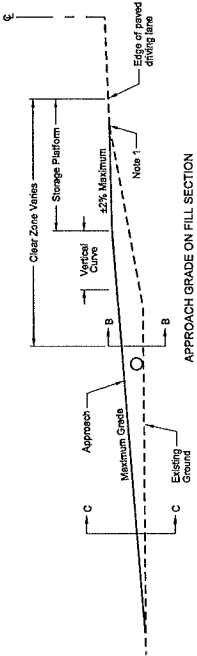


**CASE 1**

APPROACH PIPE LOCATED 60' OR MORE FROM  $\bar{C}$

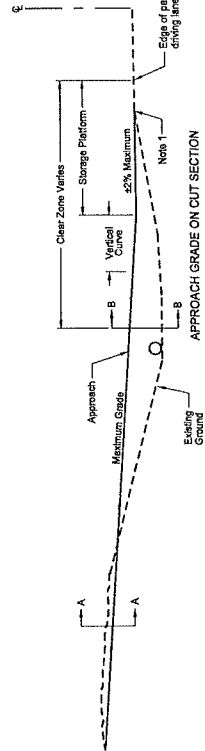
**CASE 2**

APPROACH PIPE LOCATED LESS THAN 60' OF  $\bar{C}$



**APPROACH GRADE ON FILL SECTION**

**APPROACH GRADE ON DEEP FILL SECTION**



**APPROACH GRADE ON CUT SECTION**

DATE	REVISIONS
	CHANGE

This document was originally issued and sealed by Roger Weigel, Registration Number PE-2930, on 02/25/14 and the original document is stored at the North Dakota Department of Transportation.



# DRIVEWAY APPLICATION & PERMIT

North Dakota Department of Transportation, Maintenance  
SFN 5918 (3-2016)

Permit Number			
2	0	0	6
District Number			
6	7		

Applicant Northern Divide Wind, LLC			
Address 700 Universe Boulevard	City Juno Beach	State FL	ZIP Code 33048

## Driveway Information on State Highway Right of Way

Number of Driveways 1	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Commercial	Direction <input type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W	side of Route   40
Location Eastside of Highway 40 in Section 8, Township 161N, Range 93W, near Highway Marker 38			
Town Leaf Mountain Township	Highway 40	Junction	Mile Marker Number 38.48 RT
Description of proposed work on state right of way and type of business served. Northern Divide Wind, LLC is seeking to temporarily expand the intersection of 94th Street and State Highway 40 on the east side in support of wind farm construction. The expansion is to install a turning radius of 150 feet on the intersection. While the exhibit shows 2 possible expansions, only 1 is to be built and utilized, to be determined at the finalization of the delivery and haul routes.  Further, the proposed expansion would only be only in support of construction activities. After construction is completed, the intersection would be restored to its current turning radius.			

Applicant agrees that any permit issued and any entrance built or work done shall be in accordance with plans attached hereto and made a part hereof, and Permit Specifications, printed on the reverse side of this sheet. If the applicant fails to construct the drive to the specified dimensions, including the proper culvert length and inslopes, the Department of Transportation, hereinafter referred to as NDDOT, will either cancel this permit and remove the drive or make the necessary corrections and the Applicant will reimburse NDDOT for such work.

### APPLICANT

Kevin Gildea  
Name (Type or Print)

X  
Signature

Vice President  
Title

6/5/2020  
Date

### NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

Joel M. Wilt  
District Engineer (Type or Print)

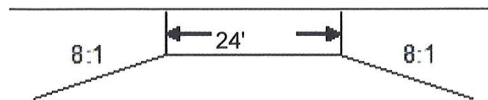
X  
Signature

6/5/20  
Date

Permit granted  
6/5/20  
Date

Construction shall be completed by  
12/31/2020  
Date

### Sketch



Original to District File, copy to Applicant  
Please send completed form to Pavement Management Engineer

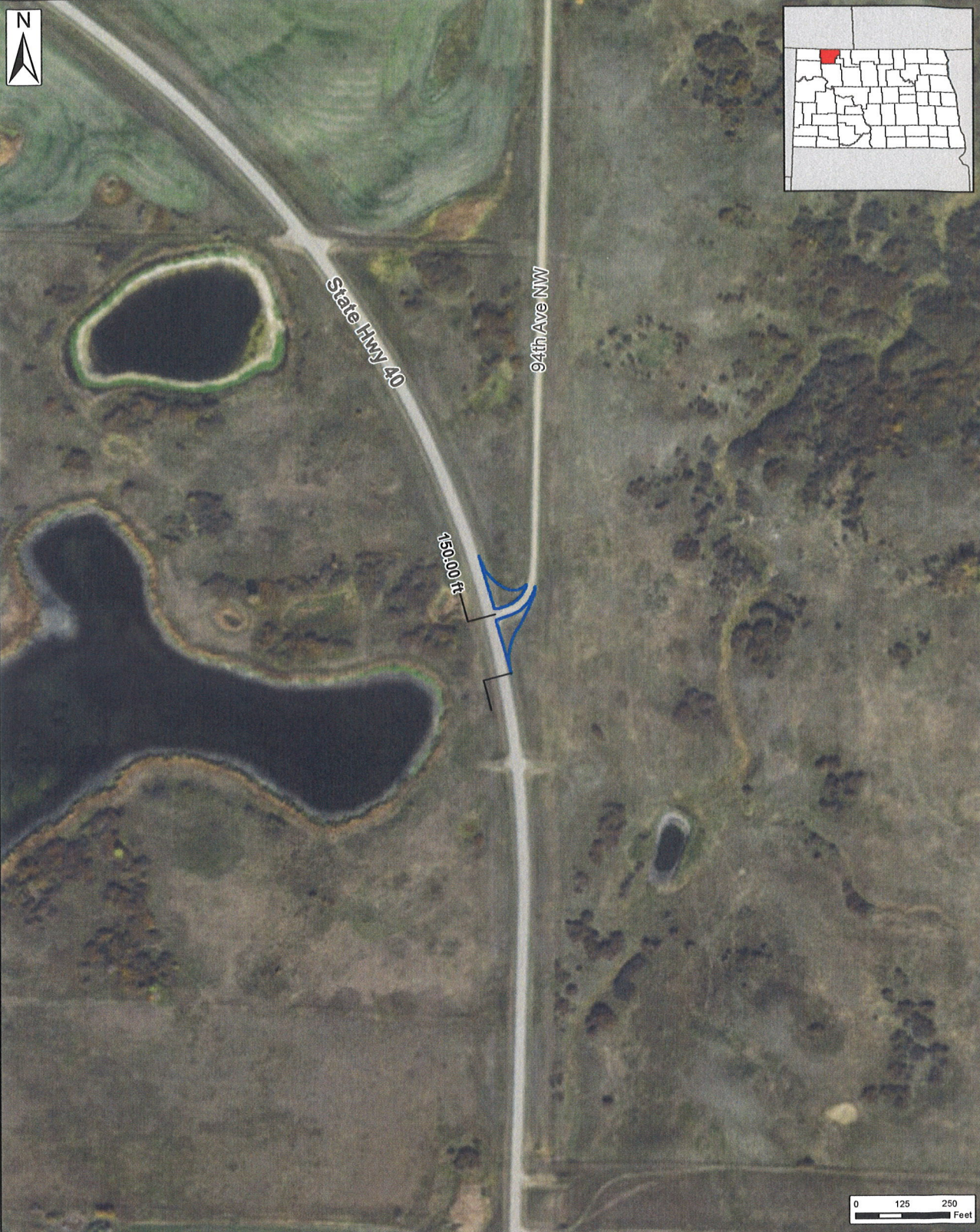
## DRIVEWAY PERMIT SPECIFICATIONS

1. The total cost of all construction and maintenance of the work specified shall be borne by the Applicant, his grantees, successors, and assigns: except that the state will maintain the shoulder of the roadway.
2. The applicant shall be required to wear an ANSI/ISEA 107-2004 Class II high visibility garment while within the highway right-of-way as per the requirements of 23 CFR 634.
3. It is understood by the Applicant that the state does not assume any responsibility for the removal or clearance of snow, ice, or sleet, or the opening of windrows of such materials, upon any portion of the driveway even though snow, ice, or sleet is deposited or windrowed on said drive by its authorized representative engaged in normal winter maintenance operation.
4. No driveway shall be considered as completed until checked and approved by NDDOT. Surfacing may be omitted on field entrances if so specified in the application.
5. A driveway, as referred to in this permit, shall be the traveled area between the highway roadway surface and the adjacent right-of-way line. Said driveway shall be used only for the purpose of providing entrance to and exit from the Applicant's property.
6. No driveway, or improvement constructed on the highway right-of-way shall be altered or relocated without permission of the district engineer of NDDOT.
7. The Applicant agrees to perform all work in accordance with this permit, and to indemnify and hold harmless NDDOT, its officers, and employees from any and 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 driveways.
8. It is understood by the Applicant that the location, construction, and maintenance of driveways are under the supervision of NDDOT at all times, and that in granting this permit NDDOT waives none of its powers or rights to direct the removal, relocation, or proper maintenance in the future of any driveways within the right of way of the state highway.
9. The granting of this permit does not vest the Applicant with the exclusive use of the driveway. NDDOT retains the right to diminish and expand the use of the driveway as required in the interest of the safety of highway traffic.
10. Wetland: The applicant shall certify that no wetlands will be impacted by the installation of the driveway. If wetlands are impacted, the applicant shall coordinate with the US Army Corps of Engineers (USACE), North Dakota Regulatory Office to determine if a permit is required or mitigation is needed. Certification of avoidance, a wetland delineation, or a permit (if required) from the USACE shall be attached to the application.
11. The Applicant, for him or herself, his or her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree that 1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, 2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, 3) that the Applicant will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities set forth in this Assurance.
12. That in the event of breach of any of the above non-discrimination covenants, NDDOT will have the right to terminate this Permit and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said Permit had never been made or issued.
13. Risk Management Appendix, attached, is hereby incorporated and made a part of this agreement.
14. District Engineer to provide copy of approved permit to NDDOT, Planning and Asset Management, Pavement Management Division.

# Northern Divide Wind State Highway 40 Intersection Improvements

Burke County, North Dakota

Issue Date:  
5/28/2020  
Atwell, LLC Project:  
17002309



— Temporary Intersection Improvement



The information contained on this map is proprietary and confidential. The use or disclosure of this information by you to third parties is prohibited by law and may give rise to civil or criminal liability.

28

Risk Management Appendix

Permits and Licenses with Private Individuals, Companies, Corporations, Etc. (referred to as Recipient):

Recipient agrees to defend, indemnify, and hold harmless the state of North Dakota, its agencies, officers and employees (State), from and against claims based on the vicarious liability of the State or its agents, but not against claims based on the State's contributory negligence, comparative and/or contributory negligence or fault, sole negligence, or intentional misconduct. The legal defense provided by the Recipient to the State under this provision must be free of any conflicts of interest, even if retention of separate legal counsel for the State is necessary. Recipient also agrees to defend, indemnify, and hold the State harmless for all costs, expenses and attorneys' fees incurred if the State prevails in an action against the Recipient in establishing and litigating the termination of this agreement. This obligation shall continue after the termination of this agreement.

Recipient shall secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds authorized to do business in North Dakota, the following insurance coverages:

- 1) Commercial general liability and automobile liability insurance - minimum limits of liability required are \$250,000 per person and \$1,000,000 per occurrence.
- 2) Workers compensation insurance meeting all statutory limits.
- 3) The State of North Dakota and its agencies, officers, and employees (State) shall be endorsed as an additional insured on the commercial general liability and automobile liability policies.
- 4) Said endorsements shall contain a "Waiver of Subrogation" in favor of the state of North Dakota.
- 5) The policies and endorsements may not be canceled or modified without thirty (30) days prior written notice to the undersigned State representative.

Recipient shall furnish a certificate of insurance evidencing the requirements in 1, 3, and 4 above to the undersigned State representative prior to commencement of this agreement.

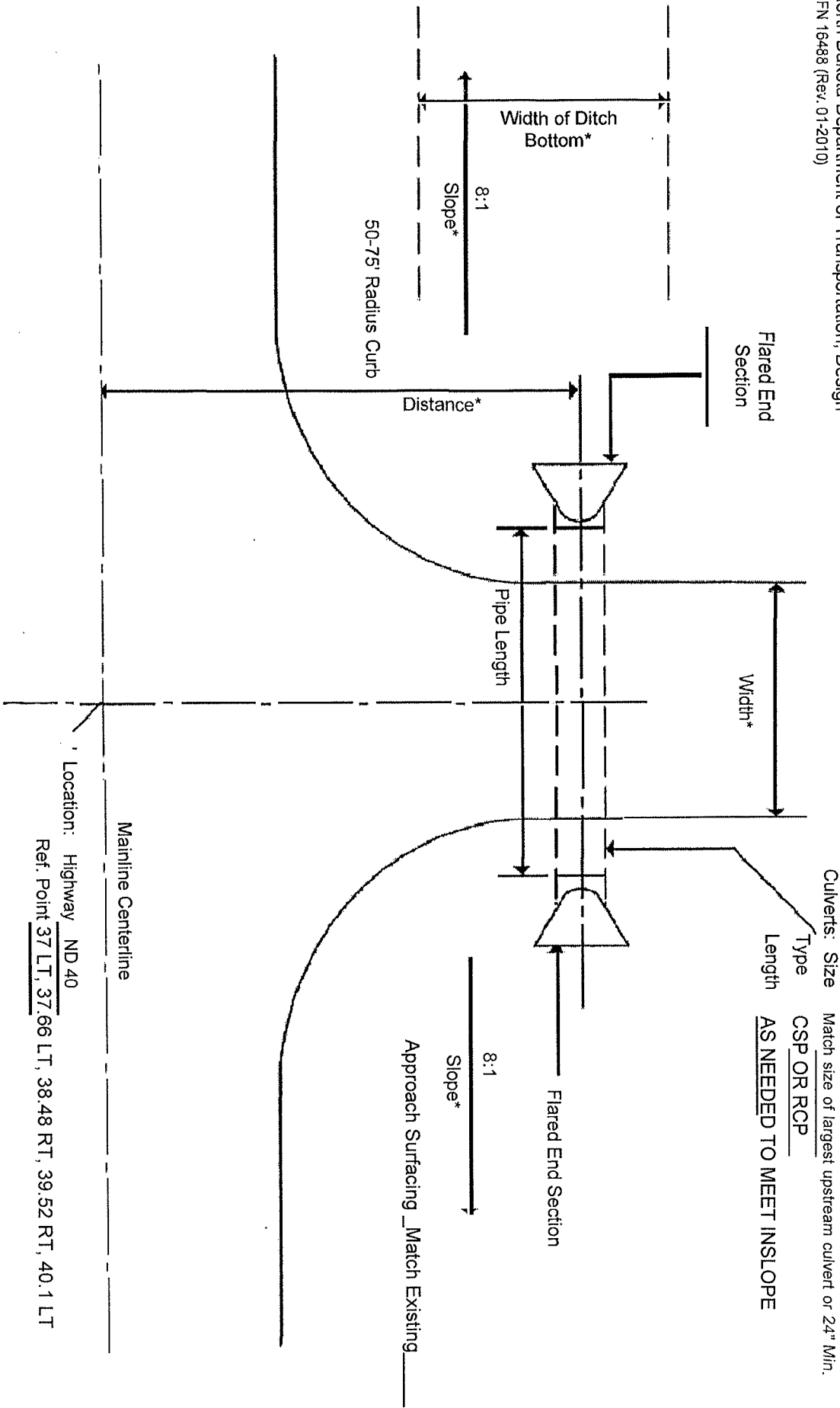
The State reserves the right to obtain complete, certified copies of all required insurance documents, policies, or endorsements at any time. If Recipient's insurance will expire prior to the term of this agreement, Recipient shall renew the above requirements and furnish a certificate of insurance evidencing the renewal to the undersigned State representative prior to the expiration of the insurance. Any attorney who represents the State under this policy must first qualify as and be appointed by the North Dakota Attorney General as a Special Assistant Attorney General as required under N.D.C.C. Section 54-12-08.

When a portion of a Contract is sublet, the Recipient shall obtain insurance protection (as outlined above) to provide liability coverage to protect the Recipient and the State as a result of work undertaken by the Subcontractor. In addition, the Recipient shall ensure that any and all parties performing work under the Contract are covered by public liability insurance as outlined above. All Subcontractors performing work under the Contract shall be held responsible for ensuring compliance with those requirements by all Subcontractors.

Recipient's insurance coverage shall be primary (i.e., pay first) as respects any insurance, self-insurance or self-retention maintained by the State. Any insurance, self-insurance or self-retention maintained by the State shall be excess of the Recipient's insurance and shall not contribute with it. The insolvency or bankruptcy of the insured Recipient shall not release the insurer from payment under the policy, even when such insolvency or bankruptcy prevents the insured Recipient from meeting the retention limit under the policy. Any deductible amount or other obligations under the policy(ies) shall be the sole responsibility of the Recipient. This insurance may be in policy or policies of insurance, primary and excess, including the so-called umbrella or catastrophe form and be placed with insurers rated "A-" or better by A.M. Best Company, Inc. The State will be indemnified, saved, and held harmless to the full extent of any coverage actually secured by the Recipient in excess of the minimum requirements set forth above.

# APPROACHES

North Dakota Department of Transportation, Design  
SFN 16488 (Rev. 01-2010)



\*Enter dimension above line.

Reference Plans

Remarks

Erosion Control should be installed according to Best Management Practices (BMPs) and Seeding of the disturbed area according to Section 251 of 'Standard Specifications for Road and Bridge Construction' that specifies Class II Seed Mixture.

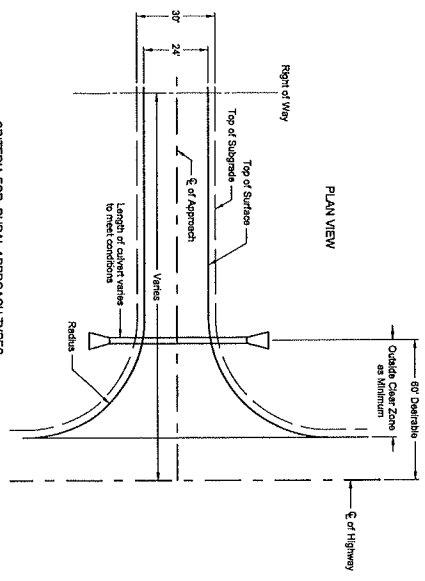
Location: Highway ND 40  
Ref. Point 37 LT, 37.66 LT, 38.48 RT, 39.52 RT, 40.1 LT

Mainline Centerline

Section Line	
Private Drive	

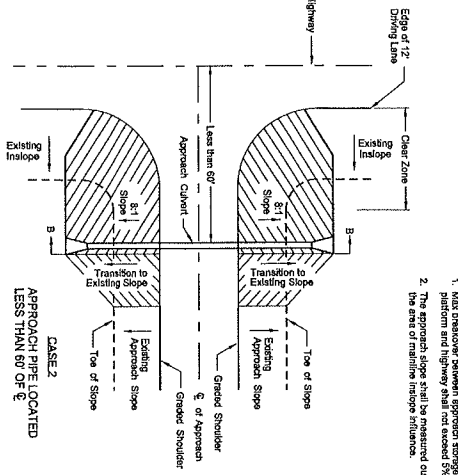
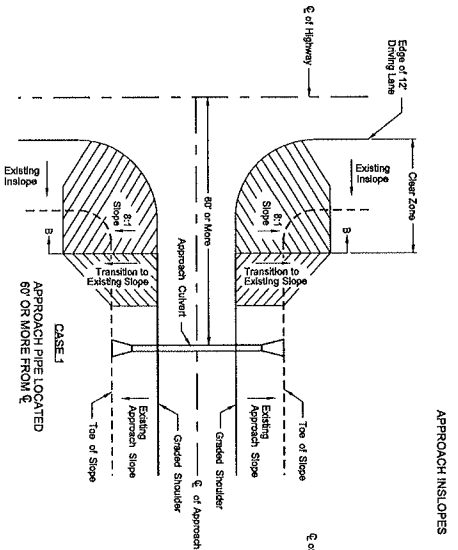
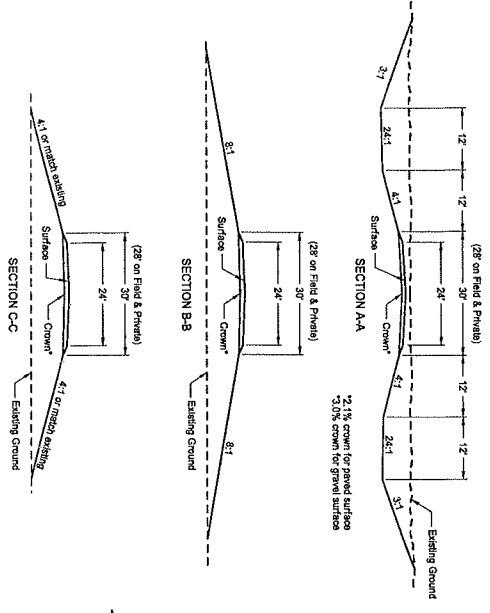
# STANDARD RURAL APPROACHES

D-203-8

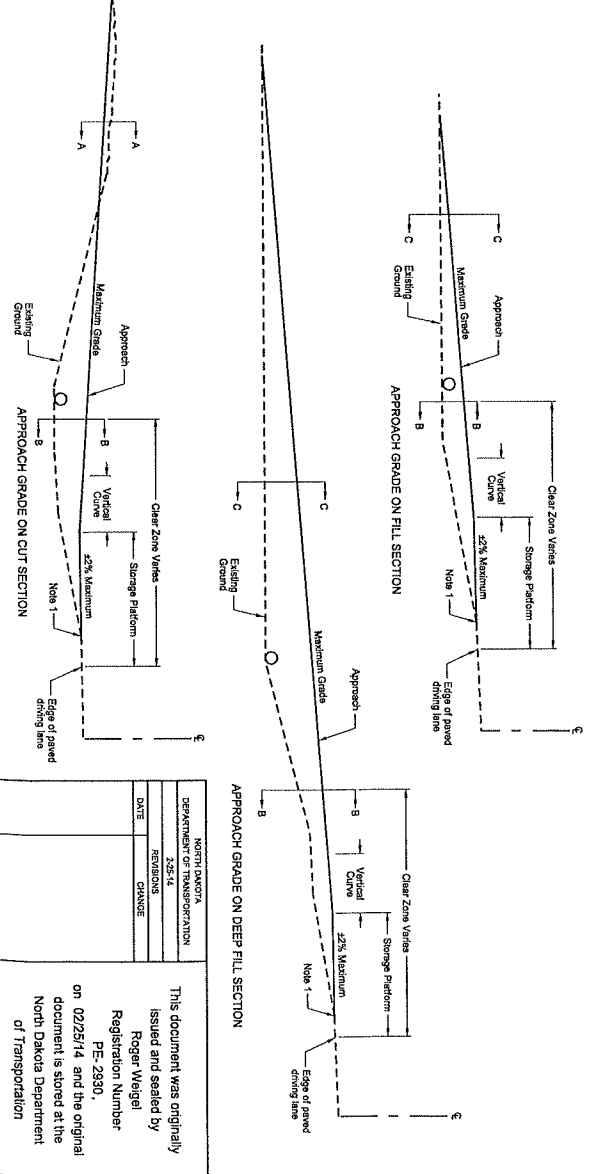


CRITERIA FOR RURAL APPROACH TYPES

Field Drives	Private Drives	Low Volume Public roads
Radius	R=24 ft	R=40 ft
Maximum Grade	10%	7%
Storage Platform	20 ft	24 ft
Vertical Curve Length	10 ft	10 ft
		Vertical Curve (Min. 20 ft)

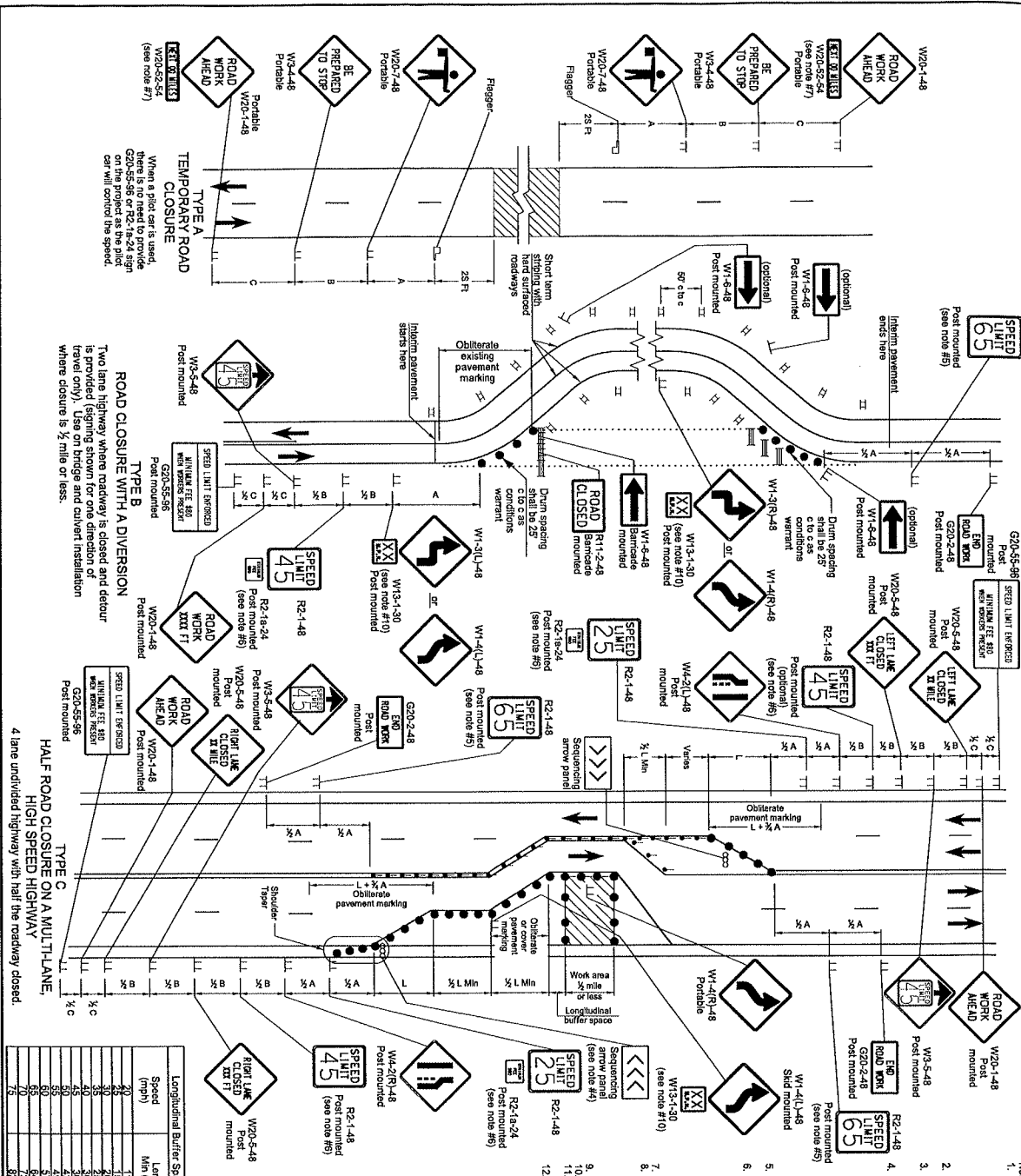


- NOTES
1. Max. shoulder platform approach slope platform and highway shall not exceed 5%.
  2. The approach slope shall be measured outside the area of maximum inslope influence.



NORTH DAKOTA  
 DEPARTMENT OF TRANSPORTATION  
 235-14  
 REVISIONS  
 DATE CHANGE  
 This document was originally issued and sealed by  
 Roger Weigel  
 Registration Number  
 PE-2930,  
 on 02/25/14 and the original document is stored at the  
 North Dakota Department  
 of Transportation

# ROAD CLOSURE LAYOUTS



## Notes

- Variables
  - N = Numerical value of speed limit or 85th percentile.
  - W = Width of lane/turn, or X W for freeways, expressways, and all other roads with speeds of 45 mph or greater, or W x S/90 for urban, residential, and other streets with speeds of 40 mph or less.
  - B = Baracade placed on roadway shall be on a movable assembly.
  - D = Distance between baracades or cones used for tapering traffic shall be spaced at the dimension "S".
  - S = Spacing between cones used for tapering traffic shall be spaced at 2 times dimension "S".
- Sequencing arrow panels shall be placed at the beginning of the taper. When 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. See Shoulder Closure Standard Drawing.
- Type A shall be used on roadways with slow moving traffic speeds and Type B shall be used on roadways with moderate traffic speeds and volumes (40 mph or less and 5000 ADT or less).
- Type C shall be used on roadways with high traffic speeds and volumes (over 40 mph or over 5000 ADT). The exact speed limit shall be determined in the field, dependent on location and conditions.
- The reduced speed limit shall be determined dependent on the in place speed limit before construction. The speed limit reduction should not be more than 10 mph below the existing speed limit, unless, in the design cases, 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  $\frac{1}{2} B$ .
- When work area is 1/4 mile or longer, and the signs are not portable, flags shall be installed. The flags shall be 24 inches square, mounted perpendicular to the edges of the diamond sign, and at such a distance above the edge so that when the flag is limp it will not touch the sign. Return arms will not be required. Signs within a reduced speed zone shall be covered.
- When necessary, safe speed to be determined by the Engineer.
- Where necessary, the option of using portable sign supports in lieu of post mounted signs in accordance with the MCDOT Standard Specifications.
- The contractor has the option of using portable sign supports in lieu of post mounted signs in accordance with the MCDOT Standard Specifications.
- Control lamps, or the work is less than 15 days.

D-704-15

ADVANCE WARNING SIGN SPACING

Road Type	Distance Between Signs (ft)
Urban: Lane Speed (20 mph or less)	A, B, C
Urban: Lane Speed (25 to 30 mph)	150
Urban: Lane Speed (35 to 40 mph)	200
Urban: Lane Speed (45 to 50 mph)	250
Urban: Lane Speed (55 to 60 mph)	300
Urban: Lane Speed (65 to 70 mph)	350
Urban: Lane Speed (75 to 80 mph)	400
Urban: Lane Speed (85 to 90 mph)	450
Urban: Lane Speed (100 mph or more)	500
Urban: Expressway and Freeway	600
Urban: Expressway and Freeway (70 mph to 75 mph)	1000
Urban: Expressway and Freeway (75 mph to 80 mph)	1500
Urban: Expressway and Freeway (80 mph to 85 mph)	2000
Urban: Expressway and Freeway (85 mph to 90 mph)	2500
Urban: Expressway and Freeway (90 mph to 95 mph)	3000
Urban: Expressway and Freeway (95 mph to 100 mph)	3500
Urban: Expressway and Freeway (100 mph or more)	4000
Interstate: Lane Speed (70 mph or more)	700
Interstate: Lane Speed (75 mph or more)	1000
Interstate: Lane Speed (80 mph or more)	1500

KEY

	Type III baracade
	Sign
	Delineator drum
	Tubular markers
	Work area
	Flagger
	Sequencing arrow panel
	Vertical panels back to back

LONGITUDINAL BUFFER SPACE

Speed (mph)	Length (feet)
20	115
25	145
30	175
35	205
40	235
45	265
50	295
55	325
60	355
65	385
70	415
75	445
80	475
85	505
90	535
95	565
100	595
105	625
110	655
115	685
120	715
125	745
130	775
135	805
140	835
145	865
150	895
155	925
160	955
165	985
170	1015
175	1045
180	1075
185	1105
190	1135
195	1165
200	1195

DEPARTMENT OF TRANSPORTATION  
SECTION 83Z-13  
CHANGE

This document was originally issued and sealed by  
Roger Weigel  
Registration Number  
PE-2930

on 08/27/13 and the original document is stored at the  
North Dakota Department  
of Transportation

# DRIVEWAY APPLICATION & PERMIT

North Dakota Department of Transportation, Maintenance  
SFN 5918 (3-2016)

Permit Number			
2	0	0	7
District Number			
6		7	

Applicant Northern Divide Wind, LLC			
Address 700 Universe Boulevard	City Juno Beach	State FL	ZIP Code 33048

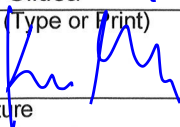
## Driveway Information on State Highway Right of Way

Number of Driveways 1	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Commercial	Direction <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W	side of Route   40
Location Westside of Highway 40 in Section 6, Township 161N, Range 93W, near Highway Marker 39			
Town Leaf Mountain Township	Highway 40	Junction	Mile Marker Number 40.1 LT
Description of proposed work on state right of way and type of business served. Northern Divide Wind, LLC is seeking to temporarily expand the intersection of County Road 6 and State Highway 40 on the west side in support of wind farm construction. The expansion is to install a turning radius of 150 feet on the intersection. While the exhibit shows 2 possible expansions, only 1 is to be built and utilized, to be determined at the finalization of the delivery and haul routes.  Further, the proposed expansion would only be only in support of construction activities. After construction is completed, the intersection would be restored to its current turning radius.			

Applicant agrees that any permit issued and any entrance built or work done shall be in accordance with plans attached hereto and made a part hereof, and Permit Specifications, printed on the reverse side of this sheet. If the applicant fails to construct the drive to the specified dimensions, including the proper culvert length and inslopes, the Department of Transportation, hereinafter referred to as NDDOT, will either cancel this permit and remove the drive or make the necessary corrections and the Applicant will reimburse NDDOT for such work.

### APPLICANT

Kevin Gildea  
Name (Type or Print)

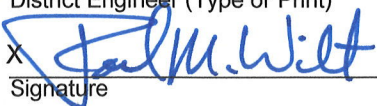
X   
Signature

Vice President  
Title

6/5/2020  
Date

### NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

Joel M. Wilt  
District Engineer (Type or Print)

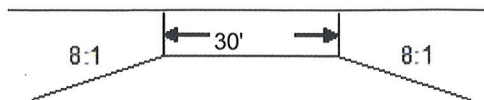
X   
Signature

6/5/20  
Date

Permit granted  
6/5/20  
Date

Construction shall be completed by  
12/31/2020  
Date

### Sketch



Original to District File, copy to Applicant  
Please send completed form to Pavement Management Engineer

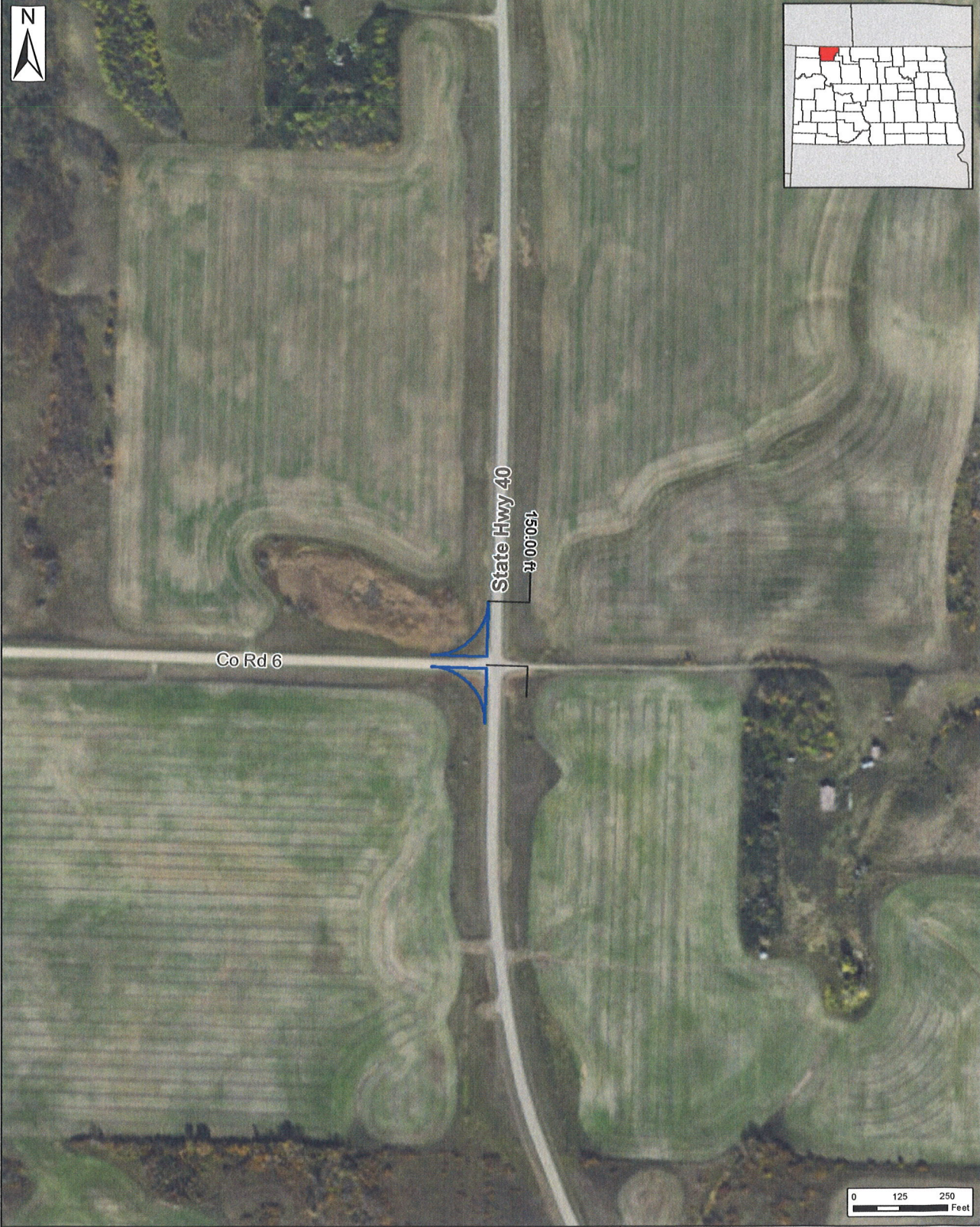
## DRIVEWAY PERMIT SPECIFICATIONS

1. The total cost of all construction and maintenance of the work specified shall be borne by the Applicant, his grantees, successors, and assigns: except that the state will maintain the shoulder of the roadway.
2. The applicant shall be required to wear an ANSI/ISEA 107-2004 Class II high visibility garment while within the highway right-of-way as per the requirements of 23 CFR 634.
3. It is understood by the Applicant that the state does not assume any responsibility for the removal or clearance of snow, ice, or sleet, or the opening of windrows of such materials, upon any portion of the driveway even though snow, ice, or sleet is deposited or windrowed on said drive by its authorized representative engaged in normal winter maintenance operation.
4. No driveway shall be considered as completed until checked and approved by NDDOT. Surfacing may be omitted on field entrances if so specified in the application.
5. A driveway, as referred to in this permit, shall be the traveled area between the highway roadway surface and the adjacent right-of-way line. Said driveway shall be used only for the purpose of providing entrance to and exit from the Applicant's property.
6. No driveway, or improvement constructed on the highway right-of-way shall be altered or relocated without permission of the district engineer of NDDOT.
7. The Applicant agrees to perform all work in accordance with this permit, and to indemnify and hold harmless NDDOT, its officers, and employees from any and 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 driveways.
8. It is understood by the Applicant that the location, construction, and maintenance of driveways are under the supervision of NDDOT at all times, and that in granting this permit NDDOT waives none of its powers or rights to direct the removal, relocation, or proper maintenance in the future of any driveways within the right of way of the state highway.
9. The granting of this permit does not vest the Applicant with the exclusive use of the driveway. NDDOT retains the right to diminish and expand the use of the driveway as required in the interest of the safety of highway traffic.
10. Wetland: The applicant shall certify that no wetlands will be impacted by the installation of the driveway. If wetlands are impacted, the applicant shall coordinate with the US Army Corps of Engineers (USACE), North Dakota Regulatory Office to determine if a permit is required or mitigation is needed. Certification of avoidance, a wetland delineation, or a permit (if required) from the USACE shall be attached to the application.
11. The Applicant, for him or herself, his or her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree that 1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, 2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, 3) that the Applicant will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities set forth in this Assurance.
12. That in the event of breach of any of the above non-discrimination covenants, NDDOT will have the right to terminate this Permit and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said Permit had never been made or issued.
13. Risk Management Appendix, attached, is hereby incorporated and made a part of this agreement.
14. District Engineer to provide copy of approved permit to NDDOT, Planning and Asset Management, Pavement Management Division.

# Northern Divide Wind State Highway 40 Intersection Improvements

Burke County, North Dakota

Issue Date:  
5/28/2020  
Atwell, LLC Project:  
17002309



— Temporary Intersection Improvement



The information contained on this map is proprietary and confidential. The use or disclosure of this information by you to third parties is prohibited by law and may give rise to civil or criminal liability.

SOURCE: USGS TNM ORTHOIMAGERY, 2019

BY

### Risk Management Appendix

#### Permits and Licenses with Private Individuals, Companies, Corporations, Etc. (referred to as Recipient):

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Recipient shall secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds authorized to do business in North Dakota, the following insurance coverages:

- 1) **Commercial general liability and automobile liability insurance** – minimum limits of liability required are **\$250,000 per person and \$1,000,000 per occurrence.**
- 2) **Workers compensation insurance** meeting all statutory limits.
- 3) The State of North Dakota and its agencies, officers, and employees (State) shall be endorsed as an **additional insured** on the commercial general liability and automobile liability policies.
- 4) Said endorsements shall contain a **"Waiver of Subrogation"** in favor of the state of North Dakota.
- 5) The policies and endorsements may not be canceled or modified without **thirty (30) days prior written notice** to the undersigned State representative.

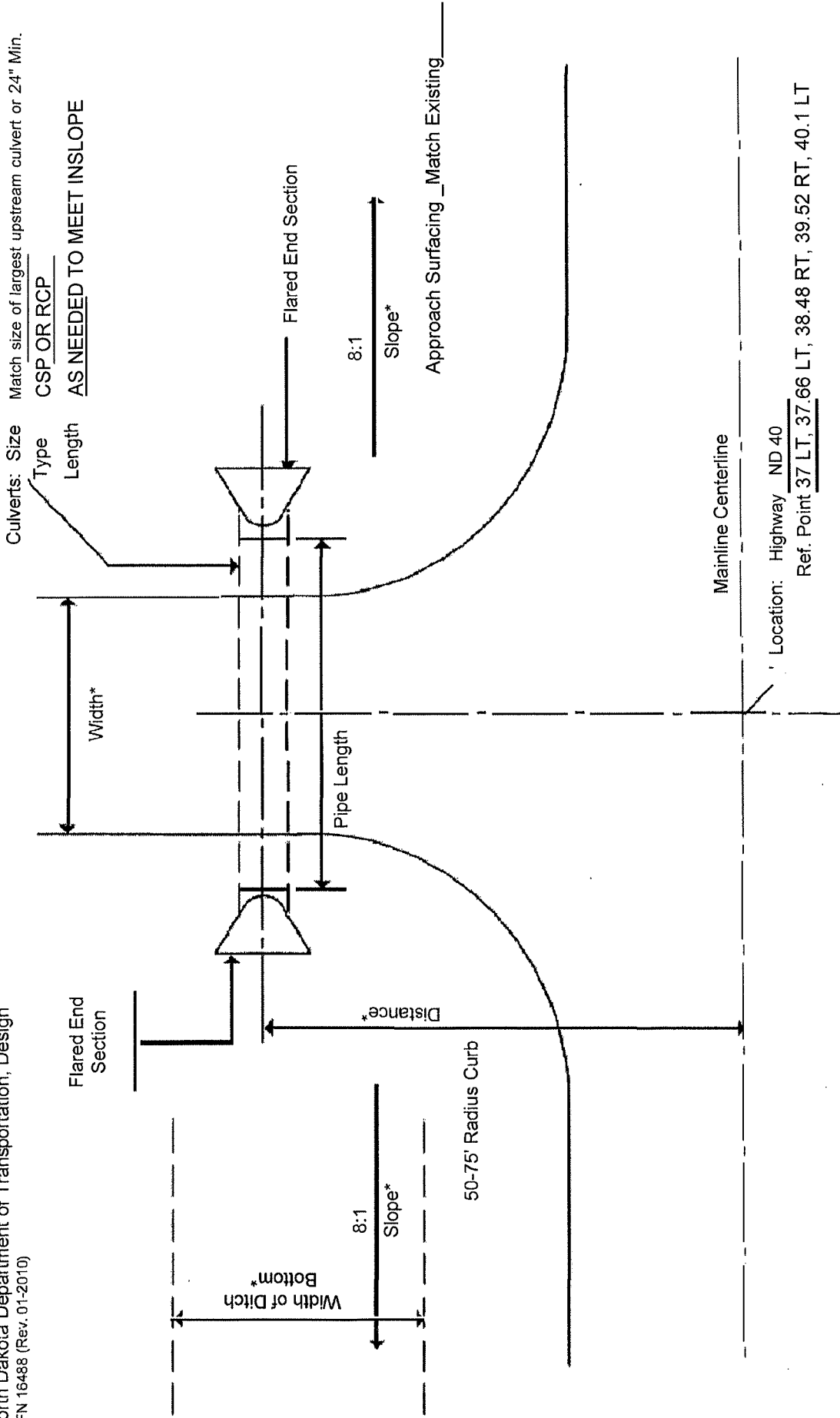
**Recipient shall furnish a certificate of insurance evidencing the requirements in 1, 3, and 4 above to the undersigned State representative prior to commencement of this agreement.**

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**APPROACHES**  
 North Dakota Department of Transportation, Design  
 SFN 16488 (Rev. 01-2010)



\*Enter dimension above line.

Reference Plans

Remarks

Erosion Control should be installed according to Best Management Practices (BMPs) and Seeding of the disturbed area according to Section 251 of 'Standard Specifications for Road and Bridge Construction' that specifies Class II Seed Mixture.

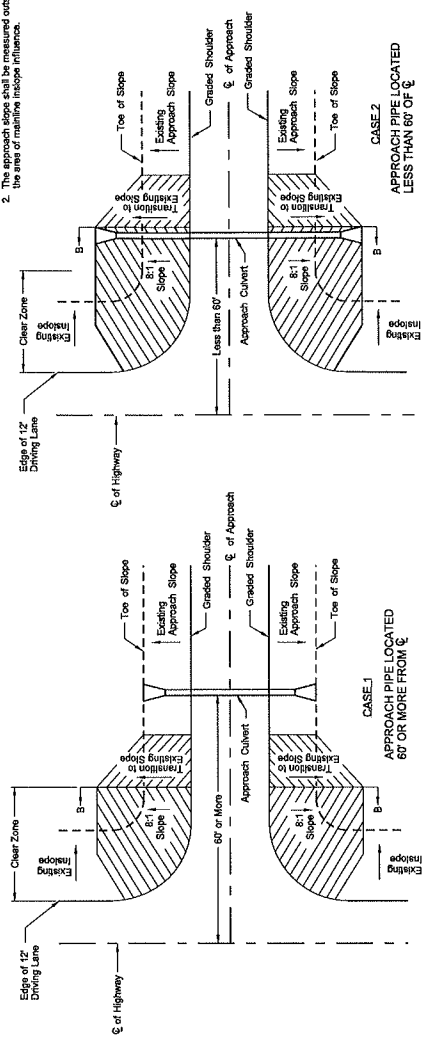
Section Line
Private Drive

STANDARD RURAL APPROACHES

NOTES:

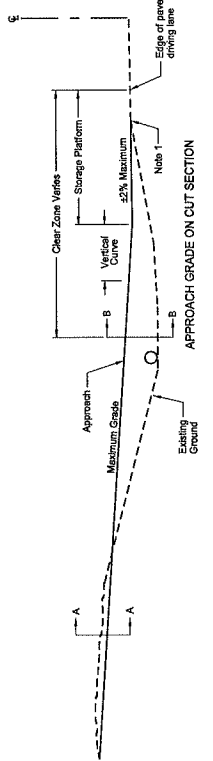
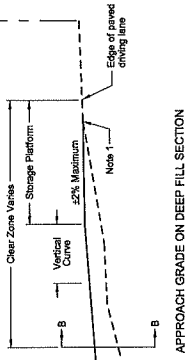
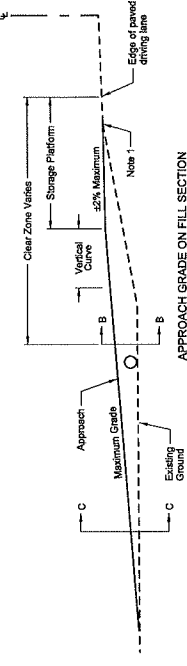
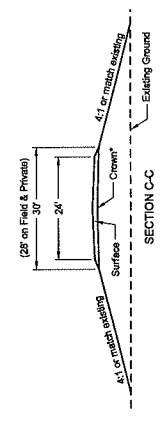
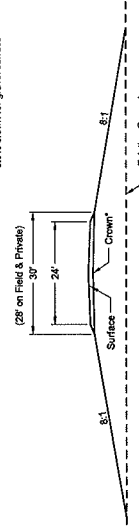
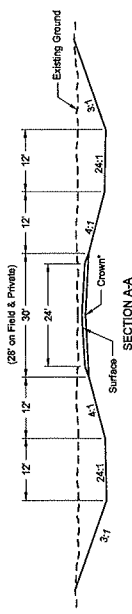
1. Main backbone between approach storage platform and highway shall not exceed 5%.
2. The approach slope shall be measured outside the area of matching approach-inlet.

APPROACH INSLOPES



CRITERIA FOR RURAL APPROACH TYPES

	Field Drives	Private Drives	Low Volume Public Roads
Radius	R=24 ft	R=30 ft	R=40 ft
Maximum Grade	10%	7%	7%
Storage Platform	20 ft	24 ft	30 ft
Vertical Curve Length	10 ft	10 ft	Varies (Min. 20 mph)



This document was originally issued and sealed by Roger Weigel, Registration Number PE-2930, on 02/25/14 and the original document is stored at the North Dakota Department of Transportation

NORTH DAKOTA	
DEPARTMENT OF TRANSPORTATION	
2-203-14	
REVISIONS	
DATE	CHANGE

# D-704-15

## Notes

- Variables  
S = Numerical value of speed limit or 85th percentile.  
W = The width of taper, in feet, as S/10 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.  
Barricades placed on roadway shall be on a moveable assembly.  
Signs placed on roadway shall be placed on skirt mounted assemblies, spaced at the dimension "S". Delineator drums or cones used for tapers shall be spaced at 2 times dimension "S".  
Sequencing Arrow Panels  
Panels should normally be placed at the beginning of the taper. Where the taper is placed on a roadway with moderate traffic speeds and volumes, Type A shall be used on roadways with slow moving traffic speeds and Type B shall be used on roadways with moderate traffic speeds and volumes. See Shoulder Closure Standard Drawing.  
Type A shall be used on roadways with high traffic speeds and volumes (over 40 mph or over 5000 ADT). The exact speed limit shall be determined in the field, dependent on location and conditions.  
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 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 E.  
Use when work area is 1 mile or longer.  
When work area is less than 1 mile, the signs are not portable, flags shall be installed. The flags shall be 24 inch squares, mounted perpendicular to the edges of the diamond sign, and at such a distance above the edge so that when the flag is limp it will not touch the sign. Rural areas will not require high signs within a reduced speed zone shall be covered.  
Where necessary, safe speed to be determined by the Engineer.  
When necessary, safe speed to be determined by the Engineer.  
The contractor has the option of using portable sign supports in lieu of post mounted signs in accordance with the NDDOT Standard Specifications.  
G20-55-96 sign is not required if the barrier is part of other traffic control devices, or the work is less than 1/2 days.
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Road Type	A (ft)	B (ft)	C (ft)
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40 mph)	200	200	200
Urban - High Speed (over 40 to 55 mph)	250	250	250
Urban - High Speed (over 55 to 65 mph)	300	300	300
Urban - Expressway and Freeway (30 mph to 60 mph)	400	400	400
Urban - Expressway and Freeway (60 mph to 75 mph)	600	600	600
Urban - Expressway and Freeway (75 mph to 90 mph)	1000	1000	1000
Urban - Expressway and Freeway (90 mph to 100 mph)	1500	1500	1500
Interstate-Lane Closure (Interchange and On-Ramp)	750	1000	1000

**KEY**

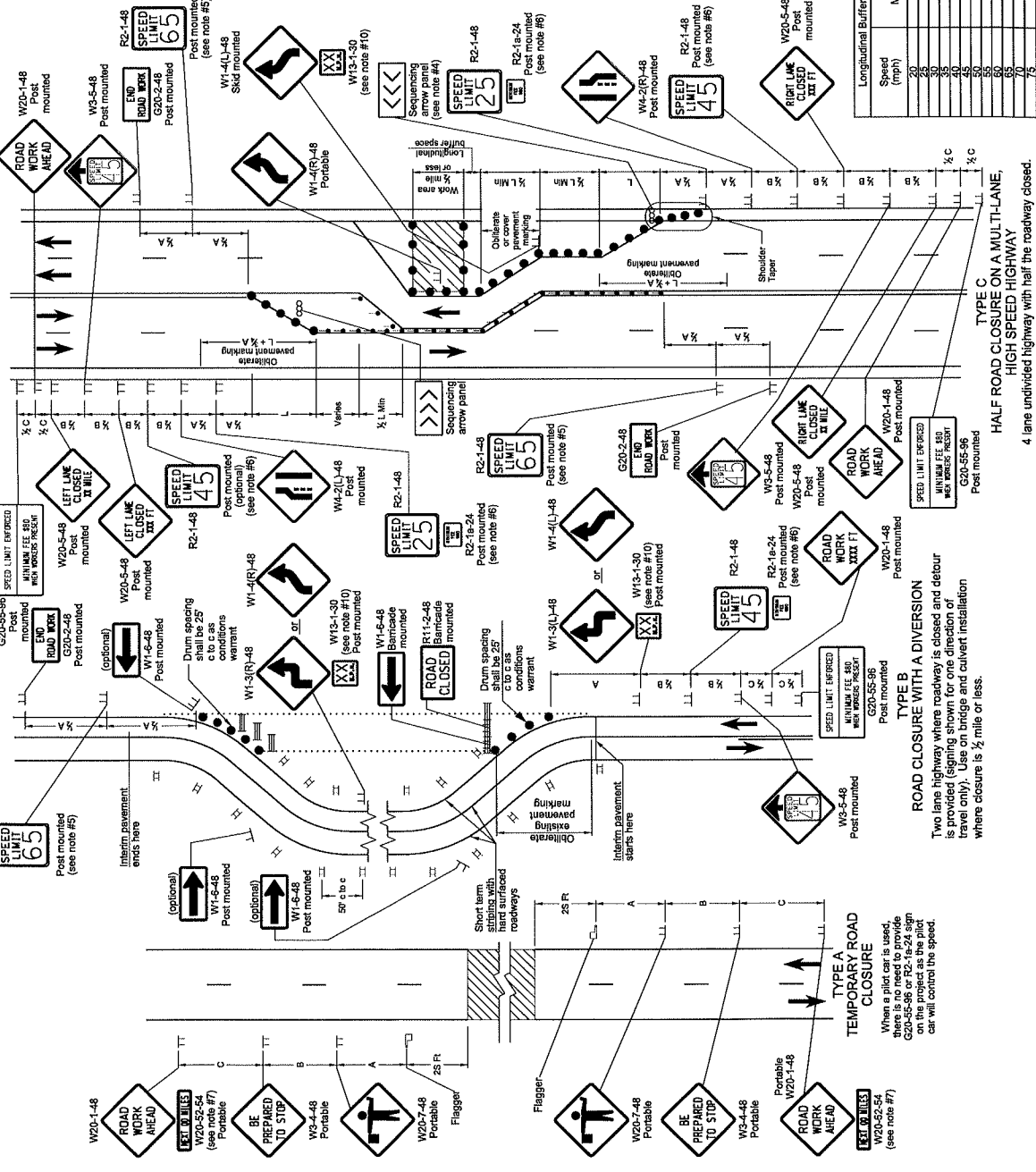
- Type III barricade
- Sign
- Delineator drum
- Tubular markers
- Work area
- Flagger
- Sequencing arrow panel
- Vertical panels back to back

DEPARTMENT OF TRANSPORTATION  
NORTH DAKOTA  
S-27-15

This document was originally issued and sealed by  
**Roger Weigel**  
Registration Number  
**PE-2930**  
on **09/27/13** and the original document is stored at the  
**North Dakota Department of Transportation**

Speed Limit (mph)	Length Min (feet)
25	115
30	135
35	155
40	175
45	195
50	215
55	235
60	255
65	275
70	295
75	315

## ROAD CLOSURE LAYOUTS



**TYPE A**  
TEMPORARY ROAD CLOSURE

When a pilot car is used, G20-55-96 or R2-16-24 sign on the project as the pilot car will control the speed.

**TYPE B**  
ROAD CLOSURE WITH A DIVERSION

Two lane highway where roadway is closed and detour is provided (signing shown for one direction of travel only). Use on bridge and culvert installation where closure is 1/2 mile or less.

**TYPE C**  
HALF ROAD CLOSURE ON A MULTI-LANE, HIGH SPEED HIGHWAY

4 lane undivided highway with half the roadway closed.

MINIMUM FEE \$40 WITH WORKER PROTECT

MINIMUM FEE \$80 WITH WORKER PROTECT

**NPDES GENERAL PERMIT  
FOR CONSTRUCTION ACTIVITY**

**North Dakota Department of Health  
Division of Water Quality**

**Northern Divide Wind**

**Burke County, North Dakota**

**NextEra Energy Resources**

**May 21, 2020**

<b>1</b>	Erosion and Sediment Control Inspection Report
<b>2</b>	North Dakota Department of Health Notice of Coverage
<b>3</b>	Notice of Transfer/Modification
<b>4</b>	Notice of Termination
<b>5</b>	General Permit NDR10-0000

# Erosion and Sediment Control Inspection Report

General Information			
Project Name	Northern Divide Wind		
NPDES Tracking No.		Location	
Date of Inspection		Start/End Time	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications			
Describe present phase of construction			
<input type="checkbox"/> Bi-Weekly <input type="checkbox"/> Rainfall Event (___ in.) <input type="checkbox"/> Other			
Weather Information			
Has there been a storm event since the last inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide: Storm Start Date & Time:                      Storm Duration (hrs):                      Approximate Amount of Precipitation (in):			
Weather at time of this inspection? <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snowing <input type="checkbox"/> High Winds <input type="checkbox"/> Other:    Temperature:			
Have any discharges occurred since the last inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe:			
Are there any discharges at the time of inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe:			

	BMP	BMP Installed	BMP Maintenance Required	Corrective Action Needed and Notes
1	Silt Fencing	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
2	Wattles	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3	Rip Rap	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
4	Diversion Berm/Ditch	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
5	Mulching	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
6	Seeding	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
7	Other	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
8	Other	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

	BMP/activity	Implemented	Maintenance Required	Corrective Action Needed and Notes
1	Are all disturbed areas not actively being worked properly stabilized?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
2	Are natural resource areas (e.g., streams, wetlands, etc.) protected with BMP's?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
4	Are discharge points and receiving waters free of any sediment deposits?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
5	Is the construction exit preventing sediment from being tracked into the street?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
6	Is trash/litter from work areas collected and placed in dumpsters?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
7	Are concrete washout facilities available, clearly marked, and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
8	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
9	Are hazardous material areas free of spills, leaks, or any other deleterious material? Concrete Admixtures (300 gal) Diesel Fuel (3,000 gal) Gasoline (1,000 gal) Propane (300 gal) Tire Fluid (300 gal)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
10	Are materials that are potential stormwater contaminants stored inside or under cover?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

**Non-Compliance**

Describe any incidents of non-compliance not described above:

**CERTIFICATION STATEMENT**

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

**Print name and title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## TAB 2



**APPLICATION (NOTICE OF INTENT) TO OBTAIN  
 COVERAGE UNDER NDPDES GENERAL PERMIT  
 FOR STORMWATER DISCHARGES ASSOCIATED  
 WITH CONSTRUCTION ACTIVITY (NDR10-0000)  
 NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY  
 DIVISION OF WATER QUALITY  
 SFN 19145 (06/2019)**

**FOR DEPT. USE ONLY**

Date Received
Application Number
NOI ID: SW_NOI_20200521174934052

New Project

**GENERAL INFORMATION**

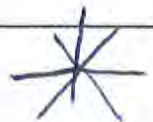
1. Name of Owner of Construction Project <b>NextEra Energy</b>	2. Contact First Name <b>Sean</b>	3. Contact Last Name <b>Harrington</b>	4. Contact Telephone Number <b>305.342.0468</b>
5. Contact E-mail Address <b>sean.harrington@nexteraenergy.com</b>	6. Mailing Address <b>700 Universe Blvd</b>		
7. City <b>Juno Beach</b>	8. State/Province <b>FL</b>	9. Zip Code <b>33408</b>	
10. Name of Operator Working at Site <b>Blattner Energy</b>	11. Contact First Name <b>Jeff</b>	12. Contact Last Name <b>Stockton</b>	13. Contact Telephone Number <b>320.428.3688</b>
14. Contact E-mail Address <b>JStockton@blattnerenergy.com</b>	15. Mailing Address <b>310 Annie Morgan Court</b>		
16. City <b>Cheyenne</b>	17. State/Province <b>WY</b>	18. Zip Code <b>82007</b>	<b>X</b>

**PROJECT INFORMATION**

19. Name of Construction Project <b>Northern Divide Wind</b>			
20. Brief Description of Construction Activity <b>Minor grading for the installation of wind turbines &amp; associated access roads, batch plant, substation and O&amp;M Building site.</b>			
21. Project Start Date <b>05/29/2020</b>	22. Estimated Completion Date <b>05/29/2021</b>	23. Estimated Total Acres of Site <b>10,906</b>	24. Estimated Acres of Disturbance <b>830</b>
Project Location	25. Physical Address <b>106 North Main (mailing)</b>		26. City <b>Crosby</b>
	27. Township <b>161</b>	28. Range <b>93</b>	29. Section <b>17</b>
	30. Quarter Section (ABCD Format) <b>DAD4</b>		31. County <b>Burke</b>
32. Latitude (Decimal Degrees) <b>48.76958</b>		33. Longitude (Decimal Degrees) <b>102.76647</b>	
Receiving Waters	34. Name of Municipal Storm Sewer System or Description of Receiving Water <b>West Branch Short Creek</b>		

35. A SWPPP must be prepared and available for review at the time of application. You are not required to submit the SWPPP with the application unless otherwise notified by the department. The SWPPP must be completed prior to the start of construction (or the applicable construction phase). Please refer to Part I(D)(2)(c) of the permit.

<p style="border: 1px solid black; padding: 2px; text-align: center;">Submit by E-mail</p> <p><b>AFTER SUBMITTING BY E-MAIL PRINT AND SEND COMPLETED APPLICATION WITH "WET" INK SIGNATURE TO:</b></p> <p>North Dakota Dept. of Env. Quality          Division of Water Quality, 4<sup>th</sup> Floor          918 East Divide Avenue          Bismarck, ND 58501-1947          Telephone: (701) 328-5210</p> <p style="border: 1px solid black; padding: 2px; text-align: center;">Print Form</p>	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.	
	36. Printed Name of Owner(s) <b>Sean Harrington</b>	37. Title <b>Sr. Director E&amp;C</b>
	38. Signature of Owner(s) 	39. Date <b>5/21/20</b>
	40. Printed Name of Operator(s) <b>Jeff Stockton</b>	41. Title <b>Site Manager</b>
	42. Signature of Operator(s) 	43. Date





**APPLICATION (NOTICE OF INTENT) TO OBTAIN  
 COVERAGE UNDER NDPDES GENERAL PERMIT  
 FOR STORMWATER DISCHARGES ASSOCIATED  
 WITH CONSTRUCTION ACTIVITY (NDR10-0000)**  
 NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY  
 DIVISION OF WATER QUALITY  
 SFN 19145 (06/2019)

**FOR DEPT. USE ONLY**

Date Received
Application Number
NOI ID: SW_NOI_20200521174934052

**New Project**

**GENERAL INFORMATION**

1. Name of Owner of Construction Project NextEra Energy	2. Contact First Name Sean	3. Contact Last Name Harrington	4. Contact Telephone Number 305.342.0468
5. Contact E-mail Address sean.harrington@nexteraenergy.com	6. Mailing Address 700 Universe Blvd		
7. City Juno Beach	8. State/Province FL	9. Zip Code 33408	
10. Name of Operator Working at Site Blattner Energy	11. Contact First Name Jeff	12. Contact Last Name Stockton	13. Contact Telephone Number 320.428.3688
14. Contact E-mail Address JStockton@blattnerenergy.com	15. Mailing Address 310 Annie Morgan Court		
16. City Cheyenne	17. State/Province WY	18. Zip Code 82007	

**PROJECT INFORMATION**

19. Name of Construction Project Northern Divide Wind			
20. Brief Description of Construction Activity Minor grading for the installation of wind turbines & associated access roads, batch plant, substation and O&M Building site.			
21. Project Start Date 05/29/2020	22. Estimated Completion Date 05/29/2021	23. Estimated Total Acres of Site 10906	24. Estimated Acres of Disturbance 830
Project Location	25. Physical Address 106 North Main (mailing)		26. City Crosby
	27. Township 161	28. Range 93	29. Section 17
	30. Quarter Section (ABCD Format) DAD4		31. County Burke
	32. Latitude (Decimal Degrees) 48.76958		33. Longitude (Decimal Degrees) 102.76647
Receiving Waters	34. Name of Municipal Storm Sewer System or Description of Receiving Water West Branch Short Creek		

35. A SWPPP must be prepared and available for review at the time of application. You are not required to submit the SWPPP with the application unless otherwise notified by the department. The SWPPP must be completed prior to the start of construction (or the applicable construction phase). Please refer to Part I(D)(2)(c) of the permit.

<p><b>Submit by E-mail</b></p> <p><b>AFTER SUBMITTING BY E-MAIL PRINT AND SEND COMPLETED APPLICATION WITH "WET" INK SIGNATURE TO:</b></p> <p>North Dakota Dept. of Env. Quality          Division of Water Quality, 4<sup>th</sup> Floor          918 East Divide Avenue          Bismarck, ND 58501-1947          Telephone: (701) 328-5210</p> <p><b>Print Form</b></p>	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.	
	36. Printed Name of Owner(s) Sean Harrington	37. Title Sr. Director E&C
	38. Signature of Owner(s)	39. Date
	40. Printed Name of Operator(s) Jeff Stockton	41. Title Site Manager
	42. Signature of Operator(s)	43. Date 5-22-20

**Elizabeth A. Hunter**

---

**From:** Andrea Yeoman  
**Sent:** Wednesday, June 3, 2020 3:19 PM  
**To:** Elizabeth A. Hunter  
**Subject:** UPS shipping confirmation

---

## Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

**Tracking Number**

1ZR452501394767367

**Weight**

0.00 LBS

**Service**

UPS Next Day Air Saver®

**Shipped / Billed On**

05/27/2020

**Delivered On**

05/28/2020 11:22 A.M.

**Received By**

COLTON

**Delivered To**

918 E DIVIDE AVE  
BISMARCK, ND, 58501, US

**Left At**

Inside Delivery

**Reference Number(s)**

SWPPP PERMIT APPLICATIONS, 117.0725.10

Thank you for giving us this opportunity to serve you. Details are only available for shipmer days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 06/03/2020 4:17 P.M. EST

[Print this page](#)

## **TAB 3**



**NOTICE OF TRANSFER/MODIFICATION OF 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 54242 (05/15)

For Dept. Use Only

Date Received: \_\_\_/\_\_\_/\_\_\_

This form may be used to modify existing permit information for a permitted site. The form also may be used when an owner or operator of a construction project changes (see Part I.F of NDR10-0000). The new owner or operator may implement the original SWPP plan or develop a new SWPP plan. New permittees must ensure either directly or through coordination with others that their SWPP plan will meet the terms and conditions of the permit and will not interfere with another party's SWPP plan.

**PERMIT ID NUMBER: NDR10-**

**REASON FOR MODIFICATION :**

- Add Owner                                       Add Contractor                                       Remove Contractor  
 Change from Sole-Permittee to Co-Permittee

**MODIFICATION INFORMATION**

Company Name	Contact Person	Phone Number	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Mailing Address	City	State/Province	Zip Code
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**OR:**

- New Owner                                       New Contractor                                       Address Change                                       Company Name Change

**OLD INFORMATION**

Company Name	Contact Person	Phone Number	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Mailing Address	City	State/Province	Zip Code
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**NEW INFORMATION**

Company Name	Contact Person	Phone Number	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Mailing Address	City	State/Province	Zip Code
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**OTHER:**

New Project Name

Other

**CERTIFICATION STATEMENT**

**Return Completed Form to:**  
North Dakota Department of Health  
Division of Water Quality, 4<sup>th</sup> Floor  
918 East Divide Avenue  
Bismarck, ND 58501-1947  
  
Telephone: 701.328.5210  
Fax: 701.328.5200

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name of Owner	Title
<input type="text"/>	<input type="text"/>
Signature of Owner	Date
<input type="text"/>	<input type="text"/>

(Attach additional pages if needed)

**TAB 4**



**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 (04/15)

**FOR DEPT. USE ONLY**

Date Received: \_\_\_ / \_\_\_ / \_\_\_

**GENERAL INFORMATION**

Name of Construction Project [ ]		Permit ID Number <b>NDR10-</b> [ ]	
Name of Owner of Construction Project [ ]	Contact Person Name ( Mr / Ms ) [ ]	Contact Phone No. [ ]	
Mailing Address [ ]	City [ ]	State/Province [ ]	Zip Code [ ]

Please indicate which condition has been met before submitting the NOT.

The site has achieved final stabilization. In order to achieve final stabilization, one of the following conditions must be met. Please indicate which condition has been met.

All soil disturbing activities are complete and all soils are stabilized by a uniform perennial vegetative cover with a density of 70 percent of the pre-existing cover over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and;

    i. All drainage ditches which drain water from the site have been stabilized;

    ii. All temporary erosion prevention and sediment control BMPs (e.g., silt fence) have been removed; and

    iii. All sediment has been removed from conveyances and temporary sediment basins used for permanent water quality management, and the sediment has been stabilized. The cleanout of permanent basins must be sufficient to return the basin to design capacity.

For areas with an average annual rainfall of less than 20 inches, all soil disturbing activities at the site have been completed and erosion control measures and stabilization methods have been selected, designed and installed along with an appropriate seed base to provide erosion control for three years and achieve 70 percent vegetative coverage within three (3) years without active maintenance. Sites must meet the conditions above.

Disturbed areas on land used for agricultural purposes that are restored to their pre-construction agricultural use are not subject to these final stabilization criteria. If the construction activity removed standing crop, the area must be restored in accordance with the landowner.

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 use must meet the final stabilization criteria above.

For residential construction, all lots have been sold with temporary erosion protection and down gradient perimeter controls installed; a homeowner fact sheet has been given to the homeowner(s); and all other lots have achieved final stabilization.

If another operator/permittee has assumed control in accordance with the transfer provision (Part I(F) of the permit over all areas of the site that have not achieved final stabilization please file a Notice of Transfer/Modification Form (SFN 54242).

**CERTIFICATION STATEMENT**

<p><b>Return Completed Form to:</b></p> <p>North Dakota Department of Health Division of Water Quality, 4<sup>th</sup> Floor 918 East Divide Avenue Bismarck, ND 58501-1947</p> <p>Telephone: 701.328.5210 Fax: 701.328.5200</p>	<p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>	
	<p>Printed Name of Owner [ ]</p> <p>Signature of Owner [ ]</p>	<p>Title [ ]</p> <p>Date [ ]</p>

(Attach additional pages if needed)

## TAB 5

Permit No: NDR10-0000  
Effective Date: April 01, 2015  
Expiration Date: March 31, 2020

AUTHORIZATION TO DISCHARGE UNDER THE  
NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33-16-01 of the North Dakota Department of Health rules as promulgated under Chapter 61-28 (North Dakota Water Pollution Control Act) of the North Dakota Century Code,

Facilities both qualifying for and satisfying the requirements identified in Part I of the permit are authorized to discharge stormwater associated with **construction activity**

to waters of the state

in accordance with conditions set forth in this permit.

This permit and the authorization to discharge shall expire at midnight,  
March 31, 2020.

Signed this 31 day of March, 2015.



Karl H. Rockeman, P.E.  
Director  
Division of Water Quality

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## I. PERMIT COVERAGE AND LIMITATIONS

### A. Discharges Covered

1. This permit applies to all areas within the state of North Dakota, except for those areas defined as Indian Country. Construction activity located within Indian Country within the state of North Dakota must obtain a permit through the United States Environmental Protection Agency. If the construction activity is located with the jurisdiction of the state of North Dakota, and the United States Environmental Protection Agency, a permit must be obtained from both regulatory entities.
2. This permit applies to stormwater discharges associated with construction activity and small construction activity as defined in Title 40 of the Code of Federal Regulations (CFR), Parts 122.26(b)(14)(x) and (b)(15), respectively. The reference to construction activity in this permit includes both large construction activity and small construction activity as described below.
  - 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 that one (1) and less than five (5) acres.
  - c. Discharges of stormwater from oil and gas exploration, production, processing or treatment operations, or transmission facilities composed of contaminated runoff by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished product, byproduct, or waste products located on the site of such operations.
3. Stormwater discharges from support activities (e.g., 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. The support activities may only be in association with one project. If the support activity is associated with more than one project, a separate stormwater permit (Industrial or mining, extraction or paving material preparation) is required.
4. Certain non-stormwater discharges from facilities covered by this permit and meeting the requirements specified in Part II(A).
5. Stormwater discharges from construction activity covered by the previous permit, issued October 12, 2009, where a notice has been submitted to obtain coverage under this permit.
6. Projects which have obtained coverage under this permit shall amend and implement a Stormwater Pollution Prevention Plan (SWPPP) that meets the requirements of this permit within ninety (90) days of the effective date of this permit.
7. Discharges from dewatering activities related to construction activities (discharges of uncontaminated stormwater).
8. Local Authority. This permit does not preempt or supersede the authority of local agencies or operators of municipal separate storm sewer systems to prohibit, restrict, or control discharges of stormwater to storm sewer systems or other water courses within their jurisdiction.

## **B. Discharges Not Covered**

1. Stormwater 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 at the site. Industrial and post-construction stormwater discharges may need to be covered by a separate stormwater 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), Wild and Scenic Rivers Act, 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 Stormwater Pollution Prevention plan (SWPPP) that is consistent with the assumptions and requirements in the approved TMDL. To be eligible for coverage under this general permit, the SWPPP must incorporate the conditions applicable to the discharge necessary for consistency with the assumptions, allocations and requirements of the TMDL. If a specific numeric wasteload allocation has been established that would apply to discharges from construction activity, the permittee must incorporate that allocation into the SWPPP and implement necessary steps to meet that allocation. Information about TMDL allocations may be found at the following website: [www.ndhealth.gov/WQ/SW/Z2\\_TMDL/default.htm](http://www.ndhealth.gov/WQ/SW/Z2_TMDL/default.htm).
6. Stormwater discharges that the department determines will cause, or have the reasonable potential to cause or contribute to a violation of the standards for quality for waters of the state (North Dakota Administrative Code (N.D.A.C.) 33-16-02.1).
7. Discharges from hydrostatic testing, well points, water line disinfection and treatment of gasoline or diesel contaminated groundwater.
8. Discharges of wash water using detergents, wastewater, or sanitary waste.

## **C. Obtaining Coverage and Authorization Effective Date**

1. To obtain authorization under this general permit for stormwater discharges you must submit a complete application and develop a SWPPP in accordance with Part II(C) of this permit. A SWPPP must be in place as a condition of the permit and a copy of the SWPPP must be retained by the permittee.
2. Permit coverage will become effective seven (7) days after you submit a complete application unless otherwise notified by the department (based on the department receipt date).
3. Upon the effective date of permit coverage you, as the permit applicant, are authorized to discharge stormwater from eligible activities under the terms and conditions of this permit.

#### D. Application (Notice of Intent) Process

1. You must use a Notice of Intent (NOI) to complete your application. An NOI form (or a replacement application form) is available at the following website:  
[www.ndhealth.gov/WQ/Storm/Construction/ConstructionHome.htm](http://www.ndhealth.gov/WQ/Storm/Construction/ConstructionHome.htm).
2. Application Content and Conditions.
  - a. The owner, or 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 (Notice of Intent) 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) and county;
    - (5) A brief description of the construction activity;
    - (6) The anticipated start date and the anticipated completion date for the project (if known);
    - (7) The estimated total area of the site and the total area of disturbance in acres;
    - (8) The name of receiving water(s), or the name of the municipal storm sewer system and receiving water(s);
    - (9) The signature of the applicant(s), owner (and operator if co-applicants) signed in accordance with the signatory requirements in Part IV(A)(6) of this permit.
  - c. A SWPPP (Part II(C)) for the project must be prepared and available for review, upon request, 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 SWPPP must be completed prior to the start of construction (or the applicable construction phase). You are not required to submit the SWPPP with the application unless otherwise notified by the department.
3. For residential construction activity occurring within a common plan of development (such as a subdivision) subject to the permit requirements, coverage may be obtained by the following:
  - a. The owner of the lot(s) shall submit one (1) NOI for all of the owner's construction activity within the common plan of development, or
  - b. The operator, such as a homebuilder who may represent one (1) or more lot owners, shall submit one (1) NOI for all of the operator's construction activity within each addition of the common plan of development.

In addition, a SWPPP must be developed and implemented for the permittee's activities within the common plan of development. Additional phases of the common plan of development may be included under the initial application and permit coverage provided the SWPPP is amended to include the additional area or phases.

4. For oil and gas exploration, production, processing, treatment operations, or transmission facilities, which discharge contaminated stormwater, permit applications may be submitted for individual project sites or for an area of operations such as well field or by county.
5. Completed applications and any reports required by this permit shall be submitted to:

North Dakota Department of Health  
Division of Water Quality  
918 East Divide Avenue  
Bismarck, ND 58501-1947

#### **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(A)(6) of this permit. Compliance with the conditions of this permit is required until a NOT is submitted to the department.
2. Permittees may only submit a NOT after one of the following conditions have been met:
  - a. Final stabilization (Part II(E)) has been achieved on all portions of the site for which the permittee is responsible.
  - b. Another owner/operator/permittee has assumed control, in accordance with the transfer provisions (Part I(F)), over all areas of the site that have not achieved final stabilization.
  - c. For residential construction only, a NOT is not required for each lot that is sold, transferred, or has achieved final stabilization. The permittee must modify their SWPPP to indicate that permit coverage is no longer required for that lot. The SWPPP shall indicate the reason why coverage is no longer needed and the date the lot was sold, transferred, or achieved final stabilization. In order to terminate coverage, all lots under the control of the owner or operator must be sold, transferred, or achieved final stabilization (Part II(E)).

#### **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 fourteen (14) days of assuming control of the site or commencing work on-site, or of the legal transfer, sale or closing on the property; except as provided in Part I(F)(2). Late submittals will not be rejected; however the department reserves the right to take enforcement for any unpermitted discharges or permit noncompliance. For stormwater discharges from construction activities where the owner or operator changes, the new owner or operator can implement the original SWPPP created for the project or develop and implement their own SWPPP. 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. A permit transfer/modification request is not required for the legal transfer, sale or closing on a property between permittees covered by this permit. Examples include the sale of a property parcel from a developer to a builder, or the transfer of an easement from a developer to a local government authority. If the new party is not covered by this permit at the time of transfer or sale, then the new owner/operator must submit a completed application/NOI within 14 days of assuming control of the site.

## II. STORMWATER DISCHARGE REQUIREMENTS

### A. Prohibition of Non-Stormwater Discharges

The discharge of wastewater is not authorized by this permit. The following sources of non-stormwater discharges are allowed if they are not a significant source of pollution and are identified in the SWPPP: fire-fighting, fire hydrant flushing, potable water line flushing, equipment wash down without detergents or hazardous cleaning products, uncontaminated foundation drains, springs, surface water, lawn watering, chemical treatment of stormwater and air conditioning condensate. Impervious surface wash water may not be directed into any surface water or storm drain inlet unless appropriate pollution prevention measures have been implemented. Discharges may not come into contact with oil and grease deposits or any other toxic or hazardous materials (unless cleaned up using dry clean-up methods). The SWPPP must include a description of the pollution prevention measures to be implemented while non-stormwater discharges are occurring.

If chemical treatment for sediment removal is intended to be used on-site, the permittee shall provide the department with the information outlined in Appendix 1(A)(14) of this permit for approval prior to use. This information shall be provided to the department no later than sixty (60) days prior to use.

### 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, nor the reporting requirements found in Chapter 33-16-02.1 of the North Dakota Administrative Code. Any releases which meet any reporting requirement, must be reported to the agencies identified in Part IV(A)(7).

### C. Stormwater Pollution Prevention Plans

All permittees shall implement a SWPPP for any construction activity requiring this permit until final stabilization is achieved. The SWPPP and revisions are subject to review by the department. The objectives of the SWPPP is to identify potential sources of sediment and other sources of pollution associated with construction activity, and to ensure practices are implemented and maintained to reduce the contribution of pollutants in stormwater discharges from the construction site to waters of the state and storm sewer systems. Stormwater management documents developed under other regulatory programs may be included or incorporated by reference in the SWPPP, or used in whole as a SWPPP if it meets the requirements of this part.

The SWPPP may identify more than one permittee and may specify the responsibilities of each permittee by task, area, and/or timing. Permittees may coordinate and prepare more than one SWPPP to accomplish this. However, in the event there is a requirement under the SWPPP for which responsibility is ambiguous or is not included in the SWPPP, each permittee shall be responsible for implementation of that requirement. Each permittee is responsible for assuring that their activities do not render another permittee's controls ineffective.

The SWPPP must incorporate the requirements provided in Appendix 1 and shall include the following information.

1. **Site Description.** Each plan shall provide a description of the construction activity and potential sources of pollution 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/schedule, or chart, of activities that includes major phases/stages, BMP implementation, BMP removal, disturbances, and stabilization 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) and municipal storm sewer system at or near the disturbed area that will receive stormwater runoff from the project site; and
- f. A site map which indicates the following items as applicable (more than one (1) map may be needed). If an item is not applicable, provide rationale describing why the item is not applicable to the construction activity:
  - 1) Project boundaries;
  - 2) Areas of ground disturbance during each phase/stage of the project;
  - 3) Areas where disturbance will not occur, such as avoidance areas (e.g. wetlands, critical habitat, Threatened and Endangered Species, etc);
  - 4) Drainage patterns including: flow direction (run-on and runoff);
  - 5) Dividing lines, discharge points, and storm sewer system inlets which the site drains to or may be affected by the activity;
  - 6) Pre-existing and final grades;
  - 7) Location of all temporary and permanent sediment and erosion controls during each particular phase;
  - 8) Location of any stormwater conveyances such as: retention ponds, detention ponds, ditches, pipes, swales, stormwater diversions, culverts, and ditch blocks;
  - 9) Location of potential sources of pollution (e.g. portable toilets, trash receptacles, etc.);
  - 10) Location of soil stockpiles;
  - 11) Identify steep slopes;
  - 12) Surface waters, including an aerial extent of wetland acreage;
  - 13) Location of surface water crossings;
  - 14) Locations where stormwater is discharged to surface waters;
  - 15) Location of dewatering discharge points;
  - 16) Locations of where chemical treatment of stormwater will be performed, including discharge points;
  - 17) Fueling locations, vehicle and equipment maintenance areas, designated wash water collection site, lubricant and chemical storage, paint storage, material storage, staging areas, and debris collection area;
  - 18) Location of any impervious surfaces upon completion of construction; and
  - 19) Where included as part of the project, the site maps for off-site concrete/asphalt batch plants, equipment staging areas, borrow sites or excavated fill material disposal sites. Site maps must show items 1 through 18 of this section.
- g. Projects that discharge stormwater which flows to a water body listed as impaired under section 303(d) of the Federal Clean Water Act due to sediment, suspended solids or turbidity must identify the water body and impairment in the SWPPP. The Department's 303(d) list may be found at the following website under Integrated Reports:  
[www.ndhealth.gov/WQ/SW/Z2\\_TMDL/Integrated Reports/B Integrated Reports.htm](http://www.ndhealth.gov/WQ/SW/Z2_TMDL/Integrated_Reports/B_Integrated_Reports.htm).
- h. For water bodies which have a TMDL, the SWPPP must describe and conform to the Waste Load Allocations (WLA) of the water body as per Part II(C)(4)(g) of this permit. Information about TMDL allocations may be found at the following website:  
[www.ndhealth.gov/WQ/SW/Z2\\_TMDL/default.htm](http://www.ndhealth.gov/WQ/SW/Z2_TMDL/default.htm).

2. **Narrative.** The SWPPP must include a narrative description of the selected operational controls and sediment and erosion controls as outlined in Part II(C)(3), Part II(C)(4), and Appendix 1 of this permit. When applicable, a description of the requirements for any additional environmental regulations (federal) and local requirements related to the project, as it relates to waters of the state, must also be included or incorporated by reference (e.g. The Wild and Scenic Rivers Act, The National Historic Preservation Act, The Endangered Species Act, Fish and Wildlife Coordination Act, National Environmental Policy Act, Section 404 of the Clean Water Act, etc.).

The narrative shall describe at a minimum:

- a. The installation, removal (if applicable), and maintenance requirements of selected Best Management Practices (BMPs) for each phase/stage of construction activity;
  - b. The rationale for the selection of all BMPs (calculations should be included if appropriate);
  - c. Whether selected BMPs are temporary or permanent;
  - d. Any descriptions of infeasibility or explanations as required in Part II, Part III(A), and Appendix 1 of this permit.
3. **Operational Controls.** The SWPPP shall describe the BMPs used in day to day operations on the project site that reduce the contribution of pollutants in stormwater runoff.

- a. The SWPPP must identify a person knowledgeable and experienced in the application of erosion and sediment control BMPs who will oversee the implementation of the SWPPP, and the installation, inspection and maintenance of the erosion and sediment control BMPs before and during construction, until a NOT is filed or the permit is transferred. A knowledgeable and experienced person is someone who meets the requirements of Part II(C)(3)(e) of this permit.

The owner shall develop a chain of responsibility with all operators on the site to ensure that the SWPPP will be implemented and stay in effect until the construction project is complete, the entire site has undergone final stabilization, and a NOT has been submitted to the department.

- b. The SWPPP must include a description of good housekeeping practices used to maintain a clean and orderly site. The SWPPP shall describe how litter, debris, chemicals and parts will be handled to minimize exposure to stormwater. The SWPPP also shall describe what measures will be used to reduce and remove sediment tracked off-site by vehicles or equipment. In addition, the SWPPP shall describe methods which will be used to reduce the generation of dust.
- c. The SWPPP shall describe preventative maintenance practices used to ensure the proper operation of erosion and sediment control devices (e.g., fiber rolls, erosion control blankets and silt fences) and equipment used or stored on site. The SWPPP shall describe proper inspection procedures for ensuring proper operation of erosion and sediment control devices.
- d. The SWPPP shall describe spill prevention and response procedures where potential spills can occur. Specific handling procedures, storage requirements, spill containment, cleanup procedures, and disposal must be identified. 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 or storm sewer systems.

The potential discharge of hazardous substances in stormwater discharges shall be minimized by including measures onsite, detailed in the SWPPP to prevent and respond to releases of hazardous substances. If a reportable quantity release occurs, the SWPPP shall be revised to prevent the reoccurrence of such a release.

- e. The SWPP shall outline how employees and responsible parties shall be trained on the implementation of the SWPPP. Training must be provided at least annually, as new employees or responsible parties are hired or as necessary to ensure compliance with the SWPPP and the general permit. Employees and responsible parties include individuals who are responsible for design, installation, maintenance and repair of stormwater controls and conducting inspections.
  - 1) On-site personnel must understand the requirements of this permit as it pertains to their role in implementing the SWPPP. On-site personnel must know:
    - a. The purpose of the SWPPP, requirements of the SWPPP, and how the SWPPP will be implemented;
    - b. The location of all BMPs identified in the SWPPP; and
    - c. Correct installation, function, maintenance and removal (if applicable) of BMPs identified in the SWPPP.
  - 2) Personnel responsible for performing site inspections must understand when inspections must be conducted (Part III(A)), what must be inspected (Part II(C)(7)), how to record findings, when to initiate corrective actions, and properly document corrective actions.
  - 3) Maintenance personnel must understand when maintenance must be performed on BMPs in order to maintain properly functioning BMPs and what needs to be recorded for corrective actions/maintenance records in accordance with Part III(A)(5) of this permit.
- f. The SWPPP must describe how concrete grindings and slurry will be managed. Wastewater from concrete washout, cleanout or washout from: stucco, paint, joint compound, and other building materials shall not be discharged to waters of the state, storm sewer systems or curb and gutter systems.
  - 1) Wash water must be collected in leak-proof containers or leak-proof pits. Containers or pits must be designed and maintained so that overflows cannot occur due to inadequate sizing, precipitation events, or snowmelt.
- g. The SWPPP shall describe any dewatering activities planned at the site. Dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) related to the permitted activity must be managed with appropriate BMPs, such that the discharge does not adversely affect the receiving water. The following conditions apply to dewatering activities:
  - 1) Dewatering is limited to un-contaminated stormwater, surface water, and groundwater that may collect on-site and those sources identified in Part II(A), if they are not a significant source of pollution. A separate permit must be obtained to discharge water from other sources such as hydrostatic testing of pipes, tanks, or other similar vessels; disinfection of potable water lines; pump testing of water wells; and the treatment of gasoline or diesel contaminated groundwater or surface water.
  - 2) The permittee(s) must operate the discharge to minimize the release of sediment and provide adequate BMPs where necessary to minimize erosion due to the discharge. Discharges must not lead to the deposition of sediment within stormwater conveyance systems or surface waters. Discharges must not cause or potentially cause a visible plume within a surface water body.

- 3) When dewatering, utilize structures or BMPs which allow for draw down to occur from the surface of the water, unless infeasible. If infeasible, documentation must be provided in the SWPPP. In addition, you must describe what BMP(s) will be used in its place.
- 4) In addition to the inspection requirements in Part III, dewatering activities shall be inspected daily. The inspection must include the dewatering site, areas where BMPs are being implemented and the discharge location. A record shall be maintained to document the inspections of the dewatering operation and actions taken to correct any problems that may be identified.
  - a. Records shall contain at a minimum:
    - i. Date and time of the inspection,
    - ii. Inspector name,
    - iii. Approximate volume of water discharged,
    - iv. Findings of the inspection, including recommendations and schedule for corrective actions;
    - v. Corrective actions taken (including dates, times, and party completing maintenance activities); and
    - vi. Documentation that the SWPPP has been amended when changes are made to the dewatering activity in response to inspections.
  - 5) Local authorities may require specific BMPs for discharges affecting their storm sewer system.
4. **Erosion and Sediment Controls.** Erosion and sediment controls and stabilization requirements must be implemented for each major phase of site activity (e.g., clearing, grading, building, and landscaping phases). A description of the erosion and sediment controls and site stabilization methods must be provided in accordance with Part II(C)(2) of this permit. Erosion and sediment controls, and site stabilization must conform to the requirements provided in Appendix 1. The description and implementation of controls shall address the following minimum components:
  - a. The selection of erosion and sediment controls, and site stabilization shall consider the following:
    1. The expected amount, frequency, intensity, and duration of precipitation events;
    2. The nature of stormwater run-on and runoff from the site as well as changes during, and as a result of, construction activity. This includes changes to impervious surfaces, slopes, seasonal changes, and drainage features on-site;
    3. Channelized flow, must be handled in order to minimize erosion at outlets and to minimize impacts to downstream receiving waters;
    4. Soil types (wind and water erodibility, and settling time); and
    5. Seasonal conditions.
  - b. 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.

- c. Temporary or permanent erosion protection and stabilization (such as cover crop planting or mulching) must be initiated immediately, as described in Appendix 1(A), for all exposed soil areas where activities have been completed or temporarily ceased.
- d. 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. Corrective actions must be made prior to the next anticipated rainfall event of within 24 hours of discovery (whichever comes first) or as soon as field conditions allow. Documentation must be provided in the maintenance records if field conditions do not allow access along with a plan of action for performing maintenance activities.

The permittee may deviate from the manufacturer's specifications and erosion and sediment control requirements in Appendix 1 if they provide justification for the deviation and document the rationale for the deviation in the SWPPP. Any deviation must provide equivalent erosion and sediment control.

- e. If sediment escapes from the site, off-site accumulations of sediment must be removed in a manner and frequency sufficient to minimize off-site impacts as outlined in Appendix 1(B). The SWPPP must be modified to prevent further sediment deposition off-site.
  - f. Stormwater controls are expected to withstand and function properly during precipitation events of up to the 2-year, 24-hour storm event. Visible erosion and/or off-site sediment deposition 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.
  - g. For projects that discharge stormwater which flows to a water body for which there is a TMDL allocation for sediment and/or parameters associated with sediment transport, the SWPPP must be consistent with the assumptions, allocations, and requirements in the approved TMDL. If a TMDL specifies certain BMPs or controls to meet a WLA applicable to the project's discharges, the BMPs or controls must be incorporated into the SWPPP. Information about TMDL allocations may be found at the following website:  
[www.ndhealth.gov/WQ/SW/Z2\\_TMDL/default.htm](http://www.ndhealth.gov/WQ/SW/Z2_TMDL/default.htm).
5. **Stormwater Management.** The SWPPP must identify permanent practices incorporated into the project to control pollutants in stormwater discharges occurring after construction operations have been completed.
- a. Identify stormwater ponds; flow reduction methods; infiltration of runoff on-site; sequential systems which combine several practices or other post-construction stormwater management features.
  - b. Identify velocity / energy dissipation devices placed at discharge locations and appropriate erosion protection for outfall channels and ditches.
  - c. Maintenance for on-site stormwater management features is the responsibility of the permittee until the NOT is submitted or the feature is accepted by the party responsible for long term maintenance.
  - d. The design, installation and use of stormwater management features must comply with applicable local, state or federal requirements.

6. **Maintenance.** All erosion and sediment control measures and other protective measures identified in the SWPPP must be maintained in effective operating condition. The SWPPP must indicate, as appropriate, the maintenance or clean out interval for sediment controls. If site inspections, required in Part III of this permit, identify BMPs that are not operating effectively, maintenance shall be arranged and accomplished in accordance to Appendix 1 or as soon as practicable.
7. **Inspections.** The SWPPP must provide for site inspections as outlined in Part III. The permittee shall ensure that personnel conducting site inspections are familiar with permit conditions and the proper installation and operation of control measures. Inspectors must be knowledgeable in their role of the SWPPP, as outlined in Part II(C)(3)(e) of this permit. The erosion and sediment control measures and stabilized areas identified in the SWPPP shall be observed to ensure they are operating correctly and in serviceable condition. Inspections shall include areas used for storage of materials, permanent stormwater control measures and vehicle maintenance areas. These areas shall be inspected for evidence of, or the potential for, pollutants entering a drainage system. If necessary, the plan shall be revised based on the observations and deficiencies noted during the inspection.
8. **SWPPP Review and Revisions.**
  - a. The SWPPP shall be signed in accordance with the Signatory Requirements, Part IV(A)(6), and retained on-site for the duration of activity as outlined in Part III(B).
  - b. The permittee shall make the SWPPP available upon request to the department, EPA, or, in the case of discharges to a municipal storm sewer system, the operator of the municipal system.
  - c. The permittee shall amend the SWPPP whenever there is a change in design, construction, operation, maintenance, or BMPs. The SWPPP shall be amended if the plan is found to be ineffective in controlling pollutants present in stormwater. The SWPPP shall be amended as soon as practicable.

#### **D. Local Requirements**

All stormwater discharges must comply with the requirements, policies, or guidelines of municipalities and other local agencies as applicable to the construction site. Any discharges to a storm sewer, ditch or other water course under the jurisdiction of a municipality must comply with any specific conditions or BMPs required by the municipality or agency.

#### **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 has been achieved, or another owner/operator (permittee) has assumed control according to Part I(F) for 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 of the pre-existing cover 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 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 remove all sediment from conveyances and temporary sedimentation basins that will be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed into basins, conveyances or drainage ways discharging off-site or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity.
2. For areas of the state where the average annual rainfall is less than 20 inches, all soil disturbing activities at the site have been completed and erosion control measures (e.g., degradable rolled erosion control product) and stabilization methods are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years and achieve 70 percent of the pre-existing vegetative cover within three (3) years without active maintenance. Sites must meet the criteria outlined in items 1(a), (b), and (c) above.
  3. Disturbed areas on land used for agricultural purposes that are restored to their pre-construction agricultural use are not subject to these final stabilization criteria. If the construction activity removed standing crop, the area must be restored in accordance with the landowner.

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 use must meet the final stabilization criteria in (1) or (2) above.

4. For residential construction only, final stabilization may be achieved when soil is stabilized (see Appendix 1(A)(3)) and down gradient perimeter control for individual lots has been implemented and the residence has been transferred to the homeowner. Additionally, the permittee must distribute a "homeowner fact sheet" to the homeowner to inform the homeowner of the need for, and benefits of, final stabilization. The permittee also must demonstrate that the homeowner received the fact sheet.

### **III. SELF MONITORING AND REPORTING**

#### **A. Inspection and Maintenance 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 0.25 inches of rain per 24-hour period. Inspections are only required during normal working hours. The permittee shall use a rain gauge on-site or utilize the nearest National Weather Service precipitation gauge station. Rain gauge locations or stations must be representative of the site.
  - a. "Within 24 hours after any storm event greater than 0.25 inches rain per 24-hour period" means that you are required to conduct an inspection within 24 hours once a storm event has produced 0.25 inches, even if the storm event is still continuing. If there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.25 inches or more rain, you are required to conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

2. 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, site access constraints, etc., may prohibit inspections. The permittee must include a description of why the inspection(s) could not be performed at the designated time in the next inspection record. If an inspection is delayed due to adverse weather conditions or rain events outside normal working hours, an inspection must be conducted during the next working day, or as conditions allow.
3. Some erosion and sediment control measures may require more frequent inspection based on location (e.g., sensitive areas or waters of the state) or as a result of recurring maintenance issues. Erosion or sediment control measures found in need of maintenance between inspections must be repaired or supplemented with appropriate measures as soon as practicable. Erosion and sediment control measures which require more frequent inspection based on location or as a result of recurring maintenance issues must be identified in the SWPPP.
4. All inspections conducted during construction must be recorded in writing and these records must be retained in accordance with Part III(B). Records of each inspection activity shall include:
  - a. Date and time of inspections;
  - b. Name of person(s) conducting inspections;
  - c. Findings of inspections, including recommendations and schedule for corrective actions;
  - d. Date and amount of all rainfall events greater than 1/4 inch (0.25 inches) in 24 hours; and
  - e. Documentation that the SWPPP has been amended when changes are made to BMPs in response to inspections.
  - f. All inspection reports shall be signed in accordance with Part IV(A)(6) of this permit.
5. Corrective actions (maintenance activities) performed during construction must be recorded in writing and these records must be retained in accordance with Part III(B). Records for maintenance activity shall include:
  - a. Best Management Practice corrected;
  - b. Date and time of corrective action;
  - c. Name of person(s) performing corrective actions;
  - d. Corrective actions taken; and
  - e. Corrective actions/maintenance records shall be signed in accordance with Part IV(A)(6) of this permit.
6. Completed areas that have been stabilized but do not meet the 70 percent perennial vegetative cover criteria for final stabilization may be inspected once per month. Inspections may be suspended for parts of the construction site that meet final stabilization requirements of Part II(E) of this permit. The SWPPP must update to identify any areas which meet this condition.

7. Inspections may be suspended where earthwork has been suspended due to frozen ground conditions. The required inspections and maintenance must resume as soon as runoff occurs or the ground begins to thaw at the site. The permittee must record freeze/thaw and runoff dates as part of the inspection records.

## **B. Records Location**

A copy of the completed and signed NOI, coverage letter from the department, SWPPP, site inspection records, and this general permit shall be kept at the site of the construction activity in a field office, trailer, shed, or in a vehicle that is on-site during normal working hours. If the site does not have a reasonable on-site location, then the documents must be retained at a readily available alternative location; preferably with the individual responsible for overseeing the implementation of the SWPPP. Electronic copies of records are acceptable if the records can be accessed on-site. If the site is inactive, then the documents may be stored at a local office. Permittees should avoid using personal electronic devices for storing electronic records.

## IV. STANDARD CONDITIONS

### A. COMPLIANCE RESPONSIBILITIES BP 2014.12.08

#### 1. 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.

#### 2. Proper 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. If necessary to achieve compliance with the conditions of this permit, this shall include the operation and maintenance of backup or auxiliary systems.

#### 3. Planned Changes

The department shall be given advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance. Any anticipated facility expansions, production increase, or process modifications which might result in new, different, or increased discharges of pollutants shall be reported to the department as soon as possible. Changes which may result in a facility being designated a "new source" as determined in 40 CFR 122.29(b) shall also be reported.

#### 4. Duty to Provide Information

The permittee shall furnish to the department, within a reasonable time, any information which the department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also 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.

#### 5. 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.

#### 6. Signatory Requirements

All applications, reports, or information submitted to the department shall be signed and certified.

All permit applications shall be signed by a responsible corporate officer, a general partner, or a principal executive officer or ranking elected official.

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 6. Signatory Requirements 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 this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

## **7. Twenty-four Hour Notice of Noncompliance Reporting**

1. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The following occurrences of noncompliance shall be included in the oral report to the department at 701.328.5210:
  - a. Any lagoon cell overflow or any unanticipated bypass which exceeds any effluent limitation in the permit under 8. Bypass of Treatment Facilities;
  - b. Any upset which exceeds any effluent limitation in the permit under 9. Upset Conditions; or
  - c. Violation of any daily maximum effluent or instantaneous discharge limitation for any of the pollutants listed in the permit.
2. A written submission shall also be provided within five days of the time that the permittee became aware of the circumstances. The written submission shall contain:
  - a. A description of the noncompliance and its cause;
  - b. The period of noncompliance, including exact dates and times;
  - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
  - d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

Reports shall be submitted to the address in **Part I(D) Application (Notice of Intent) Process**. The department may waive the written report on a case by case basis if the oral report has been received within 24 hours by the department at 701.328.5210 as identified above.

All other instances of noncompliance shall be reported no later than at the time of the next Discharge Monitoring Report submittal. The report shall include the four items listed in this subsection.

## **8. Bypass of Treatment Facilities**

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to any of the following provisions in this section.

Bypass exceeding limitations-notification requirements.

- a. Anticipated Bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of bypass.
  - b. Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required under 7. Twenty-four Hour Notice of Noncompliance Reporting.
2. Prohibition of Bypass. Bypass is prohibited, and the department may take enforcement action against a permittee for bypass, unless:
- a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - c. The permittee submitted notices as required under the 8(a). Anticipated Bypass subsection of this section.

The department may approve an anticipated bypass, after considering its adverse effects, if the department determines that it will meet the three (3) conditions listed above.

**9. Upset Conditions**

An upset constitutes an affirmative defense to an action brought for noncompliance with erosion and sediment or site stabilization methods if the requirements of the following paragraph are 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 required under 7. Twenty-four Hour Notice of Noncompliance Reporting and
4. The permittee complied with any remedial measures required under 10. Duty to Mitigate.

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

**10. Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal 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.

**11. Removed Materials**

Collected screenings, grit, solids, sludges, 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 any waters of the state or creating a health hazard.

## **12. Duty to Reapply**

Any request to have this permit renewed should be made 15 days prior to its expiration date.

## **B. GENERAL REQUIREMENTS**

### **1. Inspection and Entry**

The permittee shall allow department and EPA representatives, at reasonable times and upon the presentation of credentials if requested, to enter the permittee's premises to inspect the construction activity and monitoring equipment, to sample any discharges, and to have access to and copy any records required to be kept by this permit.

### **2. 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 and EPA. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

### **3. Transfers**

This permit is not transferable except upon the filing of a Transfer/Modification request (Part I(F)) by the new party. 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.

### **4. New Limitations or Prohibitions**

The permittee shall comply with any effluent standards or prohibitions established under Section 306(a), Section 307(a), or 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.

### **5. Permit Actions**

This permit may be modified, revoked and reissued, or terminated for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. 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.

### **6. Need to Halt or Reduce Activity Not a Defense**

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.

### **7. 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.

### **8. 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 to which the permittee is or may be subject under Section 311 of the Act.

### **9. 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.

**10. 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.

## V. DEFINITIONS Permit Specific BP 2009.02.05

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

[www.ndhealth.gov/WQ/SW/Z2\\_TMDL/Integrated\\_Reports/B\\_Integrated\\_Reports.htm](http://www.ndhealth.gov/WQ/SW/Z2_TMDL/Integrated_Reports/B_Integrated_Reports.htm).

“Act” means the Clean Water Act.

“Bankfull” means the channel is filled to the top of one or both of its banks.

“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 construction 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 CFR part 122.26(b)(14)(x) and small construction activity as defined in 40 CFR part 122.26(b)(15). This includes a disturbance to the land that results in a change in topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated stormwater 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 part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) acre or more. 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.

“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.

“Indian Country” means (1) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservations; (2) All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and (3) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

“Infeasible” means not technologically possible or not economically practicable and achievable in light of best industry practices.

“Immediately” means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased.

“Large Construction Activity” means land disturbance of equal to or greater than five (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-Stormwater Discharges” means discharges other than stormwater. The term includes both process and non-process sources. Process wastewater sources that require a separate NDPDES permit include, but are not limited to industrial processes, domestic facilities and cooling water. Non-stormwater sources that may be addressed in this permit include, but are not limited to: fire-fighting, fire hydrant flushing, potable water line flushing, equipment wash down without detergents or hazardous cleaning products, uncontaminated foundation drains, springs, surface water, lawn watering, chemical treatment of stormwater 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 SWPPP. 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.

“Permanently Ceased” means clearing and excavation within any area of your construction site that will not include permanent structures has been completed.

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

"Severe Property Damage" means substantial physical damage to property, damage to best management practices 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 construction.

"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; 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 stormwater 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, erosion control blanket, or other material that prevents erosion from occurring. Grass seeding alone is not stabilization. Snow cover and frozen ground conditions are not considered stabilized.

“Steep Slopes” means slopes which are fifteen (15) percent or greater in grade.

"Stormwater" means stormwater runoff, snow melt runoff, and surface runoff and drainage.

“Stormwater Associated with Industrial Activity” means stormwater runoff, snow melt runoff, or surface runoff and drainage from industrial activities as defined in 40 CFR 122.26(b)(14).

“Stormwater Associated with Small Construction Activity” means the discharge of stormwater from:

(i) Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than once 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.

“Temporarily Ceased” means clearing, grading, and excavation within any area of the site that will not include permanent structures, will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future.

"Temporary Erosion Protection" means methods employed to prevent erosion. Examples of temporary cover include; mulch, straw, erosion control blanket, wood chips, tackifiers, and erosion netting.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with permit requirements 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 erosion and sediment controls or site stabilization methods, inadequate erosion and sediment controls or site stabilization methods, 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.

“You” means the owner, operator or permittee as appropriate.

## Appendix 1 – Erosion and Sediment Control Requirements

Requirements for designing, implementing and maintaining erosion and sediment controls.

### A. Erosion and Sediment Control Practices

1. Sites using temporary (or permanent) sediment basins must meet the following requirements:
  - a. Sediment basins shall be designed for a calculated volume of runoff from a 2-year, 24-hour storm per acre drained to the basin and provides not less than 1,800 cubic feet of sediment storage below the invert of the outlet pipe from each acre drained to the basin; or
  - b. Basins shall be sized to provide 3,600 cubic feet of sediment storage below the invert of the outlet pipe per acre drained to the basin if calculations are not performed.
  - c. Basin outlets must be designed to avoid short-circuiting and the discharge of floating debris. Basins must be designed with the ability to allow complete basin drawdown for maintenance activities. Basins must release the storage volume in at least 24 hours. Outlet structures must be designed to withdraw water from the surface, unless not practicable. If not practicable, rationale must be provided in the SWPPP. The basin must have a stabilized emergency overflow to prevent failure of pond integrity. Energy dissipation must be provided for the basin outlet.
2. Erosion, sediment, and stabilization practices shall be provided. Erosion, sediment and stabilization practices include such things as: silt fences, fiber logs, vegetative buffer strips, erosion control blankets, mulch, hydro-seeding combined with mulch or tackifiers, etc.
3. All exposed soil areas must be stabilized (see definitions). Stabilization must be initiated immediately where activities have been permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding fourteen (14) calendar days. Stabilization must be completed as soon as practicable, but no later than fourteen (14) calendar days after the initiation of soil stabilization. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) are exempt from this requirement.
  - a. For slopes with a grade of 3:1 or greater, stabilization must be initiated immediately once activities have been completed or temporarily ceased. Stabilization must be completed as soon as practicable, but no later than seven (7) calendar days after the initiation of soil stabilization.
4. Temporary soil stockpiles must have effective sediment controls, and cannot be placed in surface waters, including stormwater 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 at least 200 linear feet from the property edge, or from the point of discharge to any surface water. Stabilization shall be completed prior to connection with a surface water. Any remaining portion of the temporary or permanent drainage ditch must be stabilized within fourteen (14) calendar days for portions which construction activities have temporarily or permanently ceased.
6. If stabilization requirements cannot be met due to circumstances beyond the control of the permittee, the permittee may comply with following:
  - a. If vegetative stabilization is to be used, immediately initiate, and within 14 calendar days complete, the installation of temporary non-vegetated stabilization; or
  - b. Complete all methods of initiating stabilization as soon as conditions or circumstances allow.

If any conditions in parts a or b above are encountered, the permittee must document the circumstances which prevented you from meeting the stabilization requirements in the SWPPP of this paragraph and provide a schedule in the SWPPP which will be followed in order to meet the stabilization requirements.

Permittees are responsible for implementing winter stabilization methods during frozen ground conditions if the site was not stabilized prior to the ground freezing.

7. Stream diversions or any temporary or permanent drainage ditch or trench, which will have continuous flow, shall be stabilized with appropriate controls prior to connection with any surface water. The entire area (channel and bank) of the stream diversion or temporary or permanent drainage ditch, or trench, must be appropriately stabilized to bankfull height.
8. While working in or around surface waters, sediment and erosion controls must be used above the anticipated level of the surface water. Floating silt curtain does not satisfy the down slope and side slope boundary requirements in Part II(C)(4)(b) of this permit, unless the construction activity is on or below the elevation of the surface water. The floating silt curtain must be placed as close to shore as possible. Sediment control must be installed where exposed soils drain to the surface water immediately after construction activity along the waterline has been completed.
9. Pipe and culvert outlets must be provided with energy dissipation within 24 hours of connection to a surface water.
10. Splash pads and/or downspout extensions must be provided for roof drains to prevent erosion from roof runoff.
11. All storm drain inlets in the immediate vicinity of the construction site must be protected by appropriate BMPs during construction until all disturbed areas and stockpiles with the potential to discharge to the inlet have been stabilized. This includes storm drain inlets which may be affected by sediment tracked onto paved surfaces by vehicles or equipment.
12. Inlet protection devices are a last line of control – erosion and sediment control practices must be used on-site. Inlet protection devices must conform to local ordinances or regulations. In general, inlet protection devices need to provide for adequate drainage to prevent excessive roadway flooding. Inlet protection may be removed for a particular inlet if a specific concern (i.e., street flooding/freezing, snow removal) has been identified and documented in the SWPPP. In this situation, additional erosion and sediment control practices, or stabilization methods must be used to supplement the loss of the inlet protection device to prevent sediment from entering the storm sewer system.
13. Vegetated buffers must have a minimum width of 1 foot for every 5 feet of disturbed area that drains to the buffer. The width of the buffer shall have a slope of 5 percent or less and the area draining to the buffer shall have a slope of 6 percent or less. Concentrated flows should be minimized throughout the buffer.

Buffers shall consist of dense grassy vegetation, 3 to 12 inches tall with uniform coverage over 90 percent of the buffer. Woody vegetation shall not be counted for the 90 percent coverage. No more than 10 percent of the overall buffer may be comprised of woody vegetation.

14. A 50 foot natural buffer or equivalent erosion and sediment controls must be provided when a project is within 50 feet of a surface water and stormwater flows to the surface water. If equivalent erosion and sediment controls are used, rationale for using equivalent controls must be provided in the SWPPP.

If working within 100 feet of a surface water listed as impaired for sediment, suspended solids or turbidity, a 100 foot natural buffer or equivalent sediment and erosion controls must be provided. If equivalent erosion and sediment controls are to be used, rationale for using equivalent controls must be provided in the SWPPP.

15. If the permittee(s) intend to use chemical treatment for sediment removal, they must be used in accordance with the manufacturer's specifications. Treatment chemicals must be selected appropriately for the anticipated soil particle size and characteristics of the stormwater (pH, turbidity, flow rate of stormwater flowing into the chemical treatment system, etc.). A description of the chemical treatment process must be included in the SWPPP.
- a. To ensure selection and management of chemicals minimize the potential for harmful effects in the discharge, the permittee shall provide a written request to the department for review and approval. Additional monitoring and reporting may be required as a condition for the approval to discharge.

A request to discharge chemically treated water shall include all of the following information and be provided sixty (60) days prior to use:

- i. Material Safety Data Sheet/Safety Data Sheet (MSDS/SDS);
  - ii. Proposed water additive discharge concentration;
  - iii. Discharge frequency (i.e., number of hours per day and number of days per year);
  - iv. Monitoring point for product discharge;
  - v. Type of removal treatment, if any, that the water additive receives prior to discharge;
  - vi. Product function (e.g., coagulant, flocculant, etc.);
  - vii. A 48-hour LC<sub>50</sub> or EC<sub>50</sub> for a North American freshwater planktonic crustacean (*Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.); and
  - viii. Results for a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean).
- b. Discharges from the chemical treatment of stormwater must not cause a violation of the standards of quality for waters of the state (N.D.A.C. § 33-16-02.1). The discharge must meet the dewatering or basin draining requirements provided in Part II(C)(3)(g) of this permit.

16. Minimize the duration of exposed soils on steep slopes.

## **B. Maintenance Requirements for Erosion and Sediment Controls**

1. All erosion prevention and sediment control BMPs must be inspected to ensure integrity and effectiveness. All nonfunctional BMPs must be repaired, replaced, maintained or supplemented with functional BMPs. If a nonfunctioning BMP is supplemented, the nonfunctional BMP shall be removed. Corrective actions must be made prior to the next anticipated rainfall event or within 24 hours of discovery (whichever comes first), or as soon as field conditions allow access. Documentation must be provided in the maintenance records if field conditions do not allow access along with a plan of action for performing maintenance activities.

Permittee(s) must investigate and comply with the following inspection and maintenance requirements:

- a. All control devices similar to, and including, silt fence or fiber rolls must be repaired, replaced, maintained or supplemented when they become nonfunctional (torn from posts, visible tears, etc.). Collected sediment must be removed as it approaches 1/2 of the above ground capacity of the control device.
- b. Fiber rolls must be replaced when 1/2 of the original above ground height of the device when it was installed has been lost as a result of flattening or other damage.

- c. 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. Documentation must be provided in the maintenance records if field conditions do not allow access along with a plan of action for performing maintenance activities.
  - d. Maintenance and cleaning of inlet protection devices must be performed when sediment accumulates, the filter becomes clogged, and/or performance is compromised.
2. Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment deposited by erosion. Permittees must remove all deltas and sediment deposits in surface waters, drainage ways, catch basins, and other drainage systems. Areas where sediment removal results in exposed soil must be stabilized. Removal and stabilization must take place immediately, but no more than, seven (7) calendar days after the discovery unless precluded by legal, regulatory or physical access constraints. Permittees shall use all reasonable efforts to obtain access. If precluded, removal and stabilization shall take place immediately, but no more than, seven (7) calendar days after obtaining access. Permittees are responsible for contacting all local, regional, state, and federal authorities, and receiving any applicable permits prior to conducting any work.
  3. Vehicle tracking of sediment from the site must be minimized by BMPs. This may include having a designated egress with aggregate surfacing from the site or by designating off-site parking. Permittees are 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 the site.

Construction site egress locations must be inspected for evidence of sediment being tracked offsite by vehicles or equipment onto paved surfaces. Accumulations of tracked and deposited sediment must be removed from all off-site paved surfaces by the end of the work day, shift or if applicable, within a shorter time specified by local authorities or the department.

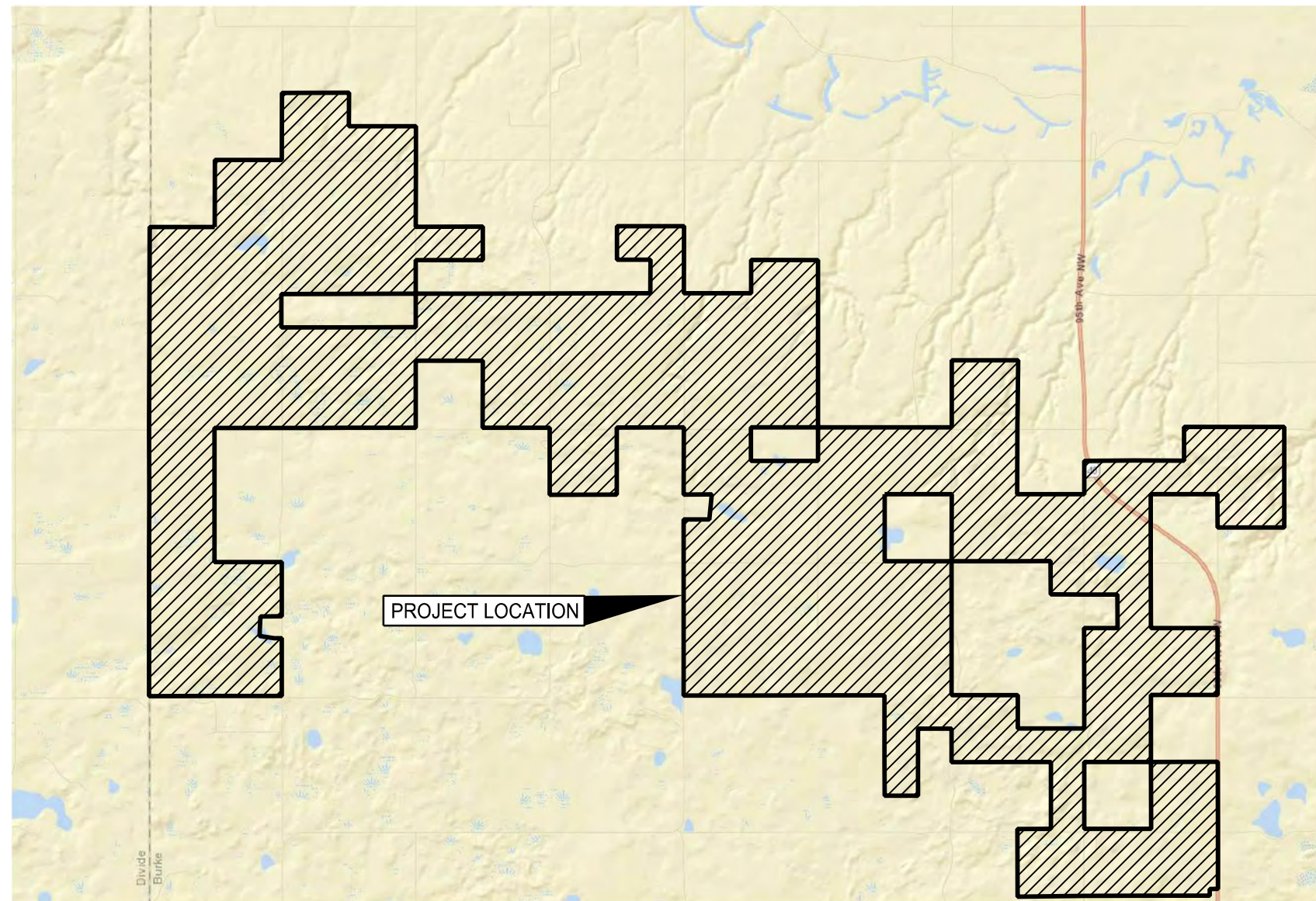
4. If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g., fugitive sediment in streets could be washed into storm sewers by the next rain event and/or pose a safety hazard to users of public streets).
5. Vegetative buffers must be inspected for proper distribution of flows, sediment accumulation and signs of rill formation. If a buffer becomes silt covered, contains rills, or is otherwise rendered ineffective, other control measures shall be implemented. Eroded areas shall be repaired and stabilized within 24 hours of discovery, or as soon as conditions allow access. Documentation must be provided in the maintenance records if field conditions do not allow access along with a plan of action for performing maintenance activities.

### **C. Operational Controls**

1. Properly handle construction debris and waste materials.
  - a. Debris and waste must be handled appropriately until disposal. Litter and debris shall be collected and stored to reduce the potential for wind and water to carry the materials off-site or leachate discharging from a site. Collected material shall be taken to the appropriate facility for disposal or recycling.
  - b. 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 liquid or soluble material must be in compliance with applicable regulations.

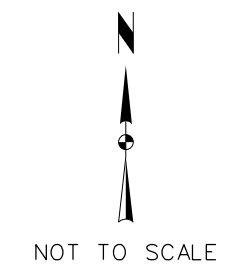
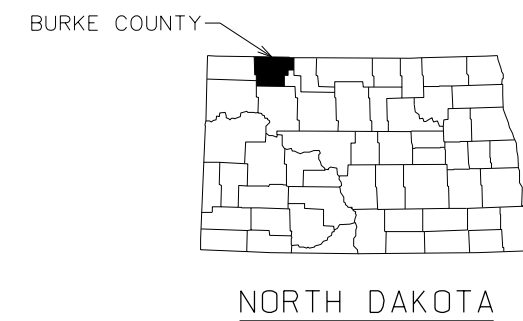
2. Wash water containments must be cleaned out (solids and liquid) before 80 percent of storage capacity is attained.
3. Best management practices used in surface waters must be cleaned immediately upon removal from surface waters to prevent the transfer of aquatic nuisance species.

# STORM WATER POLLUTION PREVENTION PLANS FOR NORTHERN DIVIDE WIND BURKE COUNTY, NORTH DAKOTA



## INDEX OF SHEETS

- 1 TITLE SHEET
- 2 OVERALL SITE PLAN
- 3-10 STORM WATER POLLUTION PREVENTION PLAN
- 11 STORM WATER POLLUTION PREVENTION PLAN NOTES
- 12-13 STORM WATER POLLUTION AND PREVENTION PLAN DETAILS



ISSUE DATE: 03-27-2020

MARK	REVISION	DATE	BY
Engineer: BJJ	Checked By: EAH	Scale: 1"=	
Technician: EAL	Date: 03-18-20	Field Bc:	Pg:
Project No: 1170725			Sheet 1 of 13

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
TITLE SHEET  
**BURKE COUNTY, NORTH DAKOTA**

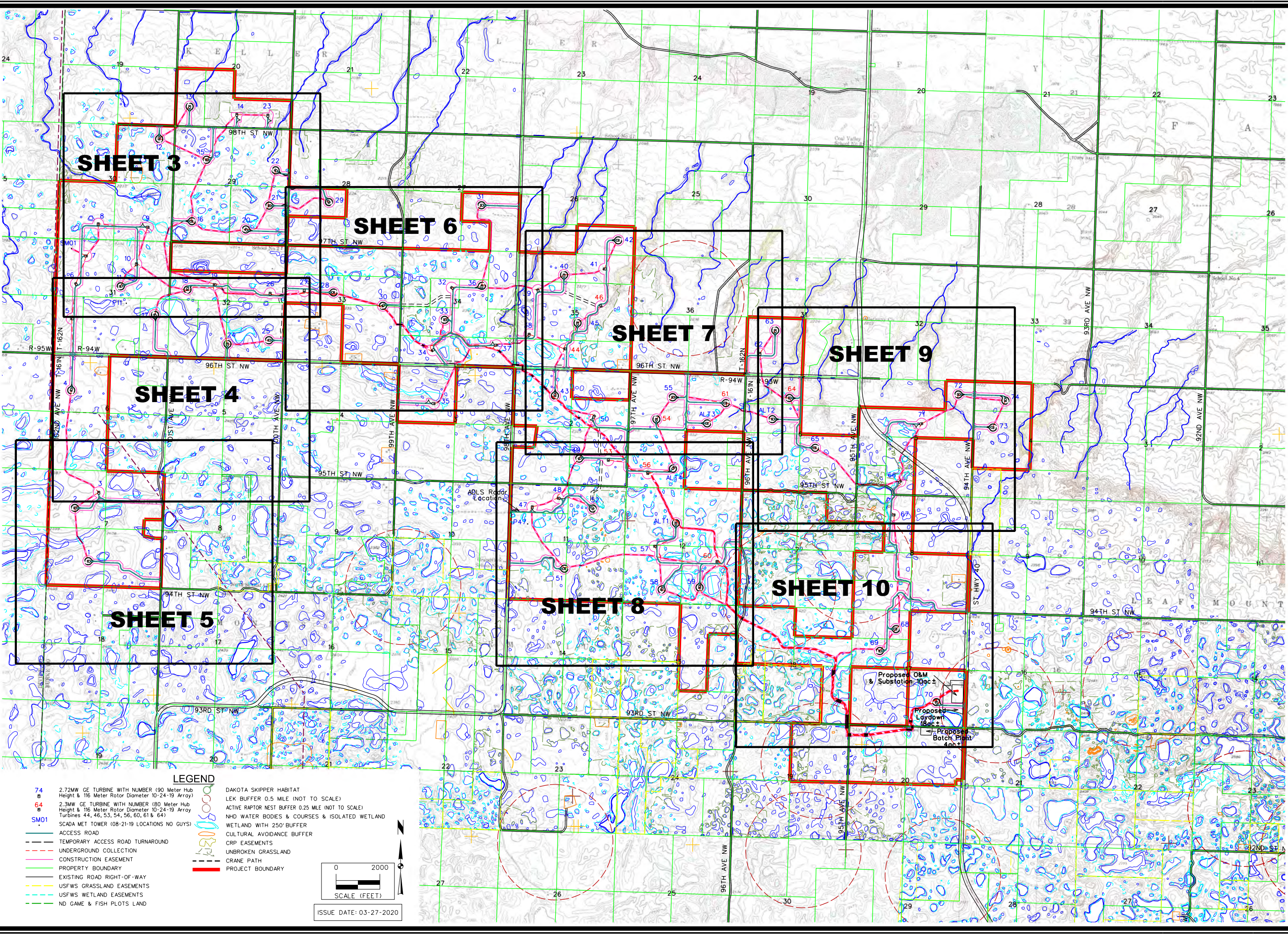
**SNYDER & ASSOCIATES, INC.**  
1751 MADISON AVENUE  
COUNCIL BLUFFS, IA 51503  
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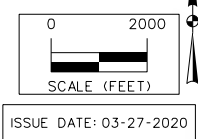
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|------|---|--|--|
| 74   | 2.72MW GE TURBINE WITH NUMBER (90 Meter Hub Height & 116 Meter Rotor Diameter) 10-24-19 Array |  | DAKOTA SKIPPER HABITAT                             |
| 64   | 2.3MW GE TURBINE WITH NUMBER (80 Meter Hub Height & 116 Meter Rotor Diameter) 10-24-19 Array  |  | LEK BUFFER 0.5 MILE (NOT TO SCALE)                 |
| SM01 | SCADA MET TOWER (08-21-19 LOCATIONS NO GUYS)  |  | ACTIVE RAPTOR NEST BUFFER 0.25 MILE (NOT TO SCALE) |
|      | ACCESS ROAD   |  | NHD WATER BODIES & COURSES & ISOLATED WETLAND      |
|      | TEMPORARY ACCESS ROAD TURNAROUND  |  | WETLAND WITH 250' BUFFER                           |
|      | UNDERGROUND COLLECTION  |  | CULTURAL AVOIDANCE BUFFER                          |
|      | CONSTRUCTION EASEMENT   |  | CRP EASEMENTS                                      |
|      | PROPERTY BOUNDARY   |  | UNBROKEN GRASSLAND                                 |
|      | EXISTING ROAD RIGHT-OF-WAY  |  | CRANE PATH   |
|      | USFWS GRASSLAND EASEMENTS   |  | PROJECT BOUNDARY                                   |
|      | USFWS WETLAND EASEMENTS   |  |  |
|      | ND GAME & FISH PLOTS LAND   |  |  |



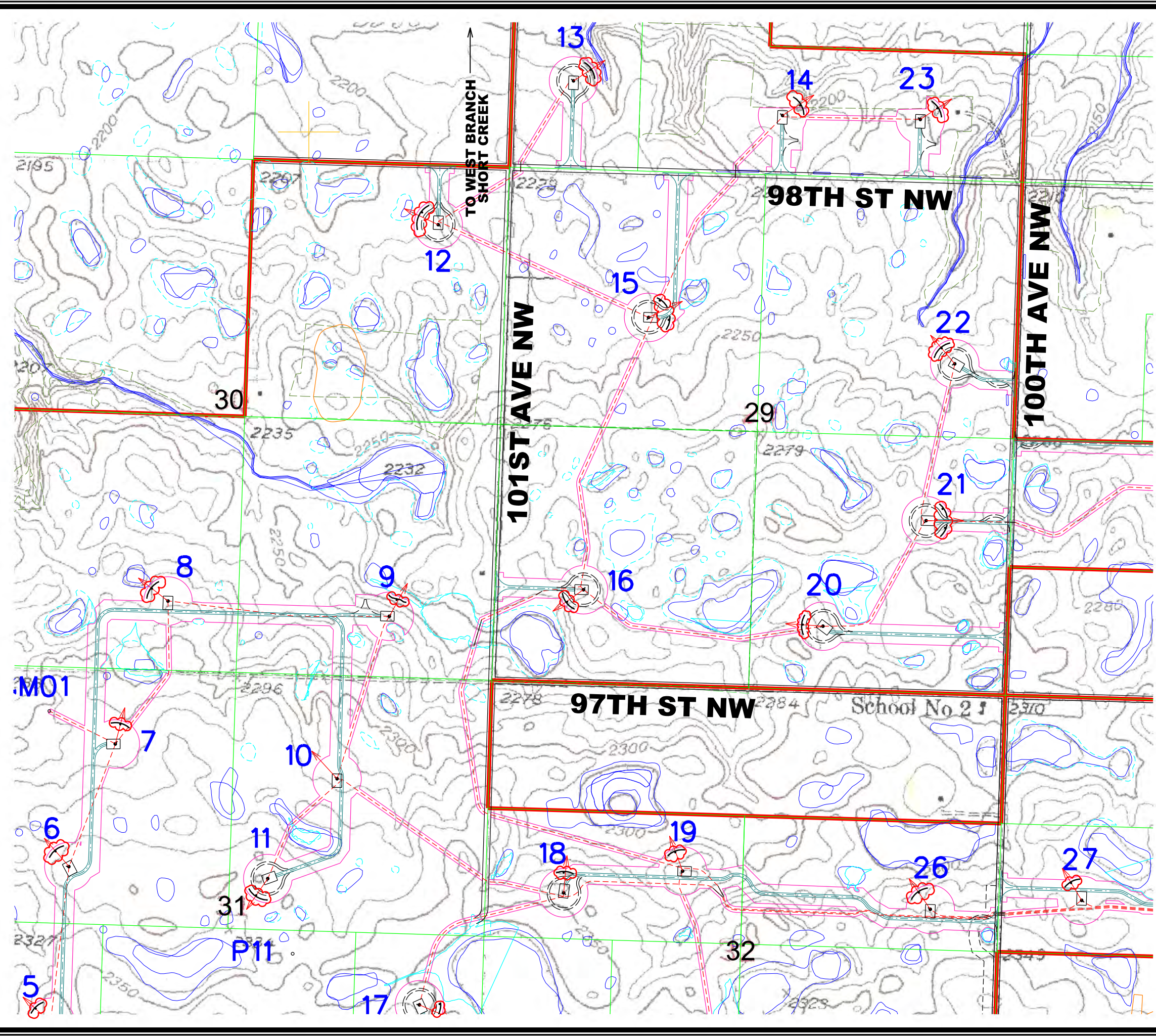
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Technician: EAL	Date: 03-18-20		
Project No: 1170725			Sheet 2 of 13

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**OVERALL 200MW TURBINE SITE PLAN**  
**BURKE COUNTY, NORTH DAKOTA**  
**SNYDER & ASSOCIATES, INC.**

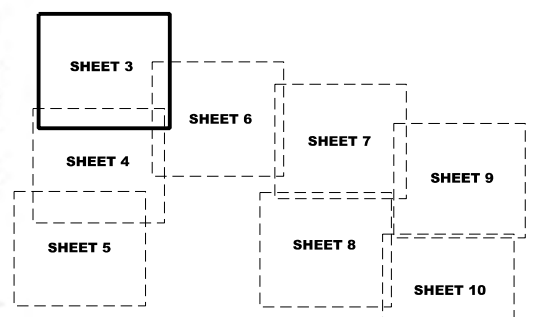


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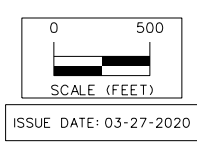
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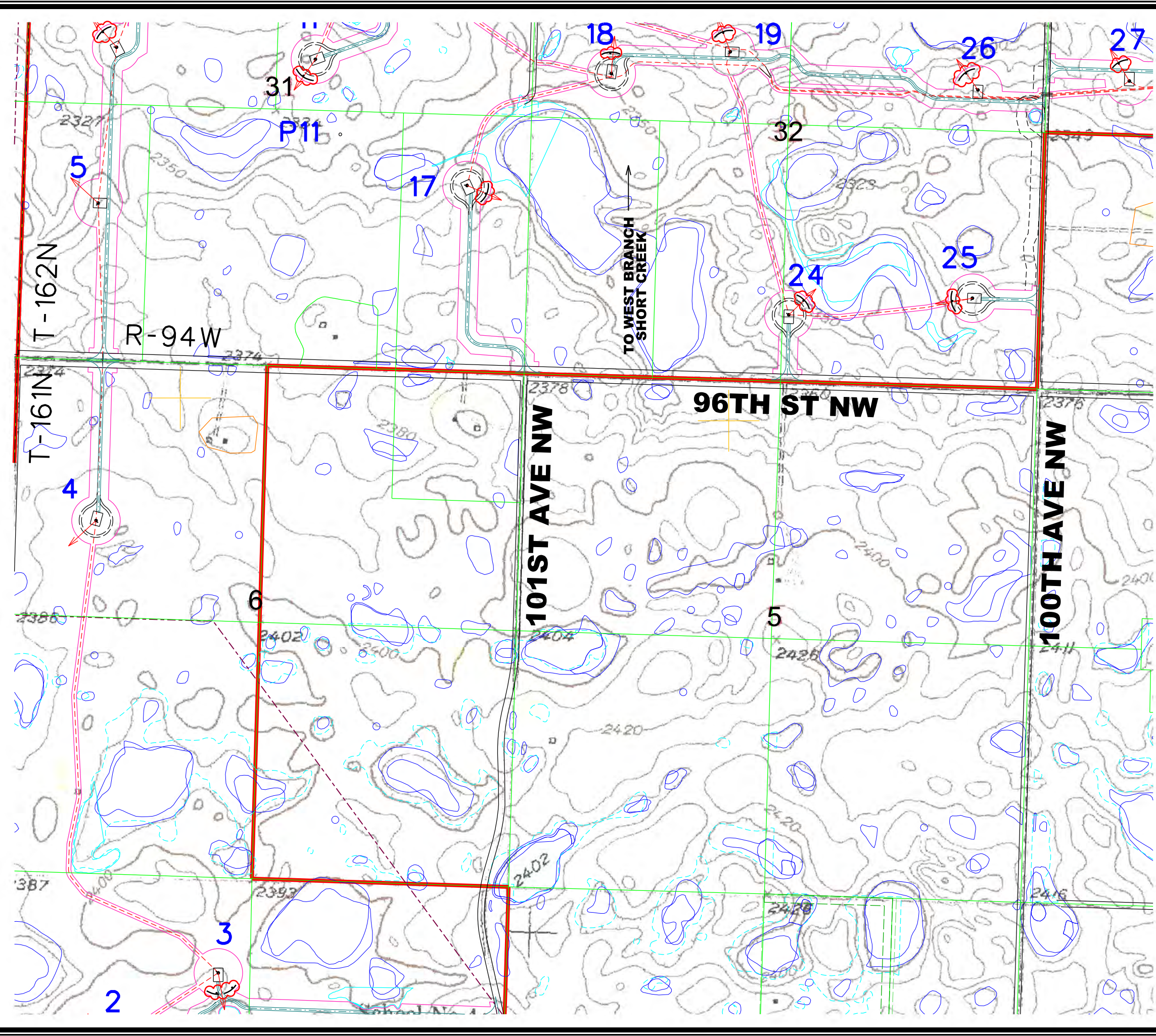


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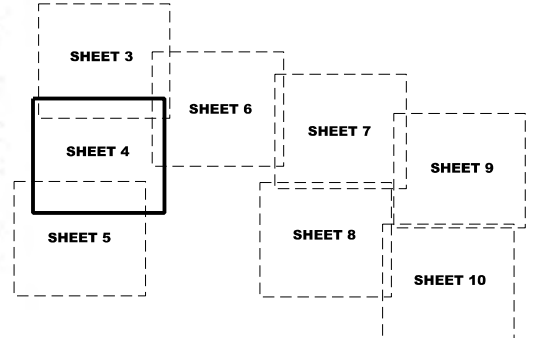
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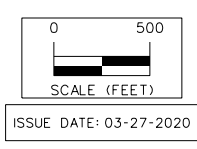
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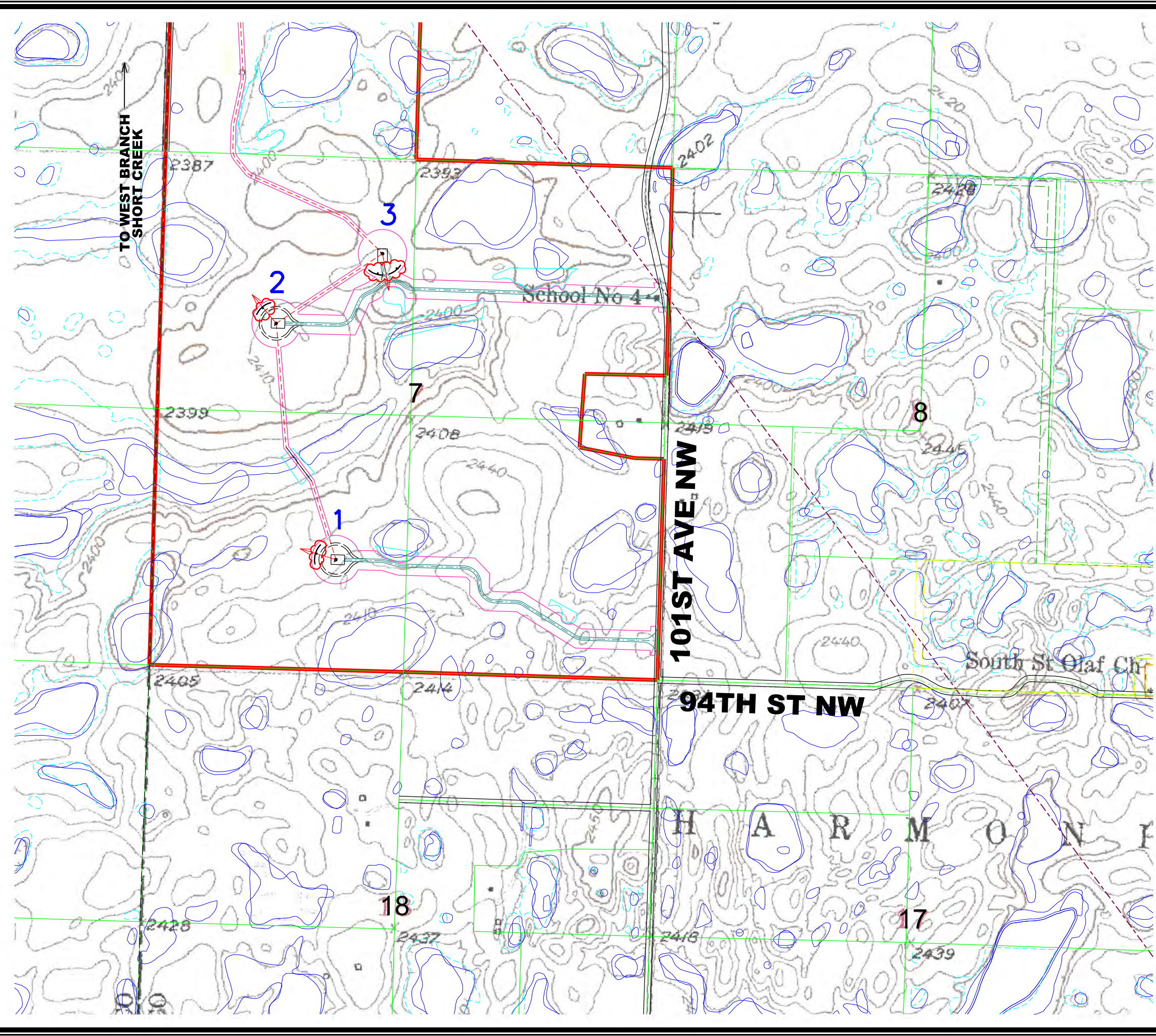


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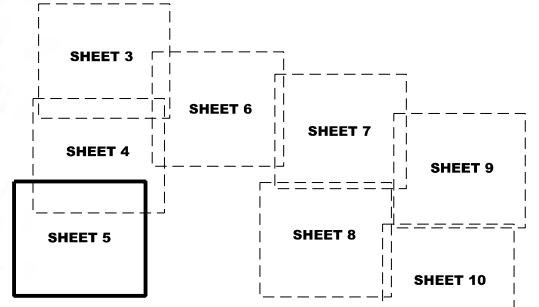
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BJJ	EAH	03-18-20	

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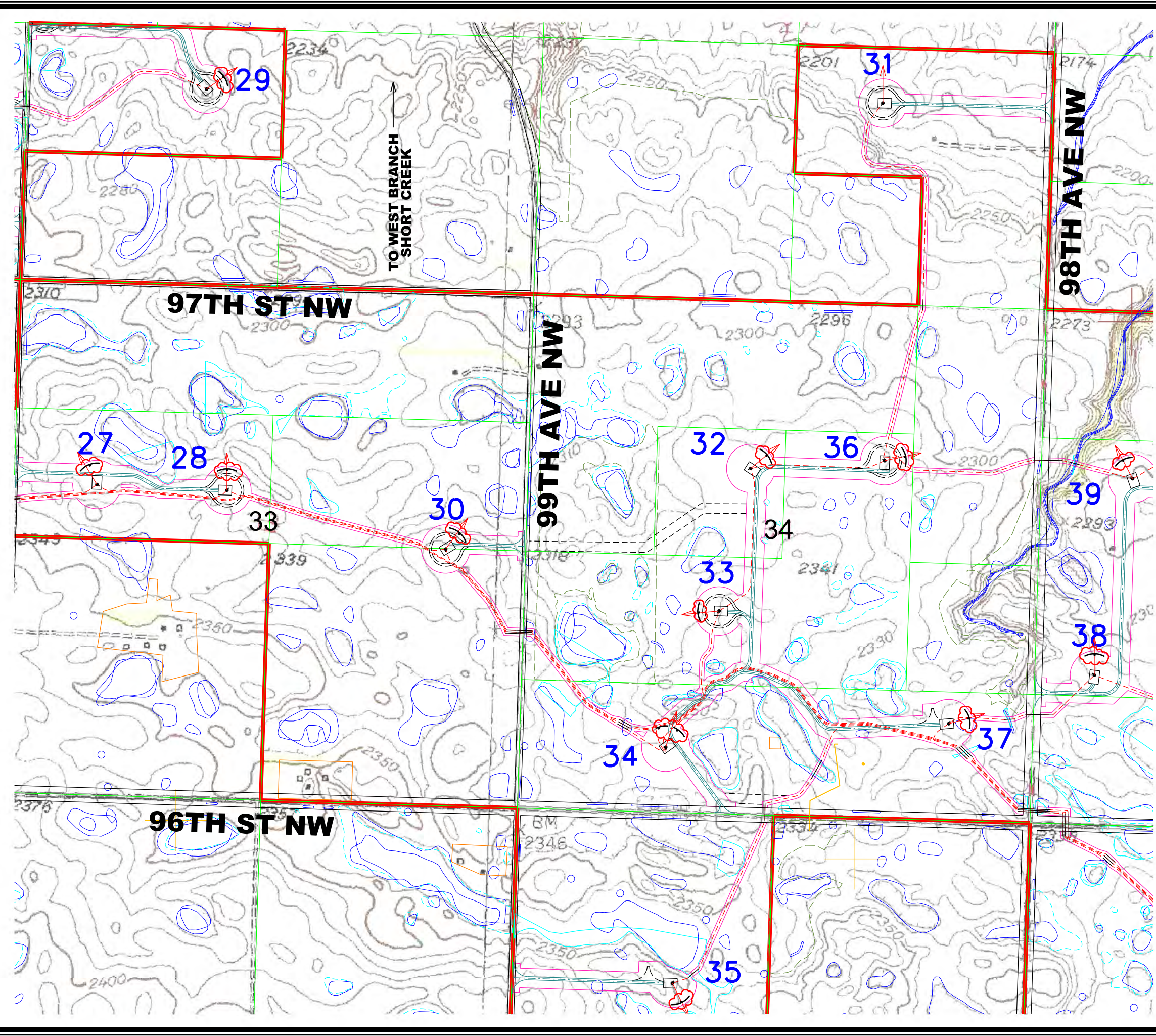
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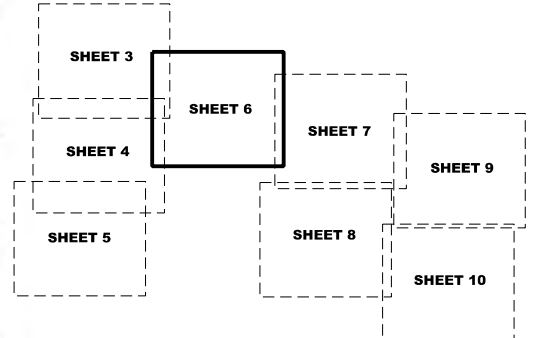
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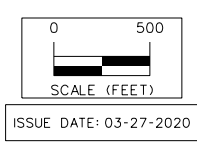
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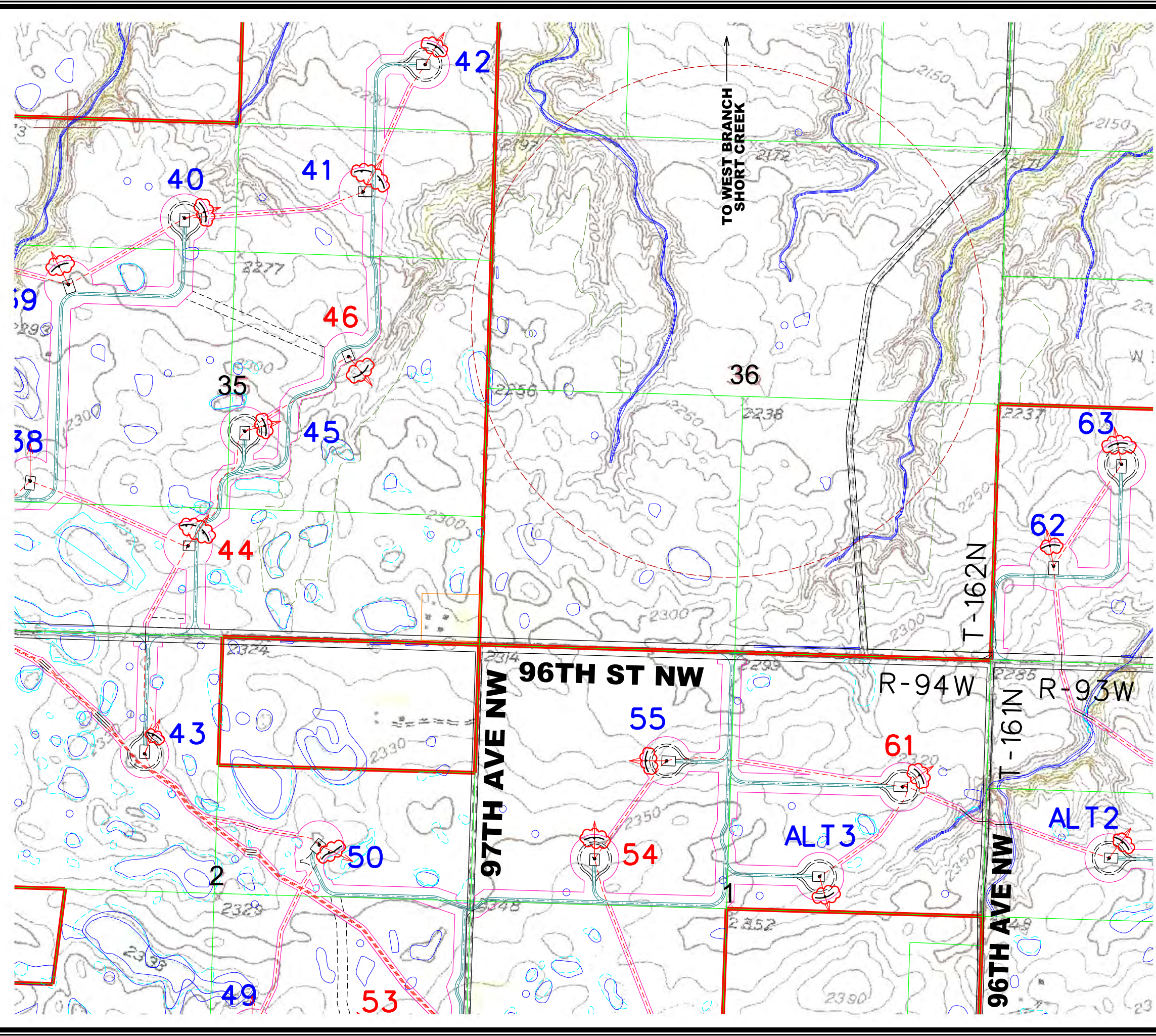
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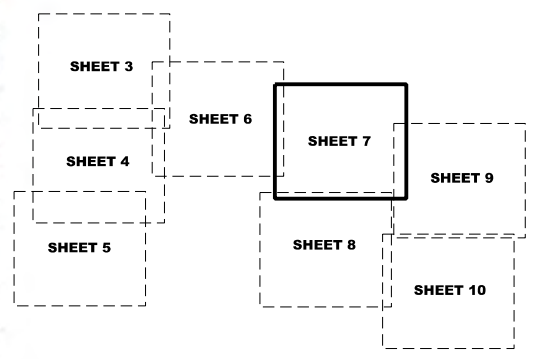
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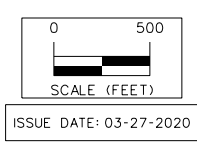
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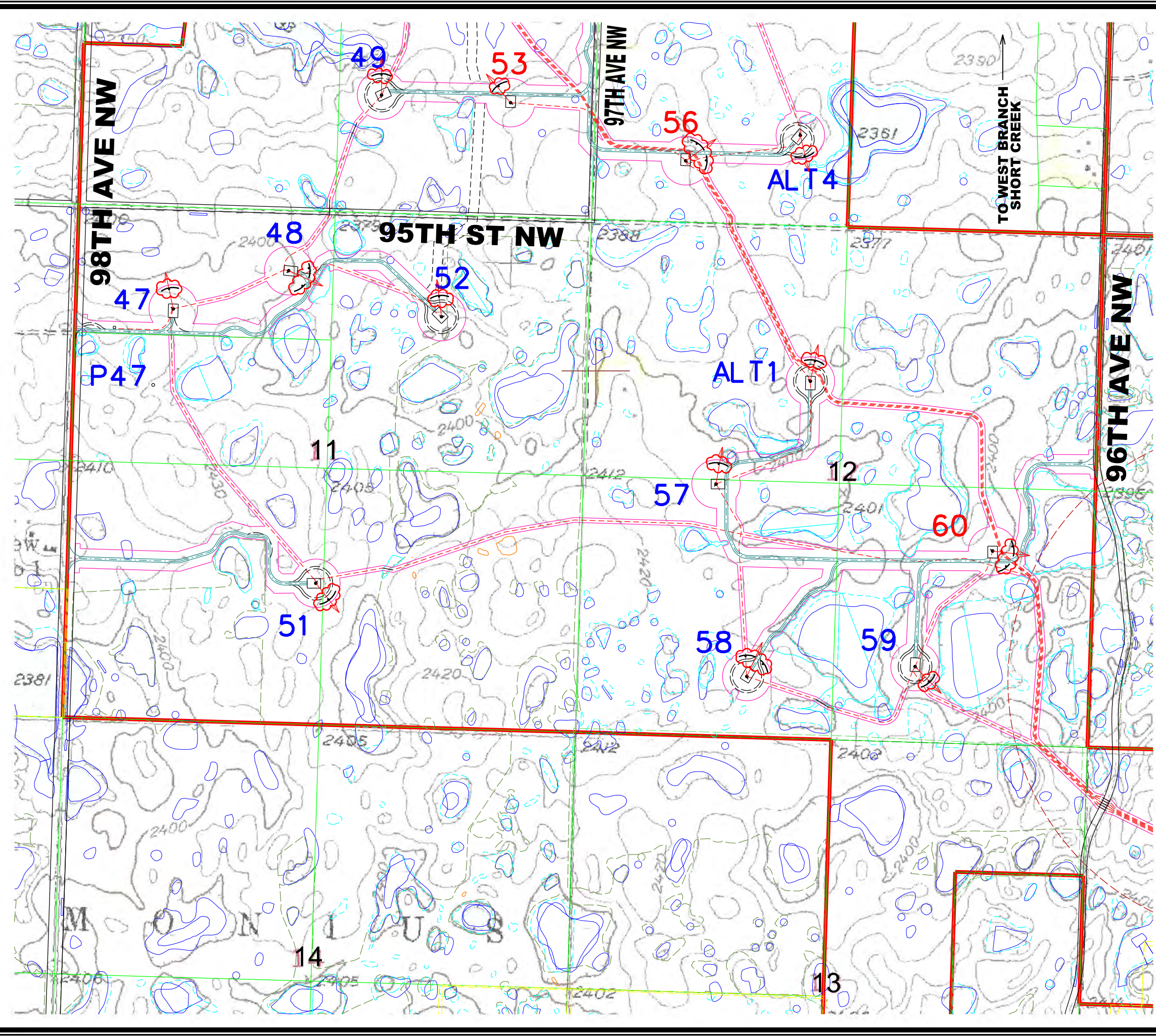
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**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**STORM WATER POLLUTION PREVENTION PLAN**  
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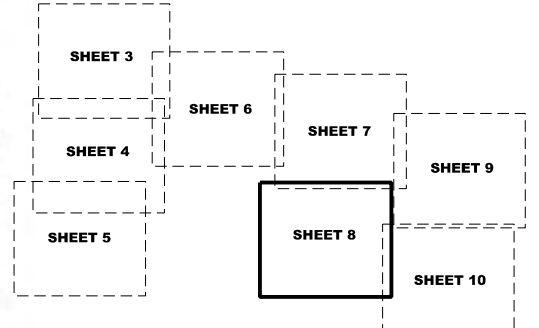
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 Sheet 7 of 13

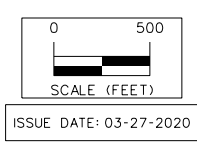
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LEGEND	
74	2.72MW GE TURBINE WITH NUMBER (90 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Array)
64	2.3MW GE TURBINE WITH NUMBER (80 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Array Turbines 44, 46, 53, 54, 56, 60, 61 & 64)
SM01	SCADA MET TOWER (08-21-19 LOCATIONS NO GUYS)
	ACCESS ROAD
	TEMPORARY ACCESS ROAD TURNAROUND
	UNDERGROUND COLLECTION
	CONSTRUCTION EASEMENT
	PROPERTY BOUNDARY
	EXISTING ROAD RIGHT-OF-WAY
	USFWS GRASSLAND EASEMENTS
	USFWS WETLAND EASEMENTS
	ND GAME & FISH PLOTS LAND
	KAKOTA SKIPPER HABITAT
	LEK BUFFER 0.5 MILE (NOT TO SCALE)
	ACTIVE RAPTOR NEST BUFFER 0.25 MILE (NOT TO SCALE)
	NHD WATER BODIES & COURSES & ISOLATED WETLAND
	WETLAND WITH 250' BUFFER
	CULTURAL AVOIDANCE BUFFER
	CRP EASEMENTS
	UNBROKEN GRASSLAND
	CRANE PATH
	PROJECT BOUNDARY
	NATURAL DRAINAGE PATHWAY
	SILT FENCE TO BE CONSTRUCTED SEE DETAIL SHEET. ACTUAL LENGTHS AND LOCATIONS TO BE DETERMINED DURING CONSTRUCTION
	DIVERSION BERM
	SEDIMENT TRAP



### SHEET INDEX

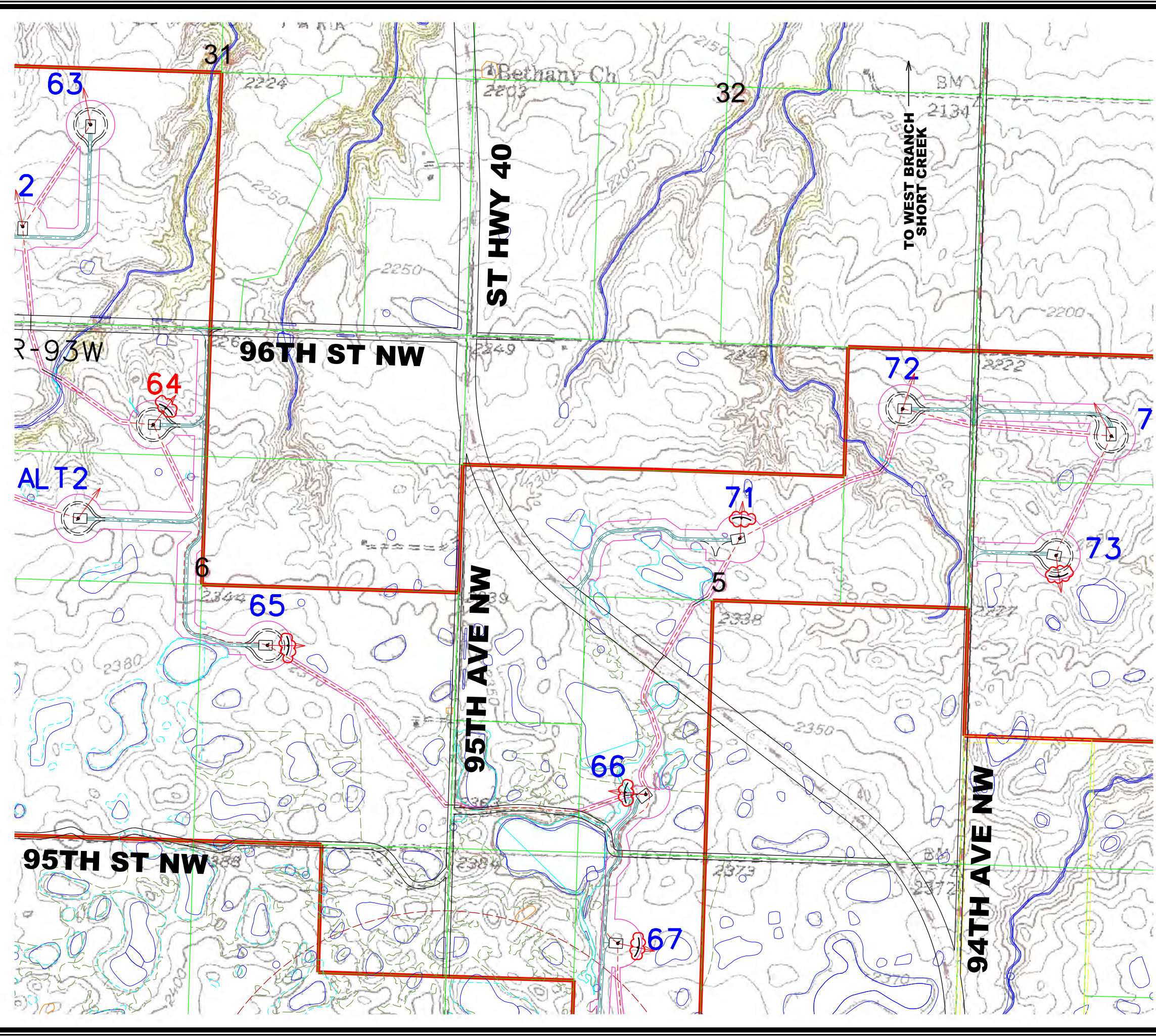


**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**STORM WATER POLLUTION PREVENTION PLAN**  
**BURKE COUNTY, NORTH DAKOTA**  
**SNYDER & ASSOCIATES, INC.**  
 1751 MADISON AVENUE  
 COUNCIL BLUFFS, IA 51503  
 712-322-3202 | www.snyder-associates.com

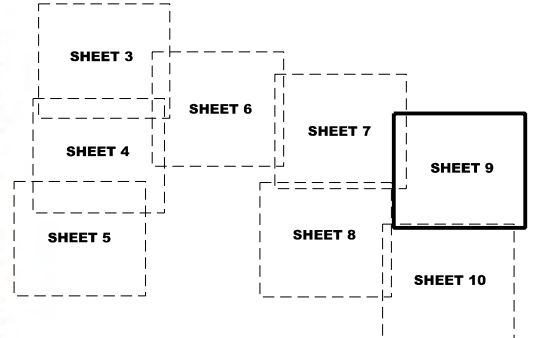


MARK	REVISION	DATE	BY
Engineer: BJJ	Checked By: EAH	Scale: 1"= 500'	Field Bk:
Technician: EAL	Date: 03-18-20	Project No: 1170725	Sheet 8 of 13

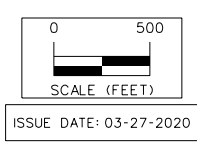
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## SHEET INDEX



MARK	REVISION	DATE	BY

Engineer: BJJ	Checked By: EAH	Scale: 1" = 500'	Field Bk: Pjt:
Technician: EAL	Date: 03-18-20	Project No: 1170725	Sheet 9 of 13

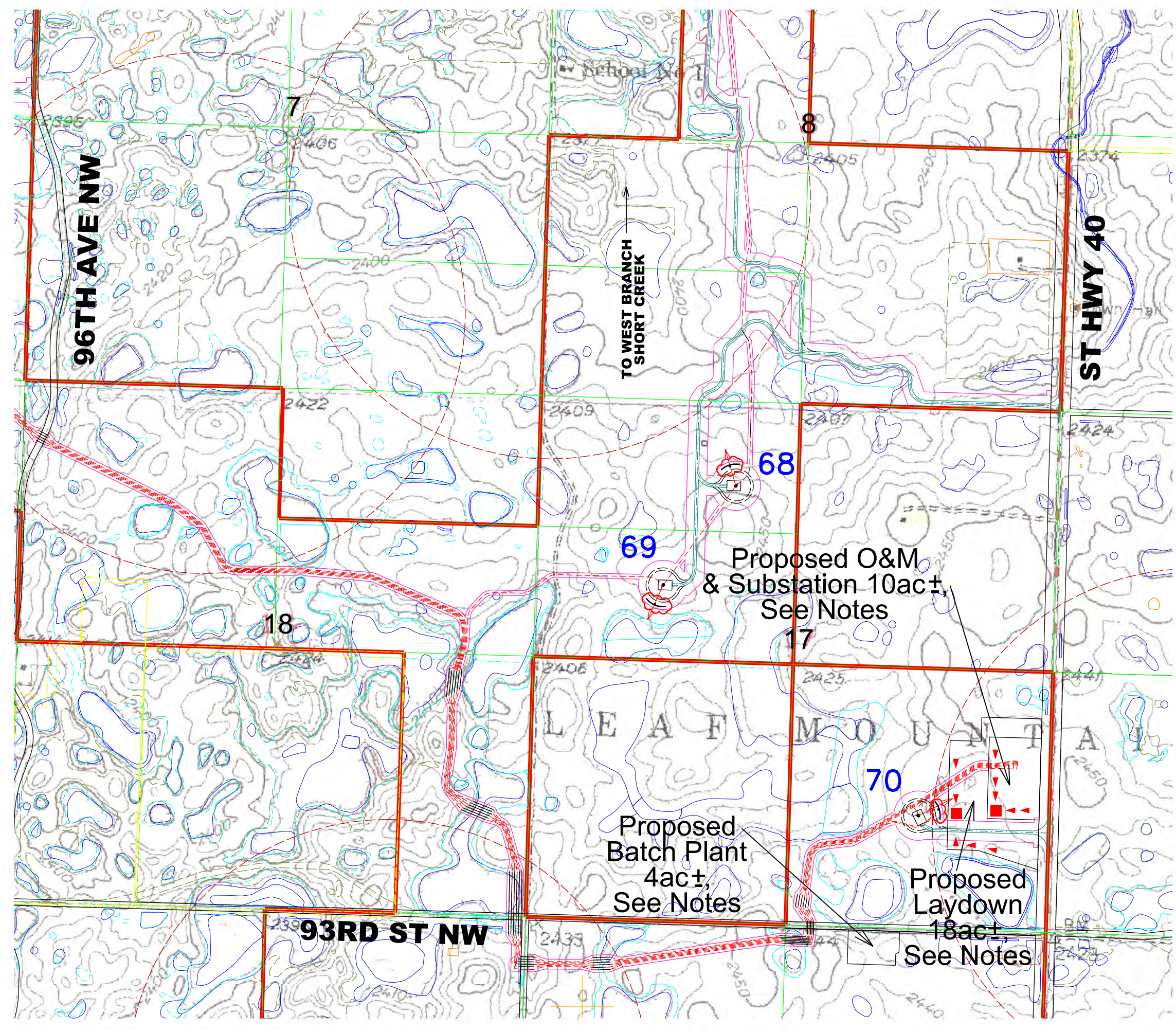
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**SNYDER & ASSOCIATES, INC.**



**SNYDER & ASSOCIATES**

Project No: 1170725  
Sheet 9 of 13

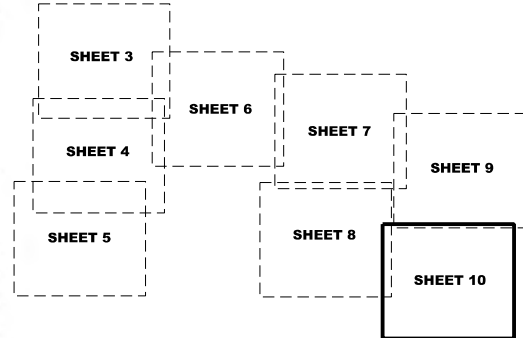
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- ### NOTES:
1. CONTRACTOR TO INSTALL ANY NEEDED SWPPP CONTROLS AT BATCH PLANT AREA TO WORK WITH HOW THE SITE IS LAID OUT FOR OPERATIONS.
  2. IF CONTRACTOR CHOOSES TO COMBINE THE SEDIMENT TRAP FOR THE PROPOSED O&M/ SUBSTATION WITH THE LAYDOWN AREA SEDIMENT TRAP THEN HE SHALL ENSURE FLOW FROM BOTH CAN REACH THE TRAP AT ALL TIMES.



## SHEET INDEX

SCALE (FEET)

ISSUE DATE: 03-27-2020

MARK	REVISION	DATE	BY

Project No: 1170725  
 Project Name: NEXTERA ENERGY - NORTHERN DIVIDE WIND  
 Location: BURKE COUNTY, NORTH DAKOTA

**STORM WATER POLLUTION PREVENTION PLAN**  
**SNYDER & ASSOCIATES, INC.**  
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Project No: 1170725  
 Sheet 10 of 13

**STORM WATER DISCHARGE PERMIT**

This project requires the obtaining of an NDPDES General Permit No. NDR10 for Storm Water Discharges Associated with Construction Activity from the North Dakota Department of Health (NDDH). The permit has effective dates March 31, 2015 to March 31, 2020. The owner shall obtain a permit and is responsible for submitting a Notice of Intent (NOI) for a permit. The owner is also responsible for developing a Storm Water Pollution Prevention Plan (SWPPP).

**NOTICE OF INTENT**

The NOI must be submitted to the NDDH. Coverage is effective 7 days after a complete application is submitted unless otherwise notified by the Department. Coverage must be obtained before land disturbing construction activities may start. Geotechnical drilling on the site does not count as a land disturbing activity. The NDDH will send the applicant a letter stating permit coverage and assign the project a Permit Number. The Permit Number will be required for site postings, the Notice of Termination (NOT), and any correspondence with the NDDH.

**NOTICE OF TERMINATION**

All parties that submitted an NOI shall submit a Notice of Termination (NOT) to the NDDH within thirty days of final stabilization of the project. Final stabilization is defined as: 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:

- All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to preclude erosion;
- 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
- The permittee(s) must clean out all sediment from conveyances and from temporary sedimentation basins that will be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin, conveyances or drainage ways discharging off-site; or to surface waters. The capacity of permanent basins must be sufficient to return the basins to design capacity.

**REPORTING SPILLS**

Where a release containing a hazardous substance or oil in excess of a reportable quantity occurs during a 24 hour period, notify the National Response Center (NRC) at 1-800-424-8802 as soon as the permittee has knowledge of the discharge. Also, notify the State of North Dakota, Division of Emergency Management at 1-800-472-2121. In addition, a written submission to both the Department and the EPA shall be provided within 5 days of the time that the permittee became aware of the circumstances.

**RECORDS LOCATION AND RETENTION OF RECORDS**

The owner shall retain copies of the Pollution Prevention Plan, a copy of the general permit, the signed Notice of Intent, coverage letter from the department, and the Project Inspection Diary for at least 3 years after the site is finally stabilized. A copy of the current records mentioned above shall be filed on site during project construction and be made readily available to the NDDH upon request.

**STANDARD PERMIT CONDITIONS**

The contractor shall view the listing of Standard Permit Conditions that apply to this general permit. The general permit can be viewed on-line at the NDDH website - [www.ndhealth.gov/wq/Storm/Construction/ConstructionHome.htm](http://www.ndhealth.gov/wq/Storm/Construction/ConstructionHome.htm). The contractor will be provided a copy of the general permit upon request.

**STORMWATER POLLUTION PREVENTION PLAN**

The NDDH may notify the owner at any time that the SWPPP does not meet minimum requirements. After such notification, the owner shall have seven days to make changes to the plan, the contractor shall perform the required changes. The owner shall submit to the NDDH a written certification that the requested changes have been made.

The owner shall amend the plan whenever there is a change in design, construction, operation, or maintenance that has a significant effect on storm water discharges.

The contractor shall provide personnel to inspect disturbed areas of the construction site, material storage areas for potential hazardous material leaks, vehicle entrance/exits for sediment tracking, and the site controls. The general permit requires inspection every 14 days and within 24 hours after any storm event greater than 0.25 inches of rain per 24 hour period. Permittee shall utilize a rain gage located near the site where parts of the construction site have been completed but do not meet the 70% perennial vegetative cover criteria, inspections of the stabilized areas may be reduced to once per month.

The inspector mentioned above will prepare an Inspection Form, to be kept with the SWPPP. At a minimum each inspection report shall include: the date and time of the inspection, the name of the inspector, the qualifications/title of the inspector, scope of inspection, any actions required based on the inspection, corrective actions, recommendations, date and amount of all rainfall events greater than 0.25 inches in 24 hours, documentation that the SWPPP plan has been amended when substantial changes are made to the erosion and sediment controls or other BMP's in response to inspections. The form may also include dates when major grading activities occurred or ceased in areas and dates when areas were stabilized. A list of hazardous materials stored on site at the time of inspection should be made on the inspection form as well.

Corrective action reports shall also be recorded and retained and shall include: BMP corrected; date and time of corrective action; name of person performing corrective action; corrective actions taken. Inspection reports and corrective action reports shall be certified per Part IV.A.6 of the NDR 10-0000 permit.

-The Storm Water Pollution Prevention Plan shall be updated to reflect actions taken after inspections.  
-Maintenance of all temporary and permanent erosion control measures is the responsibility of the contractor. Cleaning of silt sediment basins shall begin when they have lost 50% of their capacity. Silt fence, fiber rolls or similar devices must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/2 the height of the device.

**CERTIFICATION**

"I, \_\_\_\_\_, certify under penalty of law that I have personally examined and am familiar with 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 fines and imprisonment.

Printed Name of Applicant

Title

Signature of Applicant

Date

**STORM WATER POLLUTION PREVENTION PLAN NOTES**

**SITE DESCRIPTION**

- This project, located in Burke County, North Dakota, involves the construction of an O&M area, a laydown area, XX wind turbine generators, electrical collection systems, substation and switch yards for the purpose of electrical power generation and supply. The wind turbine generators are arranged in a linear format and are connected by electrical collection cables. An access road for maintenance purposes parallels the wind turbines. The access road will conform to existing grade and slopes where possible to minimize the earthwork and disturbance and will consist of a gravel surface.
- The project is located on approximately 10,906 acres. Foundation excavation for the wind turbines, maintenance road construction, and underground cable trenching are the predominant land disturbing activity for the project. The estimated disturbed area for these activities is XX acres. The estimated start date for land disturbing activities is XX with an estimated completion date of XX.
- Existing surface soils on the site are mainly Williams-Zahl loams, Zahl-Williams-Zahill complex, Zahl-Max-Parnell complex, Williams-Zahl-Parnell complex. Existing land use is mostly agricultural and rangelands. The site is generally rolling with some flat areas, and a run-off coefficient of approximately 0.2.
- See the Stormwater Pollution Prevention Plan map for drainage patterns and slopes, locations of disturbed areas, location of structural controls and/or stabilization areas, and surface waters.
- The project site generally drains from swales and road ditches to unnamed tributaries of West Branch Short Creek. See the site map for storm drainage outlet locations. There are no 303(d) streams affected by this project.
- The laydown yard site will have a rock surface placed simultaneously with or immediately after completion of stripping topsoil. Strippings will be used to construct perimeter diversion berms on down gradient sides of sites. The sites may be stripped and rocked in phases. Sediment traps may be constructed depending on site conditions. At a minimum, existing vegetative buffer strips and silt fences will provide treatment of storm water discharges from the site. A sediment basin will not be constructed.

**EROSION AND SEDIMENT CONTROLS**

**A. STABILIZATION**

- Disturbed areas of the construction site must complete stabilization measures by the 14th day after activities have permanently or temporarily ceased and will not resume in 14 days.
- Minimize disturbed areas. Match existing land contours when possible. Minimize impervious surfaces. Protect natural vegetation outside of construction areas and disturb to a minimum inside construction areas.
- The project will use staged construction to minimize the amount of land disturbed at any one time.
- Buffer strips of existing vegetation will remain adjacent to construction zones. Buffer Strips shall be 1 foot width for every 5 feet of disturbed area which drains to the buffer.
- Dust control on the site will be monitored. The contractor will sprinkle access roads with water if the owner determines that dust is a problem.
- Seed disturbed areas within county right of way per county requirements. Disturbed graded for next seasons crops. Seed non-crop disturbed areas on private property with a mix approved by the owner.
- A 50 foot natural buffer or equivalent erosion and sediment controls must be provided when a project is within 50 feet of a surface water and stormwater flows to the surface water. If working within 100 feet of a surface water listed as impaired for sediment, suspended solids or turbidity, a 100 foot natural buffer or equivalent sediment and erosion controls must be provided.

**B. STRUCTURAL CONTROLS**

- Silt Fence shall be placed downstream of disturbed areas as determined by the owner or contractor during construction. See the detail on the Stormwater Pollution Prevention Plan for correct installation of Silt Fence.
- Temporary soil stockpiles draining toward surface waters or wetlands 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 or conduits and ditches.
- Inlet and outlet protection including energy dissipation devices for culverts will be used such as rip-rap, or geotech fabric as determined by the owner or contractor during construction.
- Existing drainage ways on the site will be protected from site run-off by the use of silt fence ditch checks, rip-rap, or geotech fabric as determined by the owner or contractor during construction.

**OTHER PREVENTION MEASURES**

- Construction entrances adjacent to public/private roads shall be graveled/stabilized/compacted immediately to prevent vehicle tracking of on-site sediments.
- Provide portable toilets for proper disposal of sanitary sewage. Wastes shall be collected and disposed in compliance with local, state, and federal regulations.
- Monitor construction vehicle maintenance areas. Note that external washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on-site.
- Install containment berm or other secondary containment devices around fuel storage, equipment maintenance areas, and chemical storage areas. Monitor storage areas for potential hazardous material spills. List any hazardous materials stored on site in the inspection report.

**HAZARDOUS MATERIAL SPILL PREVENTING AND RESPONSE**

- The contractor is responsible for training all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or wastes will be allowed to come into contact with storm water discharges. If contact does occur, the storm water discharge will be contained on site until appropriate measures in compliance with all Federal, State, and local regulations are followed to dispose of the hazardous substance.
- In addition to Good Housekeeping and material management practices, the following practices shall be done to minimize the potential for hazardous material spills and to reduce the risk of the spill coming in contact with storm water.

Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.

Materials and equipment necessary for spill control, containment and cleanup will be provided onsite in the material storage area. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, sorbent booms, and plastic and metal trash containers.

- In the event of a spill, the following procedures will be followed:

All spills will be cleaned up immediately following discovery.

The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substance.

- Material Management Practices- the following is a list of practices that will be used onsite to minimize the risk of spills or other accidental exposure of materials and substances to storm water runoff.

**a. Good Housekeeping**

An effort will be made to store onsite only enough products required to complete the job.

All materials stored onsite will be kept in a neat, orderly manner and in their appropriate containers. If possible, products shall be kept under a roof or other enclosure.

Materials will be kept in their original containers with the original manufacturer's label.

Whenever possible, all of a product will be used up before disposing of the container.

Manufacturer's recommendations for proper use and disposal will be followed.

The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

**b. Hazardous Products**

Products will be kept in their original containers with the original manufacturer's label.

The original labels and material safety data will be kept for each of the materials as they contain important product information.

Disposal of any excess product will be done in a manner that follows all manufacturers', federal, local and state recommended methods for proper disposal.

- The following is a list of potential sources of pollution and specific practices to reduce pollutant discharges from the materials or sources expected to be present during construction.

**a. Petroleum Storage Tanks**

All onsite vehicles shall be inspected and monitored for leaks and receive preventative maintenance to reduce the chance of leakage.

Steps will be taken by the contractor to eliminate contaminants from storage tanks from entering ground soil. Any petroleum storage tanks kept onsite will be located with an impervious surface between the tank and the ground.

- Fertilizers- shall be applied in minimal amounts as recommended by the manufacturer. It shall be worked into the soils to minimize the contact with storm water discharge.

- Paints, paint solvents, and cleaning solvents- Excess paints and solvents shall not be discharged into the storm sewer system. The contractor shall refer to the manufacturer's instructions and federal regulations on the proper disposal from the site.

**d. Concrete Wastes**

Concrete trucks will be allowed to washout or discharge excess concrete only in specifically designed areas which have been prepared to minimize the concrete and storm water discharge from the site.

The hardened product from the concrete washout areas will be disposed of as other non-hazardous waste materials or may be broken up and used on the site for other appropriate uses.

- Solid and construction wastes- All trash and construction debris shall be deposited into a dumpster that will be emptied as necessary. No construction waste materials will be buried on site. The dumpsters must be put in a location where the contact with the storm water discharge is minimized.

ISSUE DATE: 03-27-2020

MARK	REVISION	DATE	BY
Engineer: BJJ	Checked By: EAH	Scale: 1" = NTS	Field No:
Technician: EAL	Date: 03-18-20		Project No: 1170725

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**

STORM WATER POLLUTION PREVENTION PLAN NOTES

BURKE COUNTY, NORTH DAKOTA

**SNYDER & ASSOCIATES, INC.**

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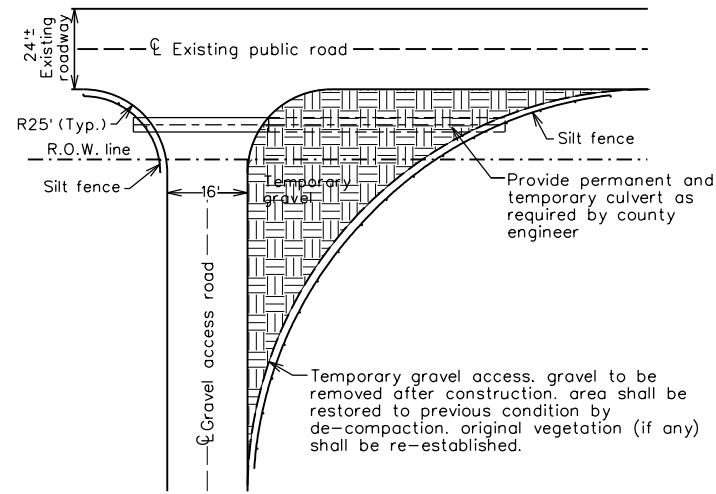


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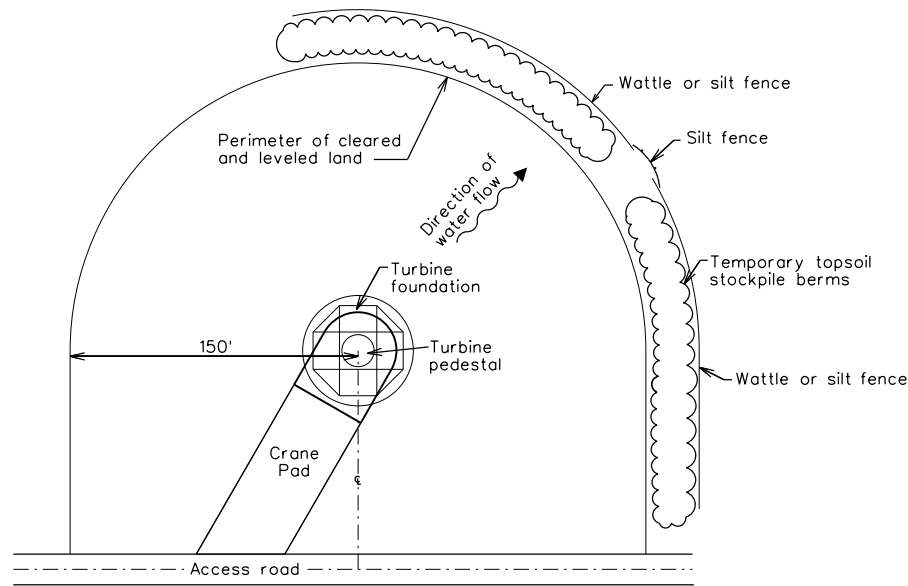
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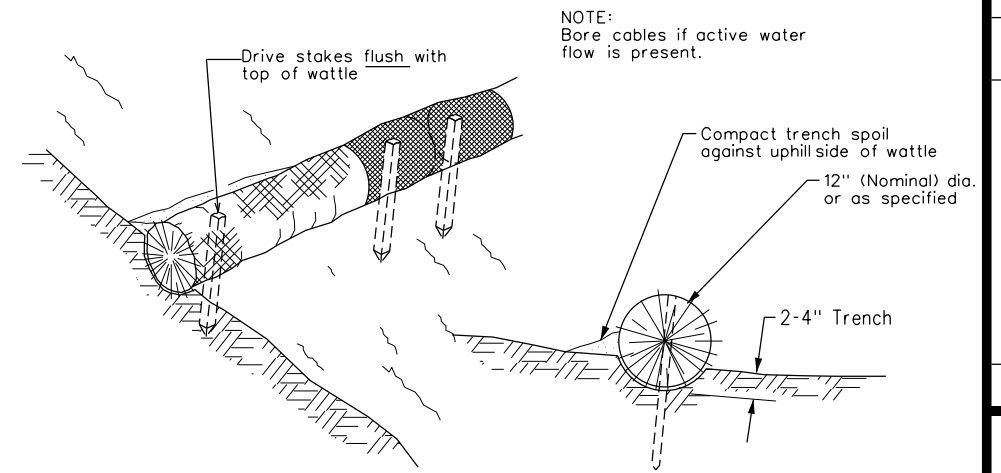
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▲ **TYPICAL ACCESS DRIVE WITH TEMPORARY RADIUS**  
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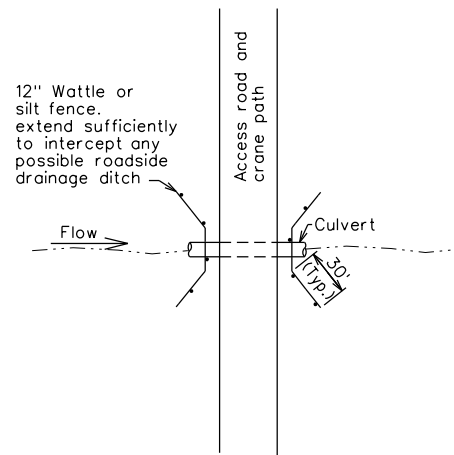


**TYPICAL CRANE PAD EROSION PROTECTION DETAIL**  
NOT TO SCALE

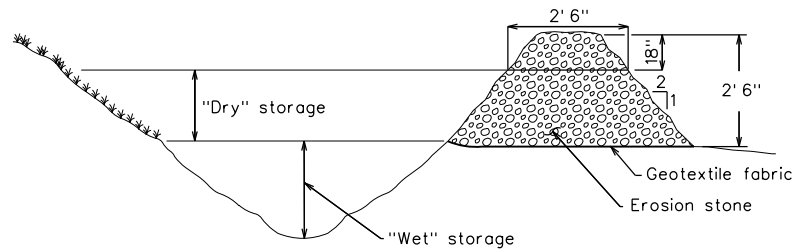


- NOTES:**
1. Wattle shall be placed at the toe of the slope or on the contour.
  2. Wattle shall be securely anchored in place by stakes driven through the wattle. Space stakes at 4 foot maximum. Stakes shall be driven flush with wattle.
  3. Turn ends of wattle uphill to prevent water from flowing around ends.
  4. Adbut ends of adjacent wattles tightly. Wrap joint with 36 inch wide section of silt fence and secure with stakes.
  5. Areas requiring wattles shall be determined as construction moves forward based on site conditions.

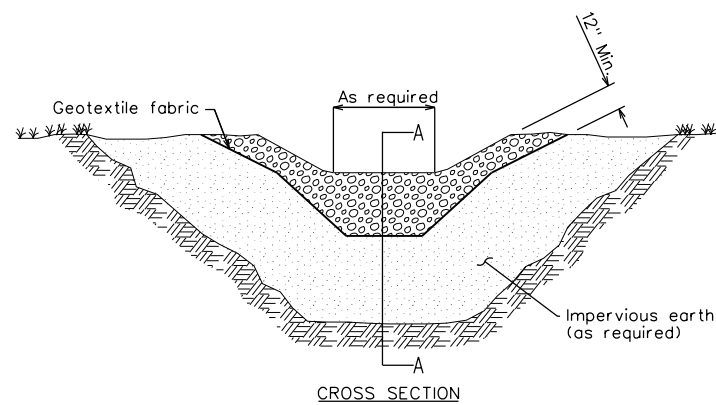
**WATTLE DETAIL**  
NOT TO SCALE



★ **CULVERT CROSSING PROTECTION DETAIL**  
NOT TO SCALE  
SEE PLANS FOR LOCATIONS



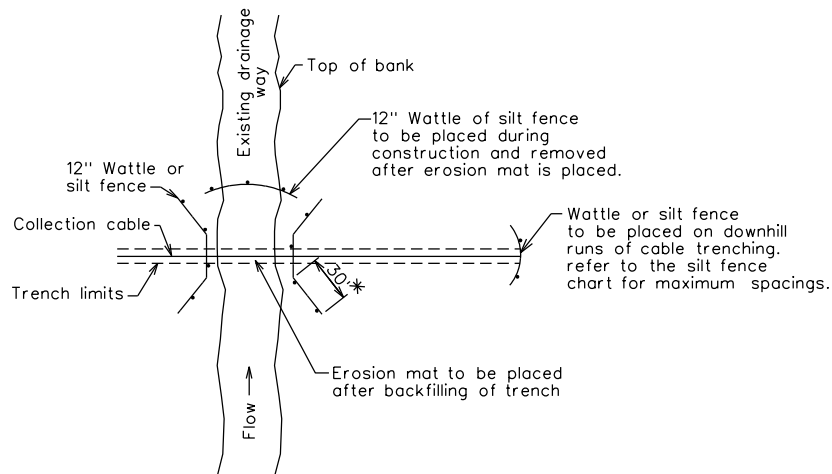
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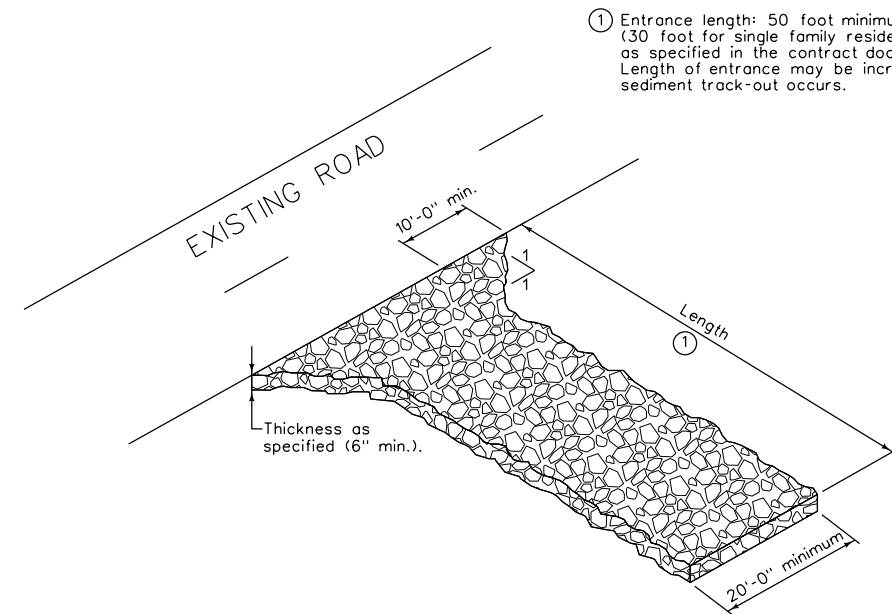
CROSS SECTION

- NOTE:**
1. Remove accumulated sediment when level reaches one-half the height of the wet storage.
  2. The contractor shall determine if sediment traps will be necessary based on site conditions.

■ **SEDIMENT TRAP DETAIL**  
NOT TO SCALE



● **TRENCHED CABLE CROSSING PROTECTION DETAIL**  
NOT TO SCALE  
SEE PLANS FOR LOCATIONS  
CROSSING SHALL BE BORED IF WATER IS PRESENT.



**STABILIZED CONSTRUCTION AREA**  
NOT TO SCALE

MARK	REVISION	DATE	BY
Engineer: BJJ	Checked By: EAH	Scale: NTS	NTS
Technician: EAL	Date: 03-18-20	Field Bc:	Project No: 1170725
			Sheet 12 of 13

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**STORM WATER POLLUTION PREVENTION DETAILS**  
**BURKE COUNTY, NORTH DAKOTA**  
**SNYDER & ASSOCIATES, INC.**  
 1751 MADISON AVENUE  
 COUNCIL BLUFFS, IA 51503  
 712-322-3202 | www.snyder-associates.com



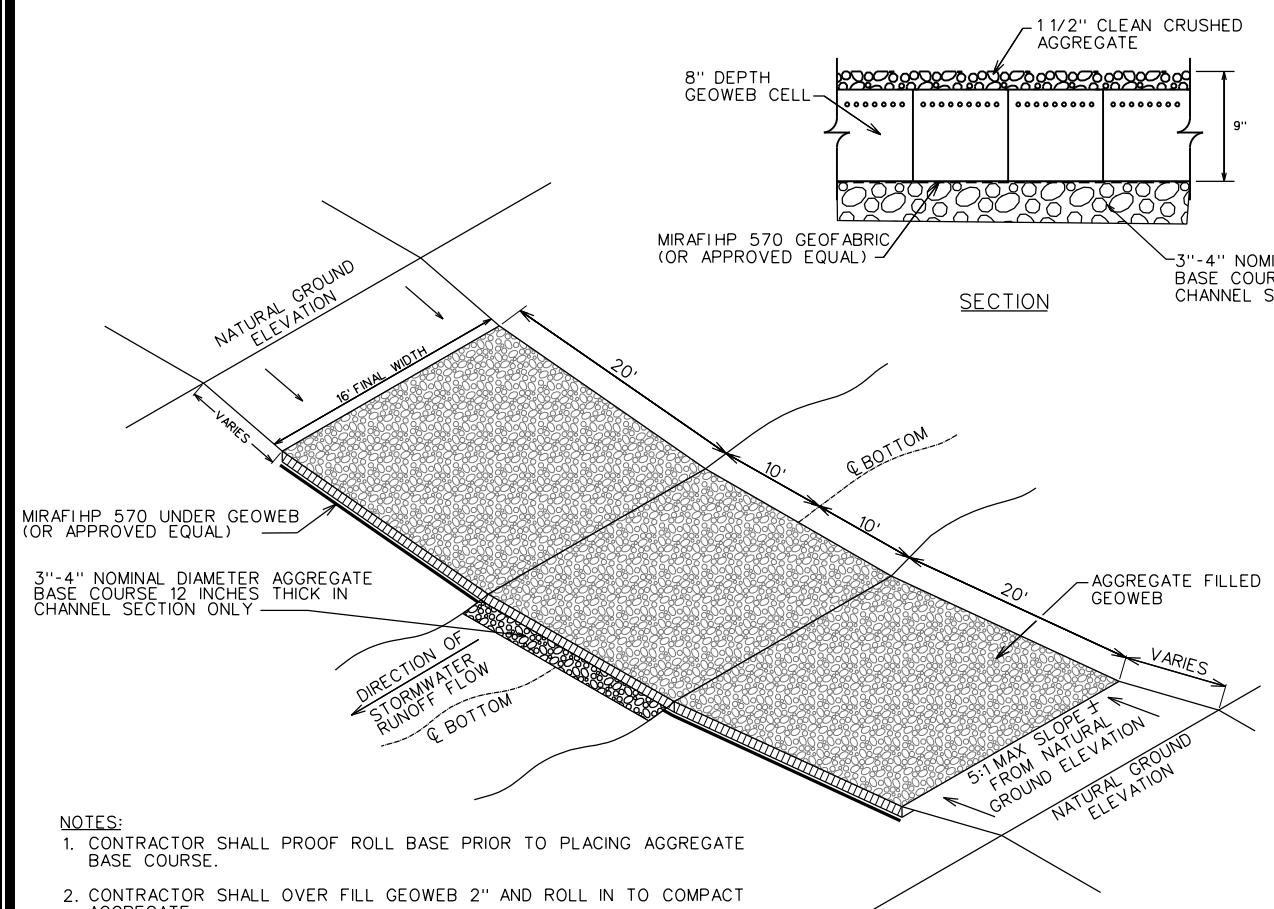
ISSUE DATE: 03-27-2020

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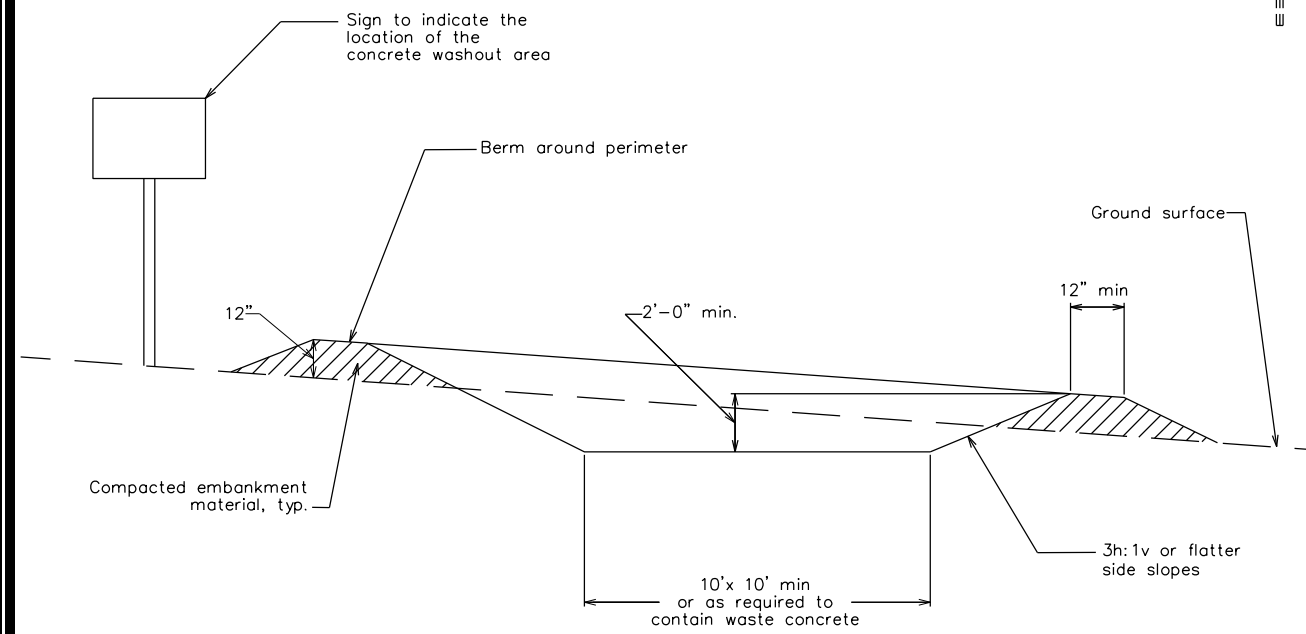
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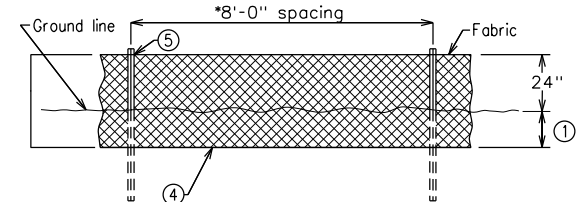
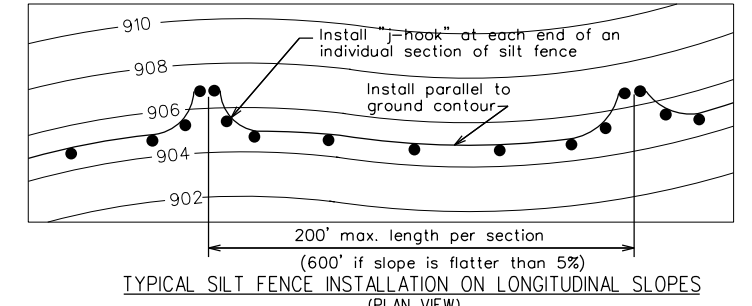
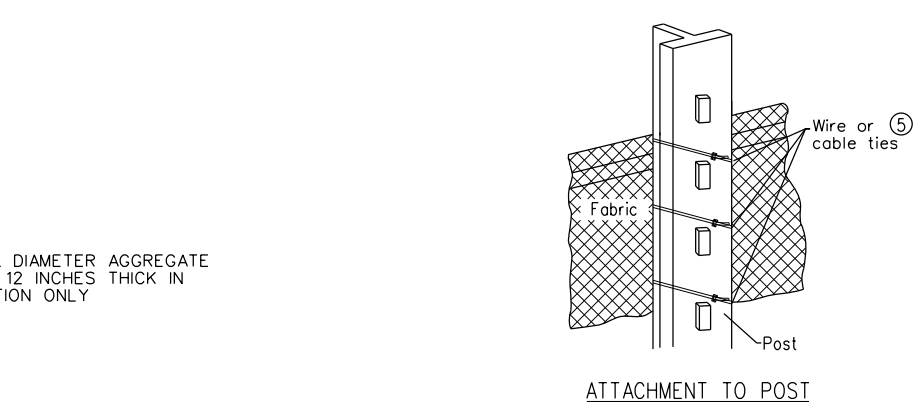
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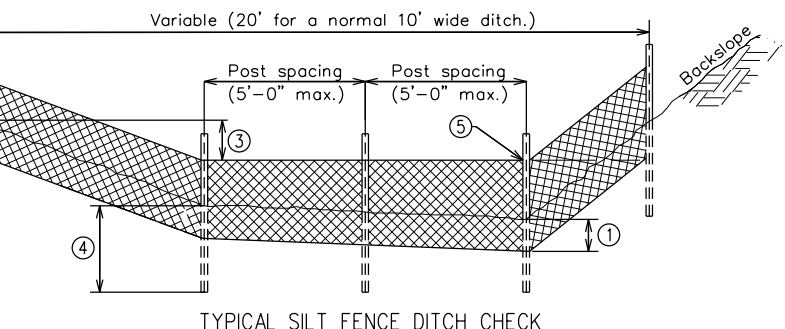
- NOTES:**
- CONTRACTOR SHALL PROOF ROLL BASE PRIOR TO PLACING AGGREGATE BASE COURSE.
  - CONTRACTOR SHALL OVER FILL GEOWEB 2" AND ROLL IN TO COMPACT AGGREGATE.
  - LOW CROSSING OVERALL LENGTH DIMENSIONS APPROXIMATE, CONSTRUCT TO FIT ACTUAL FIELD CONDITIONS.



**CONCRETE WASHOUT AREA**  
NOT TO SCALE



**DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES**  
\*Reduce post spacing to 5'-0" at water concentration areas, or as required to adequately support fence



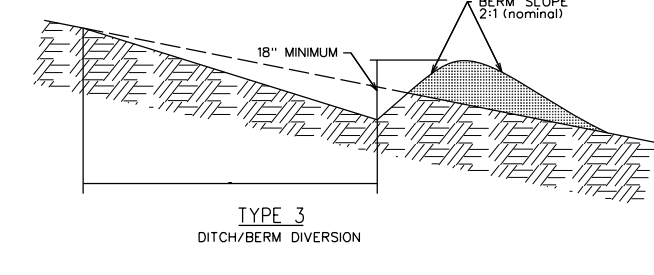
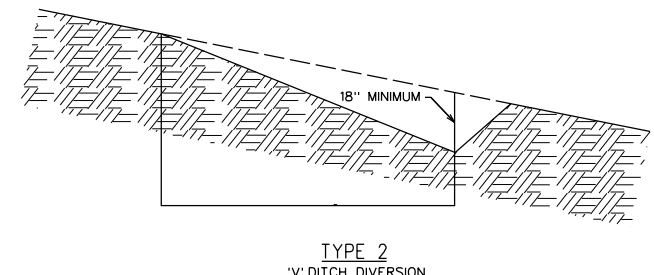
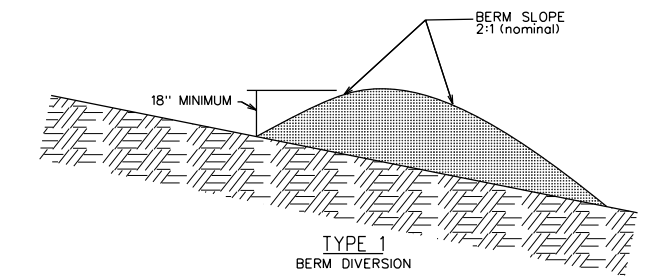
- NOTES:**
- Concrete washout area shall be installed prior to any concrete placement on site. a prefabricated concrete washout container may be used instead of constructing washout area.
  - Contractor shall determine the locations and number of concrete washout areas.
  - Vehicle tracking control is required if access to concrete washout area is off pavement.
  - Signs shall be placed at the construction entrance, at the washout area, and elsewhere as necessary to clearly indicate the location of the concrete washout area to operators of concrete trucks and pump rigs.
  - The concrete washout area shall be repaired and enlarged or cleaned out as necessary to maintain capacity for wasted concrete.
  - At the end of construction, all concrete shall be removed from the site and disposed of at an accepted waste site or may be broken up and used on the site for other appropriate uses. any remaining waste water shall be disposed of at a facility that accepts processed waste water.
  - When the concrete washout area is removed, the disturbed area shall be seeded and mulched or otherwise stabilized in an acceptable manner.

- GENERAL NOTES:**
- Install silt fence according to the requirements and at locations shown in the contract documents or as directed.
- Insert 12 in. of fabric a minimum of 6 in. deep (fabric may be folded below the ground line)
  - Compact ground by driving along each side of the silt fence as required to sufficiently secure the fabric in the trench to prevent pullout and flow under the fence.
  - In ditches, extend silt fence up side slope so the bottom elevation of the end of the fence is a minimum of 2 in. higher than the top of the fence in the low point of the ditch.
  - Steel posts to be embedded 20 in.
  - Secure top of engineering fabric to steel posts using wire or plastic ties (50 lb., min.). see details of "attachment to posts."

SILT FENCE SPACING	
SLOPE STEEPNESS	MAXIMUM SLOPE SPACING (FT.)
2:1	50
3:1	75
4:1	125
5:1	175
FLATTER THEN 5:1	200

SILT FENCE TO BE PLACED ON THE CONTOUR

**SILT FENCE DETAIL**  
NOT TO SCALE



- DIVERSION TYPES 1,2, AND 3 MAY BE USED INTERCHANGEABLY UNLESS OTHERWISE SPECIFIED
- THE CONTRACTOR SHALL DETERMINE IF TEMPORARY DIVERSION DITCH/BERM WILL BE NECESSARY BASED ON SITE CONDITIONS.

**TEMPORARY DIVERSION DETAIL**  
NOT TO SCALE

MARK	REVISION	DATE	BY
Engineer: BJJ	Checked By: EAH	Scale: 1" = NTS	
Technician: EAL	Date: 03-18-20	Field Bc:	
Project No:	1170725		Sheet 13 of 13

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
STORM WATER POLLUTION PREVENTION DETAILS  
BURKE COUNTY, NORTH DAKOTA

**SNYDER & ASSOCIATES, INC.**  
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712-322-3202 | www.snyder-associates.com



ISSUE DATE: 03-27-2020

## ROAD USE AND MAINTENANCE AGREEMENT

THIS ROAD USE AND MAINTENANCE AGREEMENT ("**Agreement**") is entered into as of this 7th day of May, 2019 ("**Effective Date**") by and between the Burke County, whose address for purposes of this Agreement is P.O. Box 310, Bowbells, North Dakota 58721 ("**County**") and Burke Wind, LLC, a Delaware limited liability company, whose address for purposes of this Agreement is 700 Universe Boulevard, Juno Beach, Florida 33408 ("**Wind Operator**").

### RECITALS

WHEREAS, Wind Operator is developing a commercial wind turbine electrical generation facility ("**Project**") on a site located in Burke County, North Dakota, with approximately seventy six (76) wind turbine generators and an expected total nameplate capacity of approximately 200 megawatts ("**MW**"); and

WHEREAS, Wind Operator intends to obtain the necessary approvals to build, operate and maintain the Project; and

WHEREAS, in connection with the construction, operation and maintenance of the Project, the Parties desire to address certain issues relating to the roads owned, operated and maintained by the County (collectively, the "**Roads**") over which it will be necessary for Wind Operator and Wind Operator's Representative(s) to, among other things: (i) transport heavy equipment and materials which may be in excess of local design limits of certain Roads, (ii) transport locally sourced materials, such as concrete and gravel, on the Roads; (iii) make specific modifications and improvements (both temporary and permanent) to the Roads (including various associated culverts, bridges, road shoulders and other fixtures) to permit such equipment and materials to pass; and (iv) place overhead and underground electrical and communication cables (collectively "**Cables**") for the Project adjacent to, along, under or across such Roads; and

WHEREAS, Wind Operator and the County wish to set forth their understanding and agreement relating to the use of Roads during the construction and operation of the Project; and

NOW, THEREFORE, in consideration of the mutual terms and conditions set forth in this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, the Parties agree as follows:

### TERMS AND CONDITIONS

1. Wind Operator will undertake the following activities in accordance with the terms of this Agreement:
  - a. Designate a company representative with authority to represent Wind Operator. As of the date of the Agreement, the company representative is **Clay Cameron, (561) 267-5044**.

b. At least sixty (60) days prior to beginning construction of the Project, provide the County with a preliminary site plan identifying turbine locations, site access points, and road crossings, to be attached as **Exhibit A**, along with the preliminary transportation route for the Project equipment attached as **Exhibit B**, subject to amendment;

c. Provide plans to the County for the widening of any corner radius necessary to facilitate the turning movements of the transport trucks used by Wind Operator during construction of the Project; make any necessary improvements; and at the conclusion of construction, remove any such improvements as the County directs and restore the affected property to its original condition;

d. Erect permanent markers indicating the presence of the Cables and install tape in any trench in which Wind Operator has placed or will place Cables in a County right-of-way. Any permanent markers in County Right of Way shall be approved prior to placement by the Burke County Road Supervisor. All Cables shall be buried at a minimum depth of forty-eight (48) inches below the road surface;

e. Notify the County Highway Superintendent in advance of all oversize transportation and crane crossings over, across or along any Road;

f. Transport or cause to be transported the tower segments and other oversize loads in a reasonable effort to minimize adverse impact on the local traffic;

g. Provide reasonable advance notice to the County when it is necessary for a Road to be closed due to a crane crossing or for any other reason relating to the construction of the Project. Notwithstanding the foregoing, Wind Operator will provide no less than twenty-four (24) hours notice when reasonably practicable and will provide all materials necessary to close the Road;

h. Provide signage of all road closures and work zones in compliance with the Manual on Uniform Traffic Control Devices and as may be required by the County;

i. Purchase and deliver applicable road materials for repairs to Roads that are damaged by Wind Operator and/or a Wind Operator Representative during the hauling of materials and/or construction of the Project and bear the reasonable costs to restore any Roads that are damaged by Wind Operator and/or an Wind Operator Representative during the hauling of materials and/or construction of the Project to the condition enjoyed immediately prior to such damage occurring, to the extent reasonably possible. When requested by the Burke County Road Supervisor, make repairs to the roadway during construction period in order to ensure the integrity of the roadway is maintained;

j. Cables may cross a road, in which case, these Cables will be bored under the road, buried at a minimum depth of forty-eight (48) inches below the road surface and the crossing shall be restored promptly to its pre-construction condition. All road crossings shall conform to Burke County Standards and bore permits shall be obtained prior to crossing any county road;

k. Shall comply with all load size and weight restrictions and regulations of Burke County.

2. The County, in accordance with the terms of this Agreement, agrees that it shall:

a. Within fifteen (15) days following the Effective Date of this Agreement, designate a County representative with authority to represent the County at **Kenny Tetrault, (701) 339-2455**;

b. Timely perform routine and regular maintenance of the Roads including: grading, snow removal, striping, routine signage, and regularly scheduled maintenance and repair;

c. Timely review and approve all Project-related access points and road crossings, which are submitted by Wind Operator in **Exhibit A and B**;

d. Timely review and approve plans for all Project-related utility encroachments on County rights-of way; which are submitted by Wind Operator in accordance with **Exhibit A and B**;

e. Authorize the designated County representative to agree on behalf of County to revisions to **Exhibit A and B** and the final location of Road crossings, access points, and utility encroachments as revisions are submitted to the County by or on behalf of Wind Operator.

3. Planning Inventory

a. Evaluation of Roads

1. Initial Evaluations. As soon as practicable after the execution of this Agreement, but in any event prior to the commencement of Project construction and before delivery of materials and equipment to the Project, Wind Operator shall, at its own expense, hire a mutually agreed upon third party qualified independent engineer (“**Qualified Engineer**”) to inspect and structurally assess all Roads and to provide a report (the “**Initial Evaluation**”). The Initial Evaluation shall include or address the following:

i. The Qualified Engineer shall determine if the Roads have the structural capacity to carry the loads generated by Wind Operator.

ii. If the Qualified Engineer determines that the Roads are insufficient to carry the loads generated by Wind Operator, the Qualified Engineer shall provide a recommendation to the Wind Operator and County as to how the Roads will be made sufficient. All cost associated with making the Roads sufficient for the Wind Operator shall be the responsibility of the Wind Operator.

2. Updates to Exhibit B. If Wind Operator submits an updated version of **Exhibit B** to County, County and Wind Operator shall perform an Initial Evaluation with respect to each additional Road that Wind Operator has included in **Exhibit B** as a Road. The costs of each Initial

Evaluation will be borne by Wind Operator. Additional evaluations shall be conducted only in the event the Parties mutually agree.

b. Road Inventory

1. Pre-Construction Inventory. No later than **June 1, 2019**, the Parties shall jointly perform a survey to record the condition of the pavement surface of the Roads which will be used in the transport of equipment to the Project. During this survey, the entire length of the roads shall be videotaped and if deemed necessary by the parties, photographs may also be taken. In addition, the County will provide Wind Operator, if available, with copies of any plans, cross-sections and specifications relevant to the existing Roads structure. Copies of all pre-construction documentation shall be provided to each of the Parties. Wind Operator will reimburse the County for all costs associated with the Pre-Construction Inventory.

2. Post-Construction Inventory

i. Upon completion of construction of each phase of the Project, representatives of the County and Wind Operator will perform a post-construction inventory, the methods of which shall be similar to those of the Pre-Construction Inventory described above. The two sets of pre and post-construction data will be compared and if there is any wheel lane rutting, cracking or other damage in excess of the original survey, the County and Wind Operator will determine the extent of the repairs or improvements needed to return the roads to a pre-construction condition. All costs associated with the Post-Construction Inventory shall be borne solely by Wind Operator.

ii. Wind Operator shall be obligated to make any or all repairs necessary to return the roads to a pre-construction condition, at its sole cost and expense. Within ten (10) calendar days following the completion of the Post-Construction Inventory, Wind Operator shall provide notice to the County identifying those repairs which Wind Operator agrees to undertake and the expected date by which such repairs shall be completed.

c. Routing and Access Approval. As soon as practical after execution of this Agreement and as necessary throughout the construction of the Project, Wind Operator and County shall meet to discuss routing for the transportation of equipment to the Project, Project-related access points, road crossings and Cable locations and the County shall review and approve the same in accordance with Section 2.

4. Mutual Indemnification/Hold Harmless and Liability Insurance Provisions.

a. Indemnity. Each Party (the "**Indemnifying Party**") agrees to indemnify, defend and hold harmless the other Party and such other Party's mortgagees, Lenders, officers, employees and agents (the "**Indemnified Party**") against any and all losses, direct or indirect damages (including consequential damages), claims, expenses, and other liabilities, including, without limitation, attorneys' fees, resulting from or arising out of (i) any negligent act or negligent failure to act on the part of the Indemnifying Party or anyone else engaged in doing work for the Indemnifying Party, or (ii) any breach of this Agreement by the Indemnifying Party. This

indemnification shall not apply to losses, damages, claims, expenses and other liabilities to the extent caused by any negligent or willful act or omission on the part of the Indemnified Party.

b. **Limitations of Liability.** In no event shall Wind Operator or any of its members, officers, directors or employees or the County or any of its Boards, officers or employees be liable (in contract or in tort, involving negligence, strict liability, or otherwise) to any other Party or their contractors, suppliers, employees, members and shareholders for indirect, incidental, consequential or punitive damages resulting from the performance, non-performance or delay in performance under this Agreement.

c. **Required Insurance.** Wind Operator shall upon commencement of construction of the Project and for the period of construction of the Project, maintain in full force and effect commercial general liability insurance, in the aggregate amount equal to Three Million Dollars (\$3,000,000). Wind Operator may utilize any combination of primary and/or excess insurance to satisfy this requirement and may satisfy this requirement under existing insurance policies for the Project.

5. **End of Project Life.** Should Wind Operator decide to substantially disassemble and/or abandon the Project and the result of such activity would require use of the Roads, Wind Operator agrees to return the Roads to the same or better condition than they were on the day the end of the Project began, with all costs associated to be borne solely by Wind Operator.

6. **Miscellaneous**

a. **Remedies and Enforcement.** The Parties acknowledge that money damages would not be an adequate remedy for any breach or threatened breach of this Agreement. Each of the parties hereto covenant and agree that in the event of default of any of the terms, provisions or conditions of this Agreement by any Party (the "**Defaulting Party**"), which default is not caused by the Party seeking to enforce said provisions (the "**Non-Defaulting Party**") and after notice and reasonable opportunity to cure has been provided to the Defaulting Party, then in such an event, the Non-Defaulting Party shall have the right to seek specific performance and/or injunctive relief to remedy or prevent any breach or threatened breach of this Agreement. The remedies of specific performance and/or injunctive relief shall be exclusive of any other remedy available at law or in equity.

b. **Due Authorization.** Wind Operator hereby represents and warrants that this Agreement has been duly authorized, executed and delivered on behalf of Wind Operator. The County hereby represents, and warrants that this Agreement has been duly authorized, executed and delivered on behalf of the County.

c. **Severability.** If any provision of this Agreement proves to be illegal, invalid, or unenforceable, the remainder of this Agreement will not be affected by such finding, and in lieu of each provision of this Agreement that is illegal, invalid, or unenforceable a provision shall be deemed added as may be possible to accurately reflect the intentions of the Parties and so as to make the unenforceable provision legal, valid, and enforceable.

d. Amendments. This Agreement constitutes the entire agreement and understanding of the parties and supersedes all offers, negotiations and other agreements. There are no representations or understandings of any kind not set forth herein. No amendment or modification to this Agreement or waiver of a Party's rights hereunder shall be binding unless it shall be in writing and signed by both Parties to this Agreement.

e. Notices. All notices shall be in writing and sent (including via facsimile transmission) to the Parties hereto at the addresses set forth in the Preamble (or to such other address as either such Party shall designate in writing to the other Party at any time).

f. This Agreement may not be assigned without the written consent of the Parties, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, Wind Operator may assign this Agreement to its affiliates and may collaterally assign this Agreement to any lender in support of the Project.

g. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the instrument. Delivery of an executed counterpart of a signature page to this Agreement by telecopy shall be as effective as delivery of an originally signed counterpart to this Agreement.

h. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of North Dakota, irrespective of any conflict of laws provisions. Both parties desire that the transactions contemplated hereby be effected and carried out in a manner that is in compliance with all laws.

i. Successor and Assigns. This Agreement shall inure to the benefit of and shall be binding upon the Parties hereto, their respective successors, assignees, and legal representatives.

j. If any Term of this Agreement is found to be void or invalid, such invalidity shall not affect the remaining Terms of this Agreement, which shall continue in full force and effect.

k. Failure of County or Wind Operator to insist on strict performance of any of the conditions or provisions of this Agreement, or to exercise any of their rights hereunder, shall not waive such rights.

l. Whenever in this Agreement the approval or consent of either County or Wind Operator is required or contemplated, unless otherwise specifically stated, such approval or consent shall not be made the subject of a demand for additional compensation, nor otherwise unreasonably conditioned, withheld or delayed.

m. In any litigation arising from or related to this Agreement, the parties hereto each hereby knowingly, voluntarily and intentionally waive the right each may have to a trial by jury with respect to any litigation based hereon, or arising out of, under or in connection with this Agreement.


IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in their respective names by their duly authorized officers.

**Wind Operator:**


Burke Wind, LLC  
a Delaware limited liability company

By:   
John Di Donato, Vice President


**County:**

By:   
Name: Allen L. Ryberg  
Title: Chairman

ATTEST:

By:   
Jeanine Jensen, Burke County Auditor

Approved as to Form:

By:   
Amber J. Fiesel  
Burke County State's Attorney

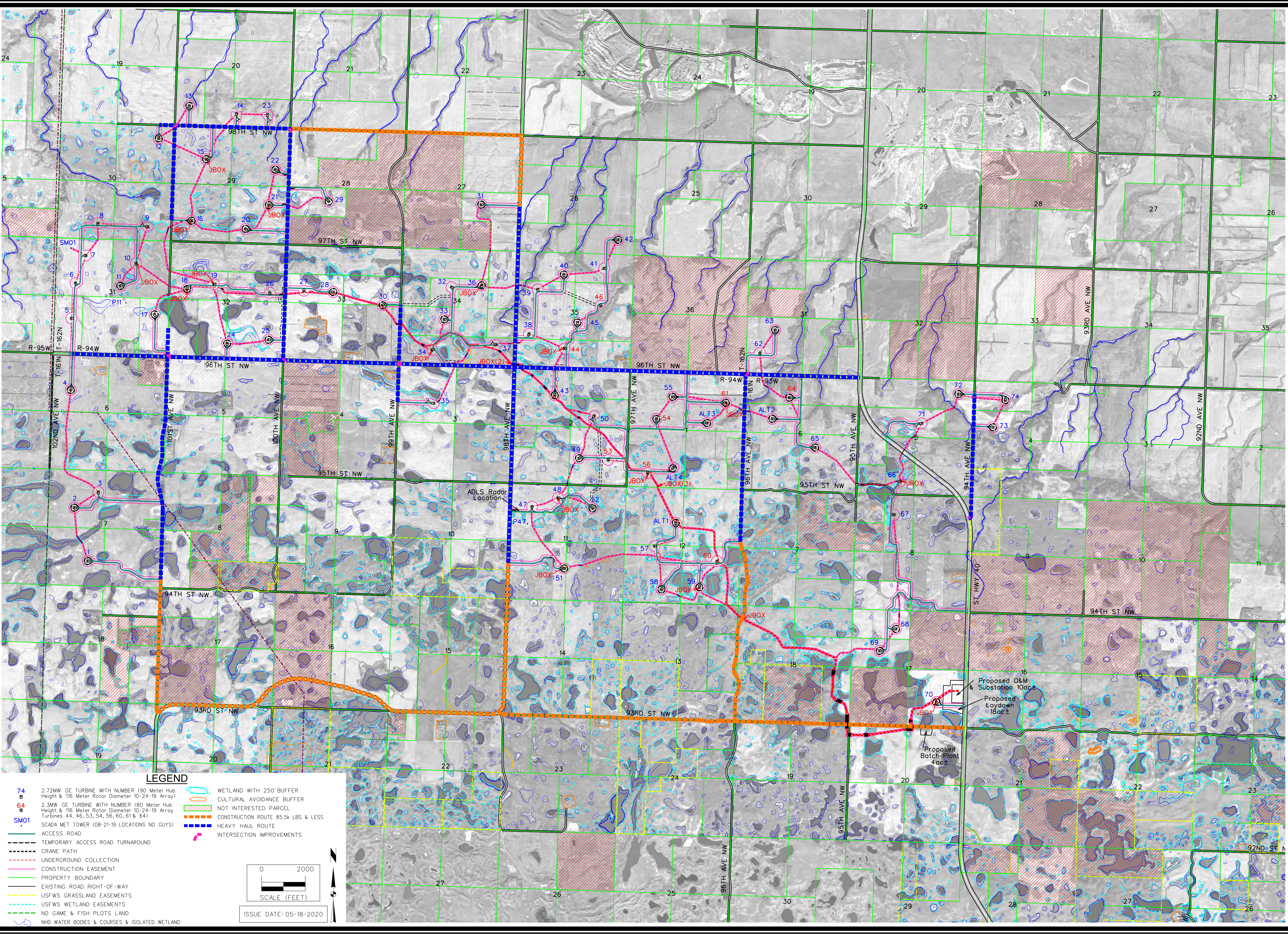
**EXHIBIT A**

**Preliminary Site Plan**

**EXHIBIT B**

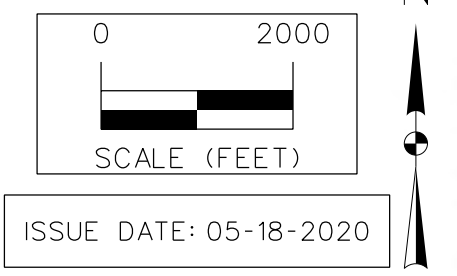
**Preliminary Transportation Route**

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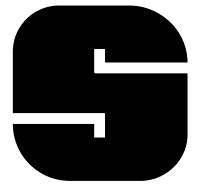


**LEGEND**

- |             |   |  |                                     |
|-------------|---|--|-------------------------------------|
| <b>74</b>   | 2.72MW GE TURBINE WITH NUMBER (90 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Array)   |  | WETLAND WITH 250' BUFFER            |
| <b>64</b>   | 2.3MW GE TURBINE WITH NUMBER (80 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Array Turbines 44, 46, 53, 54, 56, 60, 61 & 64) |  | CULTURAL AVOIDANCE BUFFER           |
| <b>SM01</b> | SCADA MET TOWER (08-21-19 LOCATIONS NO GUYS)  |  | NOT INTERESTED PARCEL               |
|             | ACCESS ROAD   |  | CONSTRUCTION ROUTE 85.5k LBS & LESS |
|             | TEMPORARY ACCESS ROAD TURNAROUND  |  | HEAVY HAUL ROUTE                    |
|             | CRANE PATH  |  | INTERSECTION IMPROVEMENTS           |
|             | UNDERGROUND COLLECTION  |  |                                     |
|             | CONSTRUCTION EASEMENT   |  |                                     |
|             | PROPERTY BOUNDARY   |  |                                     |
|             | EXISTING ROAD RIGHT-OF-WAY  |  |                                     |
|             | USFWS GRASSLAND EASEMENTS   |  |                                     |
|             | USFWS WETLAND EASEMENTS   |  |                                     |
|             | ND GAME & FISH PLOTS LAND   |  |                                     |
|             | NHD WATER BODIES & COURSES & ISOLATED WETLAND   |  |                                     |



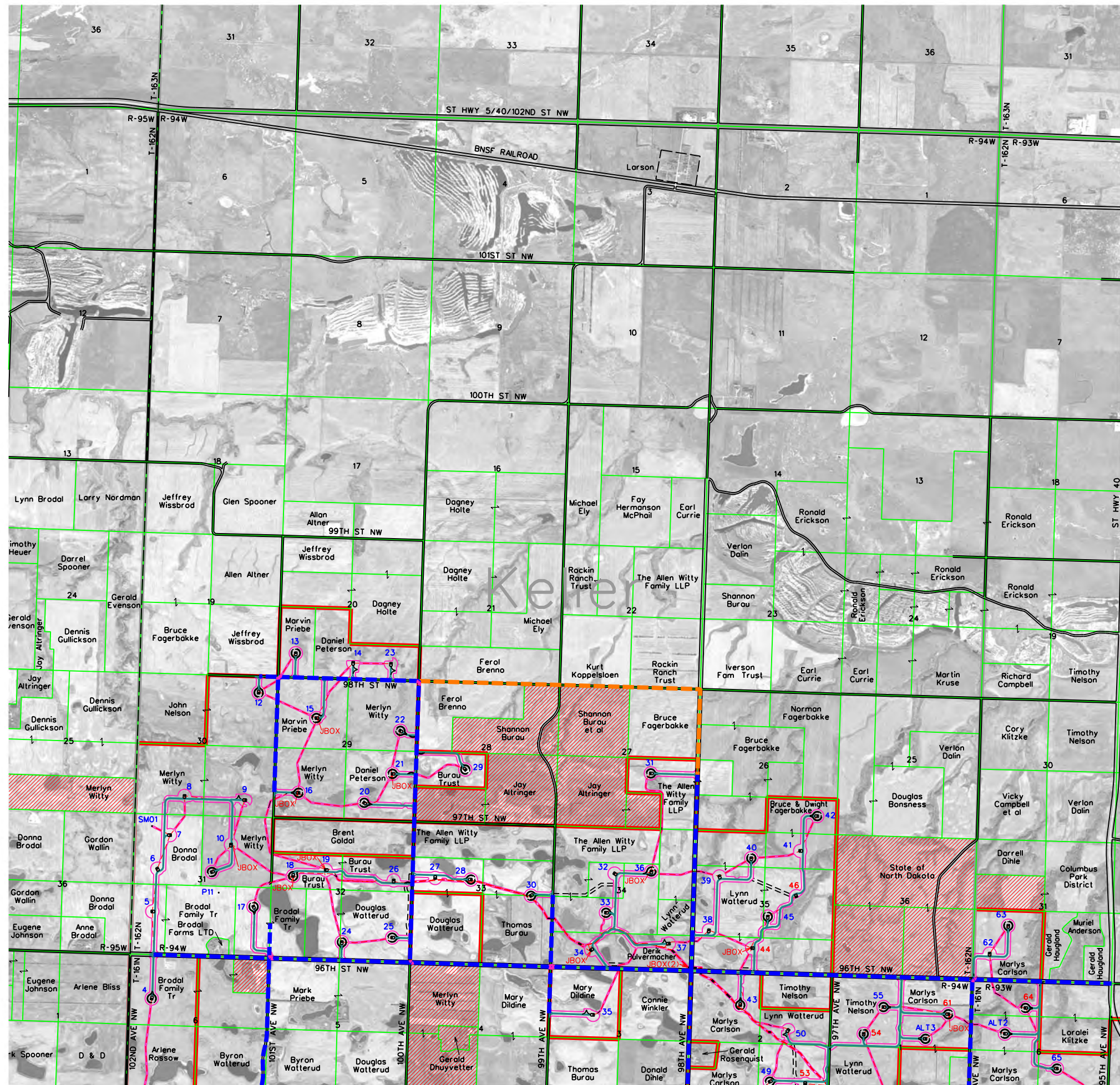
**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**HAUL ROUTE SITE PLAN**  
**BURKE COUNTY, NORTH DAKOTA**  
**SNYDER & ASSOCIATES, INC.**  
 1751 MADISON AVENUE  
 COUNCIL BLUFFS, IA 51503  
 712-322-3202 | www.snyder-associates.com



**SNYDER & ASSOCIATES**  
 Project No: 1170725  
 Sheet 1 of 1

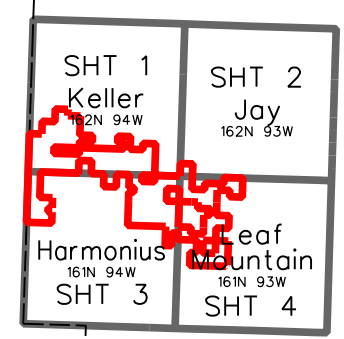
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Project No: 1170725			Sheet 1 of 1

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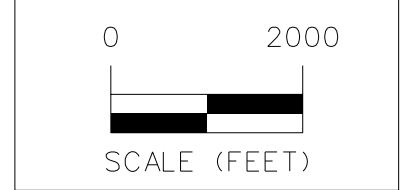
### LEGEND

- 74 2.72MW GE TURBINE WITH NUMBER (90 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Array)
- 64 2.3MW GE TURBINE WITH NUMBER (80 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Array Turbines 44, 46, 53, 54, 56, 60, 61 & 64)
- SM01 SCADA MET TOWER (08-21-19 LOCATIONS NO GUYS)
- ACCESS ROAD
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- CONSTRUCTION ROUTE 85.5k LBS & LESS
- HEAVY HAUL ROUTE
- INTERSECTION IMPROVEMENTS



Divide County  
Burke County  
Williams County

### SHEET INDEX



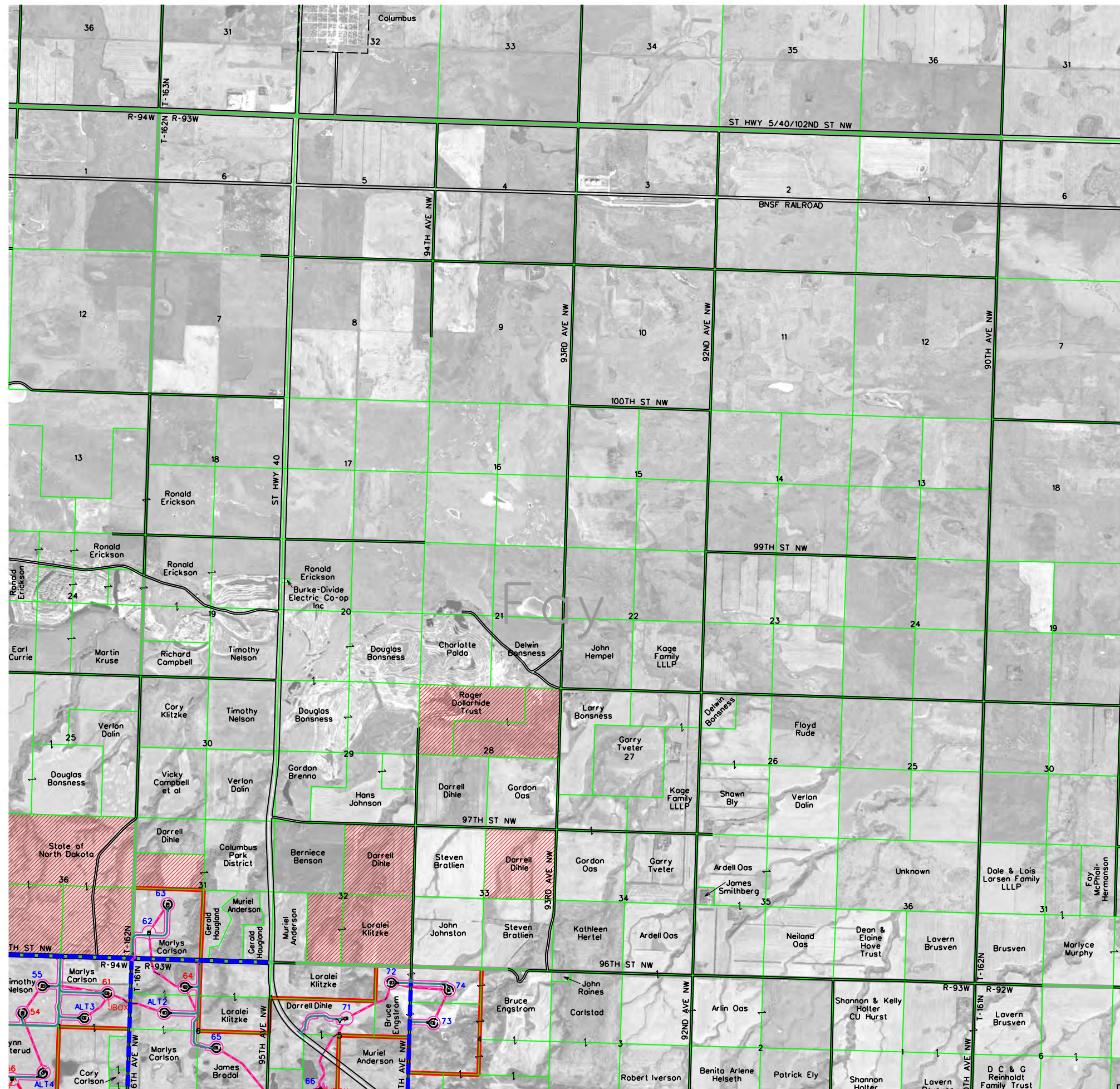
ISSUE DATE: 05-18-2020

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**RUA SITE PLAN - KELLER TWP 162N, RNG 94W**  
**SNYDER & ASSOCIATES, INC.**  
 BURKE COUNTY, NORTH DAKOTA  
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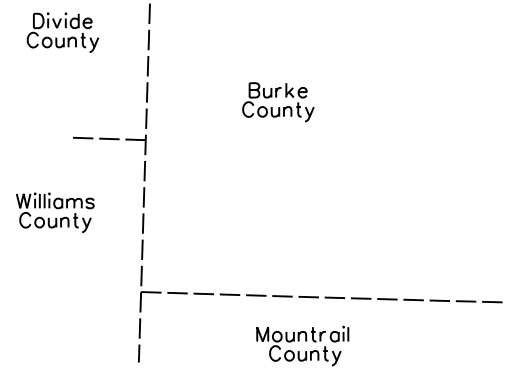
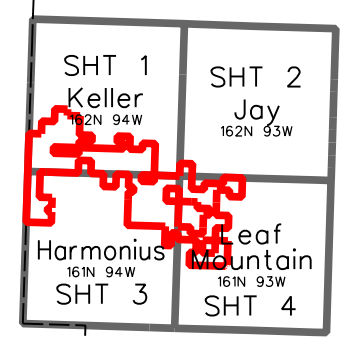
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Engineer: BJJ	Checked By: MGG	Scale: 1" = 2000'	Field Bc:
Technician: DW	Date: 05-01-20		Project No: 1170725

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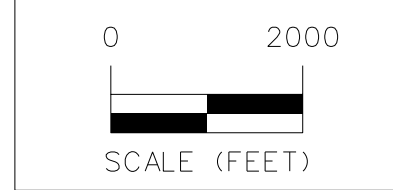


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- SM01 SCADA MET TOWER (08-21-19 LOCATIONS NO GUYS)
- ACCESS ROAD
- TEMPORARY ACCESS ROAD TURNAROUND
- CRANE PATH
- UNDERGROUND COLLECTION
- CONSTRUCTION EASEMENT
- PROPERTY BOUNDARY
- EXISTING ROAD RIGHT-OF-WAY
- NOT INTERESTED PARCEL
- PENDING PARCEL
- PROJECT BOUNDARY
- CONSTRUCTION ROUTE 85.5k LBS & LESS
- HEAVY HAUL ROUTE
- INTERSECTION IMPROVEMENTS



### SHEET INDEX



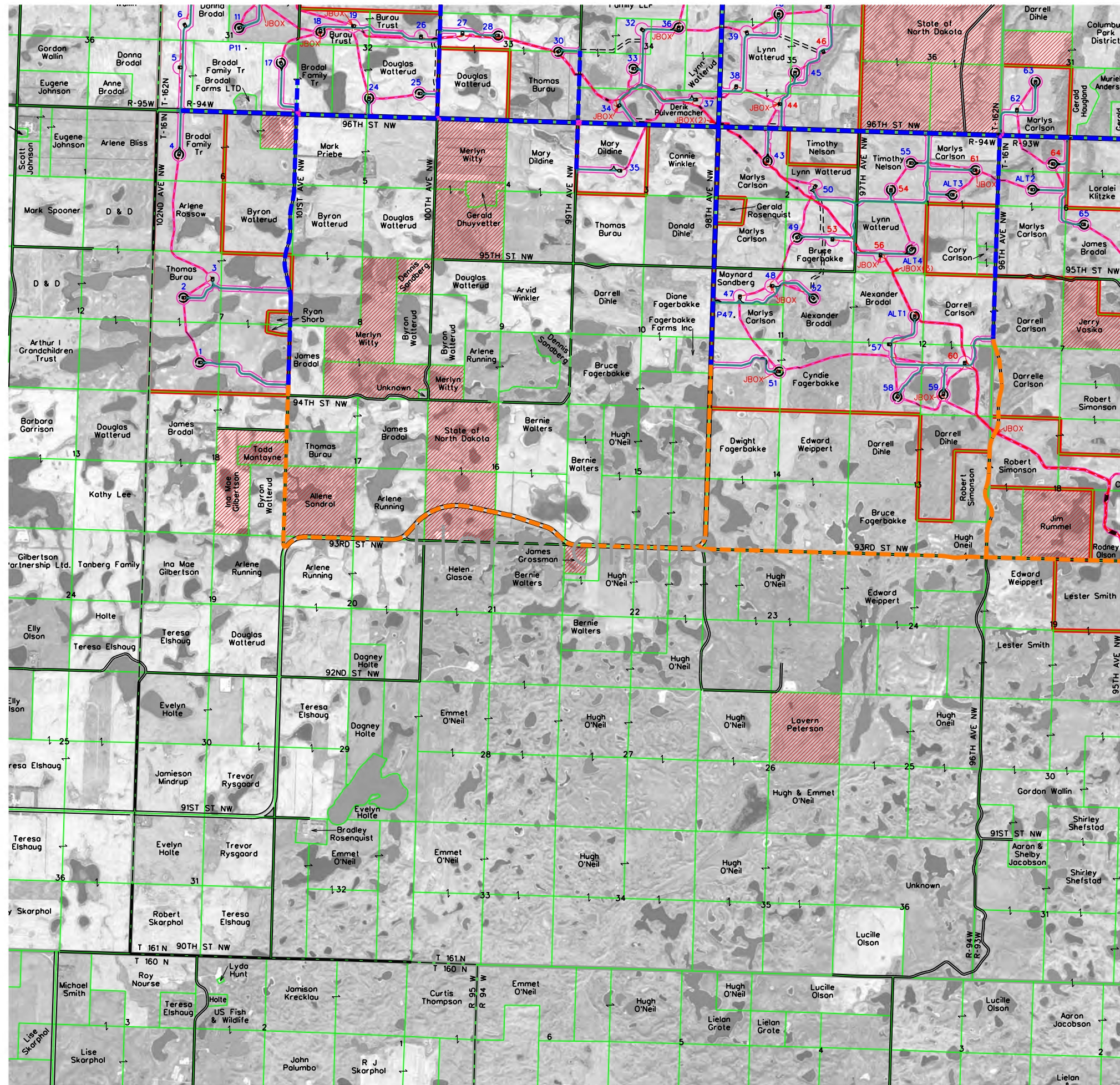
ISSUE DATE: 05-18-2020

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**RUA SITE PLAN - FAY TWP 162N, RNG 93W**  
**SNYDER & ASSOCIATES, INC.**  
 BURKE COUNTY, NORTH DAKOTA  
 1751 MADISON AVENUE  
 COUNCIL BLUFFS, IA 51503  
 712-322-3202 | www.snyder-associates.com



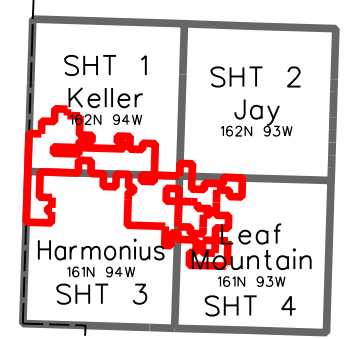
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Engineer: BJJ	Checked By: MGG	Scale: 1" = 2000'	Field Bk:
Technician: DW	Date: 05-01-20		Project No: 1170725

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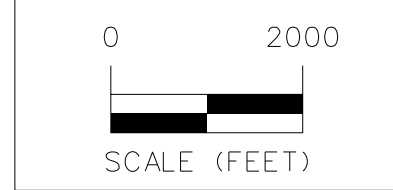


### LEGEND

- 74 2.72MW GE TURBINE WITH NUMBER (90 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Array)
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### SHEET INDEX



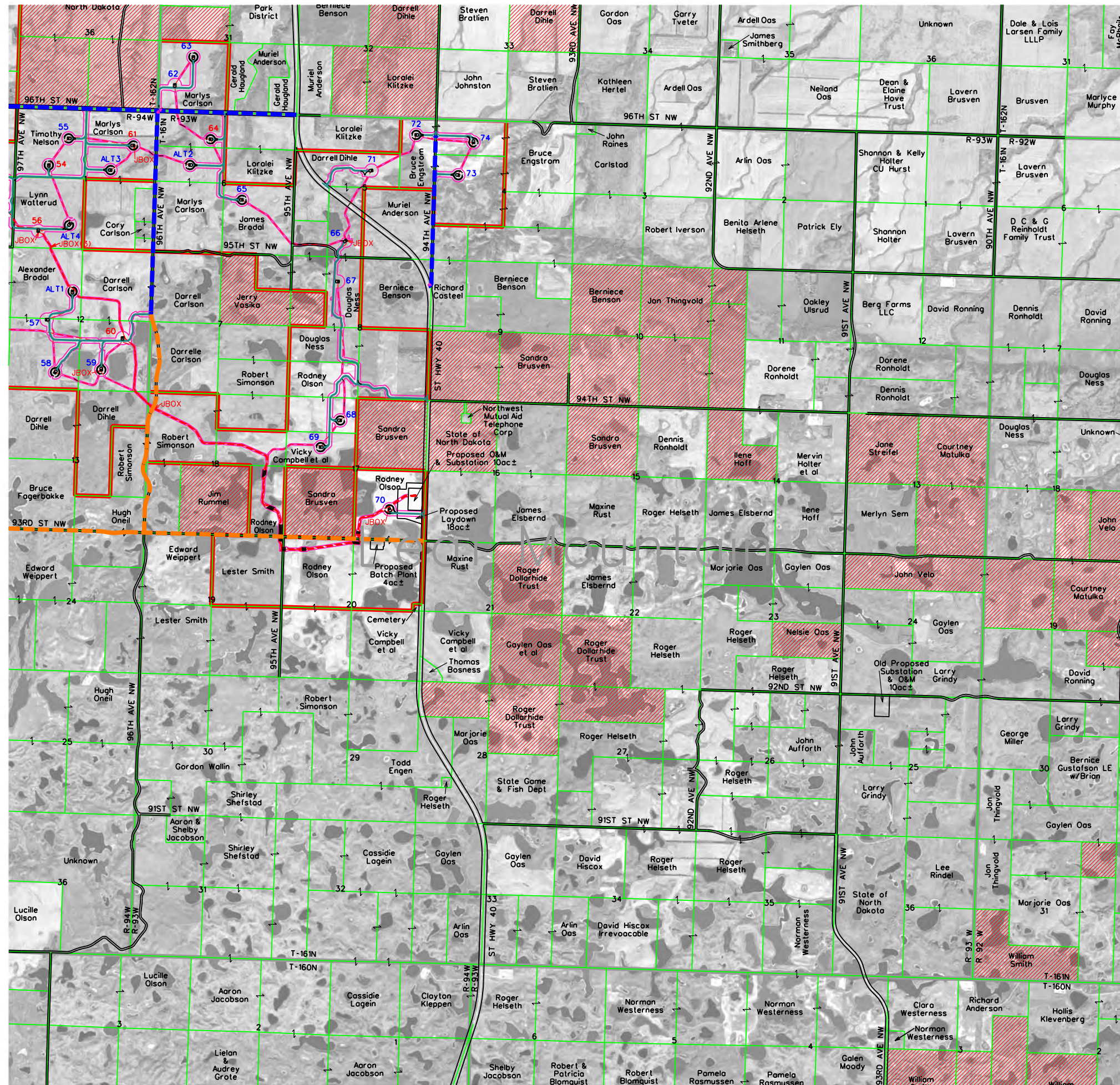
ISSUE DATE: 05-18-2020

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**RUA SITE PLAN - HARMONIUS TWP 161N, RNG 94W**  
**BURKE COUNTY, NORTH DAKOTA**  
**SNYDER & ASSOCIATES, INC.**  
 1751 MADISON AVENUE  
 COUNCIL BLUFFS, IA 51503  
 712-322-3202 | www.snyder-associates.com



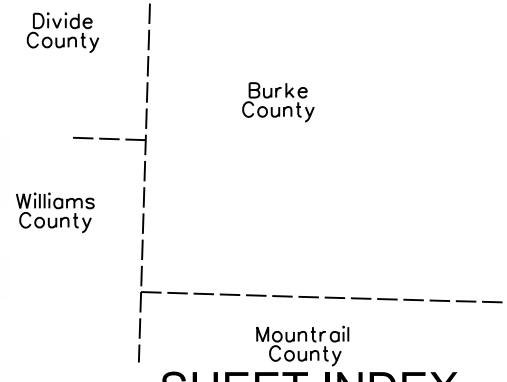
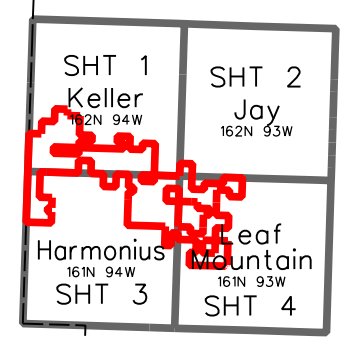
MARK	REVISION	DATE	BY
Engineer: BJJ	Checked By: MGG	Scale: 1" = 200'	Field Bk:
Technician: DW	Date: 05-01-20	Project No: 1170725	Sheet 3 of 4

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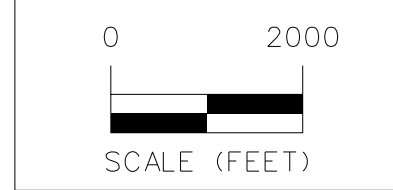


### LEGEND

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ISSUE DATE: 05-18-2020

**NEXTERA ENERGY - NORTHERN DIVIDE WIND**  
**RUA SITE PLAN - LEAF MOUNTAIN TWP 161N, RNG 93W BURKE COUNTY, NORTH DAKOTA**  
**SNYDER & ASSOCIATES, INC.**



Project No: 1170725  
Sheet 4 of 4

MARK	REVISION	DATE	BY
Engineer: BJJ	Checked By: MGG	Scale: 1" = 2000'	Field No:
Technician: DW	Date: 05-01-20		Project No: 1170725
			Sheet 4 of 4

## ROAD USE AND MAINTENANCE AGREEMENT

THIS ROAD USE AND MAINTENANCE AGREEMENT ("**Agreement**") is entered into as of this 10 day of June, 2020 ("**Effective Date**") by and between Keller Township, whose address for purposes of notice is 9707 Co Road 6, Columbus, ND 58727 ("**Township**"), and Northern Divide Wind, LLC, a Delaware limited liability company, whose address for purposes of notice is 700 Universe Boulevard, Juno Beach, Florida 33408 ("**Wind Operator**").

### RECITALS

WHEREAS, Wind Operator is developing a commercial wind turbine electrical generation facility ("**Project**") on a site located in Burke County, North Dakota, with approximately 74 wind turbine generators and an expected total nameplate capacity of approximately 200 megawatts ("**MW**"); and

WHEREAS, Wind Operator intends to obtain the necessary approvals to build, operate and maintain the Project; and

WHEREAS, in connection with the construction, operation and maintenance of the Project, the Parties desire to address certain issues relating to the roads owned, operated and maintained by Township (collectively, the "**Roads**"), over which it will be necessary for Wind Operator and Wind Operator's Representative(s) to, among other things: (i) transport heavy equipment and materials which may be in excess of local design limits of certain Roads, (ii) transport locally sourced materials, such as concrete and gravel, on the Roads; (iii) make specific modifications and improvements (both temporary and permanent) to the Roads (including various associated culverts, bridges, road shoulders and other fixtures) to permit such equipment and materials to pass; and (iv) place overhead and underground electrical and communication cables (collectively "**Cables**") for the Project adjacent to, along, under or across such Roads; and

WHEREAS, Wind Operator and Township wish to set forth their understanding and agreement relating to the use of Roads during the construction and operation of the Project; and

NOW, THEREFORE, in consideration of the mutual terms and conditions set forth in this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, the Parties agree as follows:

### TERMS AND CONDITIONS

1. Wind Operator will undertake the following activities in accordance with the terms of this Agreement:

a. Designate a company representative with authority to represent Wind Operator. As of the date of the Agreement, the company representative is Clay Cameron at 561-267-5044.

b. At least sixty (60) days prior to beginning construction of the Project, provide Township with a preliminary site plan identifying site access points and road crossings, to be attached as **Exhibit A**, along with the preliminary transportation route for the Project equipment attached as **Exhibit B**, subject to amendment;

c. Provide plans to Township for the widening of any corner radius necessary to facilitate the turning movements of the transport trucks used by Wind Operator during construction of the Project; make any necessary improvements; and at the conclusion of construction, remove any such improvements and restore the affected property to its original condition. Notwithstanding, to the extent agreed to by the affected landowner(s) and Township, the corner turning radii and associated improvements shall be left in place and not removed by Wind Operator;

d. Erect permanent markers indicating the presence of the Cables and install tape in any trench in which Wind Operator has placed or will place Cables in a Township right-of-way. All Cables shall be buried at a minimum depth of forty-eight (48) inches below the road surface. The determination of whether to bore or trench such Cables across section lines and roads will be made by the Qualified Engineer in consultation with the Township during the Evaluation of Roads in Section 3(a) below.

e. Notify Township Commissioners in advance of all oversize transportation and crane crossings over, across or along any Road;

f. Transport or cause to be transported the tower segments and other oversize loads in a reasonable effort to minimize adverse impact on the local traffic;

g. Provide reasonable advance notice to Township when it is necessary for a Road to be closed due to a crane crossing or for any other reason relating to the construction of the Project. Notwithstanding the foregoing, Wind Operator will provide no less than twenty-four (24) hours' notice when reasonably practicable and will provide all materials necessary to close the Road;

h. Provide signage of all road closures and work zones in compliance with the Manual on Uniform Traffic Control Devices and as may be required by Township;

i. Purchase and deliver applicable road materials for repairs to Roads that are damaged by Wind Operator and/or a Wind Operator Representative during the hauling of materials and/or construction of the Project and bear the reasonable costs to restore any Roads that are damaged by Wind Operator and/or an Wind Operator Representative during the hauling of materials and/or construction of the Project to the condition enjoyed immediately prior to such damage occurring, to the extent reasonably possible;

j. Wind Operator may bore a Cable crossing under improved asphalt and rock roads, to a minimum depth of forty-eight (48) inches below the road surface, subject to a road crossing permit and after approval of the Qualified Engineer in consultation with the Township shall determine during the Evaluation of Roads in Section 3(a) below;

2. Township, in accordance with the terms of this Agreement, agrees that it shall:

a. Designate a Township representative with authority to represent Township. As of the date of the Agreement, Township representative is \_\_\_\_\_  
\_\_\_\_\_ at (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_.

b. Timely perform routine and regular maintenance of the Roads including: grading, snow removal, striping, routine signage, and regularly scheduled maintenance and repair. During construction, Township Roads that are minimum maintenance or no maintenance will be Wind Operator's sole responsibility for any and all repairs, upgrades, or maintenance, including snow removal. After construction, Wind Operator will be responsible for snow removal for their access purposes and damage caused by Wind Operator to Township Roads that are minimum maintenance or no maintenance

c. Timely review and approve all Project-related access points and road crossings, which are submitted by Wind Operator in **Exhibit A and B**;

d. Timely review and approve plans for all Project-related utility encroachments on Township rights-of way; which are submitted by Wind Operator in accordance with **Exhibit A and B**;

e. Authorize the designated Township representative to agree on behalf of Township to revisions to **Exhibit A and B** and the final location of Road crossings, access points, and utility encroachments as revisions are submitted to Township by or on behalf of Wind Operator.

3. Planning Inventory

a. Evaluation of Roads

1. Initial Evaluations. As soon as practicable after the execution of this Agreement, but in any event prior to the commencement of Project construction and before delivery of materials and equipment to the Project, Wind Operator shall, at its own expense, hire a mutually agreed upon third party qualified independent engineer ("**Qualified Engineer**") to inspect and structurally assess all Roads and to provide a report (the "**Initial Evaluation**"). The Initial Evaluation shall include or address the following:

i. The Qualified Engineer shall determine if the Roads have the structural capacity to carry the loads generated by Wind Operator.

ii. If the Qualified Engineer determines that the Roads are insufficient to carry the loads generated by Wind Operator, the Qualified Engineer shall provide a recommendation to the Wind Operator and Township as to how the Roads will be made sufficient. All cost associated with making the Roads sufficient for the Wind Operator shall be the responsibility of the Wind Operator.

2. Updates to Exhibit B. If Wind Operator submits an updated version of **Exhibit B** to Township, Township and Wind Operator shall perform an Initial Evaluation with respect to each additional Road that Wind Operator has included in **Exhibit B** as a Road. The costs of each Initial Evaluation will be borne by Wind Operator. Additional evaluations shall be conducted only in the event the Parties mutually agree.

b. Road Inventory

1. Pre-Construction Inventory. No later than July 30, 2020, the Parties shall jointly perform a survey to record the condition of the pavement surface of the Roads which will be used in the transport of equipment to the Project. During this survey, the entire length of the roads shall be videotaped and if deemed necessary by the parties, photographs may also be taken. In addition, Township will provide Wind Operator, if available, with copies of any plans, cross-sections and specifications relevant to the existing Roads structure. Copies of all pre-construction documentation shall be provided to each of the Parties. Wind Operator will reimburse Township for all costs associated with the Pre-Construction Inventory.

2. Post-Construction Inventory

i. Upon completion of construction of the Project, the Qualified Engineer will perform a post-construction inventory, the methods of which shall be the same as those of the Pre-Construction Inventory described above to maintain a consistent comparison of pre and post construction conditions. The two sets of pre and post-construction data will be compared and if there is any wheel lane rutting, cracking or other damage in excess of the original survey, Township and Wind Operator will mutually agree to the extent of the repairs or improvements needed to return the roads to a pre-construction (or better) condition. All costs associated with the Post-Construction Inventory shall be borne solely by Wind Operator.

ii. Wind Operator shall be obligated to make any or all repairs necessary to return the roads to a pre-construction (or better) condition, at its sole cost and expense as documented in the comparison of the Pre-Construction Inventory and Post-Construction Inventory, but excluding repair caused by Township's negligence or intentional misconduct. In the event the Parties are unable to agree upon the required repairs needed to return the roads to pre-construction condition, the Parties agree that the Qualified Engineer will determine the repairs required. Within ten (10) calendar days following the completion of the Post-Construction Inventory, Wind Operator shall provide notice to Township identifying those repairs which Wind Operator agrees to undertake and the expected date by which such repairs shall be completed.

c. Routing and Access Approval. As soon as practical after execution of this Agreement and as necessary throughout the construction of the Project, Wind Operator and Township shall meet to discuss routing for the transportation of equipment to the Project, Project-related access points, road crossings and Cable locations and Township shall review and approve the same in accordance with Section 2.

4. Mutual Indemnification/Hold Harmless and Liability Insurance Provisions.

a. **Indemnity.** Each Party (the "**Indemnifying Party**") agrees to indemnify, defend and hold harmless the other Party and such other Party's mortgagees, Lenders, officers, employees and agents (the "**Indemnified Party**") against any and all losses, direct or indirect damages (including consequential damages), claims, expenses, and other liabilities, including, without limitation, attorneys' fees, resulting from or arising out of (i) any negligent act or negligent failure to act on the part of the Indemnifying Party or anyone else engaged in doing work for the Indemnifying Party, or (ii) any breach of this Agreement by the Indemnifying Party. This indemnification shall not apply to losses, damages, claims, expenses and other liabilities to the extent caused by any negligent or willful act or omission on the part of the Indemnified Party.

b. **Limitations of Liability.** In no event shall Wind Operator or any of its members, officers, directors or employees or Township or any of its Boards, officers or employees be liable (in contract or in tort, involving negligence, strict liability, or otherwise) to any other Party or their contractors, suppliers, employees, members and shareholders for indirect, incidental, consequential or punitive damages resulting from the performance, non-performance or delay in performance under this Agreement.

c. **Required Insurance.** Wind Operator shall upon commencement of construction of the Project and for the period of construction of the Project, maintain in full force and effect commercial general liability insurance, in the aggregate amount equal to Three Million Dollars (\$3,000,000). Wind Operator may utilize any combination of primary and/or excess insurance to satisfy this requirement and may satisfy this requirement under existing insurance policies for the Project.

5. **End of Project Life.** Should Wind Operator decide to substantially disassemble and/or abandon the Project and the result of such activity would require use of the Roads, Wind Operator agrees to return the Roads to the same or better condition than they were on the day the end of the Project began, with all costs associated to be borne solely by Wind Operator.

6. **Miscellaneous**

a. **Remedies and Enforcement.** The Parties acknowledge that money damages would not be an adequate remedy for any breach or threatened breach of this Agreement. Each of the parties hereto covenant and agree that in the event of default of any of the terms, provisions or conditions of this Agreement by any Party (the "**Defaulting Party**"), which default is not caused by the Party seeking to enforce said provisions (the "**Non-Defaulting Party**") and after notice and reasonable opportunity to cure has been provided to the Defaulting Party, then in such an event, the Non-Defaulting Party shall have the right to seek specific performance and/or injunctive relief to remedy or prevent any breach or threatened breach of this Agreement. The remedies of specific performance and/or injunctive relief shall be exclusive of any other remedy available at law or in equity.

b. **Due Authorization.** Wind Operator hereby represents and warrants that this Agreement has been duly authorized, executed and delivered on behalf of Wind Operator.

Township hereby represents, and warrants that this Agreement has been duly authorized, executed and delivered on behalf of Township.

c. Severability. If any provision of this Agreement proves to be illegal, invalid, or unenforceable, the remainder of this Agreement will not be affected by such finding, and in lieu of each provision of this Agreement that is illegal, invalid, or unenforceable a provision shall be deemed added as may be possible to accurately reflect the intentions of the Parties and so as to make the unenforceable provision legal, valid, and enforceable.

d. Amendments. This Agreement constitutes the entire agreement and understanding of the parties and supersedes all offers, negotiations and other agreements. There are no representations or understandings of any kind not set forth herein. No amendment or modification to this Agreement or waiver of a Party's rights hereunder shall be binding unless it shall be in writing and signed by both Parties to this Agreement.

e. Notices. All notices shall be in writing and sent (including via facsimile transmission) to the Parties hereto at the addresses set forth in the Preamble (or to such other address as either such Party shall designate in writing to the other Party at any time).

f. This Agreement may not be assigned without the written consent of the Parties, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, Wind Operator may assign this Agreement to its affiliates and may collaterally assign this Agreement to any lender in support of the Project.

g. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the instrument. Delivery of an executed counterpart of a signature page to this Agreement by telecopy shall be as effective as delivery of an originally signed counterpart to this Agreement.

h. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of North Dakota, irrespective of any conflict of laws provisions. Both parties desire that the transactions contemplated hereby be effected and carried out in a manner that is in compliance with all laws.

i. Successor and Assigns. This Agreement shall inure to the benefit of and shall be binding upon the Parties hereto, their respective successors, assignees, and legal representatives.

j. If any Term of this Agreement is found to be void or invalid, such invalidity shall not affect the remaining Terms of this Agreement, which shall continue in full force and effect.

k. Failure of Township or Wind Operator to insist on strict performance of any of the conditions or provisions of this Agreement, or to exercise any of their rights hereunder, shall not waive such rights.

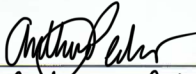
1. Whenever in this Agreement the approval or consent of either Township or Wind Operator is required or contemplated, unless otherwise specifically stated, such approval or consent shall not be made the subject of a demand for additional compensation, nor otherwise unreasonably conditioned, withheld or delayed.

*[remainder of page intentionally left blank]  
signatures begin on following page*

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in their respective names by their duly authorized officers.

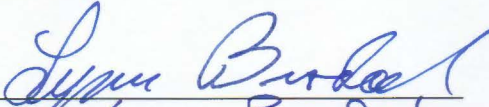
**Wind Operator:**

Northern Divide Wind, LLC,  
a Delaware limited liability company

By:   
Name: Anthony Pedroni  
Title: Vice President

**Township:**

Keller Township

By:   
Name: Lynn Brodal  
Title: Chair man

**EXHIBIT A**

**Preliminary Site Plan**

**EXHIBIT B**

**Preliminary Transportation Route – Roads to be Utilized by Project**





## ROAD USE AND MAINTENANCE AGREEMENT

THIS ROAD USE AND MAINTENANCE AGREEMENT ("**Agreement**") is entered into as of this 13 day of May, 2019 ("**Effective Date**") by and between Harmontous ("**Township**"), and Burke Wind, LLC, a Delaware limited liability company, whose address for purposes of notice is 700 Universe Boulevard, Juno Beach, Florida 33408 ("**Wind Operator**").

### RECITALS

WHEREAS, Wind Operator is developing a commercial wind turbine electrical generation facility ("**Project**") on a site located in Burke County, North Dakota, with approximately 76 wind turbine generators and an expected total nameplate capacity of approximately 200 megawatts ("**MW**"); and

WHEREAS, Wind Operator intends to obtain the necessary approvals to build, operate and maintain the Project; and

WHEREAS, in connection with the construction, operation and maintenance of the Project, the Parties desire to address certain issues relating to the roads owned, operated and maintained by Township (collectively, the "**Roads**"), over which it will be necessary for Wind Operator and Wind Operator's Representative(s) to, among other things: (i) transport heavy equipment and materials which may be in excess of local design limits of certain Roads, (ii) transport locally sourced materials, such as concrete and gravel, on the Roads; (iii) make specific modifications and improvements (both temporary and permanent) to the Roads (including various associated culverts, bridges, road shoulders and other fixtures) to permit such equipment and materials to pass; and (iv) place overhead and underground electrical and communication cables (collectively "**Cables**") for the Project adjacent to, along, under or across such Roads; and

WHEREAS, Wind Operator and Township wish to set forth their understanding and agreement relating to the use of Roads during the construction and operation of the Project; and

NOW, THEREFORE, in consideration of the mutual terms and conditions set forth in this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, the Parties agree as follows:

### TERMS AND CONDITIONS

1. Wind Operator will undertake the following activities in accordance with the terms of this Agreement:
  - a. Designate a company representative with authority to represent Wind Operator. As of the date of the Agreement, the company representative is Clay Cameron at 561-267-5044.

b. At least sixty (60) days prior to beginning construction of the Project, provide Township with a preliminary site plan identifying site access points and road crossings, to be attached as **Exhibit A**, along with the preliminary transportation route for the Project equipment attached as **Exhibit B**, subject to amendment;

c. Provide plans to Township for the widening of any corner radius necessary to facilitate the turning movements of the transport trucks used by Wind Operator during construction of the Project; make any necessary improvements; and at the conclusion of construction, remove any such improvements and restore the affected property to its original condition. Notwithstanding, to the extent agreed to by the affected landowner(s) and Township, the corner turning radii and associated improvements shall be left in place and not removed by Wind Operator;

d. Erect permanent markers indicating the presence of the Cables and install tape in any trench in which Wind Operator has placed or will place Cables in a Township right-of-way. All Cables shall be buried at a minimum depth of forty-eight (48) inches below the road surface. The determination of whether ~~or not~~ to bore or trench such Cables across section lines and roads will be made by the Qualified Engineer in consultation with the Township during the Evaluation of Roads in Section 3(a) below.

e. Notify Township Commissioners in advance of all oversize transportation and crane crossings over, across or along any Road;

f. Transport or cause to be transported the tower segments and other oversize loads in a reasonable effort to minimize adverse impact on the local traffic;

g. Provide reasonable advance notice to Township when it is necessary for a Road to be closed due to a crane crossing or for any other reason relating to the construction of the Project. Notwithstanding the foregoing, Wind Operator will provide no less than twenty-four (24) hours' notice when reasonably practicable and will provide all materials necessary to close the Road;

h. Provide signage of all road closures and work zones in compliance with the Manual on Uniform Traffic Control Devices and as may be required by Township;

i. Purchase and deliver applicable road materials for repairs to Roads that are damaged by Wind Operator and/or a Wind Operator Representative during the hauling of materials and/or construction of the Project and bear the reasonable costs to restore any Roads that are damaged by Wind Operator and/or an Wind Operator Representative during the hauling of materials and/or construction of the Project to the condition enjoyed immediately prior to such damage occurring, to the extent reasonably possible;

j. Wind Operator may bore a Cable crossing under improved asphalt and rock roads, to a minimum depth of forty-eight (48) inches below the road surface, subject to a road crossing permit and after approval of the Qualified Engineer in consultation with the Township shall determine during the Evaluation of Roads in Section 3(a) below;

2. Township, in accordance with the terms of this Agreement, agrees that it shall:

a. Designate a Township representative with authority to represent Township. As of the date of the Agreement, Township representative is Emmet O'Neil  
at ( 701 ) 939 - 4881.

b. Timely perform routine and regular maintenance of the Roads including: grading, snow removal, striping, routine signage, and regularly scheduled maintenance and repair. During construction, Township Roads that are minimum maintenance or no maintenance will be Wind Operator's sole responsibility for any and all repairs, upgrades, or maintenance, including snow removal. After construction, Wind Operator will be responsible for snow removal for their access purposes and damage caused by Wind Operator to Township Roads that are minimum maintenance or no maintenance

c. Timely review and approve all Project-related access points and road crossings, which are submitted by Wind Operator in **Exhibit A and B**;

d. Timely review and approve plans for all Project-related utility encroachments on Township rights-of way; which are submitted by Wind Operator in accordance with **Exhibit A and B**;

e. Authorize the designated Township representative to agree on behalf of Township to revisions to **Exhibit A and B** and the final location of Road crossings, access points, and utility encroachments as revisions are submitted to Township by or on behalf of Wind Operator.

3. Planning Inventory

a. Evaluation of Roads

1. Initial Evaluations. As soon as practicable after the execution of this Agreement, but in any event prior to the commencement of Project construction and before delivery of materials and equipment to the Project, Wind Operator shall, at its own expense, hire a mutually agreed upon third party qualified independent engineer ("**Qualified Engineer**") to inspect and structurally assess all Roads and to provide a report (the "**Initial Evaluation**"). The Initial Evaluation shall include or address the following:

i. The Qualified Engineer shall determine if the Roads have the structural capacity to carry the loads generated by Wind Operator.

ii. If the Qualified Engineer determines that the Roads are insufficient to carry the loads generated by Wind Operator, the Qualified Engineer shall provide a recommendation to the Wind Operator and Township as to how the Roads will be made sufficient. All cost associated with making the Roads sufficient for the Wind Operator shall be the responsibility of the Wind Operator.

2. Updates to Exhibit B. If Wind Operator submits an updated version of **Exhibit B** to Township, Township and Wind Operator shall perform an Initial Evaluation with respect to each additional Road that Wind Operator has included in **Exhibit B** as a Road. The costs of each Initial Evaluation will be borne by Wind Operator. Additional evaluations shall be conducted only in the event the Parties mutually agree.

b. Road Inventory

1. Pre-Construction Inventory. No later than May 1, 2019, the Parties shall jointly perform a survey to record the condition of the pavement surface of the Roads which will be used in the transport of equipment to the Project. During this survey, the entire length of the roads shall be videotaped and if deemed necessary by the parties, photographs may also be taken. In addition, Township will provide Wind Operator, if available, with copies of any plans, cross-sections and specifications relevant to the existing Roads structure. Copies of all pre-construction documentation shall be provided to each of the Parties. Wind Operator will reimburse Township for all costs associated with the Pre-Construction Inventory.

2. Post-Construction Inventory

i. Upon completion of construction of the Project, the Qualified Engineer will perform a post-construction inventory, the methods of which shall be the same as those of the Pre-Construction Inventory described above to maintain a consistent comparison of pre and post construction conditions. The two sets of pre and post-construction data will be compared and if there is any wheel lane rutting, cracking or other damage in excess of the original survey, Township and Wind Operator will mutually agree to the extent of the repairs or improvements needed to return the roads to a pre-construction (or better) condition. All costs associated with the Post-Construction Inventory shall be borne solely by Wind Operator.

ii. Wind Operator shall be obligated to make any or all repairs necessary to return the roads to a pre-construction (or better) condition, at its sole cost and expense as documented in the comparison of the Pre-Construction Inventory and Post-Construction Inventory, but excluding repair caused by Township's negligence or intentional misconduct. In the event the Parties are unable to agree upon the required repairs needed to return the roads to pre-construction condition, the Parties agree that the Qualified Engineer will determine the repairs required. Within ten (10) calendar days following the completion of the Post-Construction Inventory, Wind Operator shall provide notice to Township identifying those repairs which Wind Operator agrees to undertake and the expected date by which such repairs shall be completed.

c. Routing and Access Approval. As soon as practical after execution of this Agreement and as necessary throughout the construction of the Project, Wind Operator and Township shall meet to discuss routing for the transportation of equipment to the Project, Project-related access points, road crossings and Cable locations and Township shall review and approve the same in accordance with Section 2.

4. Mutual Indemnification/Hold Harmless and Liability Insurance Provisions.

a. **Indemnity.** Each Party (the "**Indemnifying Party**") agrees to indemnify, defend and hold harmless the other Party and such other Party's mortgagees, Lenders, officers, employees and agents (the "**Indemnified Party**") against any and all losses, direct or indirect damages (including consequential damages), claims, expenses, and other liabilities, including, without limitation, attorneys' fees, resulting from or arising out of (i) any negligent act or negligent failure to act on the part of the Indemnifying Party or anyone else engaged in doing work for the Indemnifying Party, or (ii) any breach of this Agreement by the Indemnifying Party. This indemnification shall not apply to losses, damages, claims, expenses and other liabilities to the extent caused by any negligent or willful act or omission on the part of the Indemnified Party.

b. **Limitations of Liability.** In no event shall Wind Operator or any of its members, officers, directors or employees or Township or any of its Boards, officers or employees be liable (in contract or in tort, involving negligence, strict liability, or otherwise) to any other Party or their contractors, suppliers, employees, members and shareholders for indirect, incidental, consequential or punitive damages resulting from the performance, non-performance or delay in performance under this Agreement.

c. **Required Insurance.** Wind Operator shall upon commencement of construction of the Project and for the period of construction of the Project, maintain in full force and effect commercial general liability insurance, in the aggregate amount equal to Three Million Dollars (\$3,000,000). Wind Operator may utilize any combination of primary and/or excess insurance to satisfy this requirement and may satisfy this requirement under existing insurance policies for the Project.

5. **End of Project Life.** Should Wind Operator decide to substantially disassemble and/or abandon the Project and the result of such activity would require use of the Roads, Wind Operator agrees to return the Roads to the same or better condition than they were on the day the end of the Project began, with all costs associated to be borne solely by Wind Operator.

## 6. **Miscellaneous**

a. **Remedies and Enforcement.** The Parties acknowledge that money damages would not be an adequate remedy for any breach or threatened breach of this Agreement. Each of the parties hereto covenant and agree that in the event of default of any of the terms, provisions or conditions of this Agreement by any Party (the "**Defaulting Party**"), which default is not caused by the Party seeking to enforce said provisions (the "**Non-Defaulting Party**") and after notice and reasonable opportunity to cure has been provided to the Defaulting Party, then in such an event, the Non-Defaulting Party shall have the right to seek specific performance and/or injunctive relief to remedy or prevent any breach or threatened breach of this Agreement. The remedies of specific performance and/or injunctive relief shall be exclusive of any other remedy available at law or in equity.

b. **Due Authorization.** Wind Operator hereby represents and warrants that this Agreement has been duly authorized, executed and delivered on behalf of Wind Operator.

Township hereby represents, and warrants that this Agreement has been duly authorized, executed and delivered on behalf of Township.

c. Severability. If any provision of this Agreement proves to be illegal, invalid, or unenforceable, the remainder of this Agreement will not be affected by such finding, and in lieu of each provision of this Agreement that is illegal, invalid, or unenforceable a provision shall be deemed added as may be possible to accurately reflect the intentions of the Parties and so as to make the unenforceable provision legal, valid, and enforceable.

d. Amendments. This Agreement constitutes the entire agreement and understanding of the parties and supersedes all offers, negotiations and other agreements. There are no representations or understandings of any kind not set forth herein. No amendment or modification to this Agreement or waiver of a Party's rights hereunder shall be binding unless it shall be in writing and signed by both Parties to this Agreement.

e. Notices. All notices shall be in writing and sent (including via facsimile transmission) to the Parties hereto at the addresses set forth in the Preamble (or to such other address as either such Party shall designate in writing to the other Party at any time).

f. This Agreement may not be assigned without the written consent of the Parties, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, Wind Operator may assign this Agreement to its affiliates and may collaterally assign this Agreement to any lender in support of the Project.

g. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the instrument. Delivery of an executed counterpart of a signature page to this Agreement by telecopy shall be as effective as delivery of an originally signed counterpart to this Agreement.

h. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of North Dakota, irrespective of any conflict of laws provisions. Both parties desire that the transactions contemplated hereby be effected and carried out in a manner that is in compliance with all laws.

i. Successor and Assigns. This Agreement shall inure to the benefit of and shall be binding upon the Parties hereto, their respective successors, assignees, and legal representatives.

j. If any Term of this Agreement is found to be void or invalid, such invalidity shall not affect the remaining Terms of this Agreement, which shall continue in full force and effect.

k. Failure of Township or Wind Operator to insist on strict performance of any of the conditions or provisions of this Agreement, or to exercise any of their rights hereunder, shall not waive such rights.

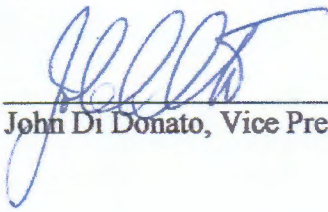
1. Whenever in this Agreement the approval or consent of either Township or Wind Operator is required or contemplated, unless otherwise specifically stated, such approval or consent shall not be made the subject of a demand for additional compensation, nor otherwise unreasonably conditioned, withheld or delayed.

*[remainder of page intentionally left blank]  
signatures begin on following page*


IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in their respective names by their duly authorized officers.

**Wind Operator:**

Burke Wind, LLC,  
a Delaware limited liability company

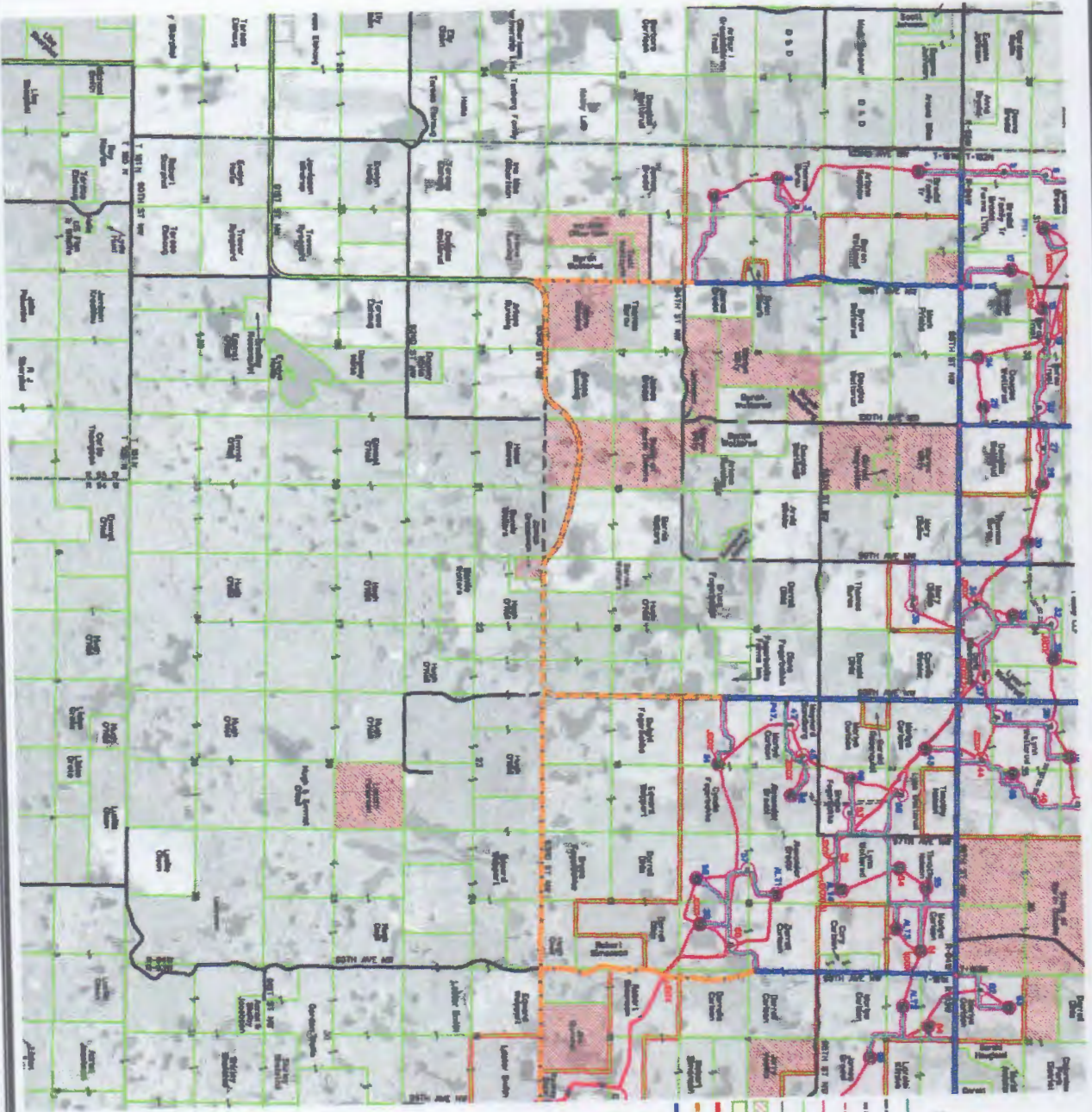
By:   
\_\_\_\_\_  
John Di Donato, Vice President

**Township:**

By:  Emmet O'Neil  
Name: \_\_\_\_\_  
Title: Township Chairman, Harmonious

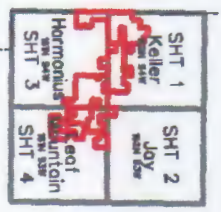
**EXHIBIT A**

**Preliminary Site Plan**

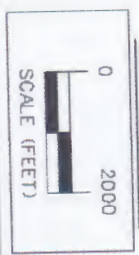


### EXHIBIT A LEGEND

- 74 2.72MW GE TURBINE WITH NUMBER (90 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Arrow)
- 64 2.3MW GE TURBINE WITH NUMBER (80 Meter Hub Height & 116 Meter Rotor Diameter 10-24-19 Arrow Turbines 44, 46, 53, 54, 55, 56, 81 & 84)
- SMO1 SCODA MET TOWER (06-21-19 LOCATIONS NO CITY'S ACCESS ROAD
- TEMPORARY ACCESS ROAD TURNAROUND
- CRANE PATH
- UNDERGROUND COLLECTION
- CONSTRUCTION EASEMENT
- PROPERTY BOUNDARY
- EXISTING ROAD RIGHT-OF-WAY
- NOT INTERESTED PARCEL
- PENDING PARCEL
- PROJECT BOUNDARY
- CONSTRUCTION ROUTE 85.5k LBS & LESS
- HEAVY HAUL ROUTE
- INTERSECTION IMPROVEMENTS



### SHEET INDEX



ISSUE DATE: 05-18-2020

 <b>SNYDER &amp; ASSOCIATES, INC.</b> <small>1791 MADISON AVENUE COUNCIL BLUFFS, IA 51600 712-222-2202   www.snyder-associates.com</small>	<b>NEXTERA ENERGY - NORTHERN DIVIDE WIND</b> <b>RUA SITE PLAN - HARMONIUS TWP 161N, RNG 94W</b>		<b>BURKE COUNTY, NORTH DAKOTA</b>	
	Project No: 170725	Date: 05-01-20	Sheet: 3 of 4	Scale: 1"=200'

**EXHIBIT B**

**Preliminary Transportation Route – Roads to be Utilized by Project**

- ➔ Leaf Mountain Township – No Wind Operator traffic will use 91<sup>st</sup> St NW; access only on County Roads

BURKE COUNTY, NORTH DAKOTA  
**ZONING REQUEST APPLICATION**

DATE: 05/04/2020

APPLICANT NAME: NORTHERN DIVIDE WIND, LLC

ADDRESS: 700 UNIVERSE BLVD, JUNO BEACH, FL 33408

EMAIL ADDRESS: CLAY.CAMERON@NEE.COM TELEPHONE NUMBER: (561) 267-5044

OWNER (IF OTHER THAN APPLICANT):

NAME: MEMORANDUMS OF EASEMENTS (ATTACHED)

ADDRESS: \_\_\_\_\_

TYPE: <u>X</u> BUILDING PERMIT	_____ AMENDMENT \$250.00
_____ CONDITIONAL Use \$250.00	_____ MAP
_____ VARIANCE \$250.00	_____ RENEWAL (EXTENSION)

**LEGAL DESCRIPTION OF PROPERTY:** LOCATED IN PORTIONS OF T.161N, R. 94W (HARMONIOUS TWP.), T. 162N, R. 94W (KELLER TWP.), T.161N, R.93W (LEAF MOUNTAIN TWP.) AND T.162N, R93W (FAY TWP.). SEE ATTACHED SPREADSHEET & SITE PLAN FOR WIND TURBINE LOCATIONS.

**DESCRIPTION OF REQUEST:** CONSTRUCT SEVENTY-FOUR (74) WIND TURBINES APPROVED BY THE CONDITIONAL USE PERMIT OF NOVEMBER 19, 2019 (8) OF WHICH ARE GE 2.3 MW TYPE WITH A HUB HEIGHT OF 80 METERS AND (66) OF WHICH ARE GE 2.72 MW TYPE WITH A HUB HEIGHT OF 90 METERS.

EXISTING USE OF PROPERTY: AGRICULTURAL USES

LOT SIZE \_\_\_\_\_ SETBACKS \_\_\_\_\_

LOT WIDTH \_\_\_\_\_ SIDEYARD \_\_\_\_\_

**A SKETCH SHOWING ALL PROPOSED STRUCTURES AND THEIR LOCATIONS ON THE LOT MUST BE ATTACHED.**

APPROXIMATE VALUE OF STRUCTURE(S) \$ \$117,070,313.00

PROJECTED VOLUME FOR GRAVEL PITS: \_\_\_\_\_

MEMORANDUMS OF EASEMENTS  
SIGNATURE(S) OF LANDOWNER(S)

Anthony Pedraza  
SIGNATURE(S) OF APPLICANT(S)

ACTION TAKEN Approved

Marla McBeth Lick Durings  
SIGNATURE OF ZONING ADMINISTRATOR

6/16/2020  
DATE

DATE 05/04/2020

BURKE COUNTY, NORTH DAKOTA  
**BUILDING PERMIT**

PERMIT No. 2020-002

PERMIT ISSUED TO NORTHERN DIVIDE WIND LLC

ADDRESS 700 UNIVERSE BLVD, JUNO BEACH, FL 33408      PHONE (561) 267-5044

FOR CONSTRUCTION OF SEVENTY-FOUR (74) WIND TURBINES APPROVED BY THE CONDITIONAL USE PERMIT OF NOVEMBER 19, 2019 (8) OF WHICH ARE GE 2.3 MW TYPE WITH A HUB HEIGHT OF 80 METERS AND (66) OF WHICH ARE GE 2.72 MW TYPE WITH A HUB HEIGHT OF 90 METERS.

LOCATION (LEGAL DESCRIPTION): LOCATED IN PORTIONS OF T.161N, R. 94W (HARMONIOUS TWP.), T. 162N, R. 94W (KELLER TWP.), T.161N, R.93W (LEAF MOUNTAIN TWP.) AND T.162N, R93W (FAY TWP.). SEE ATTACHED SPREADSHEET & SITE PLAN FOR WIND TURBINE LOCATIONS.

THIS CERTIFICATE, ISSUED ON THE BASIS OF APPROVED PLANS AS STATED ON THE "ZONING REQUEST APPLICATION" FORM, AUTHORIZES ONLY THE USE, ARRANGEMENT AND CONSTRUCTION SET FORTH IN SUCH APPROVED PLANS AND APPLICATIONS, AND NO OTHER USE, ARRANGEMENT OR CONSTRUCTION. ANY USE, ARRANGEMENT OR CONSTRUCTION AT VARIANCE WITH THAT AUTHORIZED SHALL BE DEEMED A VIOLATION OF THE REGULATION AND SUBJECT AS SUCH TO PENALTIES AS PRESCRIBED BY THE REGULATION AND/OR CERTIFICATE REVOCATION.

**CONSTRUCTION MUST BE COMMENCED WITHIN SIX MONTHS.**

**ALL CERTIFICATES SHALL EXPIRE ONE YEAR FROM DATE OF ISSUANCE UNLESS A LONGER PERIOD OF CONSTRUCTION IS AGREED TO IN WRITING AT THE TIME OF APPLICATION.**

THIS NOTICE MUST BE POSTED IN A CONSPICUOUS PLACE ON OR NEAR THE CONSTRUCTION SITE.

ZONING FEE PAID pd.

Marla MacBeth *on behalf of Rick Owing*  
SIGNATURE ZONING ADMINISTRATOR

6/16/2020  
DATE

Anthony Pedra 5/12/20  
SIGNATURE(S) OF APPLICANT(S)      DATE

MEMORANDUMS OF EASEMENTS  
SIGNATURE(S) OF LANDOWNER(S)      DATE



BURKE COUNTY, NORTH DAKOTA  
**BUILDING PERMIT**

DATE 05/11/2020

PERMIT No. 2020-003

PERMIT ISSUED TO NORTHERN DIVIDE WIND, LLC

Address 700 UNIVERSE BLVD, JUNO BEACH, FL 33408 PHONE (561) 267-5044

FOR CONSTRUCTION OF A SUBSTATION TO BE LOCATED ON THE PROPERTY PREVIOUSLY RE-ZONED ON NOVEMBER 19, 2019. THE BASIC ELEMENTS OF THE COLLECTION SUBSTATION ARE A CONTROL BUILDING, TRANSFORMER, REACTIVE EQUIPMENT, METERING EQUIPMENT, CIRCUIT BREAKERS, RELAYING EQUIPMENT, HIGH-VOLTAGE BUS WORK, STEEL SUPPORT STRUCTURES AND OVERHEAD LIGHTNING. THE SUBSTATION EQUIPMENT WILL BE INSTALLED ON CONCRETE FOUNDATIONS AND WILL CONSIST OF A GRAVELED FOOTPRINT AREA OF APPROXIMATELY 0.77 ACRES, AN EIGHT-FOOT CHAIN LINK PERIMETER FENCE WITH THE TOP FOOT OF THE FENCE BEING BARBED WIRE, AND AN OUTDOOR LIGHTING SYSTEM. APPLICANT MAY NEED TO INSTALL PERMANENT CULVERT OR FIELD ENTRANCE AT THE PREMISES.

LOCATION (LEGAL DESCRIPTION) THE EAST HALF OF THE EAST HALF OF THE SOUTHEAST QUARTER (E1/2, E1/2 SE1/4) OF SECTION 17, TOWNSHIP 161 NORTH, RANGE 93 WEST, BURKE COUNTY, NORTH DAKOTA.

STREET ADDRESS: NA

THIS CERTIFICATE, ISSUED ON THE BASIS OF APPROVED PLANS AS STATED ON THE "ZONING REQUEST APPLICATION" FORM, AUTHORIZES ONLY THE USE, ARRANGEMENT AND CONSTRUCTION SET FORTH IN SUCH APPROVED PLANS AND APPLICATIONS, AND NO OTHER USE, ARRANGEMENT OR CONSTRUCTION. ANY USE, ARRANGEMENT OR CONSTRUCTION AT VARIANCE WITH THAT AUTHORIZED SHALL BE DEEMED A VIOLATION OF THE REGULATION AND SUBJECT AS SUCH TO PENALTIES AS PRESCRIBED BY THE REGULATION AND/OR CERTIFICATE REVOCATION.

CONSTRUCTION MUST BE COMMENCED WITHIN SIX MONTHS.

ALL CERTIFICATES SHALL EXPIRE ONE YEAR FROM DATE OF ISSUANCE UNLESS A LONGER PERIOD OF CONSTRUCTION IS AGREED TO IN WRITING AT THE TIME OF APPLICATION.

THIS NOTICE MUST BE POSTED IN A CONSPICUOUS PLACE ON OR NEAR THE CONSTRUCTION SITE.

ZONING FEE PAID

pd  
MMB

Marla MacBeth <sup>on behalf of</sup> Rick Durings  
SIGNATURE ZONING ADMINISTRATOR

6/16/2020  
DATE

Anthony Ledes 5/11/20  
SIGNATURE(S) OF APPLICANT(S) DATE

Rodney D. Olson  
SIGNATURE(S) OF LANDOWNER(S)

5/19/2020  
DATE

BURKE COUNTY, NORTH DAKOTA  
**ZONING REQUEST APPLICATION**

DATE: 05/04/2020

APPLICANT NAME: NORTHERN DIVIDE WIND LLC

ADDRESS: 700 UNIVERSE BLVD. JUNO BEACH, FL 33408

EMAIL ADDRESS: THOMAS.VONBISCHE@NEE.COM TELEPHONE NUMBER: (612) 670-8469

OWNER (IF OTHER THAN APPLICANT):

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TYPE: <u> X </u> BUILDING PERMIT	_____ AMENDMENT \$250.00
_____ CONDITIONAL USE \$250.00	_____ MAP
_____ VARIANCE \$250.00	_____ RENEWAL (EXTENSION)

LEGAL DESCRIPTION OF PROPERTY: NORTH HALF OF THE NORTHWEST QUARTER (N/2NW4) OF SECTION 11, TOWNSHIP 161 NORTH, RANGE 94 WEST OF THE 5111 P.M., BURKE COUNTY.

DESCRIPTION OF REQUEST: Northern Divide Wind must comply with North Dakota Century Code, § 49-22-16.4 and North Dakota Administrative Code Chapter 69-06-11, which require all new wind facilities to have light mitigating technology, such as Aircraft Detection Lighting System (ADLS), and with requirements to obtain approval from the FAA. Northern Divide Wind has received their approval for ADLS on April 15, 2020 from the FAA.

In addition, Burke County’s condition of approval of the wind farm, November 19, 2019 requires turbines – Except for FAA required lighting, wind turbine generators within the project will not be artificially lighted. Developer shall use new technology as approved by the FAA to reduce nighttime lighting effects.

ADLS detects an obstruction, such as an airplane, approaching the turbines and then reacts by lighting them until the obstruction clears the area. This helps mitigate nighttime lighting effects on local communities, nocturnal or migratory species, and increases the longevity of the lights themselves.

The system requires 120 vAC/30amp service provided from neighboring wind turbine to the system. Each radar needs (2) fiber pairs from the windfarm network/SCADA system, one for radar signal, and one for ancillary component communications. Foundation requirements for the skid system are typically a simple 12’x12’x4” concrete pad for the skid with anchor bolts.

EXISTING USE OF PROPERTY: AGRICULTURAL

LOT SIZE 598 SQ. FT. SETBACKS \_\_\_\_\_

LOT WIDTH 26’ X 23’ SIDEYARD \_\_\_\_\_

A SKETCH SHOWING ALL PROPOSED STRUCTURES AND THEIR LOCATIONS ON THE LOT MUST BE ATTACHED.

BURKE COUNTY, NORTH DAKOTA  
**BUILDING PERMIT**

DATE 05/04/2020

PERMIT No. 2020-004

PERMIT ISSUED TO NORTHERN DIVIDE WIND LLC

ADDRESS 700 UNIVERSE BLVD. JUNO BEACH, FL 33408 PHONE (612) 670-8469

FOR CONSTRUCTION OF AIRCRAFT DETECTION LIGHTING SYSTEMS (ADLS) A SENSOR-BASED SYSTEMS DESIGNED TO DETECT AIRCRAFT AS THEY APPROACH A WIND FARM TURBINES; THESE SYSTEMS AUTOMATICALLY ACTIVATE THE APPROPRIATE OBSTRUCTION LIGHTS UNTIL THEY ARE NO LONGER NEEDED BY THE AIRCRAFT.

LOCATION (LEGAL DESCRIPTION) NORTH HALF OF THE NORTHWEST QUARTER (N/2NW4) OF SECTION 11, TOWNSHIP 161 NORTH, RANGE 94 WEST OF THE 5111 P.M., BURKE COUNTY

THIS CERTIFICATE, ISSUED ON THE BASIS OF APPROVED PLANS AS STATED ON THE "ZONING REQUEST APPLICATION" FORM, AUTHORIZES ONLY THE USE, ARRANGEMENT AND CONSTRUCTION SET FORTH IN SUCH APPROVED PLANS AND APPLICATIONS, AND NO OTHER USE, ARRANGEMENT OR CONSTRUCTION. ANY USE, ARRANGEMENT OR CONSTRUCTION AT VARIANCE WITH THAT AUTHORIZED SHALL BE DEEMED A VIOLATION OF THE REGULATION AND SUBJECT AS SUCH TO PENALTIES AS PRESCRIBED BY THE REGULATION AND/OR CERTIFICATE REVOCATION.

CONSTRUCTION MUST BE COMMENCED WITHIN SIX MONTHS.

ALL CERTIFICATES SHALL EXPIRE ONE YEAR FROM DATE OF ISSUANCE UNLESS A LONGER PERIOD OF CONSTRUCTION IS AGREED TO IN WRITING AT THE TIME OF APPLICATION.

THIS NOTICE MUST BE POSTED IN A CONSPICUOUS PLACE ON OR NEAR THE CONSTRUCTION SITE.

ZONING FEE PAID pd.

*on behalf of*  
Marla MacBeth Rick Durango 6/16/2020  
SIGNATURE ZONING ADMINISTRATOR DATE

Anthony Edwards 5/11/20  
SIGNATURE(S) OF APPLICANT(S) DATE

MH Sandberg Estate Donal Baden P.R.  
SIGNATURE(S) OF LANDOWNER(S) DATE

APPROXIMATE VALUE OF STRUCTURE(S) \$ 475,000.00

PROJECTED VOLUME FOR GRAVEL PITS:

M H Sandberg Estate, David Becker, Pl.  
SIGNATURE(S) OF LANDOWNER(S)

[Signature]  
SIGNATURE(S) OF APPLICANT(S)

ACTION TAKEN pd.

Marla MacBeth on behalf of Rick Durmap 6/16/2020  
SIGNATURE OF ZONING ADMINISTRATOR DATE

- ATTACHMENTS:
- CAG\_NEXTERA ENERGY\_NORTHERN DIVIDE ADLS RADAR...
  - NORTHERN DIVIDE – ADLS CERTIFICATION LETTER\_JL.PDF
  - NORTHERN DIVIDE – FAA MAP – VIEWSHED 1000 FT.
  - ADLS SITE EXHIBIT\_SANDBURG MAYNARDNW 11-161-94 ISSUED 01-08-19 PHOTO.PDF
  - DETECT ADLS EQUIPMENT DETAILS.PDF
  - SANDBERG, MAYNARD H\_1269520\_ ADDITIONAL...
  - SANDBERG, MAYNARD H\_1269520\_RECORDERED MEMORANDUM...

BURKE COUNTY, NORTH DAKOTA

DATE: 05/05/2020 **ZONING REQUEST APPLICATION**

APPLICANT NAME: NORTHERN DIVIDE WIND LLC

ADDRESS: 700 UNIVERSE BLVD. JUNO BEACH, FL 33408

EMAIL ADDRESS: THOMAS.VONBISCHE@NEE.COM TELEPHONE NUMBER: (612) 670-8469

OWNER (IF OTHER THAN APPLICANT):

NAME: DONNA MAE BRODAL & DALE LYSAKER

ADDRESS: Donna Mae Brodal, 56 22nd Street West, Apt 10, Williston, ND 58801  
Dale Lysaker 618 3rd Avenue West, Williston, ND 58801

TYPE: <input checked="" type="checkbox"/>	BUILDING PERMIT	_____	AMENDMENT \$250.00
_____	CONDITIONAL USE \$250.00	_____	MAP
_____	VARIANCE \$250.00	_____	RENEWAL (EXTENSION)

LEGAL DESCRIPTION OF PROPERTY: NORTHWEST QUARTER (NW1/4) OF SECTION 31, TOWNSHIP 162 NORTH, RANGE 94 WEST OF THE 5TH P.M. BURKE COUNTY, NORTH DAKOTA.

DESCRIPTION OF REQUEST: To construct a 283 ft. (Approximately 90 meter), galvanized steel mono-pole SCADA meteorological tower. SCADA stands for "Supervisory Control and Data Acquisition". SCADA integrates in a single system wind turbine, substation and meteorological tower information. The SCADA met tower provides data to the SCADA system on wind speed and direction, temperature, pressure, battery status.

The tower mast has a 7-ft. diameter at its' base which reduces in size to 16 inches at the top, all constructed on top a concrete pad and footing. See attached drawings for details and specs.

EXISTING USE OF PROPERTY: AGRICULTURAL

LOT SIZE 900 SQ. FT. SETBACKS \_\_\_\_\_

LOT 30' X 30' SIDEYARD \_\_\_\_\_

A SKETCH SHOWING ALL PROPOSED STRUCTURES AND THEIR LOCATIONS ON THE LOT MUST BE ATTACHED.

APPROXIMATE VALUE OF STRUCTURE(S) \$ 320,000.00

PROJECTED VOLUME FOR GRAVEL PITS: \_\_\_\_\_

*Donna Mae Brodal & Dale Lysaker*  
\_\_\_\_\_  
SIGNATURE(S) OF LANDOWNER(S)

*Arthur Le...*  
\_\_\_\_\_  
SIGNATURE(S) OF APPLICANT(S)

ACTION TAKEN upd.

*Marla MacBeth* on behalf of *Rick Overmyer* 6/16/2020  
SIGNATURE OF ZONING ADMINISTRATOR DATE

BURKE COUNTY, NORTH DAKOTA  
**BUILDING PERMIT**

DATE 05/05/2020

PERMIT No. 2020-005

PERMIT ISSUED TO NORTHERN DIVIDE WIND LLC

ADDRESS 700 UNIVERSE BLVD. JUNO BEACH, FL 33408 PHONE (612) 670-8469

FOR CONSTRUCTION OF A 283 FT. (APPROXIMATELY 90 METER), GALVANIZED STEEL MONO-POLE SCADA METEOROLOGICAL TOWER.

LOCATION (LEGAL DESCRIPTION) NORTHWEST QUARTER (NW1/4) OF SECTION 31, TOWNSHIP 162 NORTH, RANGE 94 WEST OF THE 5TH P.M. BURKE COUNTY, NORTH DAKOTA.

THIS CERTIFICATE, ISSUED ON THE BASIS OF APPROVED PLANS AS STATED ON THE "ZONING REQUEST APPLICATION" FORM, AUTHORIZES ONLY THE USE, ARRANGEMENT AND CONSTRUCTION SET FORTH IN SUCH APPROVED PLANS AND APPLICATIONS, AND NO OTHER USE, ARRANGEMENT OR CONSTRUCTION. ANY USE, ARRANGEMENT OR CONSTRUCTION AT VARIANCE WITH THAT AUTHORIZED SHALL BE DEEMED A VIOLATION OF THE REGULATION AND SUBJECT AS SUCH TO PENALTIES AS PRESCRIBED BY THE REGULATION AND/OR CERTIFICATE REVOCATION.

CONSTRUCTION MUST BE COMMENCED WITHIN SIX MONTHS.

ALL CERTIFICATES SHALL EXPIRE ONE YEAR FROM DATE OF ISSUANCE UNLESS A LONGER PERIOD OF CONSTRUCTION IS AGREED TO IN WRITING AT THE TIME OF APPLICATION.

THIS NOTICE MUST BE POSTED IN A CONSPICUOUS PLACE ON OR NEAR THE CONSTRUCTION SITE.

ZONING FEE PAID pd.      Marla MacBeth <sup>on behalf of</sup> Rick Durango      6/16/2020  
SIGNATURE ZONING ADMINISTRATOR      DATE

Antony Bedw      5/16/2020  
SIGNATURE(S) OF APPLICANT(S)      DATE

Debra Mae Brundel <sup>By Dale D. Lynch</sup> 6-2-2020  
SIGNATURE(S) OF LANDOWNER(S)      DATE

BURKE COUNTY, NORTH DAKOTA  
ZONING REQUEST APPLICATION

DATE: 2-14-20

APPLICANT NAME: [redacted] Northern-Divide Wind, LLC

ADDRESS: 700 UNIVERSE BLVD JUNO BEACH, FL 33408

EMAIL ADDRESS: CLAY.CAMERON@NEE.COM TELEPHONE NUMBER: 561-267-5044

OWNER (IF OTHER THAN APPLICANT):

NAME: RODNEY DELL OLSON AND DONNA BECKER OLSON

ADDRESS: 546 281TH AVENUE SW, MINOT, ND 58701

TYPE: \_\_\_\_\_ BUILDING PERMIT \_\_\_\_\_ AMENDMENT \$250.00

X \_\_\_\_\_ CONDITIONAL USE \$250.00 \_\_\_\_\_ X \_\_\_\_\_ MAP

\_\_\_\_\_ VARIANCE \$250.00 \_\_\_\_\_ RENEWAL (EXTENSION)

LEGAL DESCRIPTION OF PROPERTY: SEE ATTACHED

DESCRIPTION OF REQUEST:

[redacted]

ZONING REQUEST FOR 8 ACRE TEMPORARY CONSTRUCTION LAYDOWN YARD

CONDITIONAL USE PERMIT - MUST HAVE N.D. SITING PERMIT

ND Siting Permit - ISSUED 6/10/2020 MMB

EXISTING USE OF PROPERTY:

AGRICULTURAL

LOT SIZE \_\_\_\_\_ SETBACKS \_\_\_\_\_

LOT WIDTH \_\_\_\_\_ SIDEYARD \_\_\_\_\_

A SKETCH SHOWING ALL PROPOSED STRUCTURES AND THEIR LOCATIONS ON THE LOT MUST BE ATTACHED.

APPROXIMATE VALUE OF STRUCTURE(S) \$ \_\_\_\_\_

PROJECTED VOLUME FOR GRAVEL PITS: \_\_\_\_\_

Rodney D. Olson  
SIGNATURE(S) OF LANDOWNER(S)

Donna B. Olson  
SIGNATURE(S) OF APPLICANT(S)

ACTION TAKEN Approved

Marla MacBeth on behalf of Rick Curinga 5/19/2020  
SIGNATURE OF ZONING ADMINISTRATOR DATE

CONDITIONAL USE

*fee pd. MMB*



Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-934-OE  
Prior Study No.  
2018-WTE-7612-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 1
Location:	Columbus, ND
Latitude:	48-48-57.53N NAD 83
Longitude:	102-54-53.11W
Heights:	2346 feet site elevation (SE) 487 feet above ground level (AGL) 2833 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-934-OE.

**Signature Control No: 431890114-436492224**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

## **Additional information for ASN 2020-WTE-934-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-934-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-935-OE  
Prior Study No.  
2018-WTE-7613-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 2
Location:	Columbus, ND
Latitude:	48-49-00.12N NAD 83
Longitude:	102-54-34.91W
Heights:	2345 feet site elevation (SE) 487 feet above ground level (AGL) 2832 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-935-OE.

**Signature Control No: 431890118-436492217**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

**Additional information for ASN 2020-WTE-935-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-935-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-936-OE  
Prior Study No.  
2018-WTE-7614-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 3
Location:	Columbus, ND
Latitude:	48-48-33.57N NAD 83
Longitude:	102-54-24.64W
Heights:	2362 feet site elevation (SE) 487 feet above ground level (AGL) 2849 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-936-OE.

**Signature Control No: 431890124-436492216**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

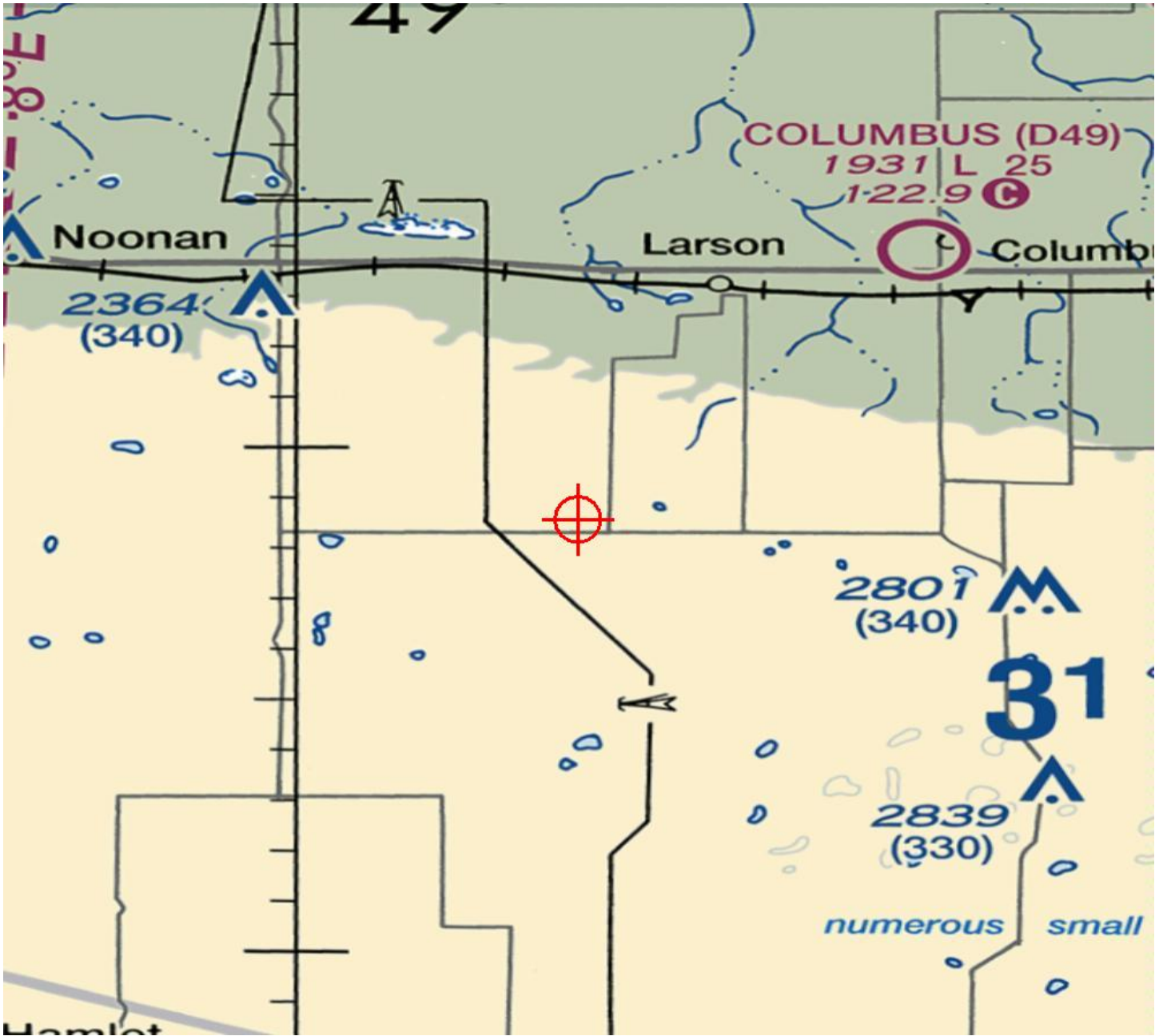
cc: FCC

**Additional information for ASN 2020-WTE-936-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-936-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-937-OE  
Prior Study No.  
2018-WTE-7616-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 5
Location:	Columbus, ND
Latitude:	48-48-57.03N NAD 83
Longitude:	102-53-56.60W
Heights:	2331 feet site elevation (SE) 487 feet above ground level (AGL) 2818 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-937-OE.

**Signature Control No: 431890128-436492222**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

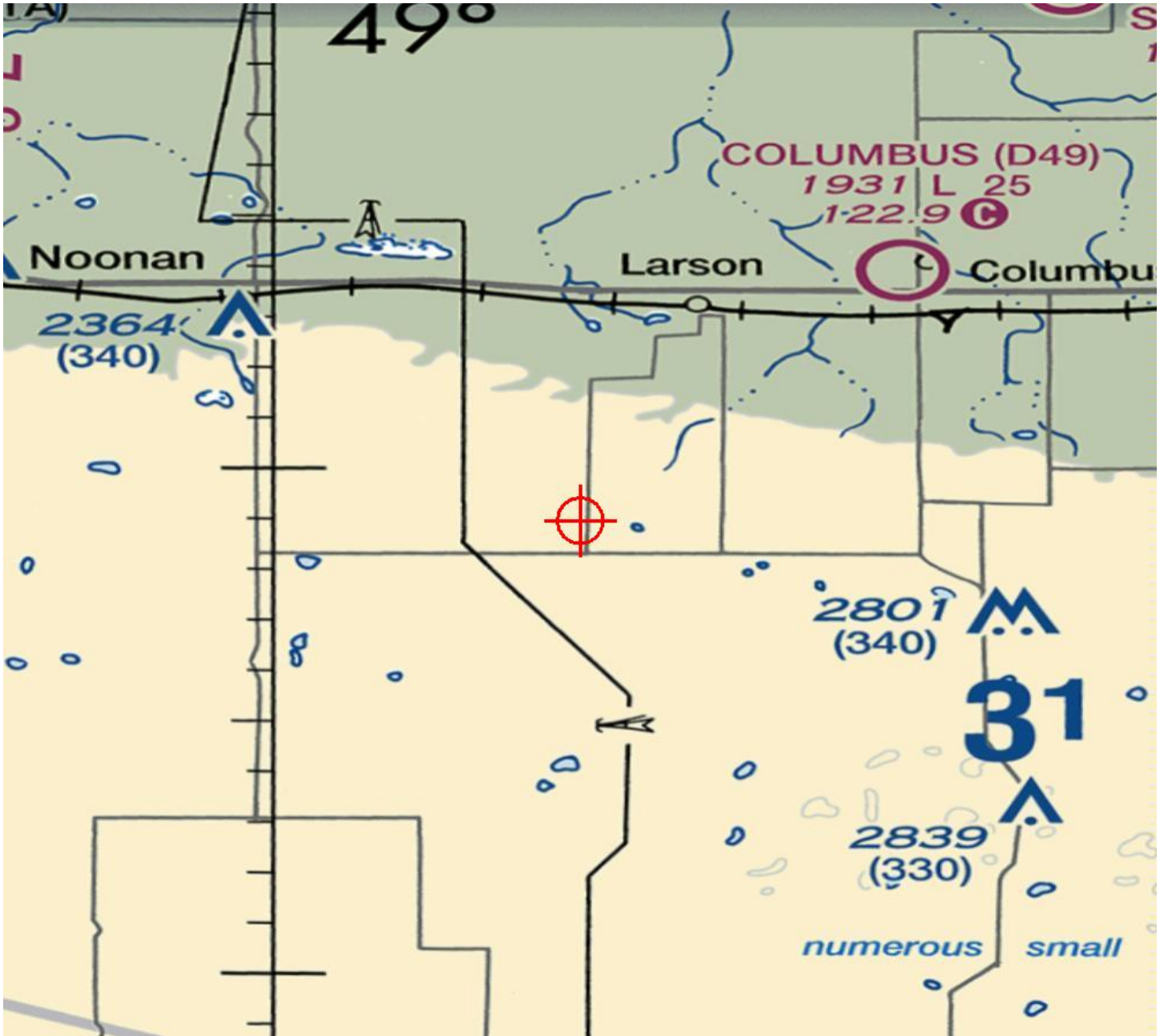
cc: FCC

**Additional information for ASN 2020-WTE-937-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-937-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-938-OE  
Prior Study No.  
2018-WTE-7617-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 6
Location:	Columbus, ND
Latitude:	48-48-58.43N NAD 83
Longitude:	102-53-33.35W
Heights:	2334 feet site elevation (SE) 487 feet above ground level (AGL) 2821 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-938-OE.

**Signature Control No: 431890129-436492213**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

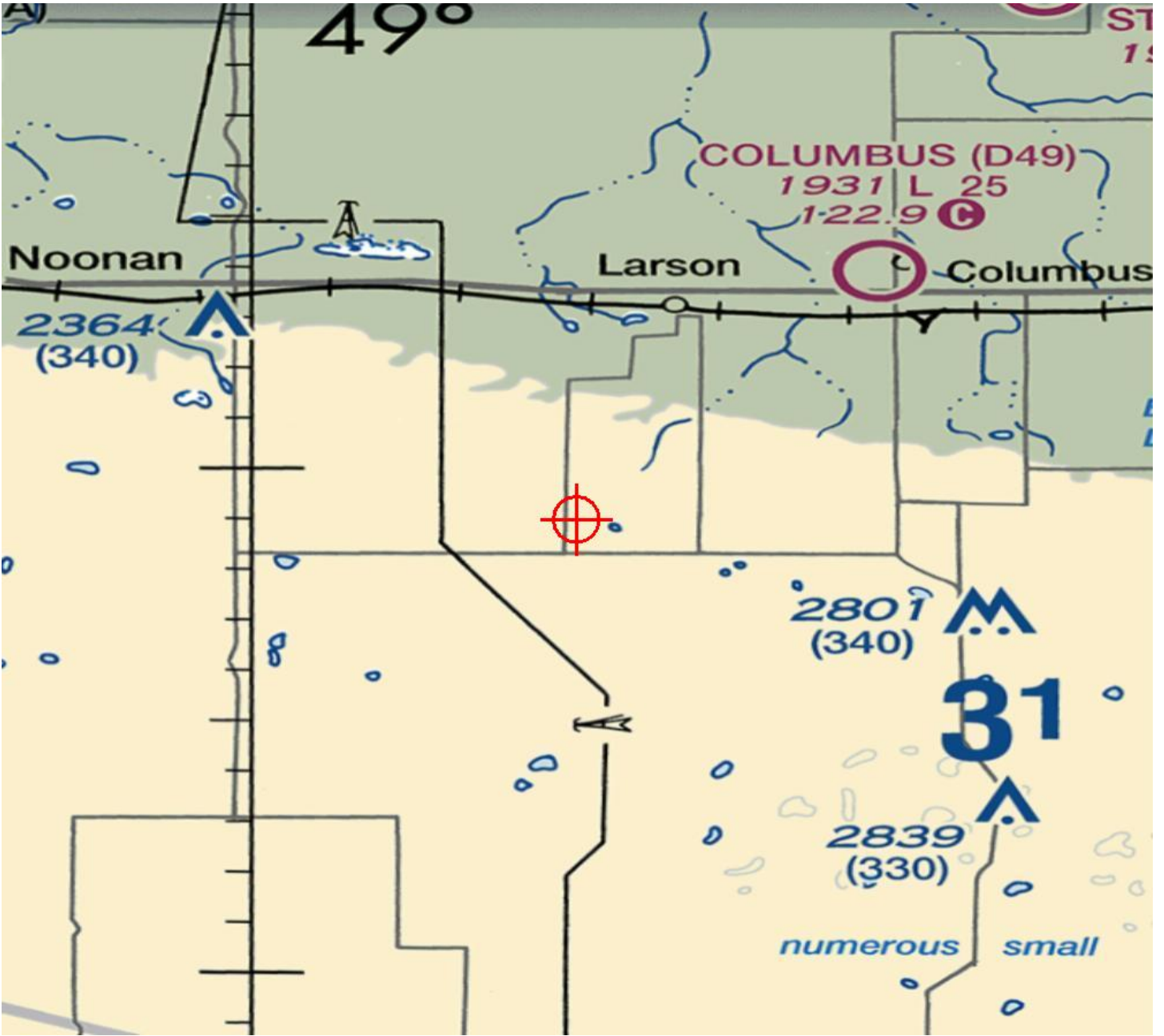
cc: FCC

**Additional information for ASN 2020-WTE-938-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-938-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-939-OE  
Prior Study No.  
2018-WTE-7618-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 7
Location:	Columbus, ND
Latitude:	48-48-58.24N NAD 83
Longitude:	102-53-13.28W
Heights:	2336 feet site elevation (SE) 487 feet above ground level (AGL) 2823 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-939-OE.

**Signature Control No: 431890132-436492215**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

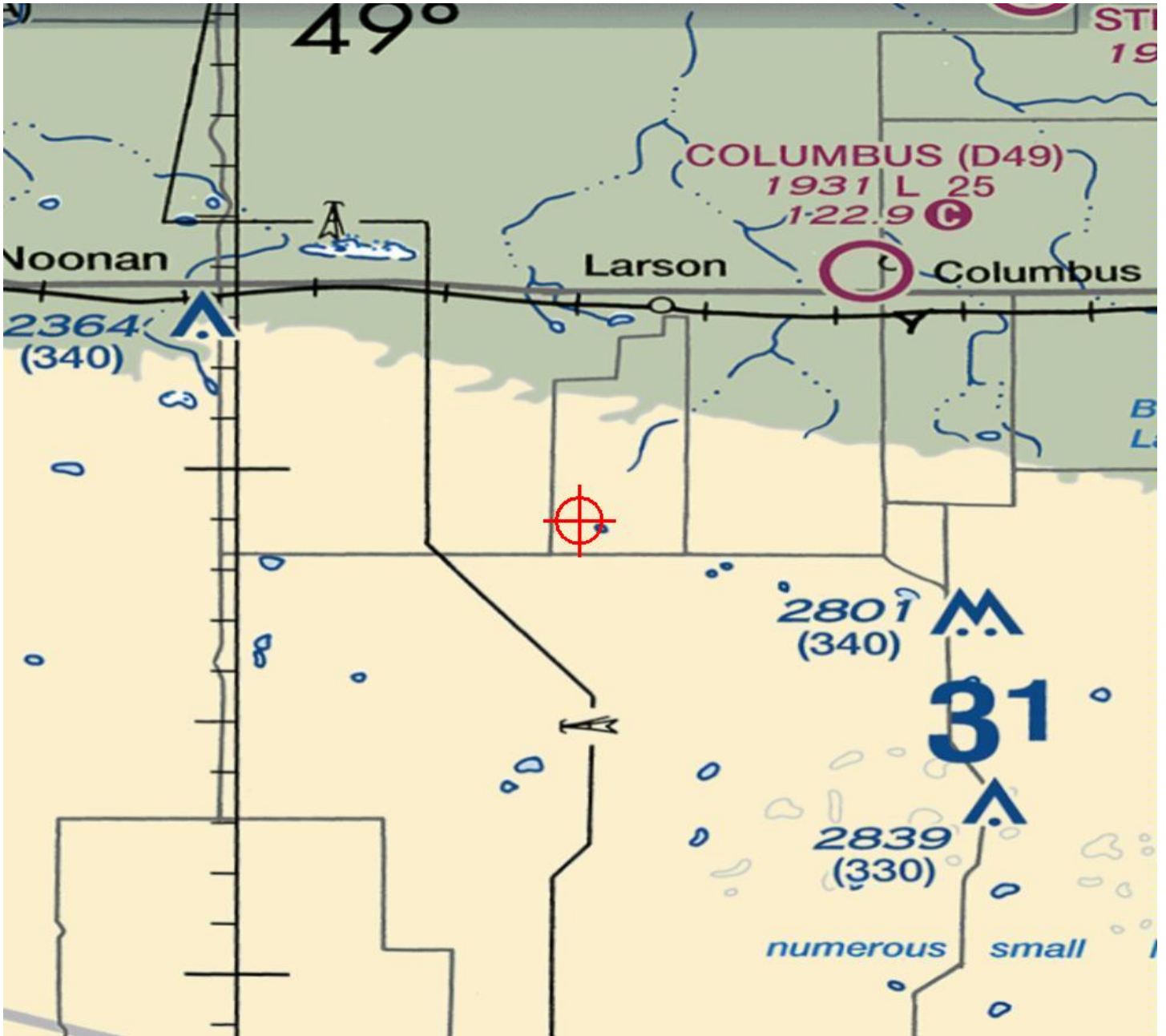
cc: FCC

**Additional information for ASN 2020-WTE-939-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-939-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-940-OE  
Prior Study No.  
2018-WTE-7619-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 8
Location:	Columbus, ND
Latitude:	48-49-11.63N NAD 83
Longitude:	102-53-07.13W
Heights:	2314 feet site elevation (SE) 487 feet above ground level (AGL) 2801 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-940-OE.

**Signature Control No: 431890144-436492221**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

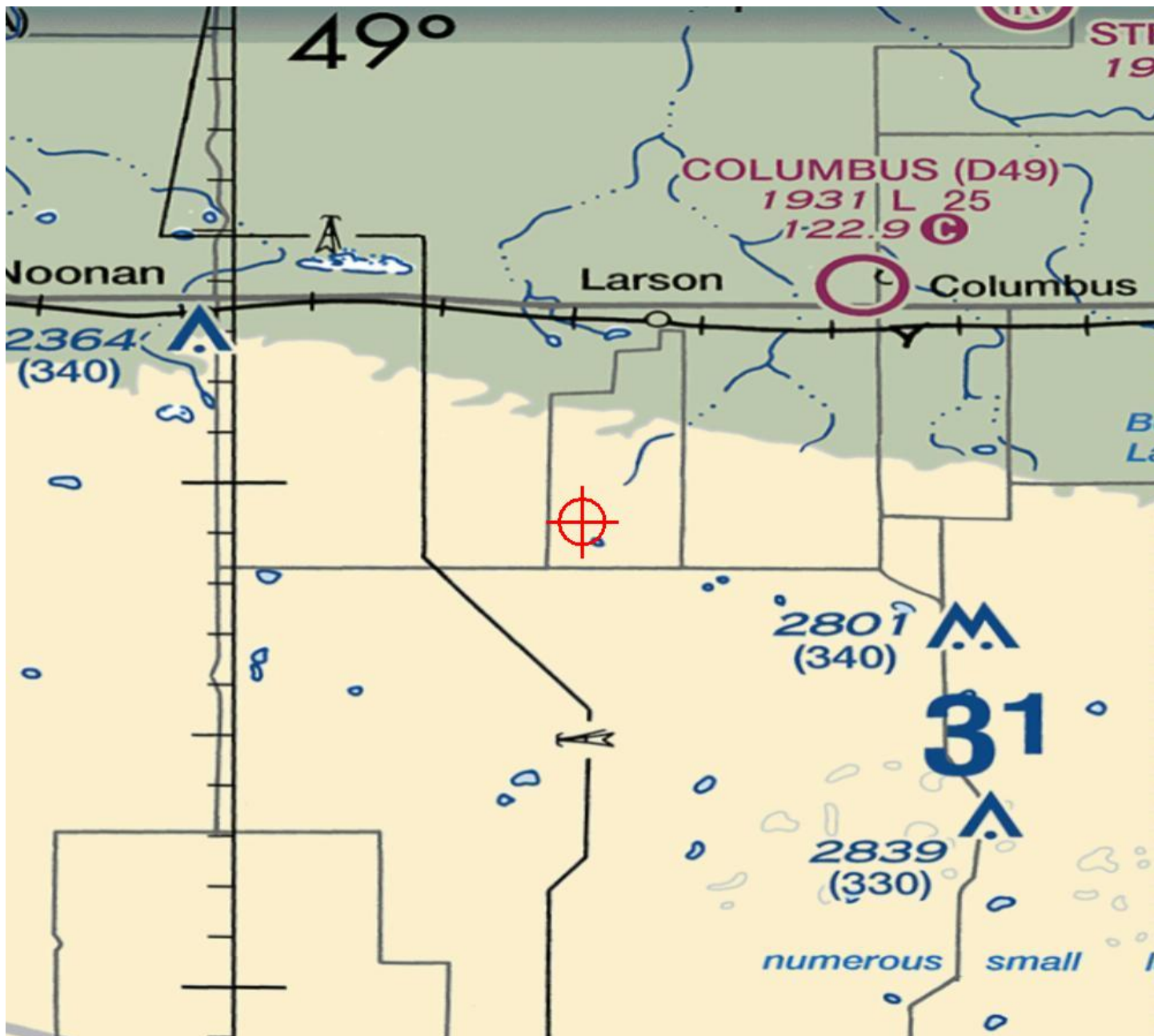
cc: FCC

**Additional information for ASN 2020-WTE-940-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-940-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-941-OE  
Prior Study No.  
2018-WTE-7620-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 9
Location:	Columbus, ND
Latitude:	48-48-52.95N NAD 83
Longitude:	102-52-39.32W
Heights:	2348 feet site elevation (SE) 487 feet above ground level (AGL) 2835 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-941-OE.

**Signature Control No: 431890150-436492220**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

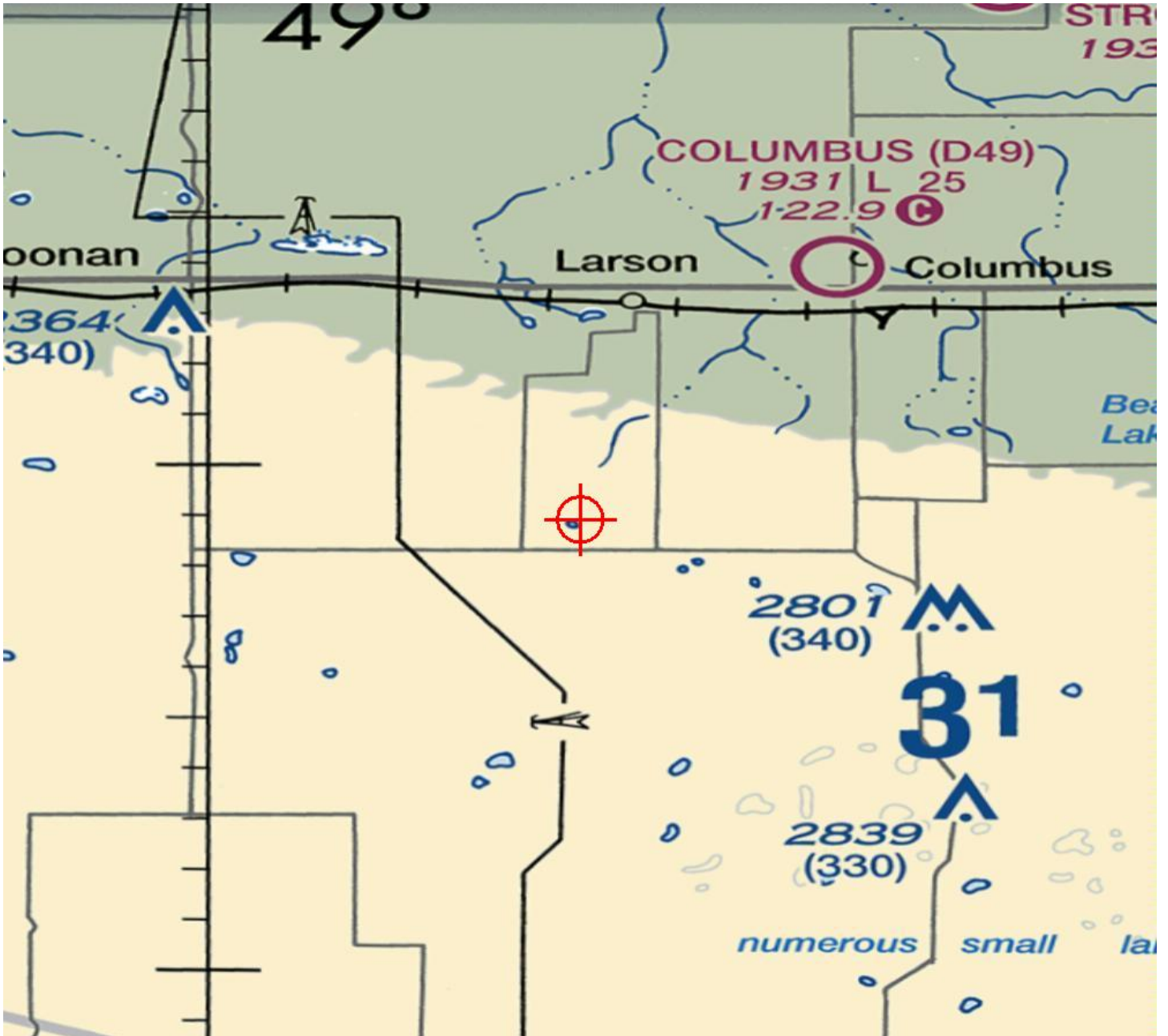
cc: FCC

**Additional information for ASN 2020-WTE-941-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-941-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-942-OE  
Prior Study No.  
2018-WTE-7621-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 10
Location:	Columbus, ND
Latitude:	48-48-33.49N NAD 83
Longitude:	102-52-04.49W
Heights:	2343 feet site elevation (SE) 487 feet above ground level (AGL) 2830 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-942-OE.

**Signature Control No: 431890151-436492219**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

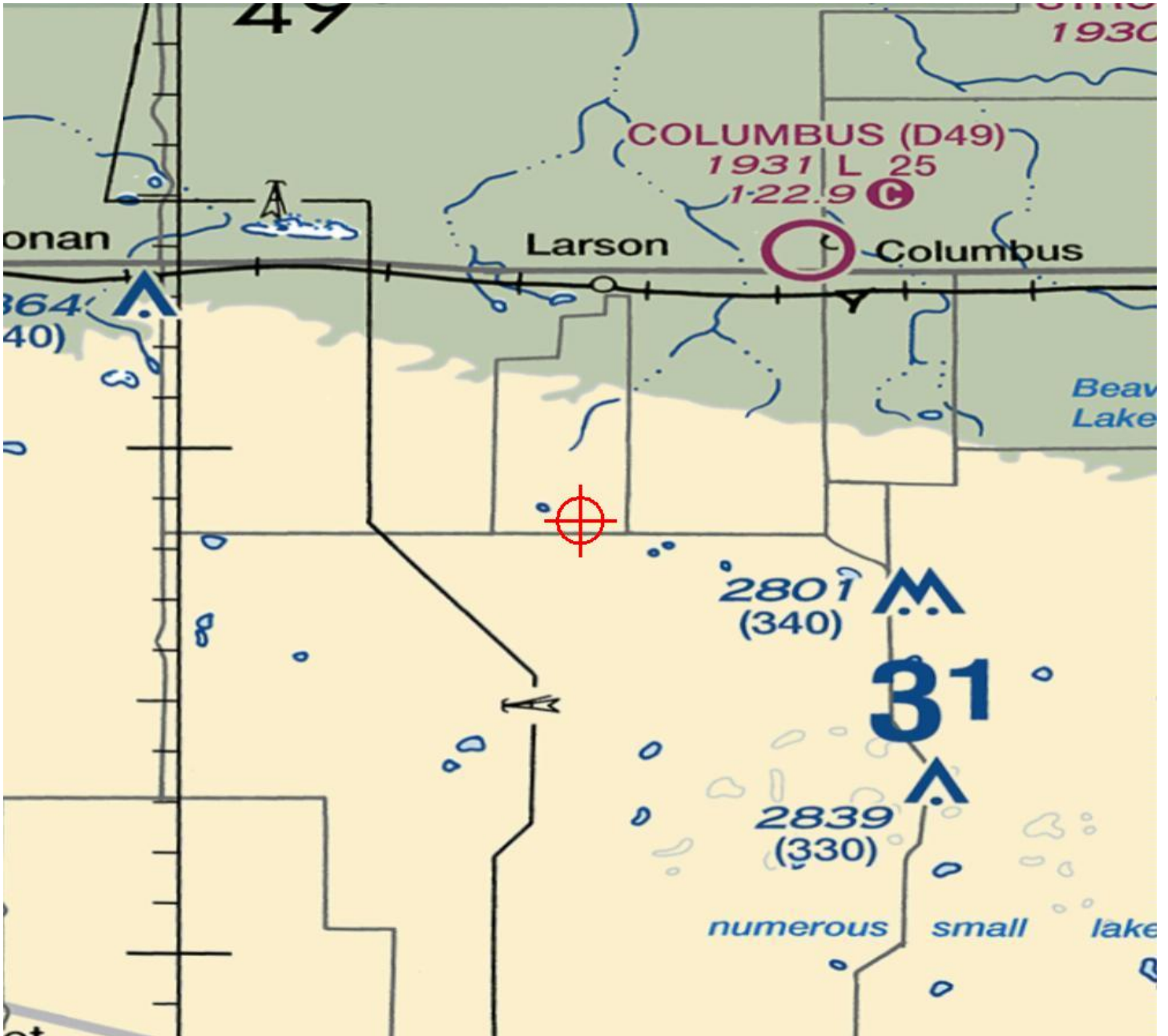
cc: FCC

**Additional information for ASN 2020-WTE-942-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-942-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-943-OE  
Prior Study No.  
2018-WTE-7622-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 11
Location:	Columbus, ND
Latitude:	48-48-47.51N NAD 83
Longitude:	102-51-56.93W
Heights:	2344 feet site elevation (SE) 487 feet above ground level (AGL) 2831 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-943-OE.

**Signature Control No: 431890152-436492223**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

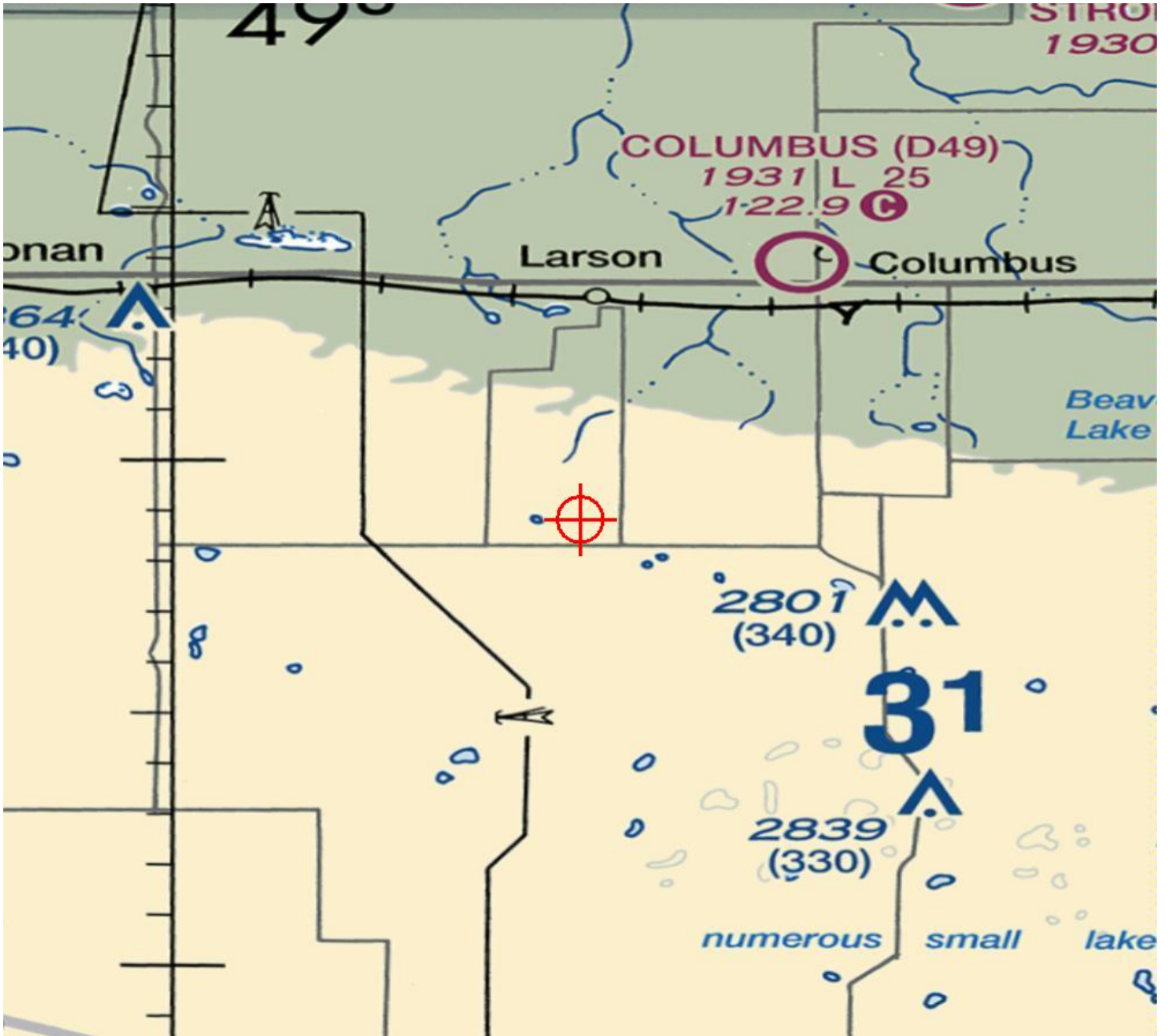
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**Additional information for ASN 2020-WTE-943-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-943-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-944-OE  
Prior Study No.  
2018-WTE-7623-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 12
Location:	Columbus, ND
Latitude:	48-49-02.10N NAD 83
Longitude:	102-51-52.74W
Heights:	2332 feet site elevation (SE) 487 feet above ground level (AGL) 2819 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-944-OE.

**Signature Control No: 431890153-436492218**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

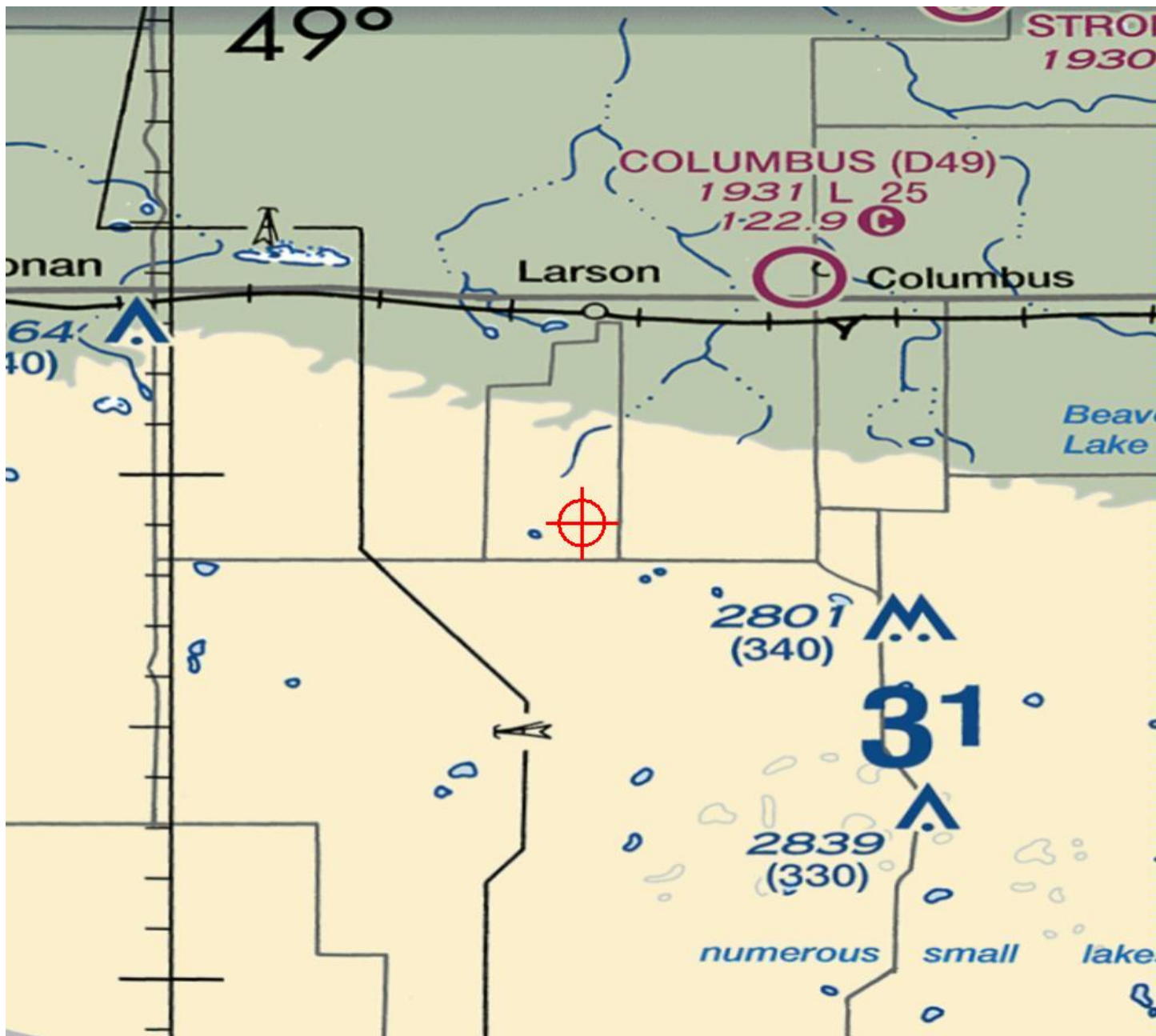
cc: FCC

**Additional information for ASN 2020-WTE-944-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-944-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-945-OE  
Prior Study No.  
2018-WTE-7624-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 13
Location:	Columbus, ND
Latitude:	48-49-03.30N NAD 83
Longitude:	102-51-32.13W
Heights:	2324 feet site elevation (SE) 487 feet above ground level (AGL) 2811 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-945-OE.

**Signature Control No: 431890154-436492229**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

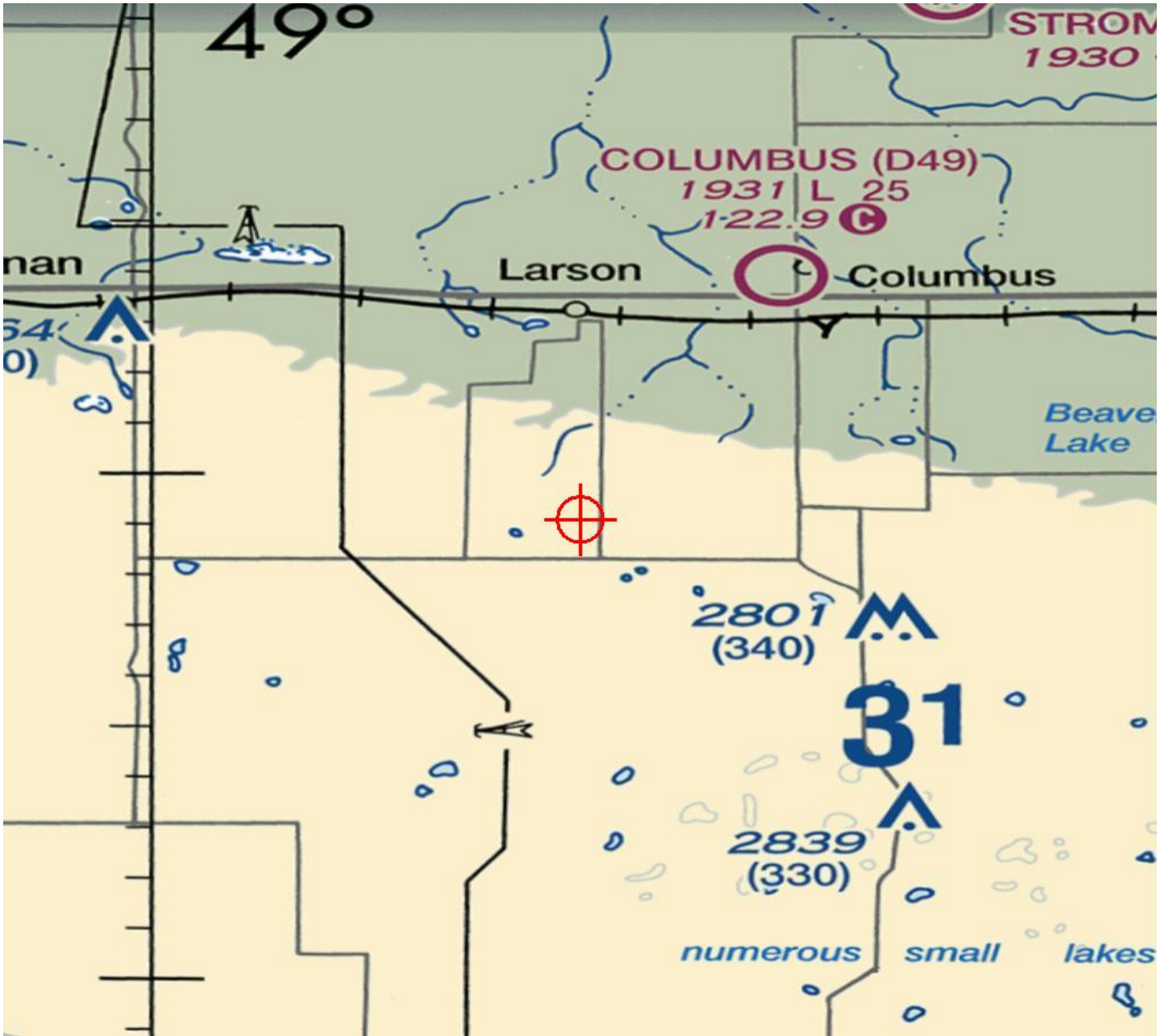
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**Additional information for ASN 2020-WTE-945-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-945-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-946-OE  
Prior Study No.  
2018-WTE-7625-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 14
Location:	Columbus, ND
Latitude:	48-49-02.23N NAD 83
Longitude:	102-50-53.88W
Heights:	2311 feet site elevation (SE) 487 feet above ground level (AGL) 2798 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-946-OE.

**Signature Control No: 431890156-436492227**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

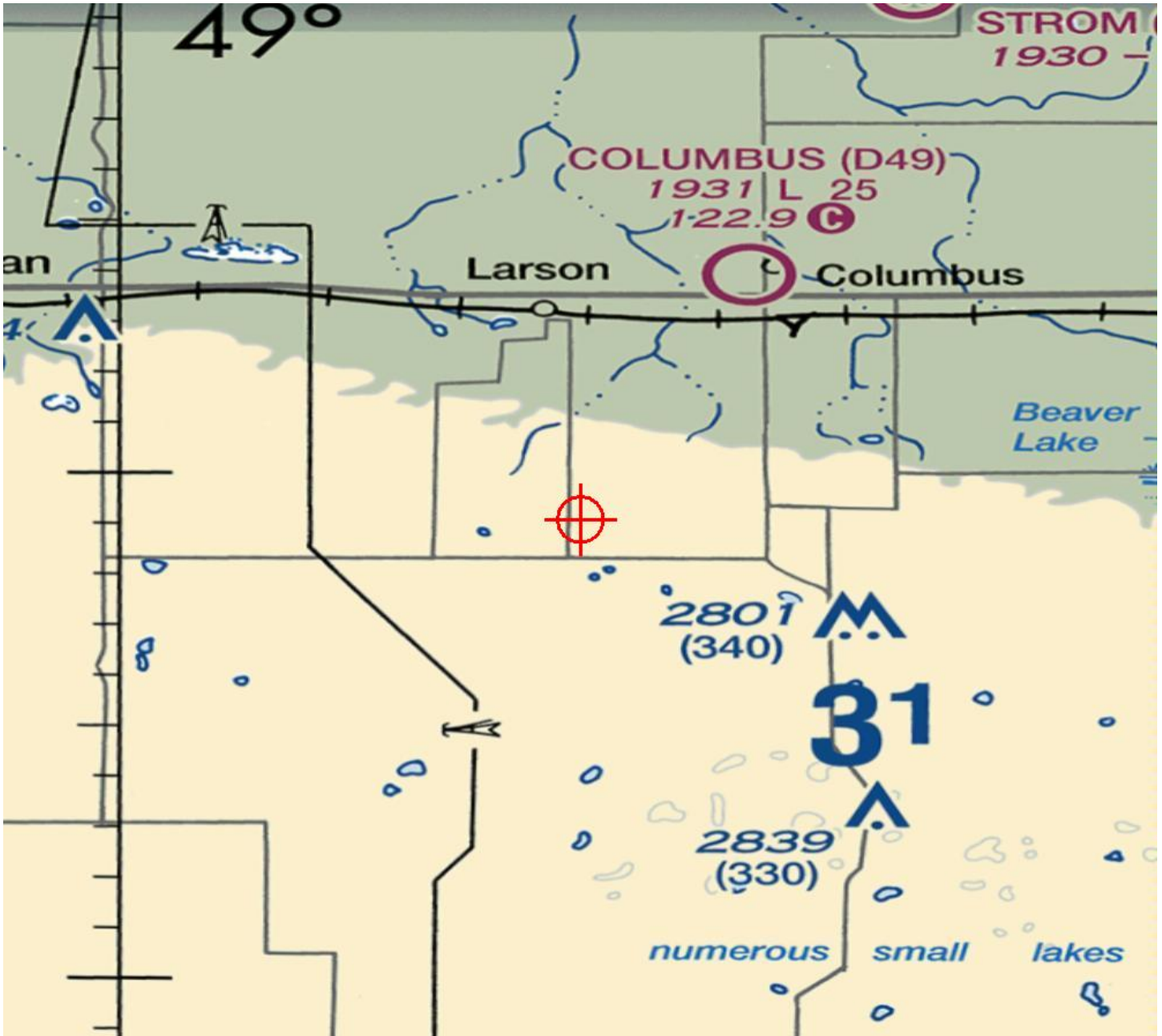
cc: FCC

**Additional information for ASN 2020-WTE-946-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-946-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-947-OE  
Prior Study No.  
2018-WTE-7626-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 15
Location:	Columbus, ND
Latitude:	48-49-09.36N NAD 83
Longitude:	102-50-36.31W
Heights:	2278 feet site elevation (SE) 487 feet above ground level (AGL) 2765 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-947-OE.

**Signature Control No: 431890157-436492214**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

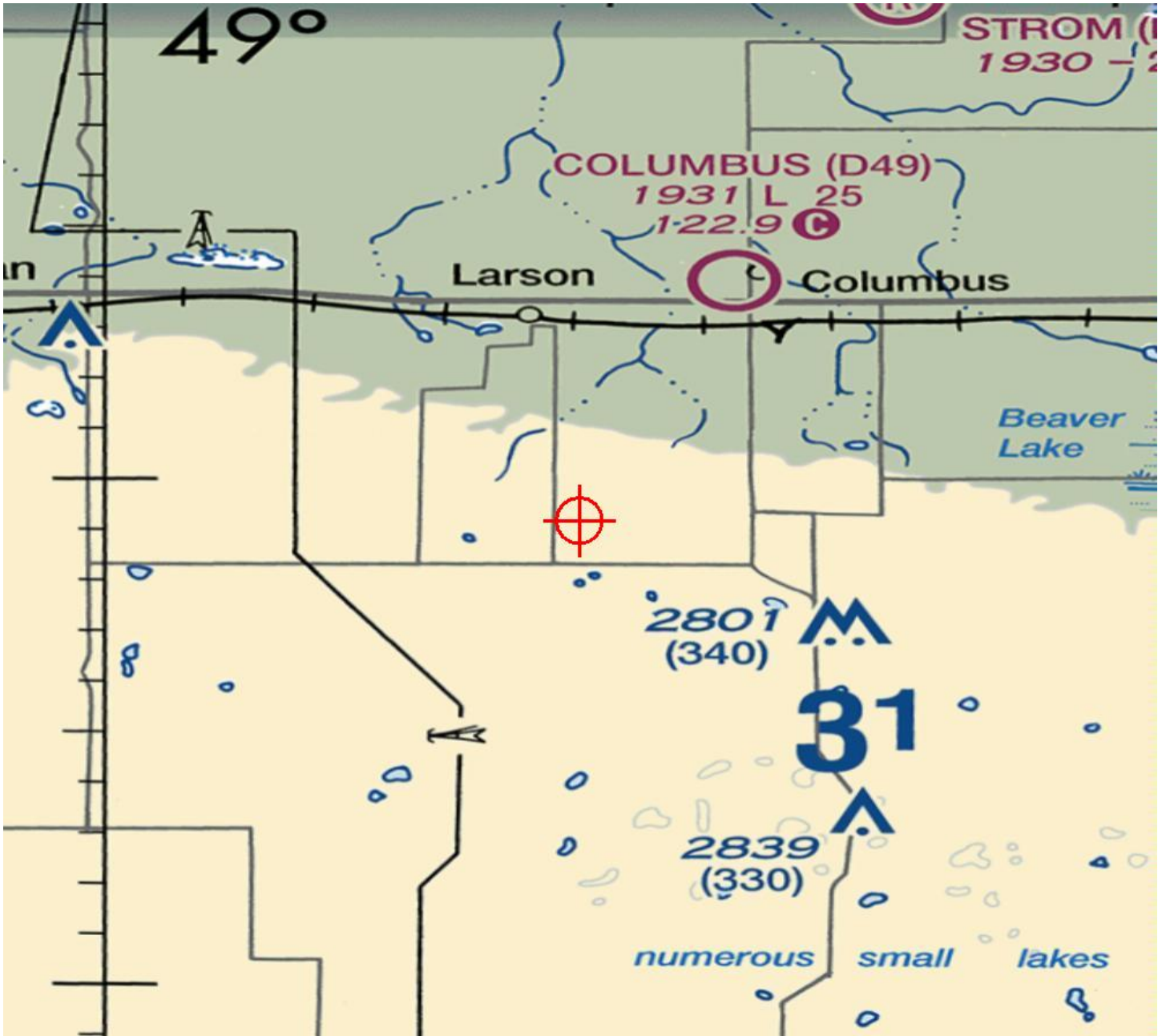
cc: FCC

**Additional information for ASN 2020-WTE-947-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-947-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-948-OE  
Prior Study No.  
2018-WTE-7627-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 16
Location:	Columbus, ND
Latitude:	48-49-12.59N NAD 83
Longitude:	102-50-08.95W
Heights:	2228 feet site elevation (SE) 487 feet above ground level (AGL) 2715 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-948-OE.

**Signature Control No: 431890158-436492226**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

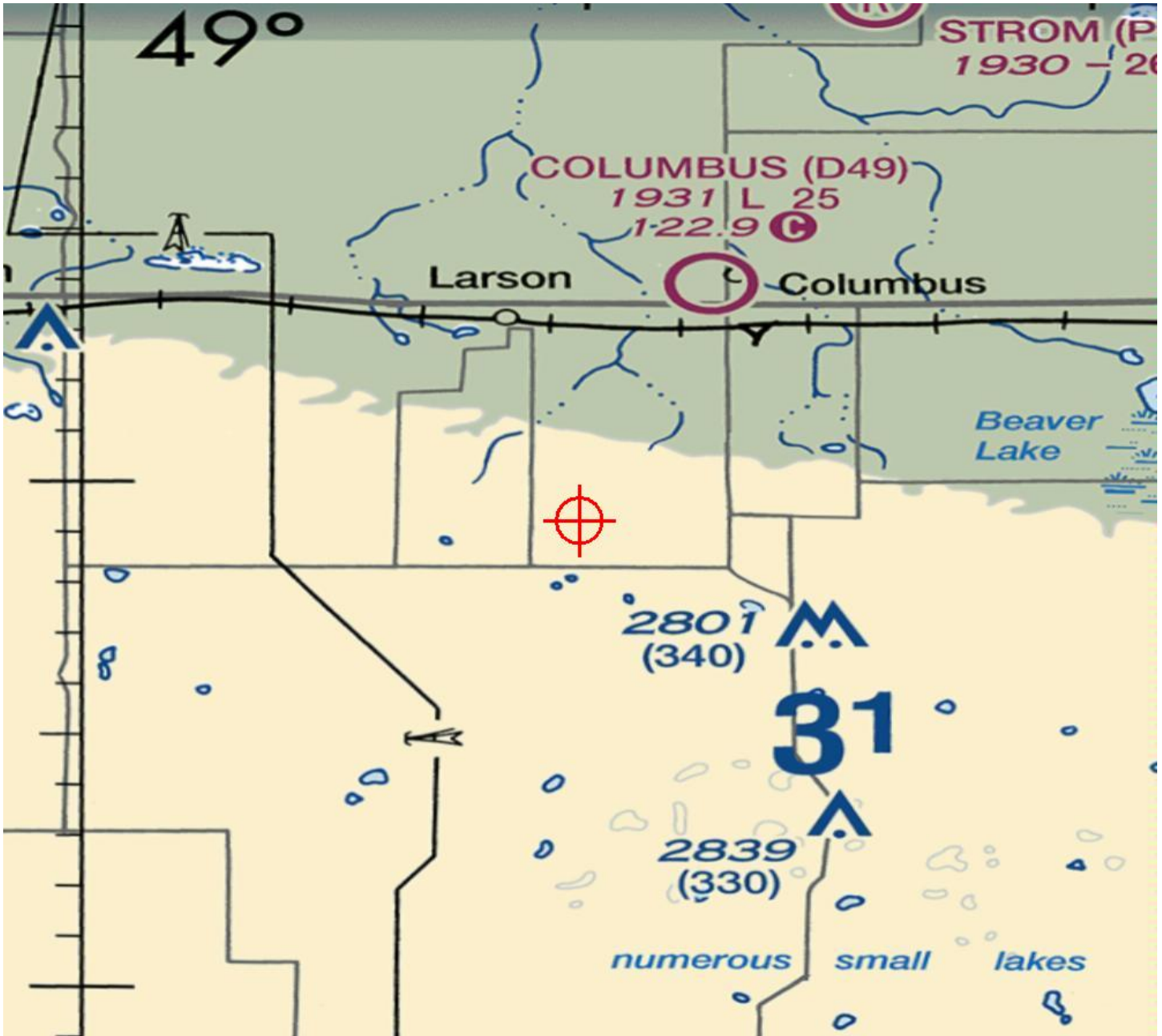
cc: FCC

**Additional information for ASN 2020-WTE-948-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-948-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-949-OE  
Prior Study No.  
2018-WTE-7628-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 17
Location:	Columbus, ND
Latitude:	48-48-36.77N NAD 83
Longitude:	102-51-21.05W
Heights:	2321 feet site elevation (SE) 487 feet above ground level (AGL) 2808 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-949-OE.

**Signature Control No: 431890160-436492228**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

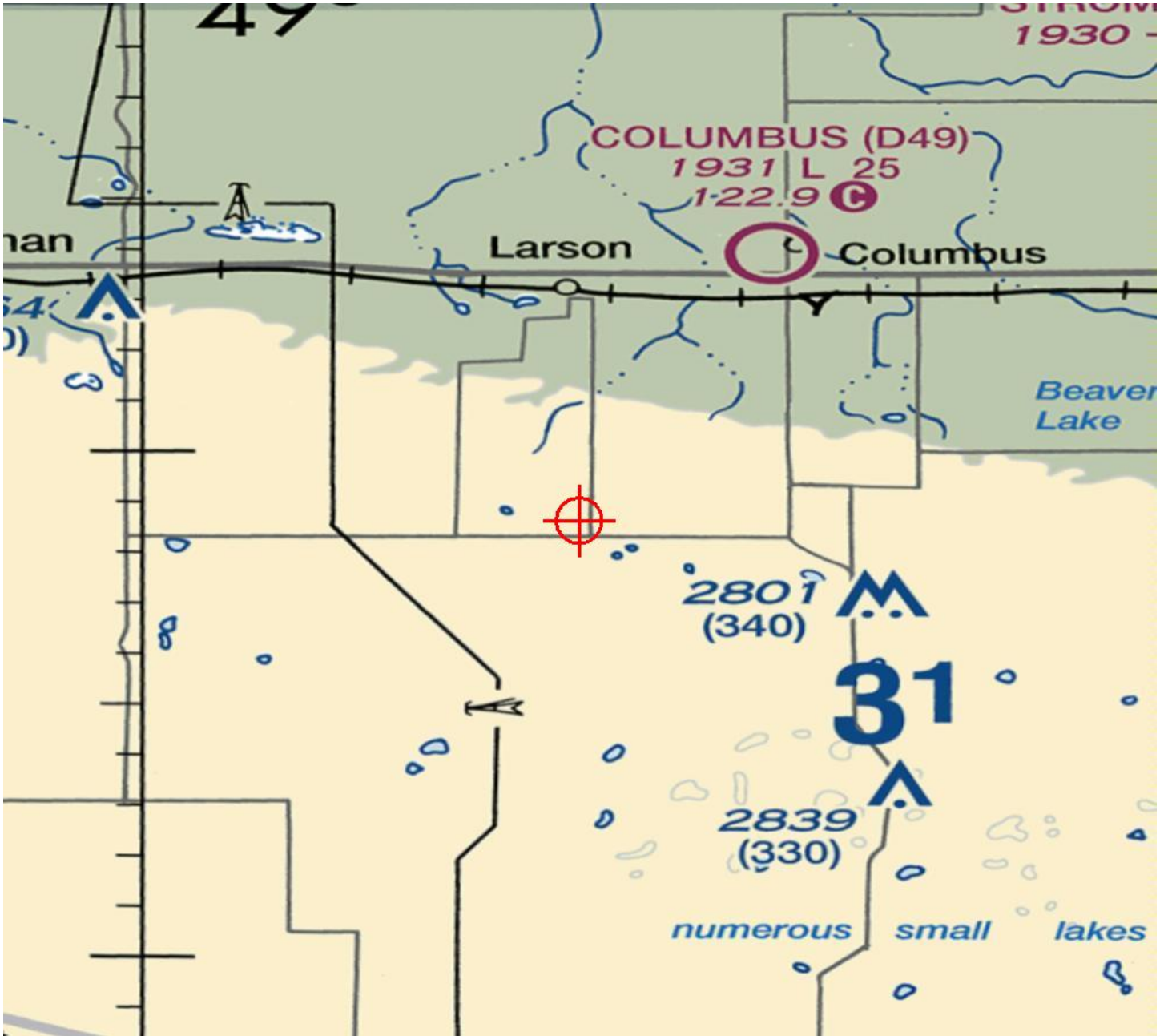
cc: FCC

**Additional information for ASN 2020-WTE-949-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-949-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-950-OE  
Prior Study No.  
2018-WTE-7629-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 18
Location:	Columbus, ND
Latitude:	48-48-42.15N NAD 83
Longitude:	102-50-58.85W
Heights:	2332 feet site elevation (SE) 487 feet above ground level (AGL) 2819 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-950-OE.

**Signature Control No: 431890161-436492225**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

**Additional information for ASN 2020-WTE-950-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-950-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-951-OE  
Prior Study No.  
2018-WTE-7630-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 19
Location:	Columbus, ND
Latitude:	48-47-15.17N NAD 83
Longitude:	102-53-34.08W
Heights:	2440 feet site elevation (SE) 487 feet above ground level (AGL) 2927 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-951-OE.

**Signature Control No: 431890162-436492233**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

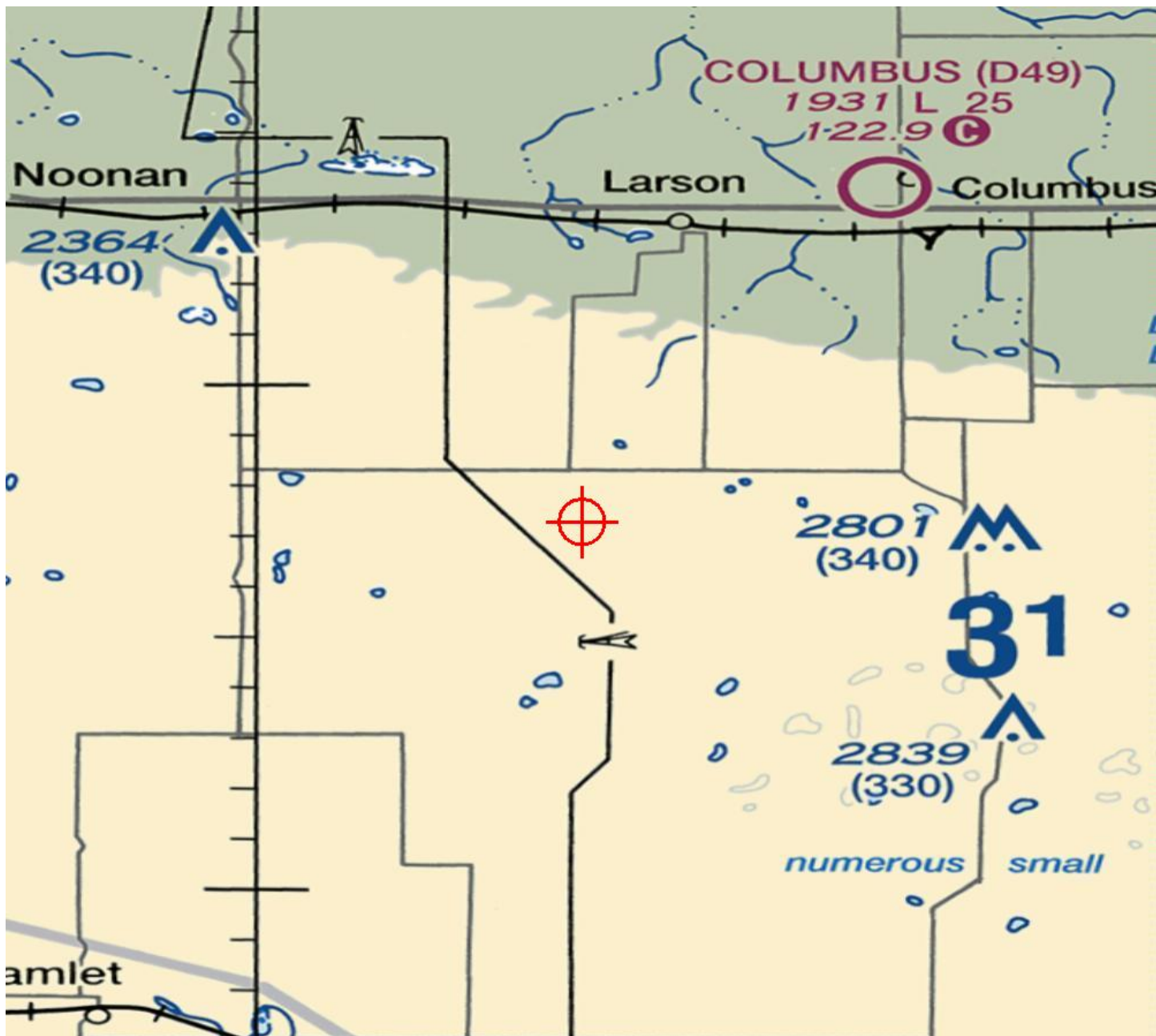
cc: FCC

**Additional information for ASN 2020-WTE-951-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-951-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-952-OE  
Prior Study No.  
2018-WTE-7631-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 20
Location:	Columbus, ND
Latitude:	48-47-16.51N NAD 83
Longitude:	102-53-00.84W
Heights:	2431 feet site elevation (SE) 487 feet above ground level (AGL) 2918 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-952-OE.

**Signature Control No: 431890163-436492234**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

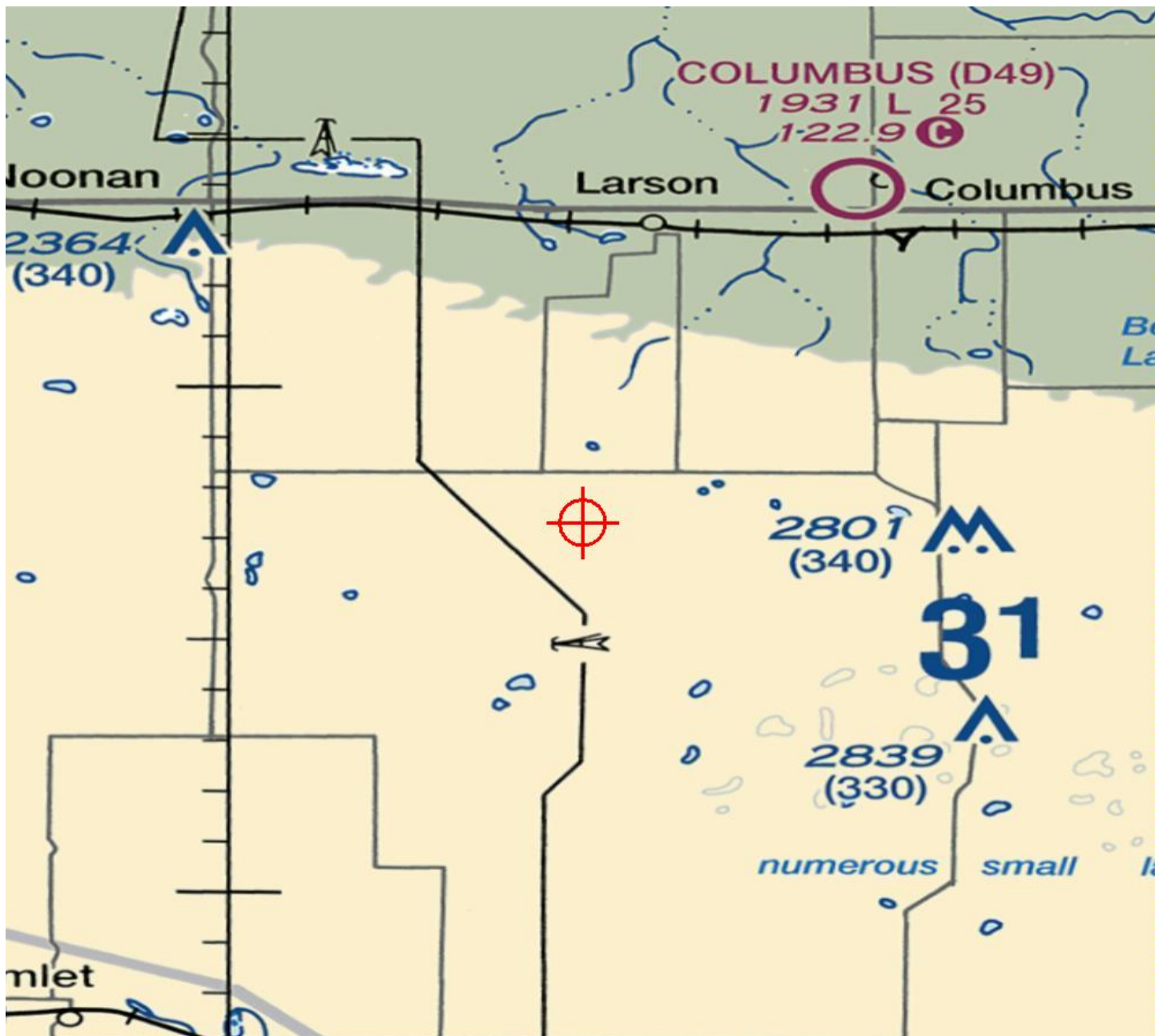
cc: FCC

**Additional information for ASN 2020-WTE-952-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-952-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-953-OE  
Prior Study No.  
2018-WTE-7632-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 21
Location:	Columbus, ND
Latitude:	48-47-19.71N NAD 83
Longitude:	102-52-41.44W
Heights:	2421 feet site elevation (SE) 487 feet above ground level (AGL) 2908 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-953-OE.

**Signature Control No: 431890164-436492232**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

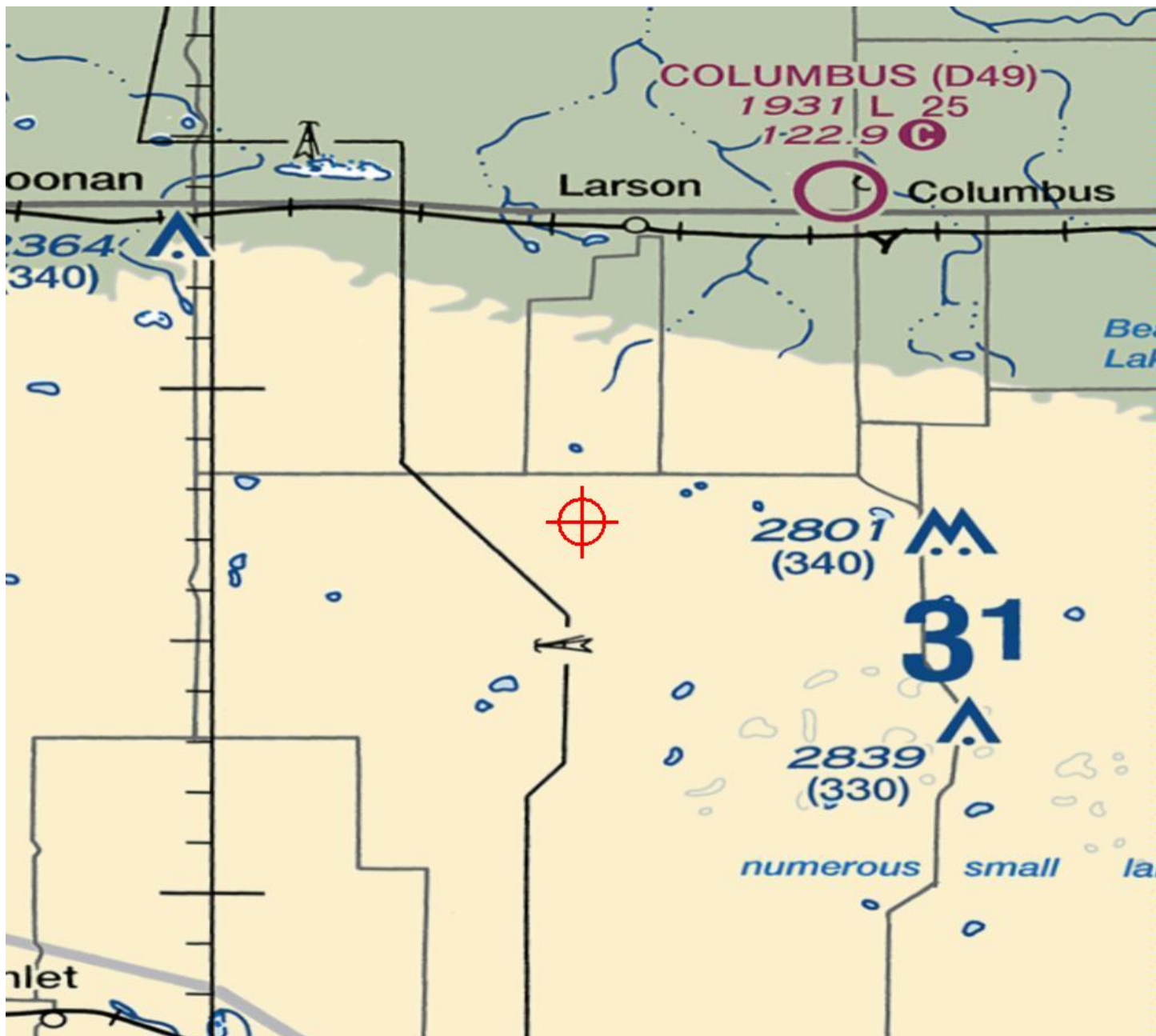
cc: FCC

**Additional information for ASN 2020-WTE-953-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-953-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-954-OE  
Prior Study No.  
2018-WTE-7633-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 22
Location:	Columbus, ND
Latitude:	48-46-07.66N NAD 83
Longitude:	102-52-54.52W
Heights:	2385 feet site elevation (SE) 487 feet above ground level (AGL) 2872 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

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In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-954-OE.

**Signature Control No: 431890165-436492243**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

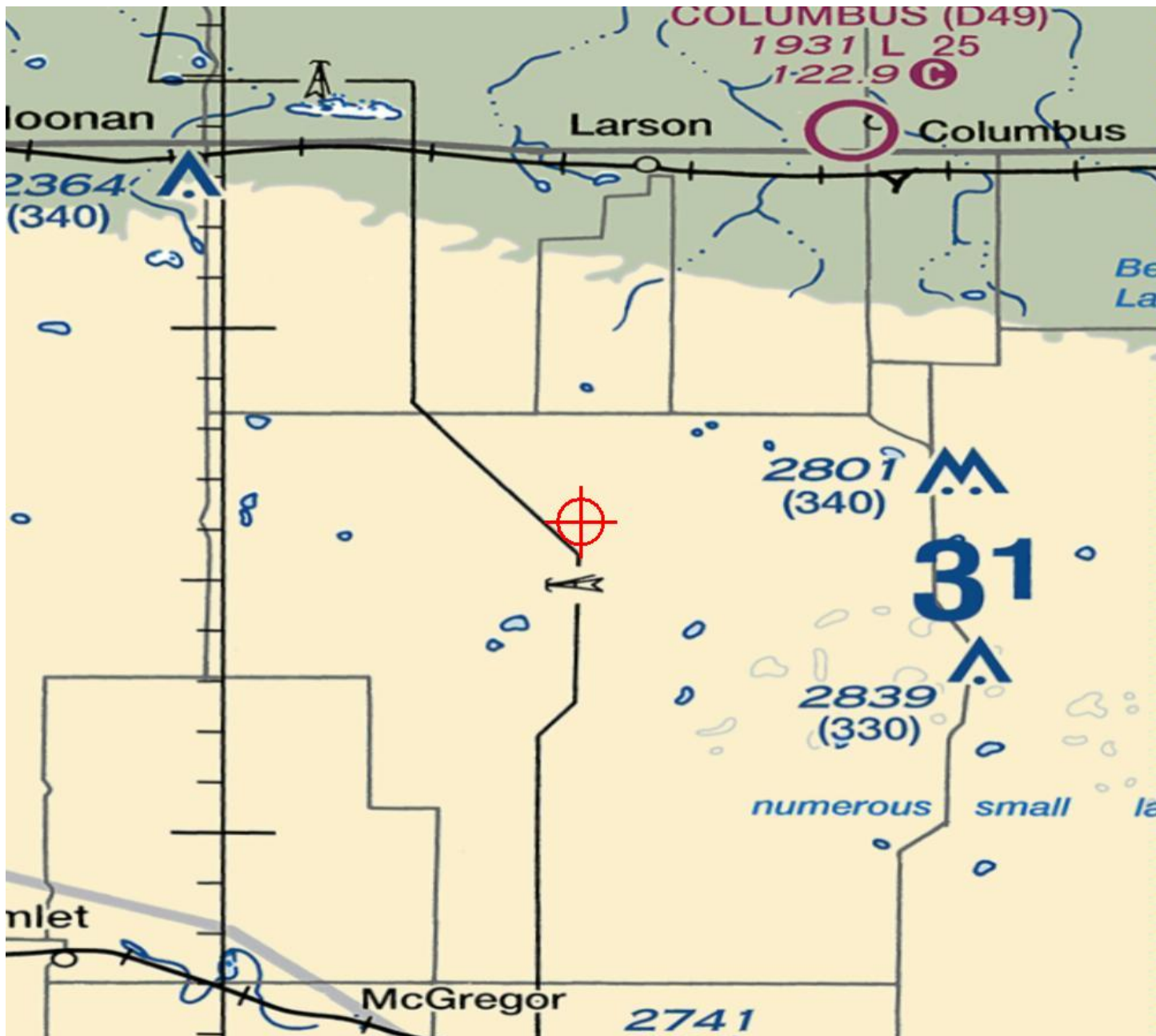
cc: FCC

**Additional information for ASN 2020-WTE-954-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-954-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-955-OE  
Prior Study No.  
2018-WTE-7634-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 23
Location:	Columbus, ND
Latitude:	48-46-24.20N NAD 83
Longitude:	102-52-43.39W
Heights:	2394 feet site elevation (SE) 487 feet above ground level (AGL) 2881 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-955-OE.

**Signature Control No: 431890168-436492245**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

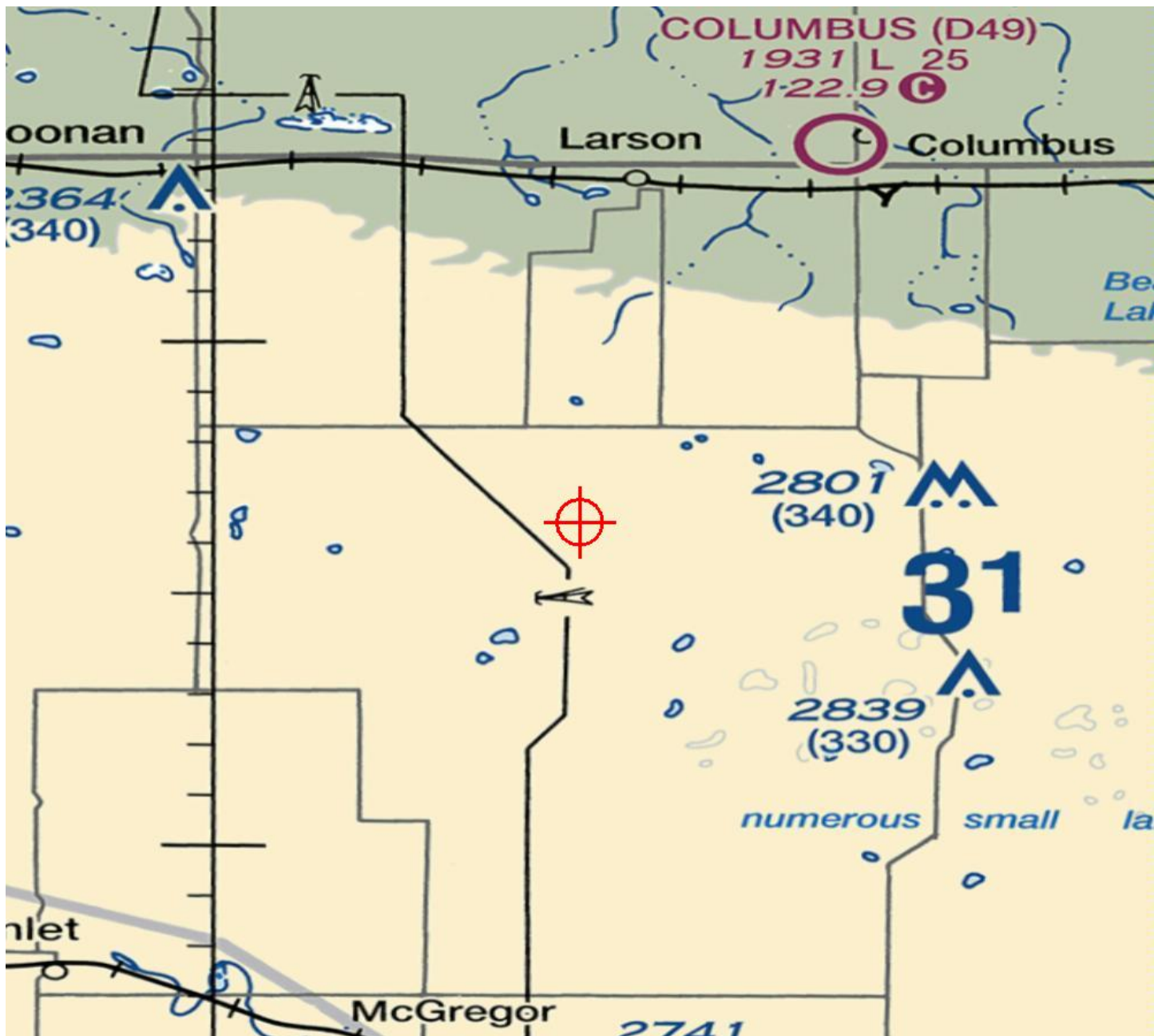
cc: FCC

**Additional information for ASN 2020-WTE-955-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-955-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-956-OE  
Prior Study No.  
2018-WTE-7635-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 24
Location:	Columbus, ND
Latitude:	48-46-11.69N NAD 83
Longitude:	102-52-02.27W
Heights:	2389 feet site elevation (SE) 487 feet above ground level (AGL) 2876 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-956-OE.

**Signature Control No: 431890169-436492246**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

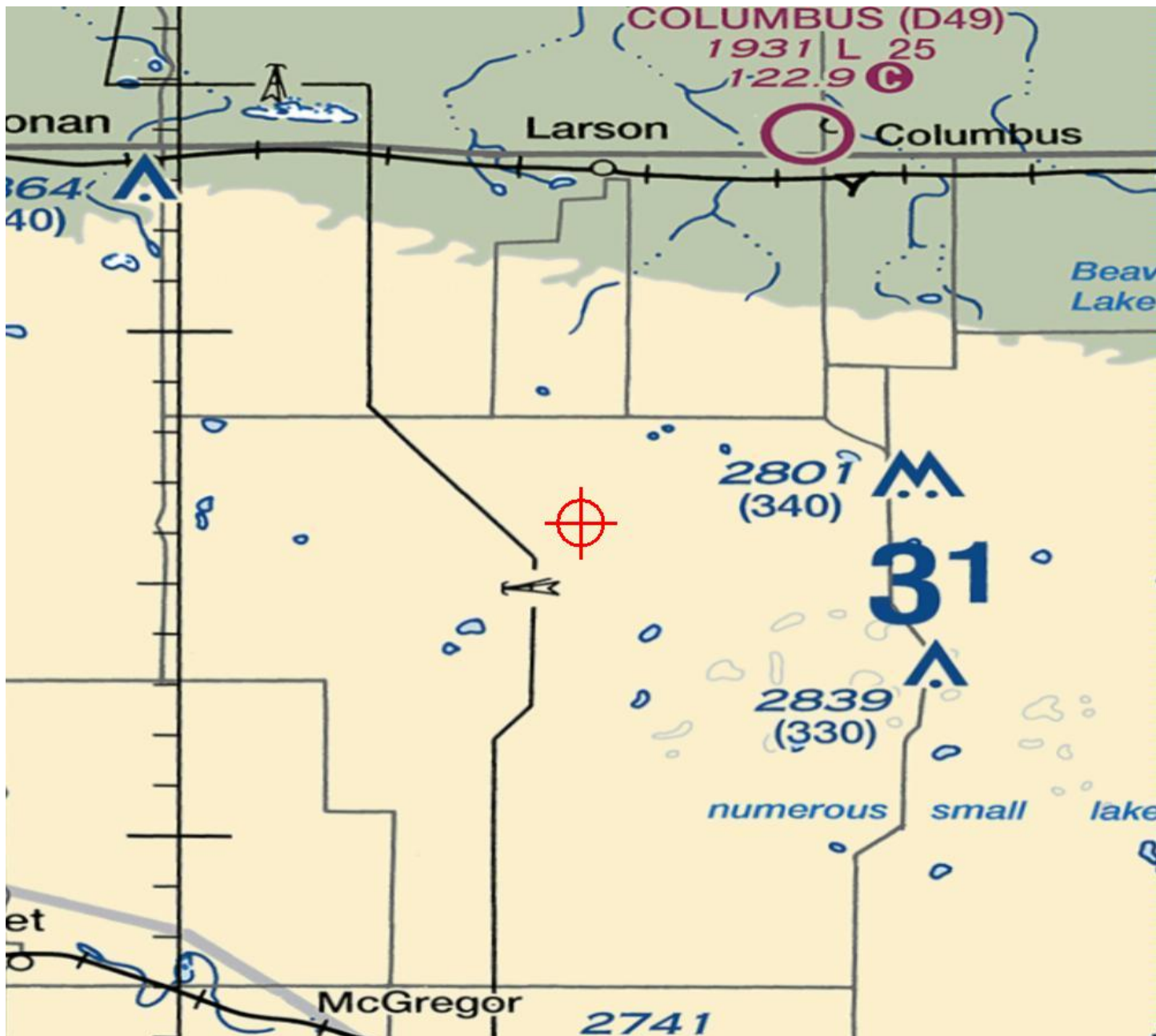
**Additional information for ASN 2020-WTE-956-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-956-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-956-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-957-OE  
Prior Study No.  
2018-WTE-7636-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 25
Location:	Columbus, ND
Latitude:	48-46-10.93N NAD 83
Longitude:	102-51-42.21W
Heights:	2410 feet site elevation (SE) 487 feet above ground level (AGL) 2897 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-957-OE.

**Signature Control No: 431890172-436492247**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

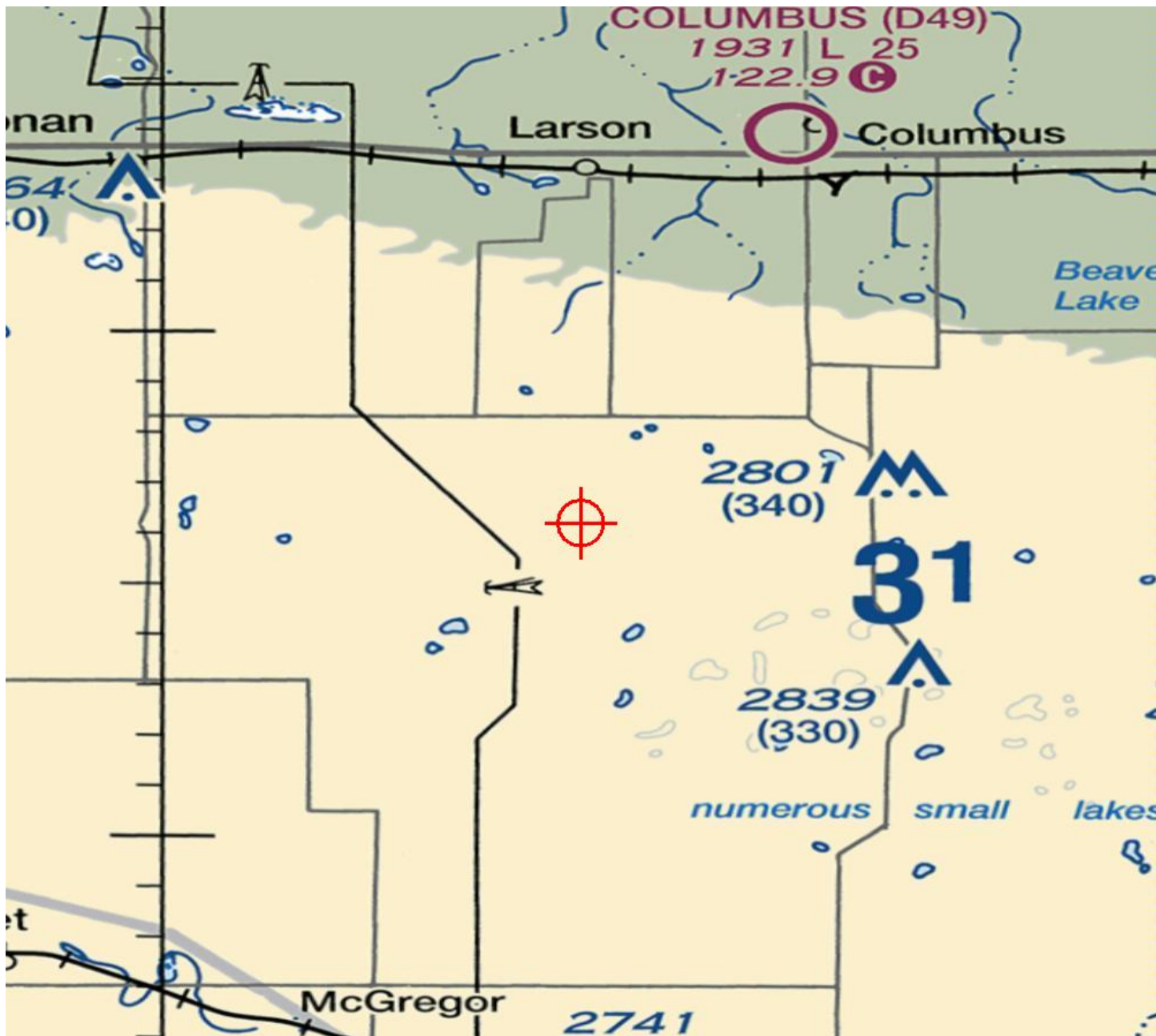
cc: FCC

**Additional information for ASN 2020-WTE-957-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-957-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-958-OE  
Prior Study No.  
2018-WTE-7637-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 26
Location:	Columbus, ND
Latitude:	48-46-01.87N NAD 83
Longitude:	102-51-18.59W
Heights:	2410 feet site elevation (SE) 487 feet above ground level (AGL) 2897 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-958-OE.

**Signature Control No: 431890173-436492248**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

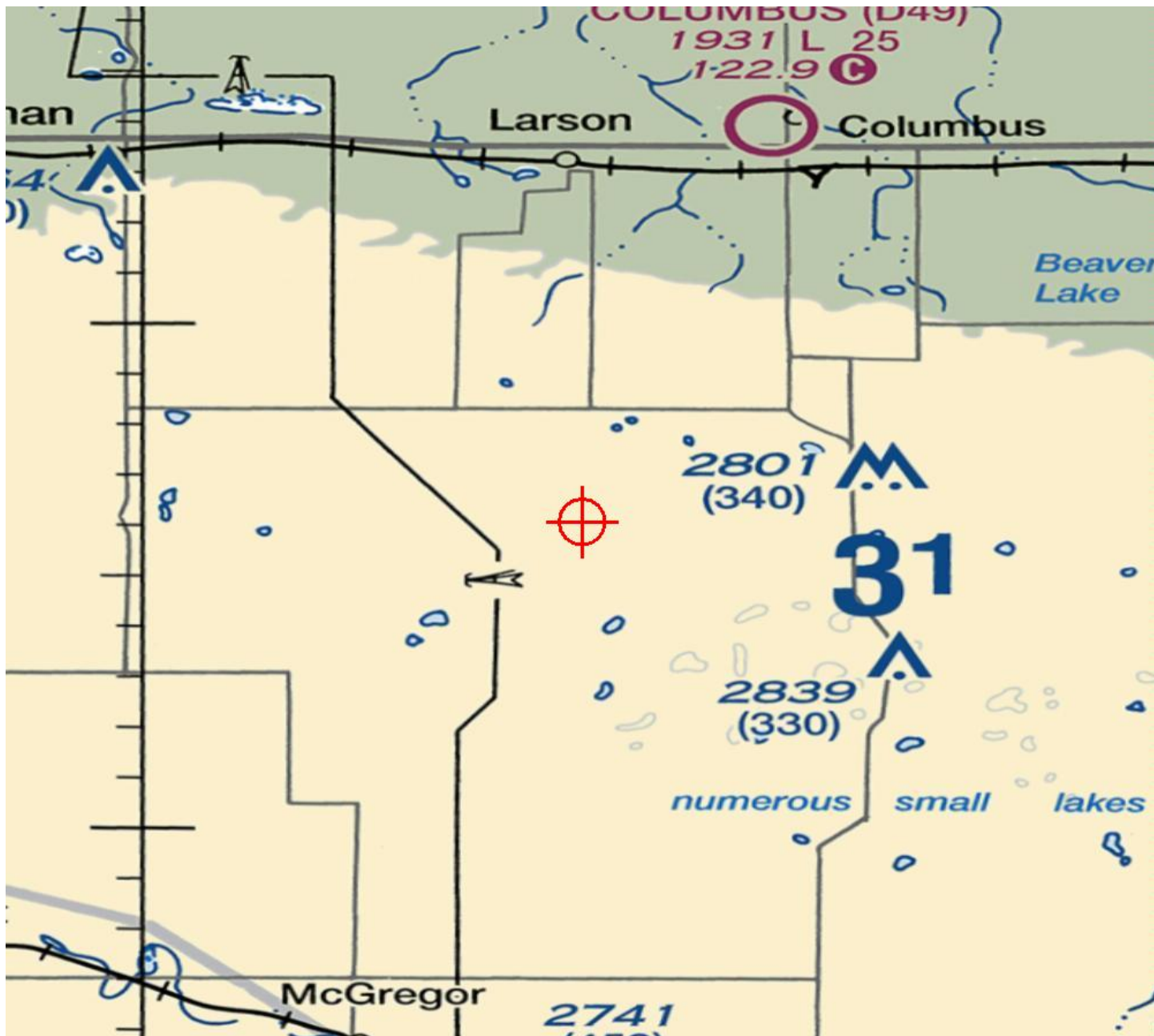
**Additional information for ASN 2020-WTE-958-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-958-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-958-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-959-OE  
Prior Study No.  
2018-WTE-7638-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 27
Location:	Columbus, ND
Latitude:	48-45-26.95N NAD 83
Longitude:	102-50-53.92W
Heights:	2435 feet site elevation (SE) 487 feet above ground level (AGL) 2922 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-959-OE.

**Signature Control No: 431890174-436492249**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

**Additional information for ASN 2020-WTE-959-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-959-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-959-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-960-OE  
Prior Study No.  
2018-WTE-7639-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 28
Location:	Columbus, ND
Latitude:	48-45-33.67N NAD 83
Longitude:	102-50-37.61W
Heights:	2426 feet site elevation (SE) 487 feet above ground level (AGL) 2913 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-960-OE.

**Signature Control No: 431890175-436492250**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

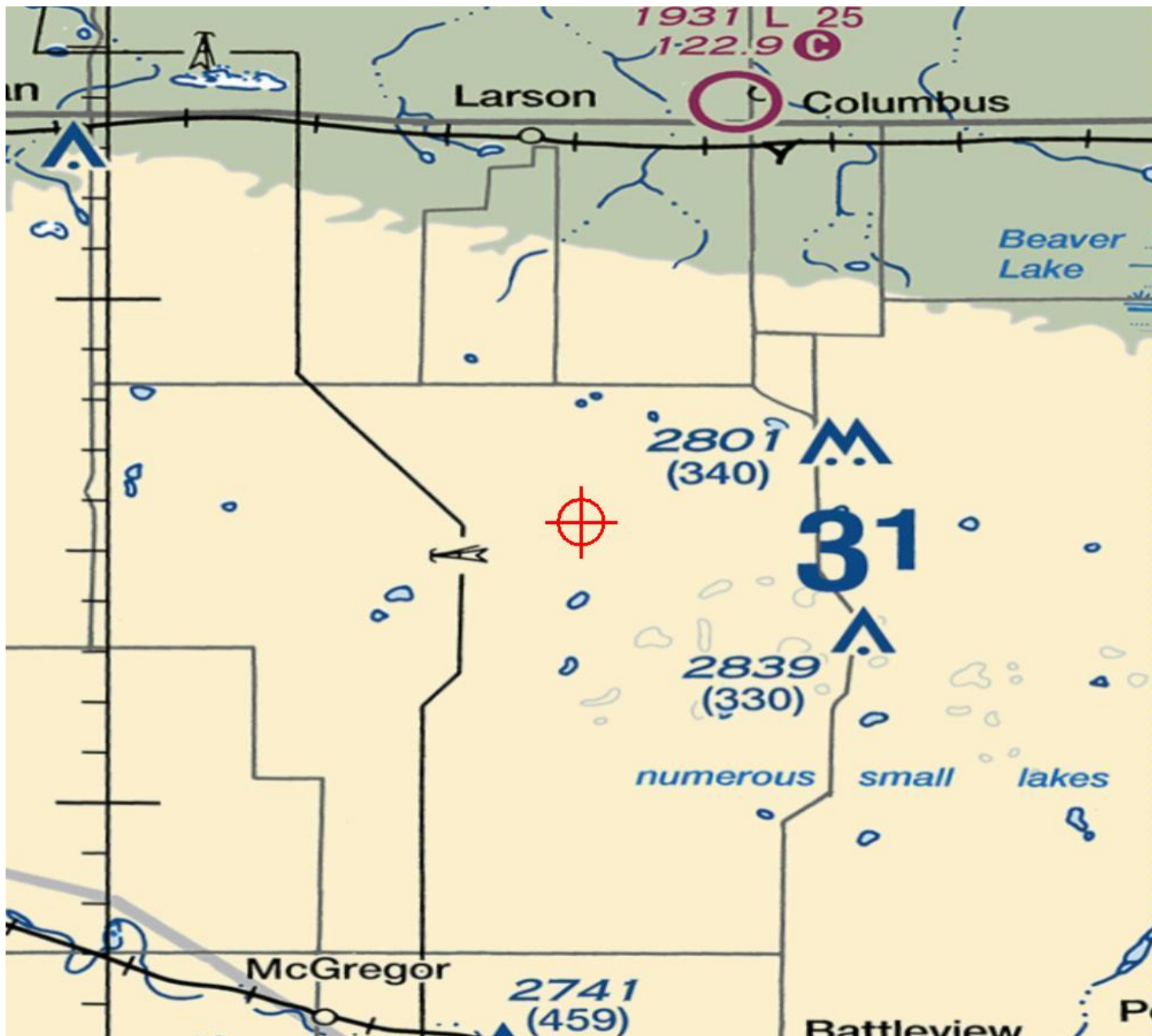
**Additional information for ASN 2020-WTE-960-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-960-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-960-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-961-OE  
Prior Study No.  
2018-WTE-7640-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 29
Location:	Columbus, ND
Latitude:	48-46-21.64N NAD 83
Longitude:	102-50-58.99W
Heights:	2415 feet site elevation (SE) 487 feet above ground level (AGL) 2902 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-961-OE.

**Signature Control No: 431890178-436492251**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

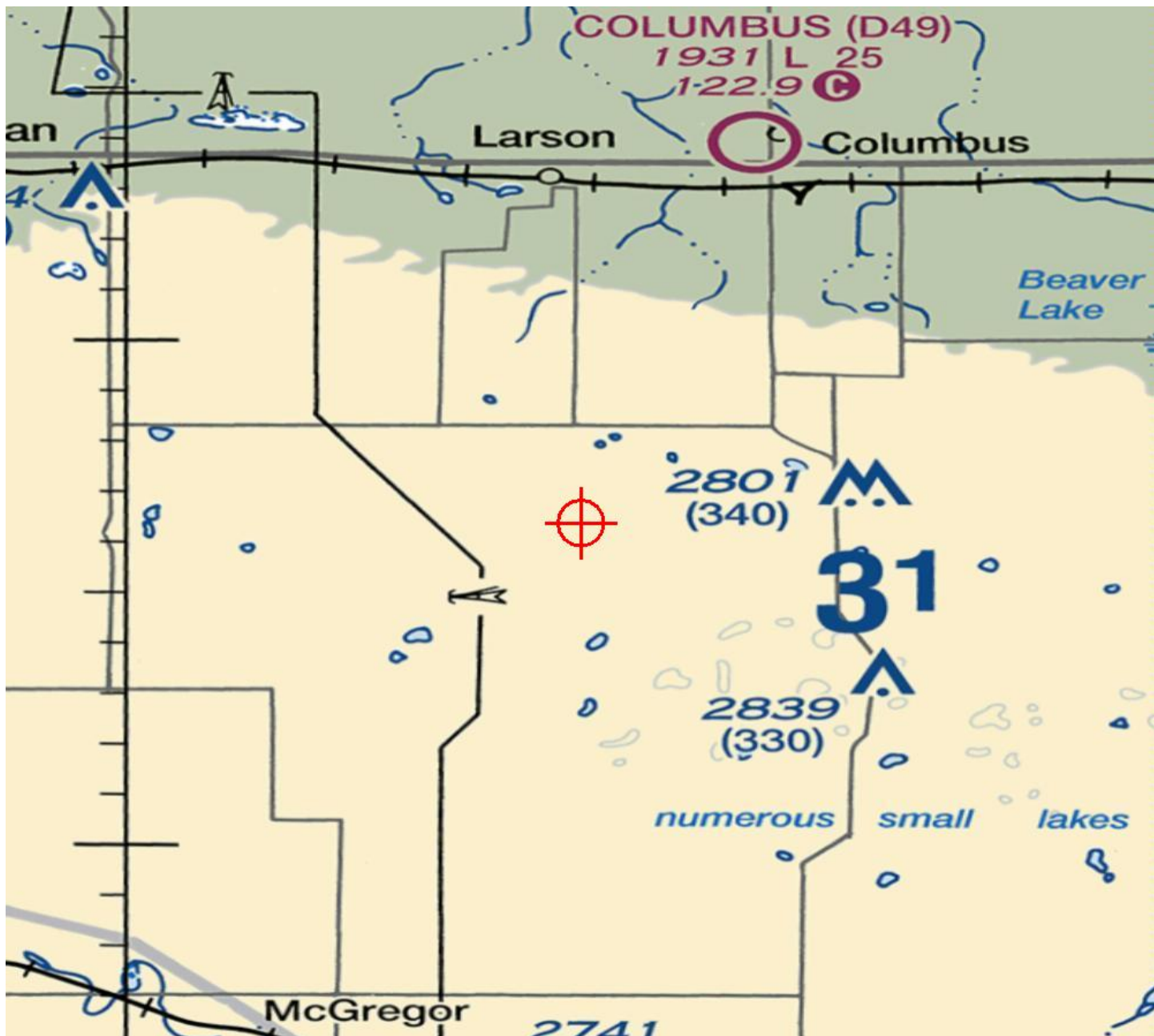
cc: FCC

**Additional information for ASN 2020-WTE-961-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-961-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-962-OE  
Prior Study No.  
2018-WTE-7641-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 30
Location:	Columbus, ND
Latitude:	48-46-28.98N NAD 83
Longitude:	102-50-40.73W
Heights:	2423 feet site elevation (SE) 487 feet above ground level (AGL) 2910 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-962-OE.

**Signature Control No: 431890179-436492252**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

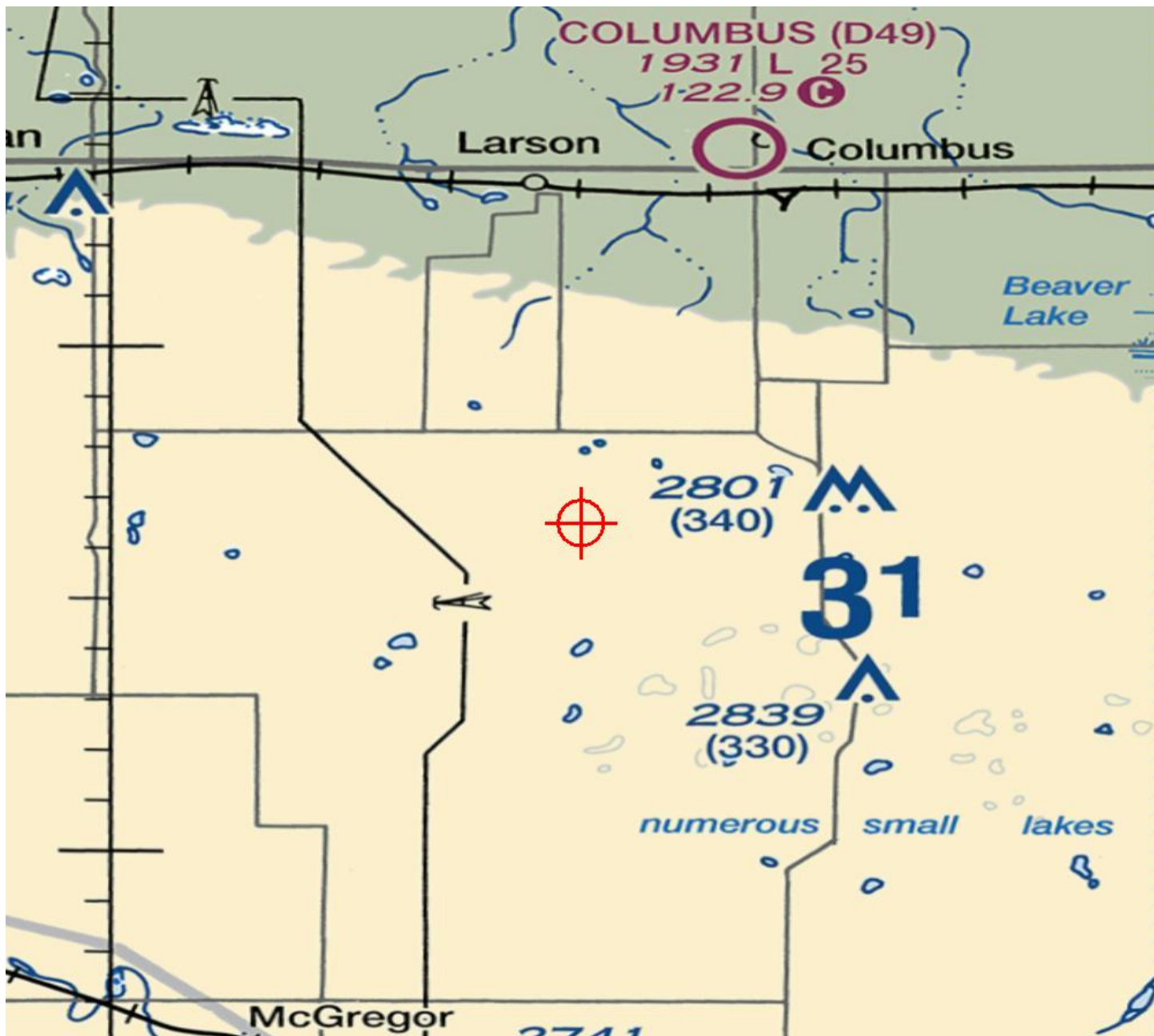
cc: FCC

## **Additional information for ASN 2020-WTE-962-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-962-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-963-OE  
Prior Study No.  
2018-WTE-7642-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 31
Location:	Columbus, ND
Latitude:	48-46-32.84N NAD 83
Longitude:	102-50-23.27W
Heights:	2417 feet site elevation (SE) 487 feet above ground level (AGL) 2904 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-963-OE.

**Signature Control No: 431890180-436492253**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

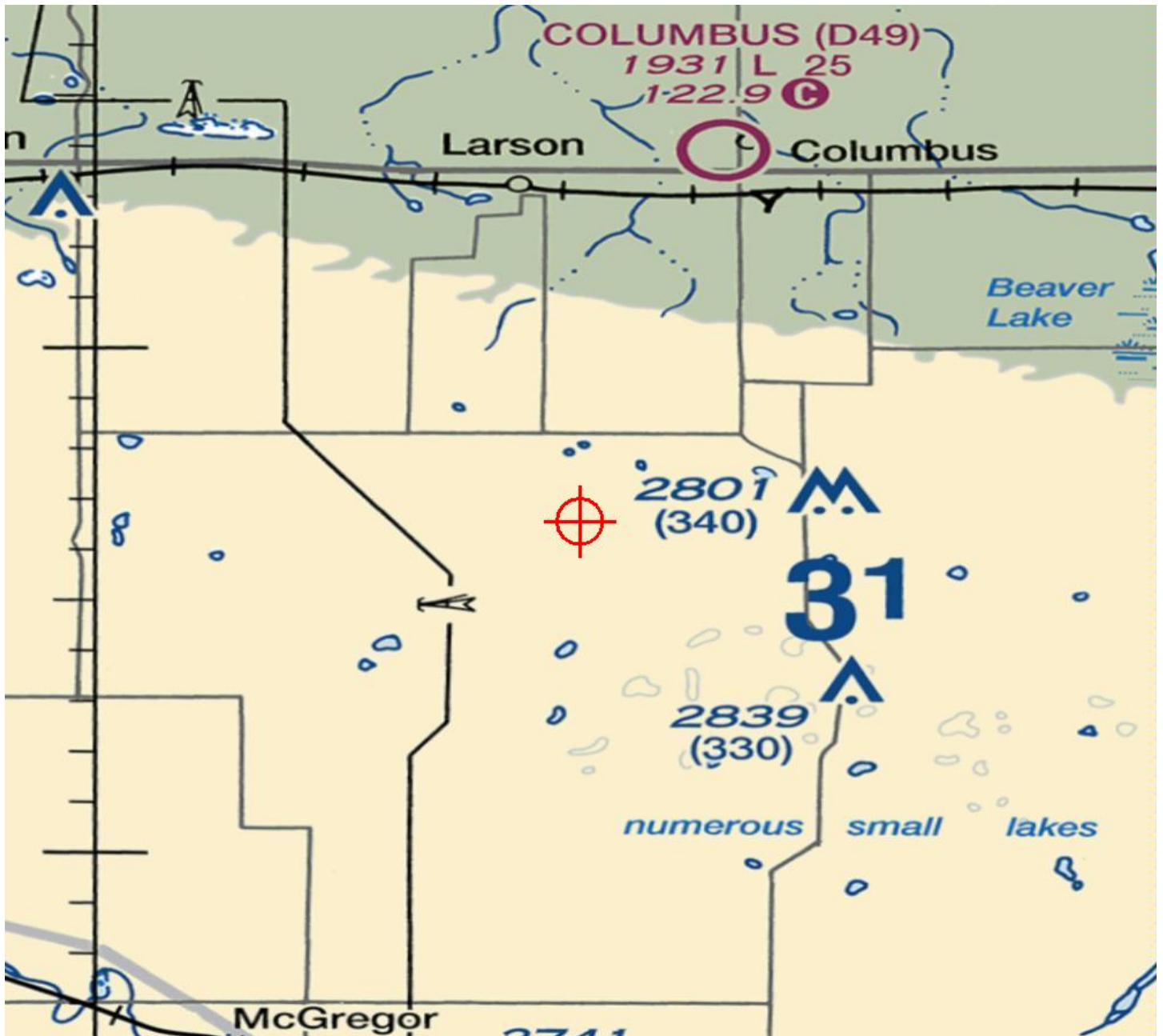
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## **Additional information for ASN 2020-WTE-963-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-963-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-964-OE  
Prior Study No.  
2018-WTE-7643-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 32
Location:	Columbus, ND
Latitude:	48-46-56.90N NAD 83
Longitude:	102-50-29.93W
Heights:	2427 feet site elevation (SE) 487 feet above ground level (AGL) 2914 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-964-OE.

**Signature Control No: 431890181-436492255**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

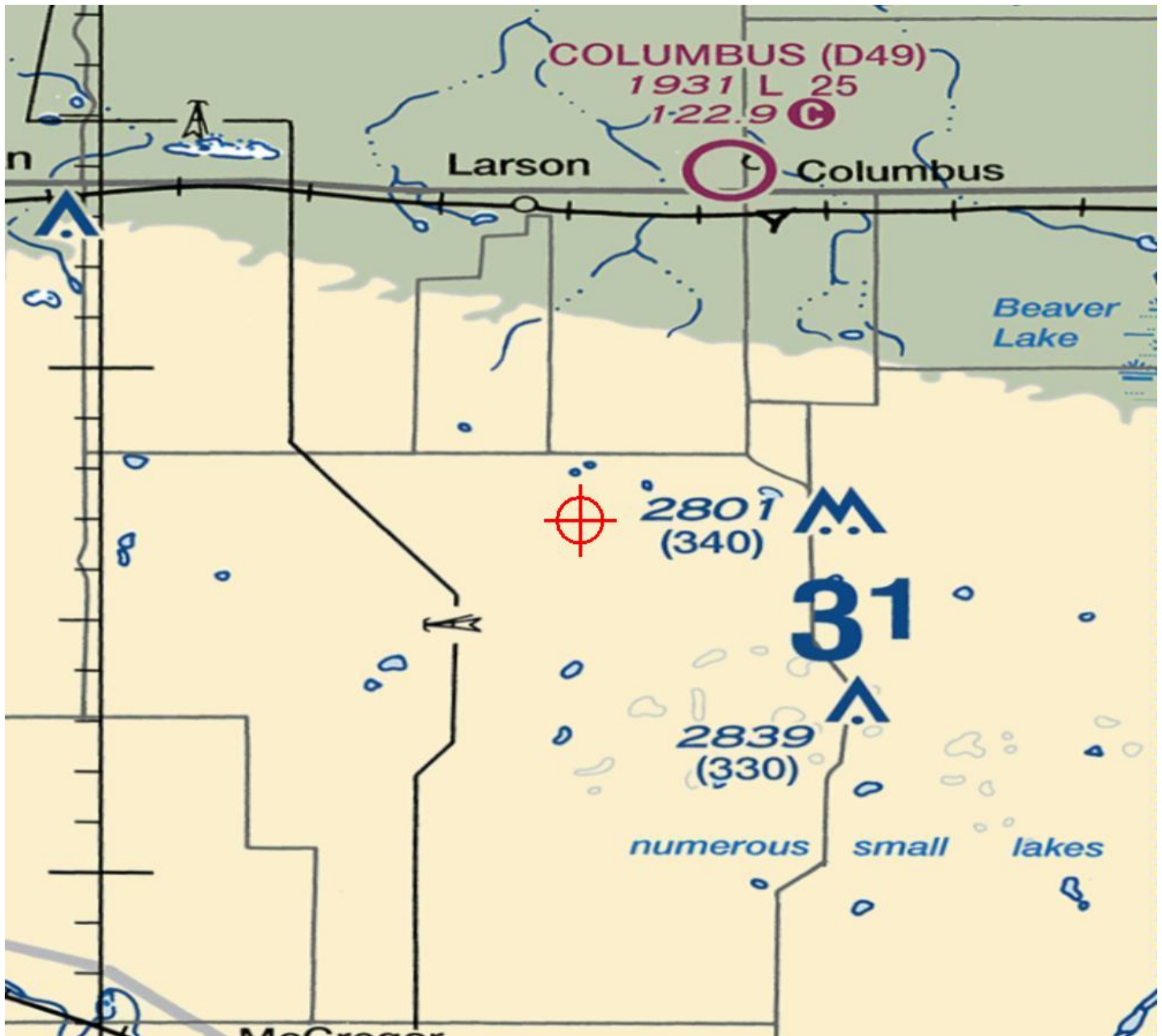
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## **Additional information for ASN 2020-WTE-964-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-964-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-965-OE  
Prior Study No.  
2018-WTE-7644-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 33
Location:	Columbus, ND
Latitude:	48-47-03.63N NAD 83
Longitude:	102-50-00.33W
Heights:	2409 feet site elevation (SE) 487 feet above ground level (AGL) 2896 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

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In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

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If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-965-OE.

**Signature Control No: 431890182-436492256**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

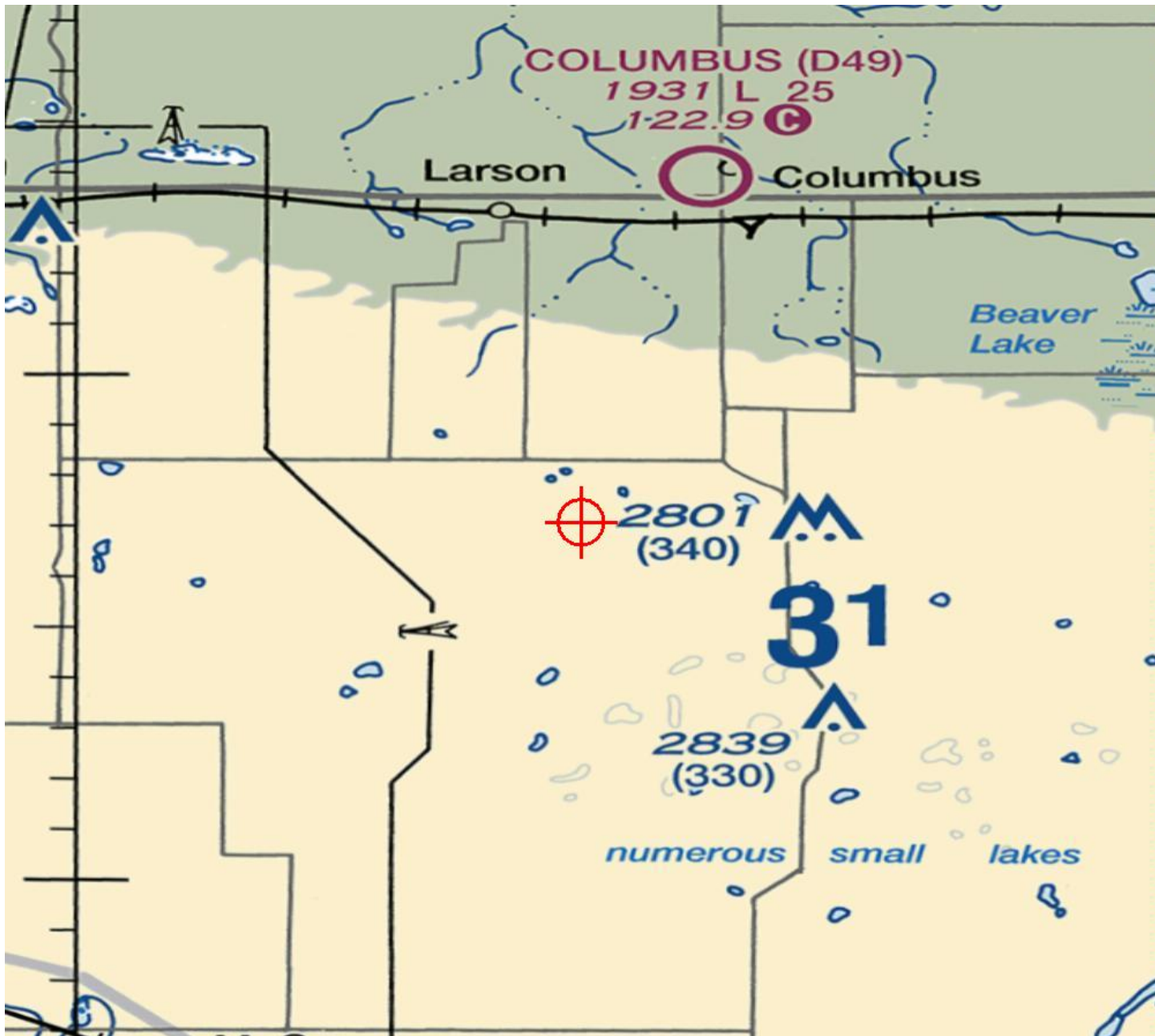
cc: FCC

**Additional information for ASN 2020-WTE-965-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-965-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-966-OE  
Prior Study No.  
2018-WTE-7645-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 34
Location:	Columbus, ND
Latitude:	48-47-24.36N NAD 83
Longitude:	102-50-53.16W
Heights:	2414 feet site elevation (SE) 487 feet above ground level (AGL) 2901 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

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If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-966-OE.

**Signature Control No: 431890183-436492257**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

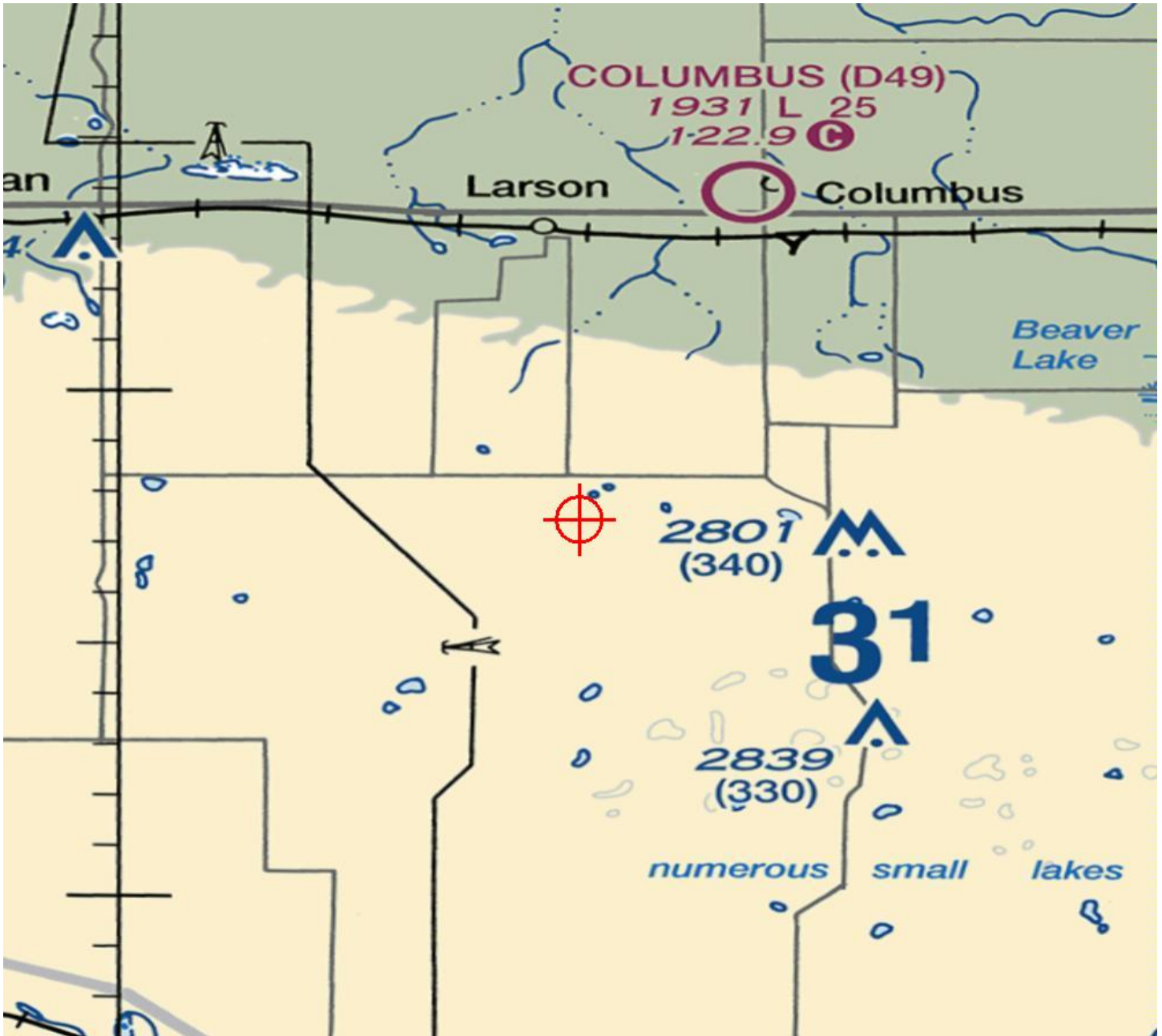
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**Additional information for ASN 2020-WTE-966-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-966-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-967-OE  
Prior Study No.  
2018-WTE-7646-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 35
Location:	Columbus, ND
Latitude:	48-47-28.60N NAD 83
Longitude:	102-50-35.58W
Heights:	2407 feet site elevation (SE) 487 feet above ground level (AGL) 2894 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-967-OE.

**Signature Control No: 431890186-436492258**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

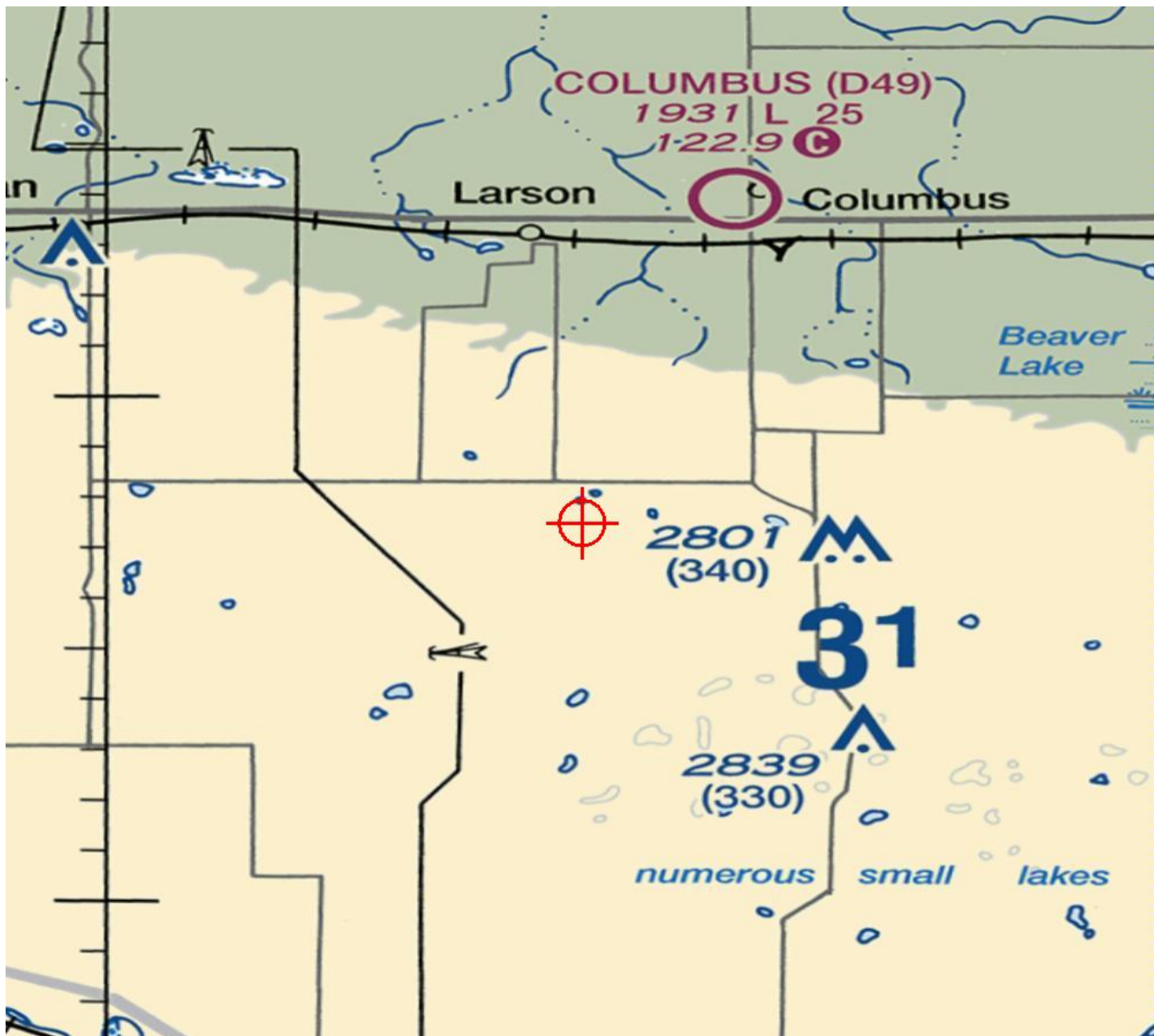
cc: FCC

**Additional information for ASN 2020-WTE-967-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-967-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-968-OE  
Prior Study No.  
2018-WTE-7647-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 36
Location:	Columbus, ND
Latitude:	48-47-24.38N NAD 83
Longitude:	102-50-11.84W
Heights:	2396 feet site elevation (SE) 487 feet above ground level (AGL) 2883 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-968-OE.

**Signature Control No: 431890192-436492259**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

**Additional information for ASN 2020-WTE-968-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-968-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-969-OE  
Prior Study No.  
2018-WTE-7648-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 37
Location:	Columbus, ND
Latitude:	48-47-46.73N NAD 83
Longitude:	102-50-22.10W
Heights:	2373 feet site elevation (SE) 487 feet above ground level (AGL) 2860 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-969-OE.

**Signature Control No: 431890193-436492260**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

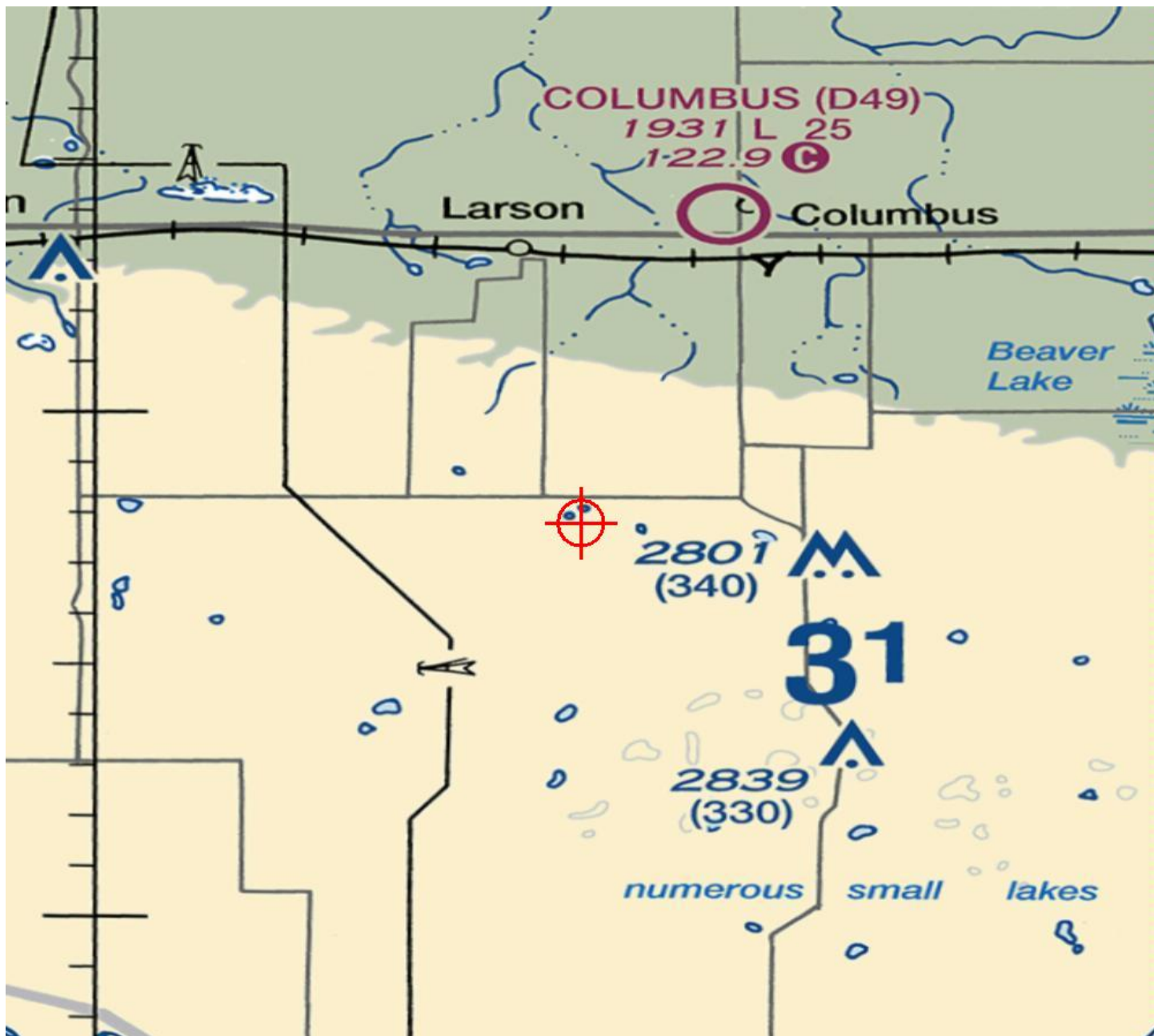
cc: FCC

**Additional information for ASN 2020-WTE-969-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-969-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-970-OE  
Prior Study No.  
2018-WTE-7649-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 38
Location:	Columbus, ND
Latitude:	48-47-46.35N NAD 83
Longitude:	102-50-02.22W
Heights:	2373 feet site elevation (SE) 487 feet above ground level (AGL) 2860 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-970-OE.

**Signature Control No: 431890194-436492261**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

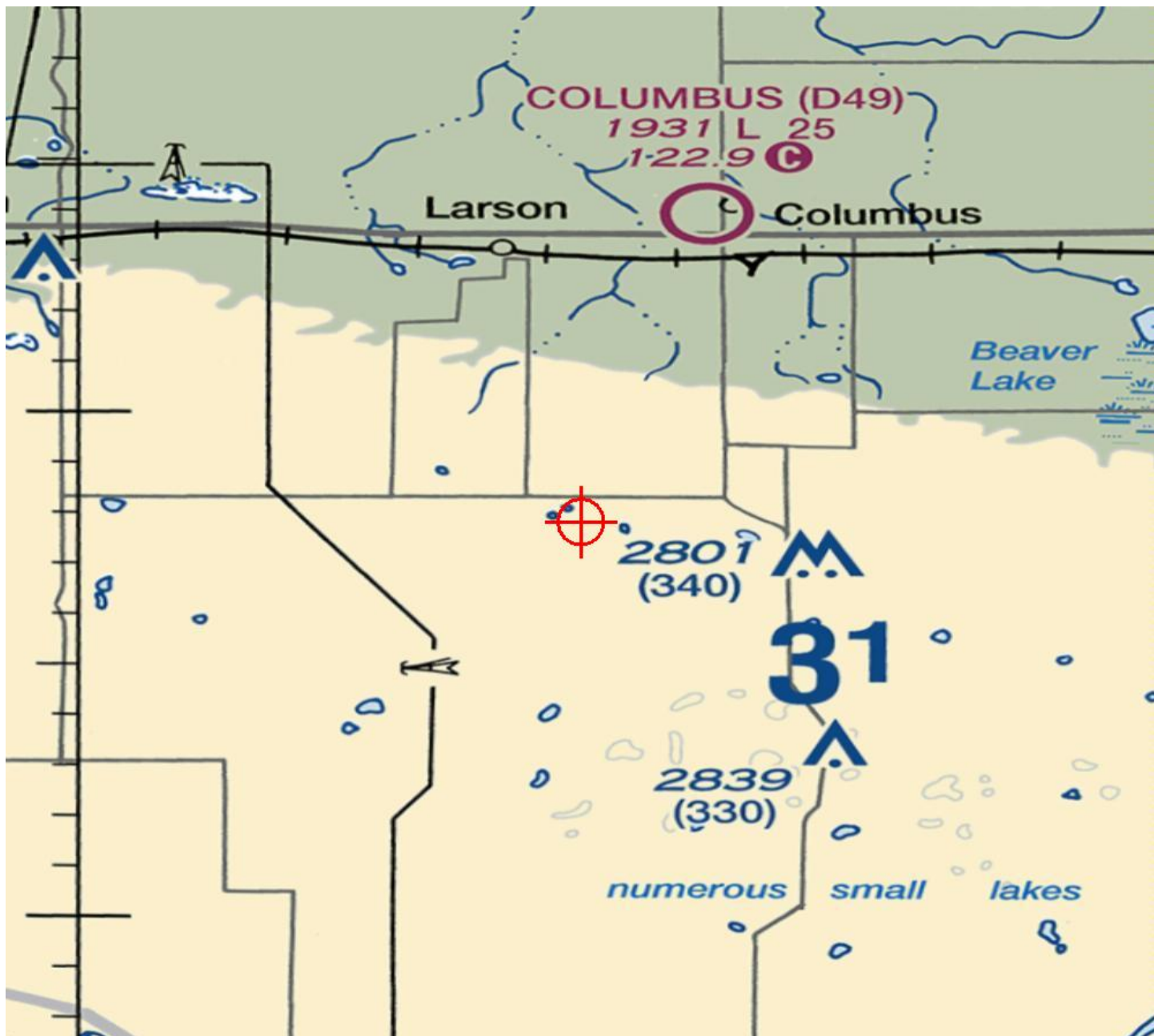
cc: FCC

## **Additional information for ASN 2020-WTE-970-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-970-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-971-OE  
Prior Study No.  
2018-WTE-7650-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 39
Location:	Columbus, ND
Latitude:	48-48-06.24N NAD 83
Longitude:	102-50-12.34W
Heights:	2349 feet site elevation (SE) 487 feet above ground level (AGL) 2836 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-971-OE.

**Signature Control No: 431890195-436492262**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

**Additional information for ASN 2020-WTE-971-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-971-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-972-OE  
Prior Study No.  
2018-WTE-7651-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 40
Location:	Columbus, ND
Latitude:	48-48-14.78N NAD 83
Longitude:	102-50-39.97W
Heights:	2350 feet site elevation (SE) 487 feet above ground level (AGL) 2837 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-972-OE.

**Signature Control No: 431890196-436492263**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

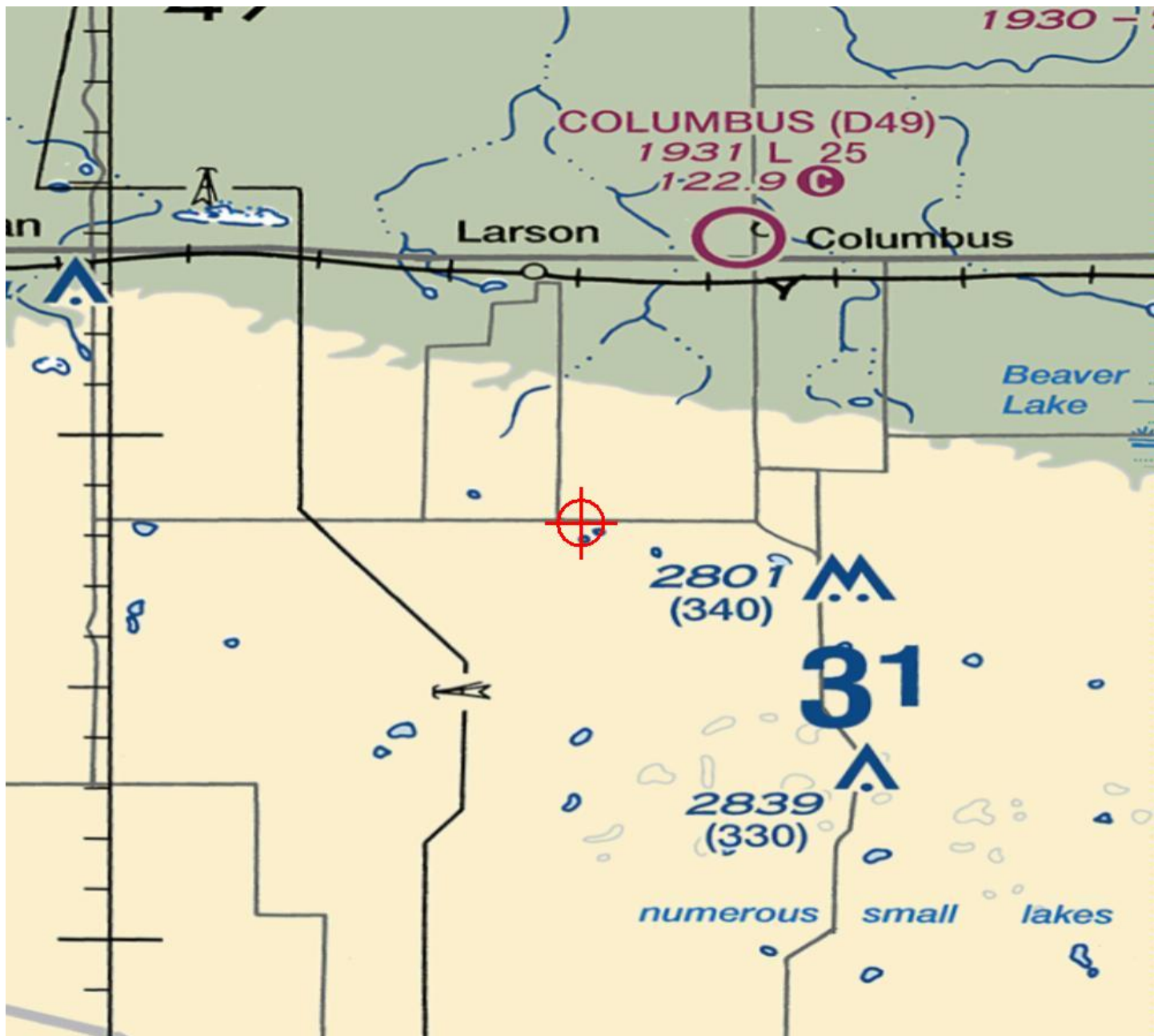
cc: FCC

**Additional information for ASN 2020-WTE-972-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-972-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-973-OE  
Prior Study No.  
2018-WTE-7653-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 42
Location:	Columbus, ND
Latitude:	48-48-47.94N NAD 83
Longitude:	102-50-26.69W
Heights:	2318 feet site elevation (SE) 487 feet above ground level (AGL) 2805 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-973-OE.

**Signature Control No: 431890197-436492265**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

**Additional information for ASN 2020-WTE-973-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-973-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-974-OE  
Prior Study No.  
2018-WTE-7654-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 43
Location:	Columbus, ND
Latitude:	48-48-55.79N NAD 83
Longitude:	102-50-10.40W
Heights:	2286 feet site elevation (SE) 487 feet above ground level (AGL) 2773 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-974-OE.

**Signature Control No: 431890202-436492269**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

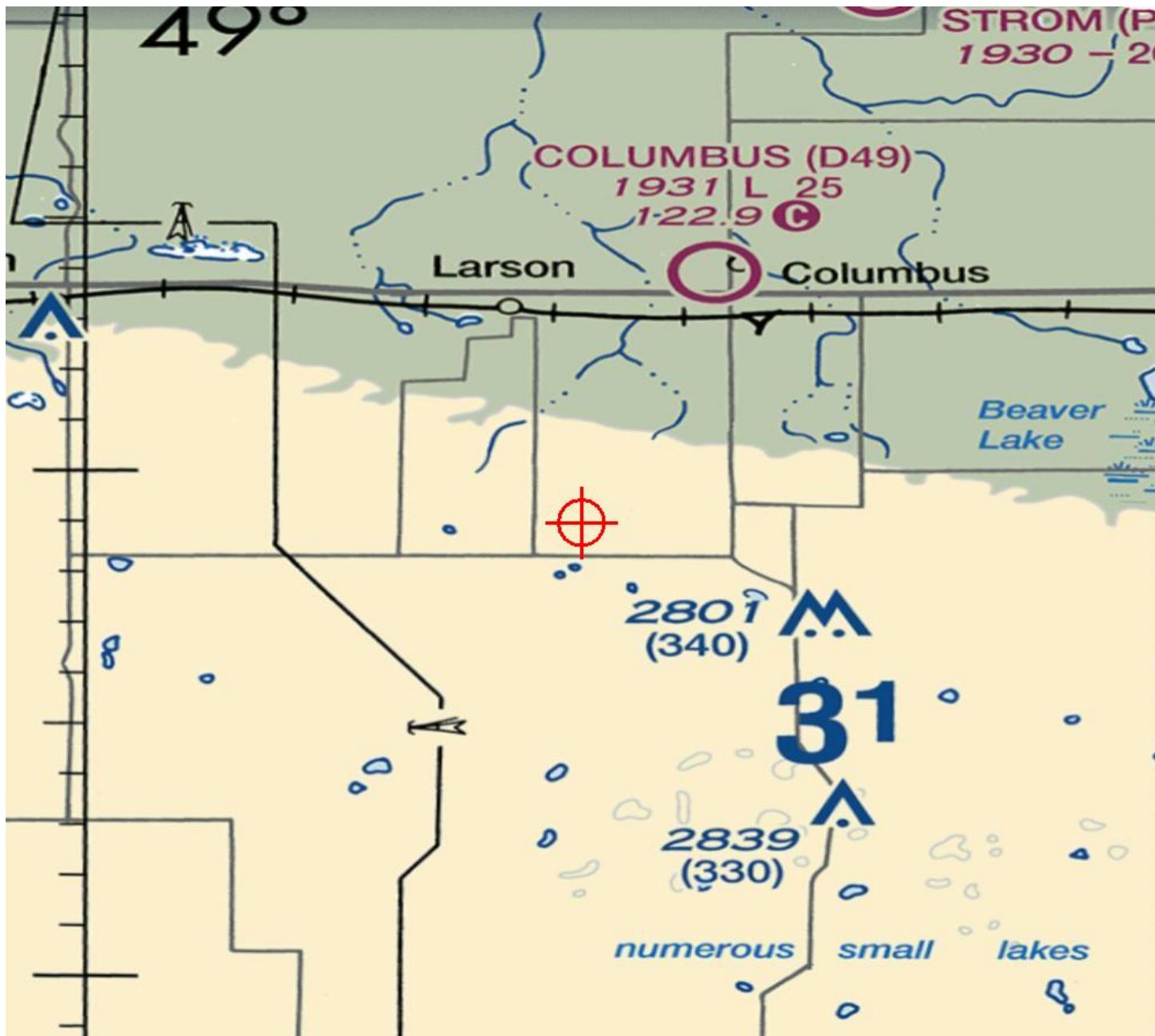
cc: FCC

**Additional information for ASN 2020-WTE-974-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-974-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-975-OE  
Prior Study No.  
2018-WTE-7656-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 45
Location:	Columbus, ND
Latitude:	48-48-05.52N NAD 83
Longitude:	102-49-30.21W
Heights:	2368 feet site elevation (SE) 487 feet above ground level (AGL) 2855 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-975-OE.

**Signature Control No: 431890203-436492270**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

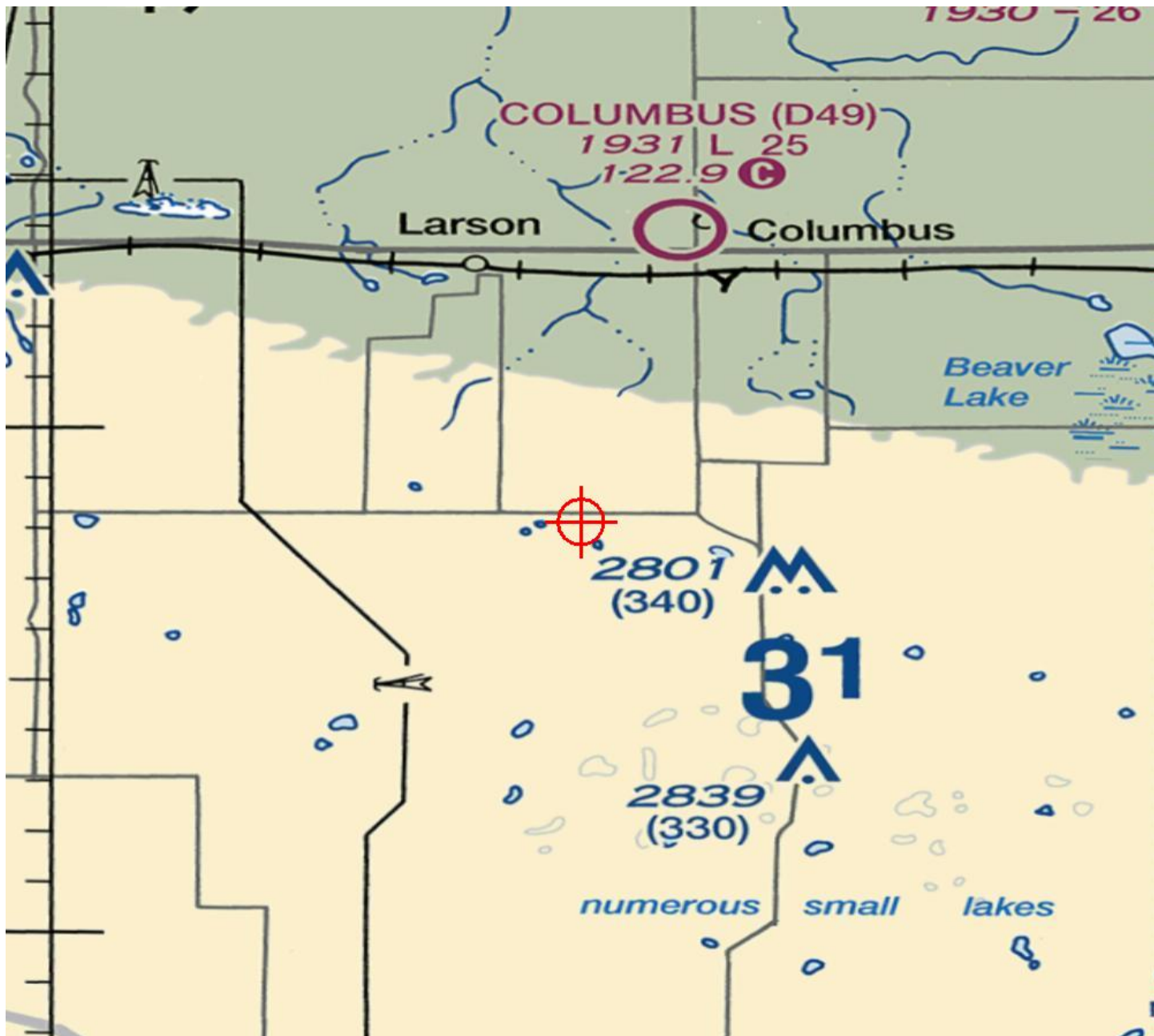
cc: FCC

**Additional information for ASN 2020-WTE-975-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-975-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-976-OE  
Prior Study No.  
2018-WTE-7659-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 48
Location:	Columbus, ND
Latitude:	48-46-34.32N NAD 83
Longitude:	102-49-28.02W
Heights:	2423 feet site elevation (SE) 487 feet above ground level (AGL) 2910 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-976-OE.

**Signature Control No: 431890204-436492275**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

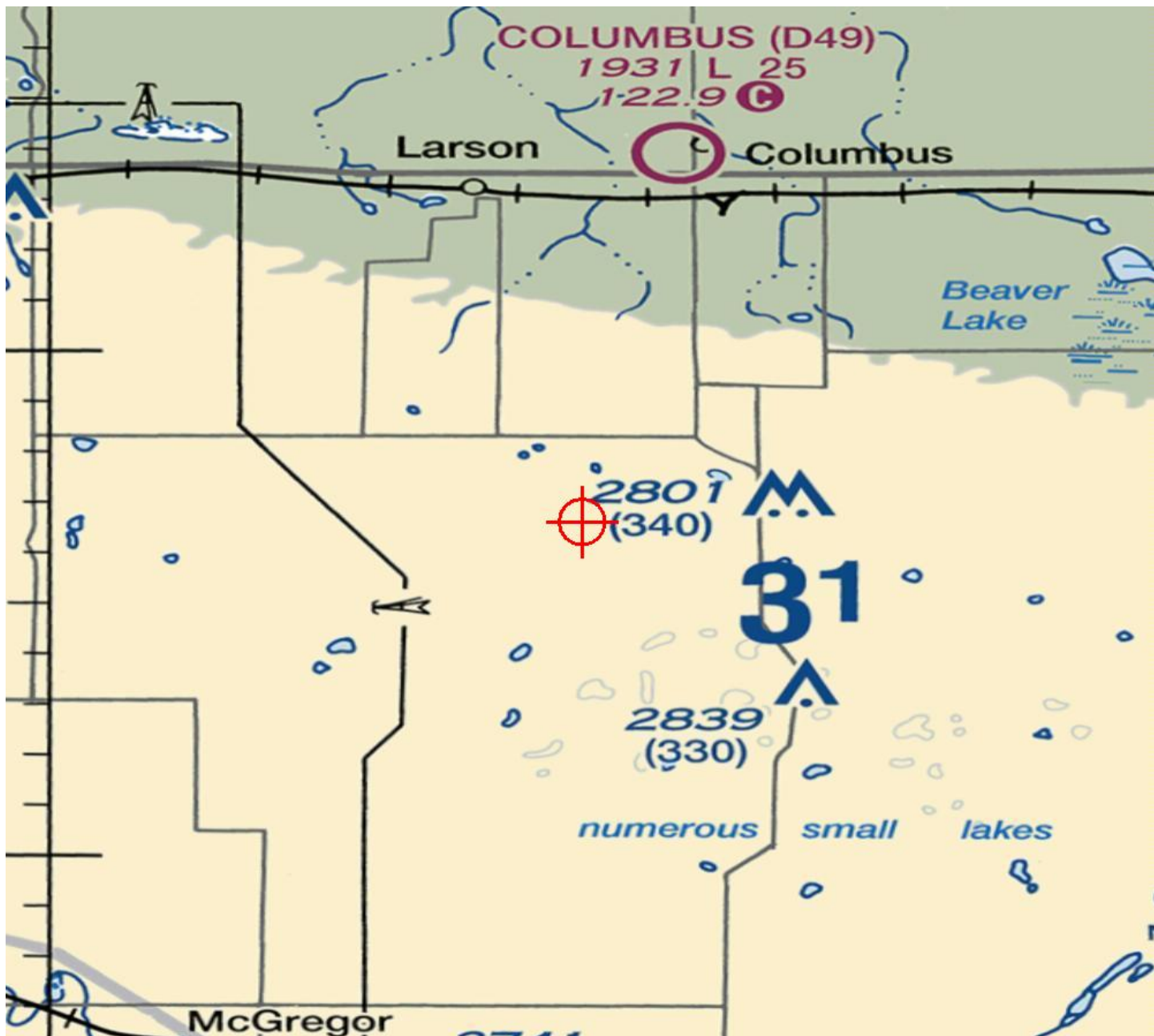
cc: FCC

**Additional information for ASN 2020-WTE-976-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-976-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-977-OE  
Prior Study No.  
2018-WTE-7660-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 49
Location:	Columbus, ND
Latitude:	48-45-14.58N NAD 83
Longitude:	102-49-01.75W
Heights:	2421 feet site elevation (SE) 487 feet above ground level (AGL) 2908 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-977-OE.

**Signature Control No: 431890205-436492281**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

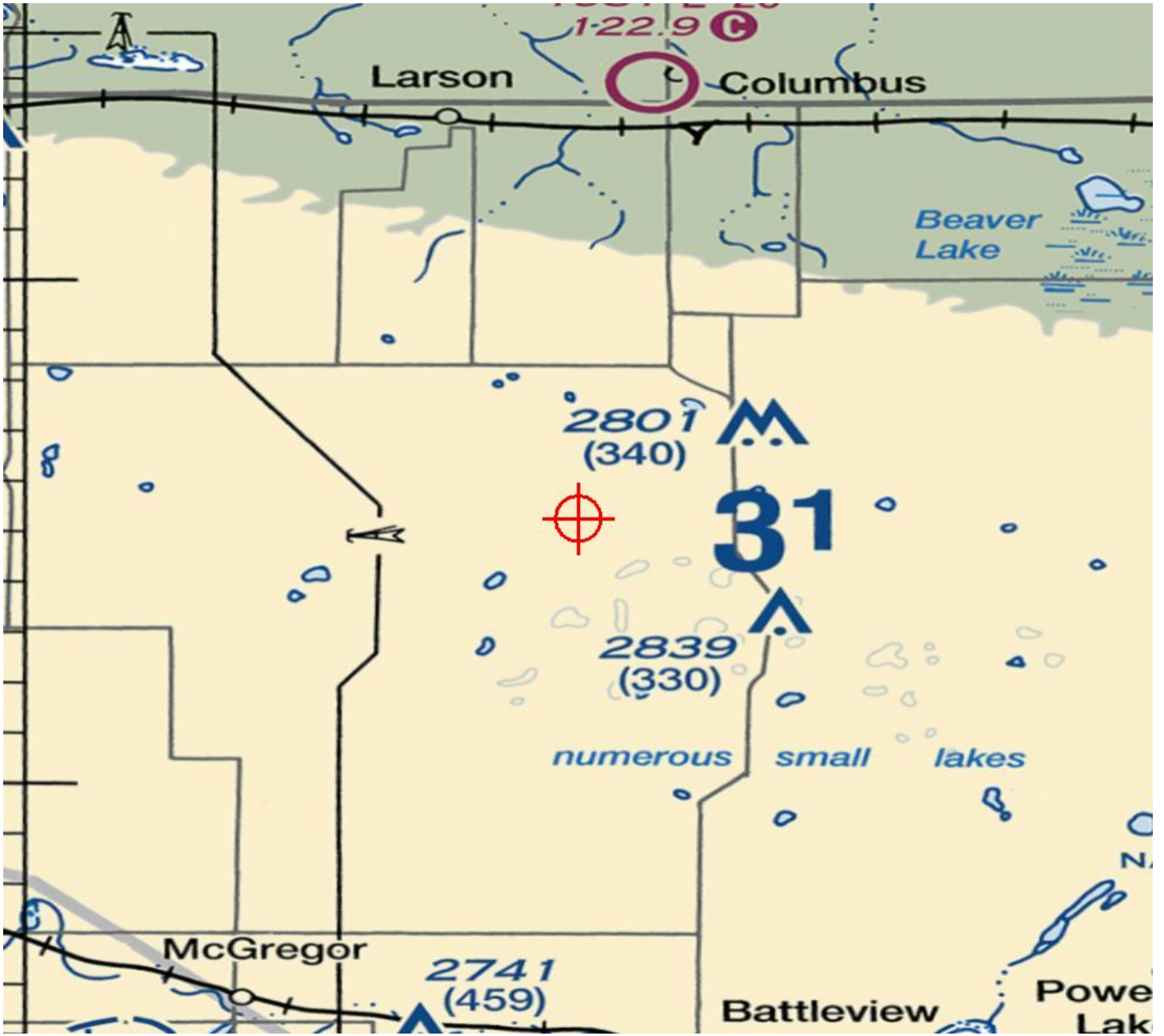
**Additional information for ASN 2020-WTE-977-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-977-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-977-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-978-OE  
Prior Study No.  
2018-WTE-7661-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 50
Location:	Columbus, ND
Latitude:	48-45-08.72N NAD 83
Longitude:	102-48-17.29W
Heights:	2471 feet site elevation (SE) 487 feet above ground level (AGL) 2958 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-978-OE.

**Signature Control No: 431890206-436492282**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

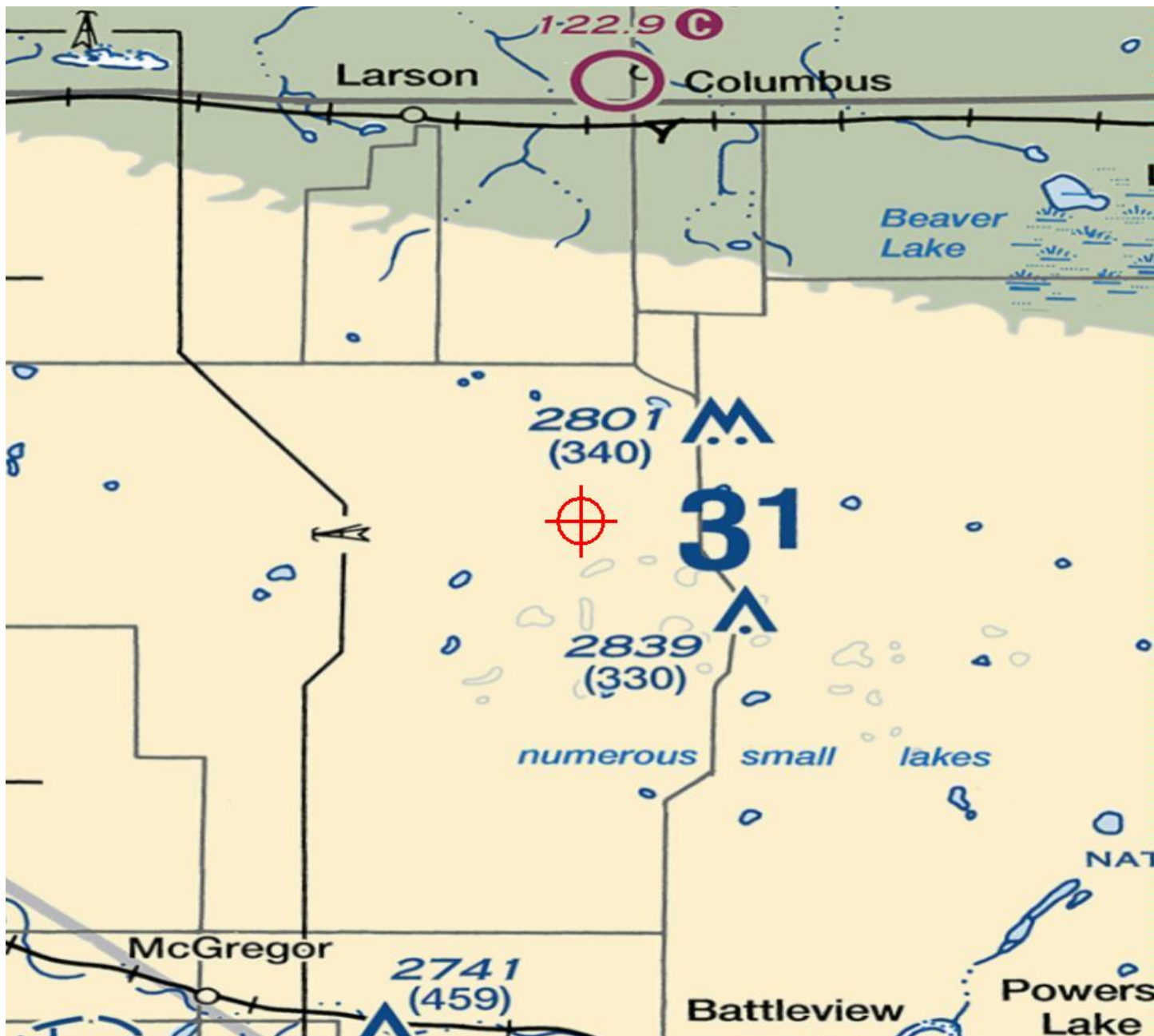
**Additional information for ASN 2020-WTE-978-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-978-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-978-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-979-OE  
Prior Study No.  
2018-WTE-7662-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 51
Location:	Columbus, ND
Latitude:	48-45-33.13N NAD 83
Longitude:	102-48-12.63W
Heights:	2443 feet site elevation (SE) 487 feet above ground level (AGL) 2930 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-979-OE.

**Signature Control No: 431890207-436492283**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

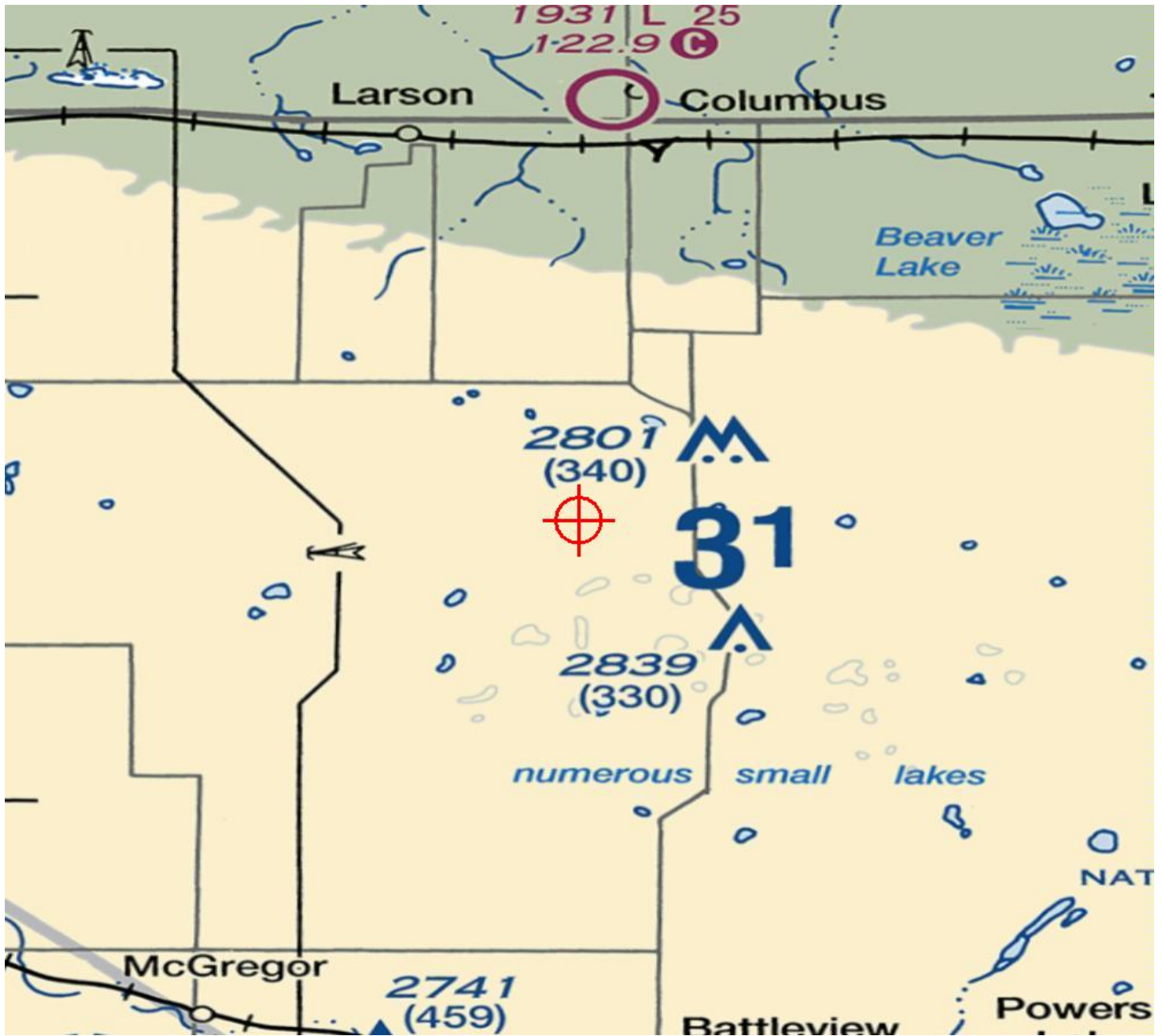
**Additional information for ASN 2020-WTE-979-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-979-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-979-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-980-OE  
Prior Study No.  
2018-WTE-7664-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 53
Location:	Columbus, ND
Latitude:	48-48-13.75N NAD 83
Longitude:	102-48-43.13W
Heights:	2329 feet site elevation (SE) 487 feet above ground level (AGL) 2816 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-980-OE.

**Signature Control No: 431890210-436492284**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

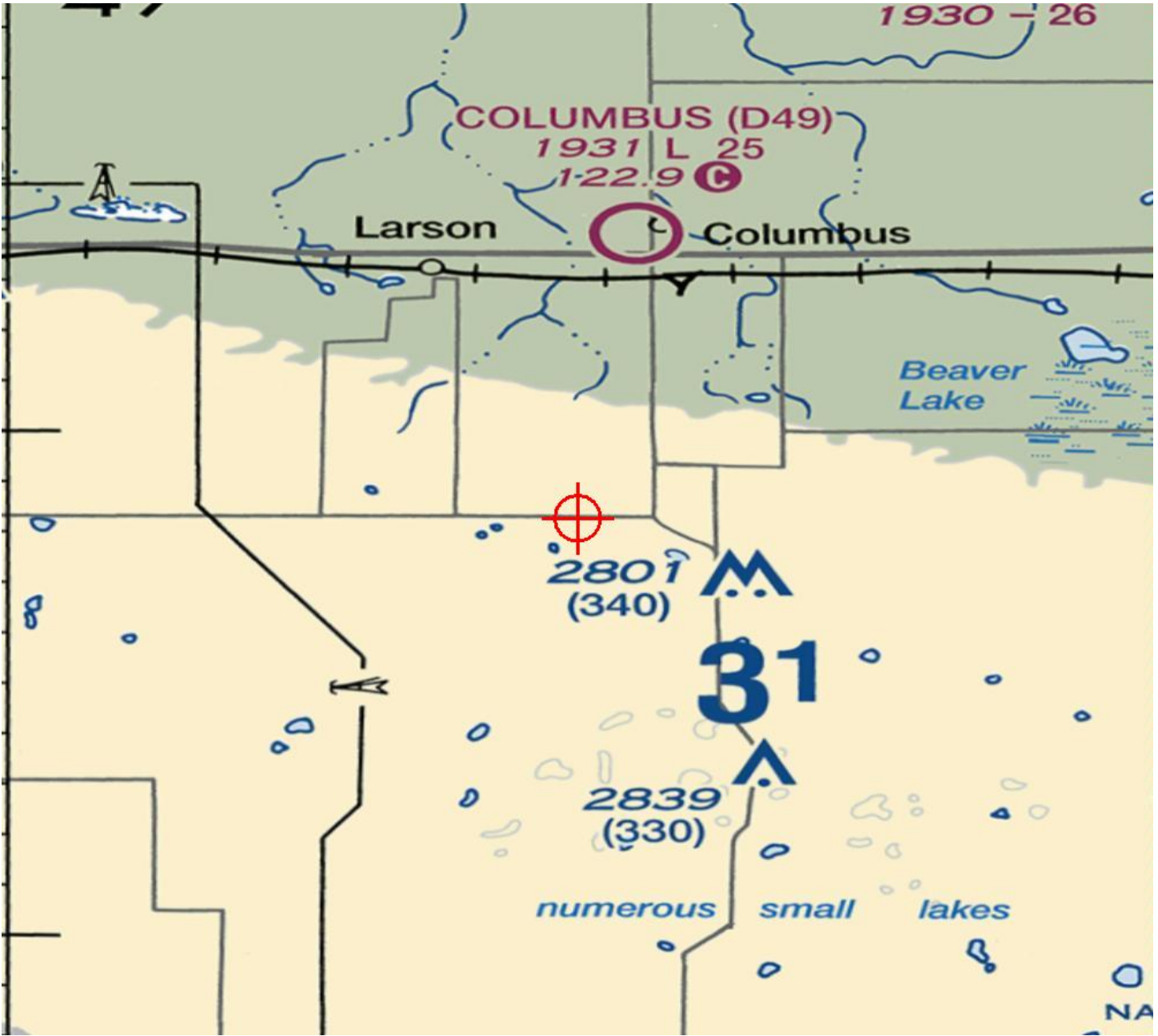
**Additional information for ASN 2020-WTE-980-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-980-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-980-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-981-OE  
Prior Study No.  
2018-WTE-7665-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 54
Location:	Columbus, ND
Latitude:	48-48-07.15N NAD 83
Longitude:	102-48-11.01W
Heights:	2347 feet site elevation (SE) 487 feet above ground level (AGL) 2834 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-981-OE.

**Signature Control No: 431890211-436492285**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

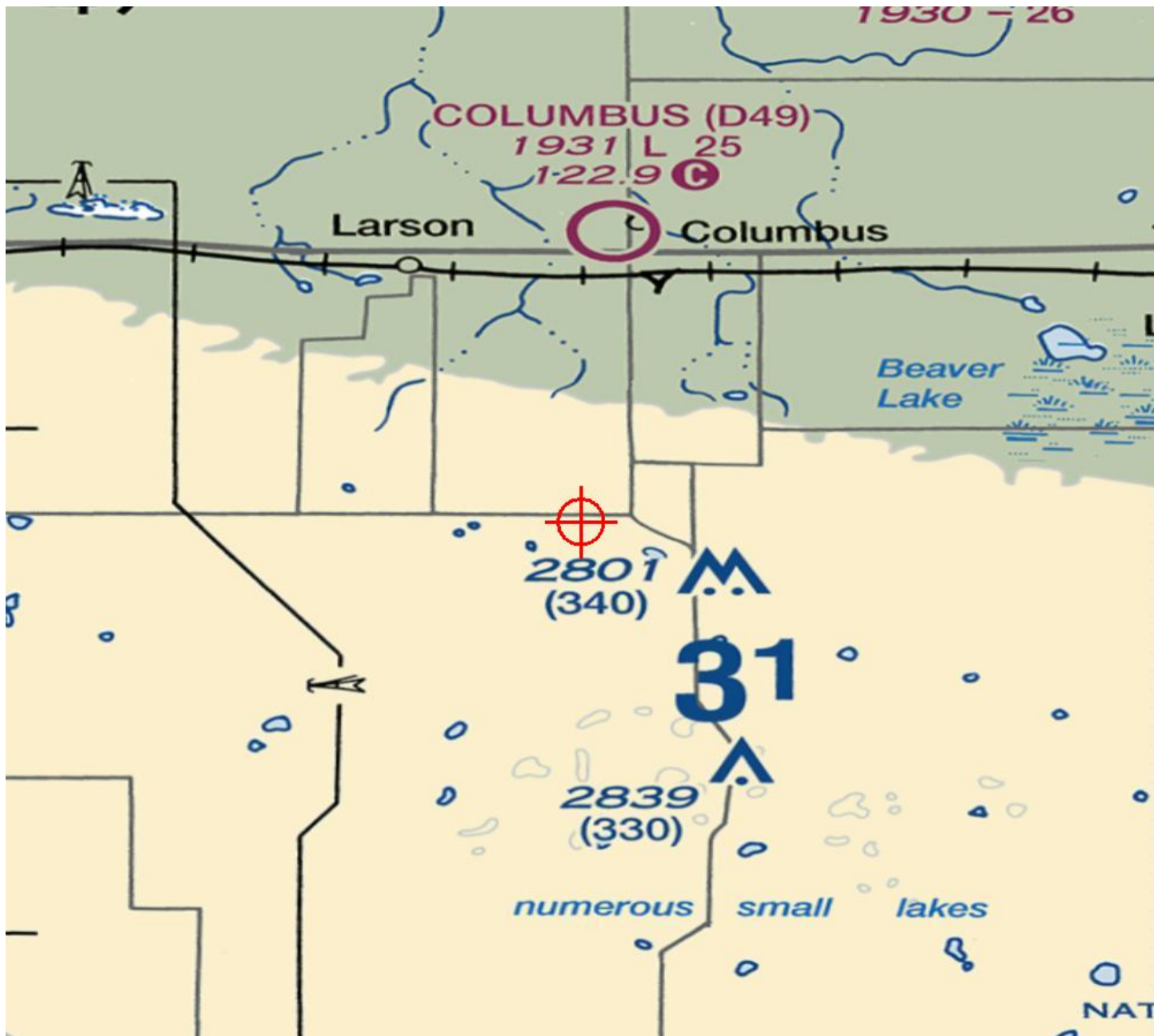
cc: FCC

## **Additional information for ASN 2020-WTE-981-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-981-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-982-OE  
Prior Study No.  
2018-WTE-7666-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 55
Location:	Columbus, ND
Latitude:	48-47-54.82N NAD 83
Longitude:	102-47-41.29W
Heights:	2373 feet site elevation (SE) 487 feet above ground level (AGL) 2860 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-982-OE.

**Signature Control No: 431890212-436492286**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

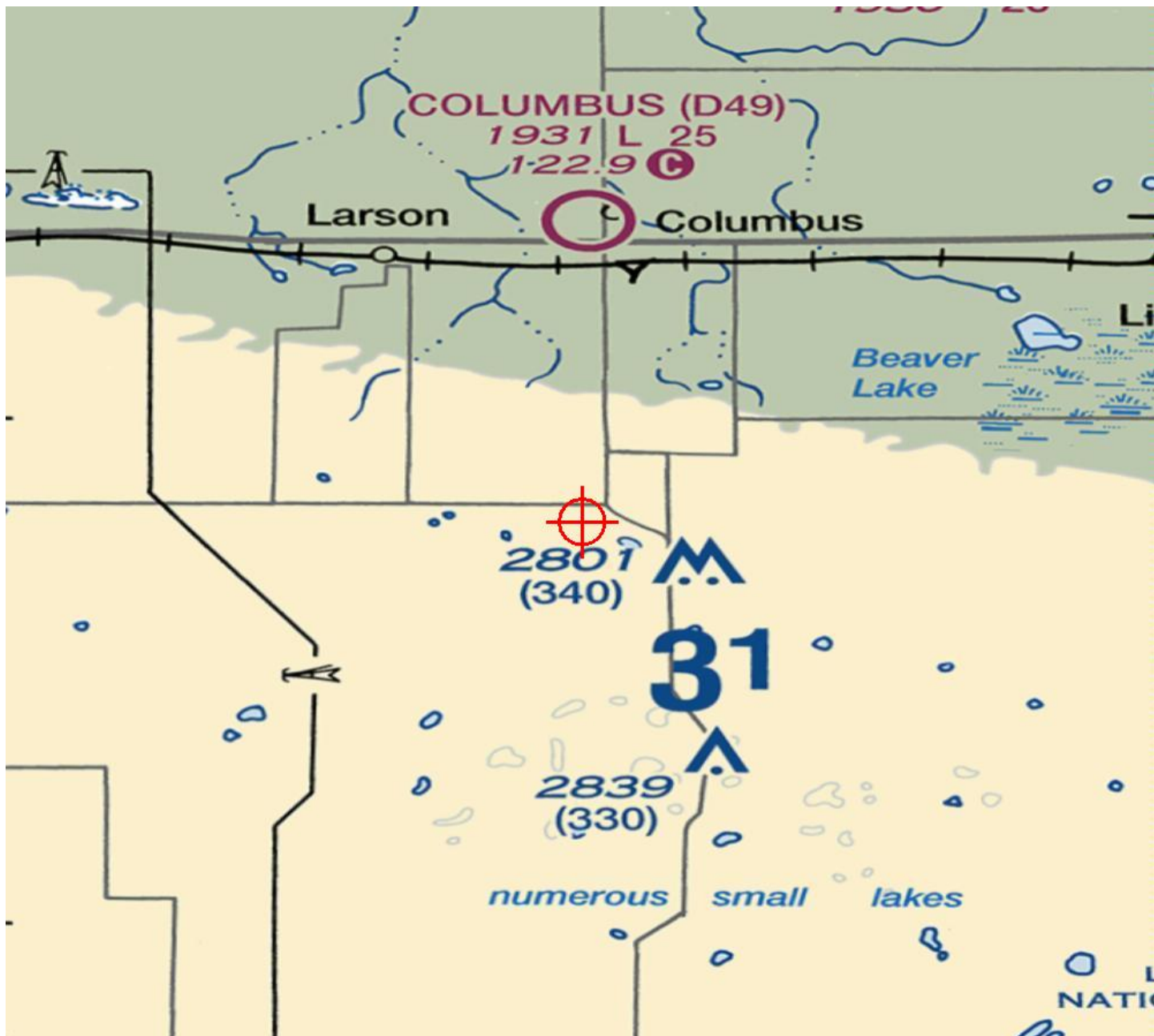
cc: FCC

**Additional information for ASN 2020-WTE-982-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-982-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-983-OE  
Prior Study No.  
2018-WTE-7667-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 56
Location:	Columbus, ND
Latitude:	48-47-40.54N NAD 83
Longitude:	102-46-42.41W
Heights:	2355 feet site elevation (SE) 487 feet above ground level (AGL) 2842 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-983-OE.

**Signature Control No: 431890213-436492287**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

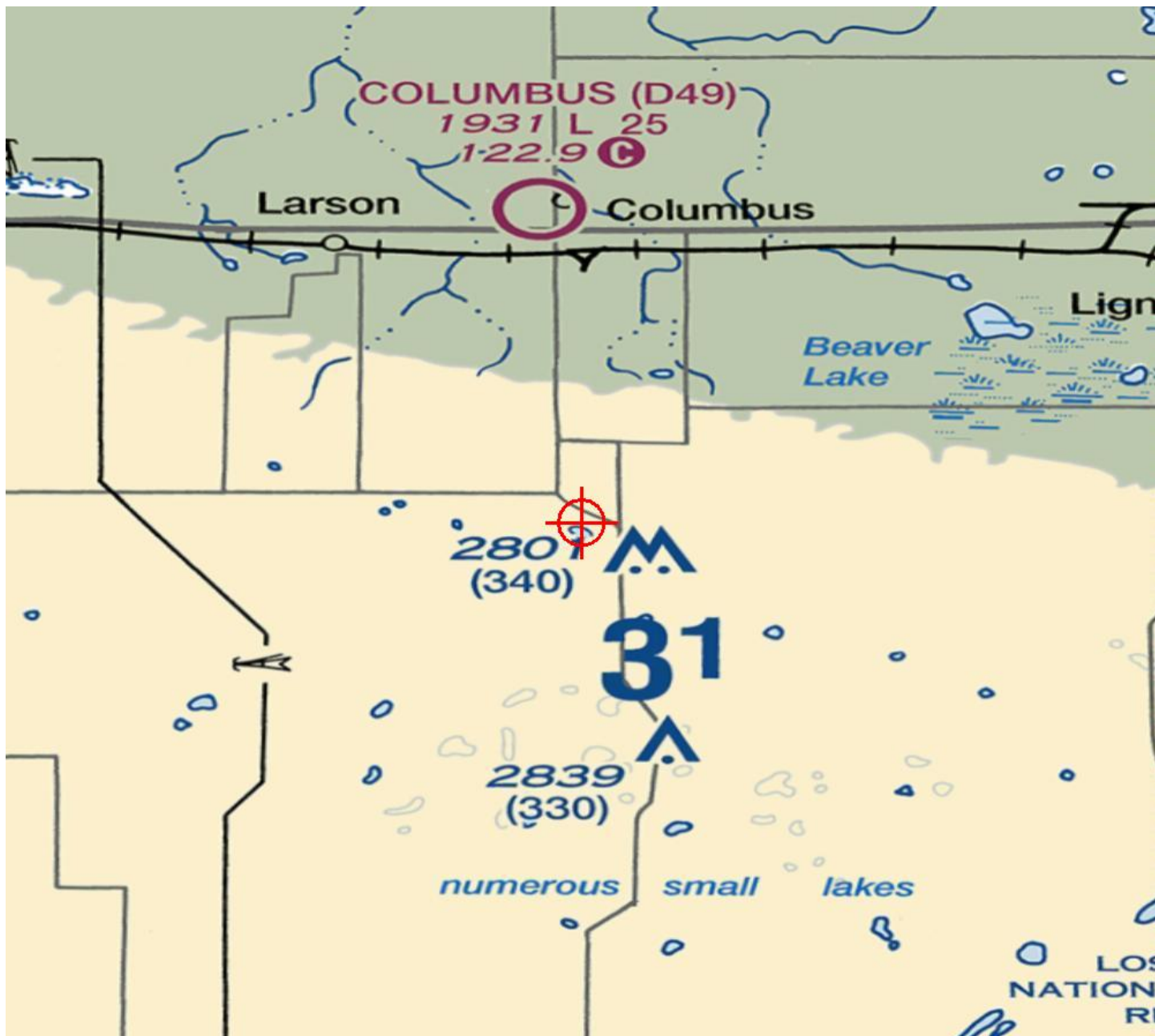
cc: FCC

## **Additional information for ASN 2020-WTE-983-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-983-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-984-OE  
Prior Study No.  
2018-WTE-7668-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 57
Location:	Columbus, ND
Latitude:	48-47-25.60N NAD 83
Longitude:	102-46-46.03W
Heights:	2382 feet site elevation (SE) 487 feet above ground level (AGL) 2869 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-984-OE.

**Signature Control No: 431890216-436492288**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

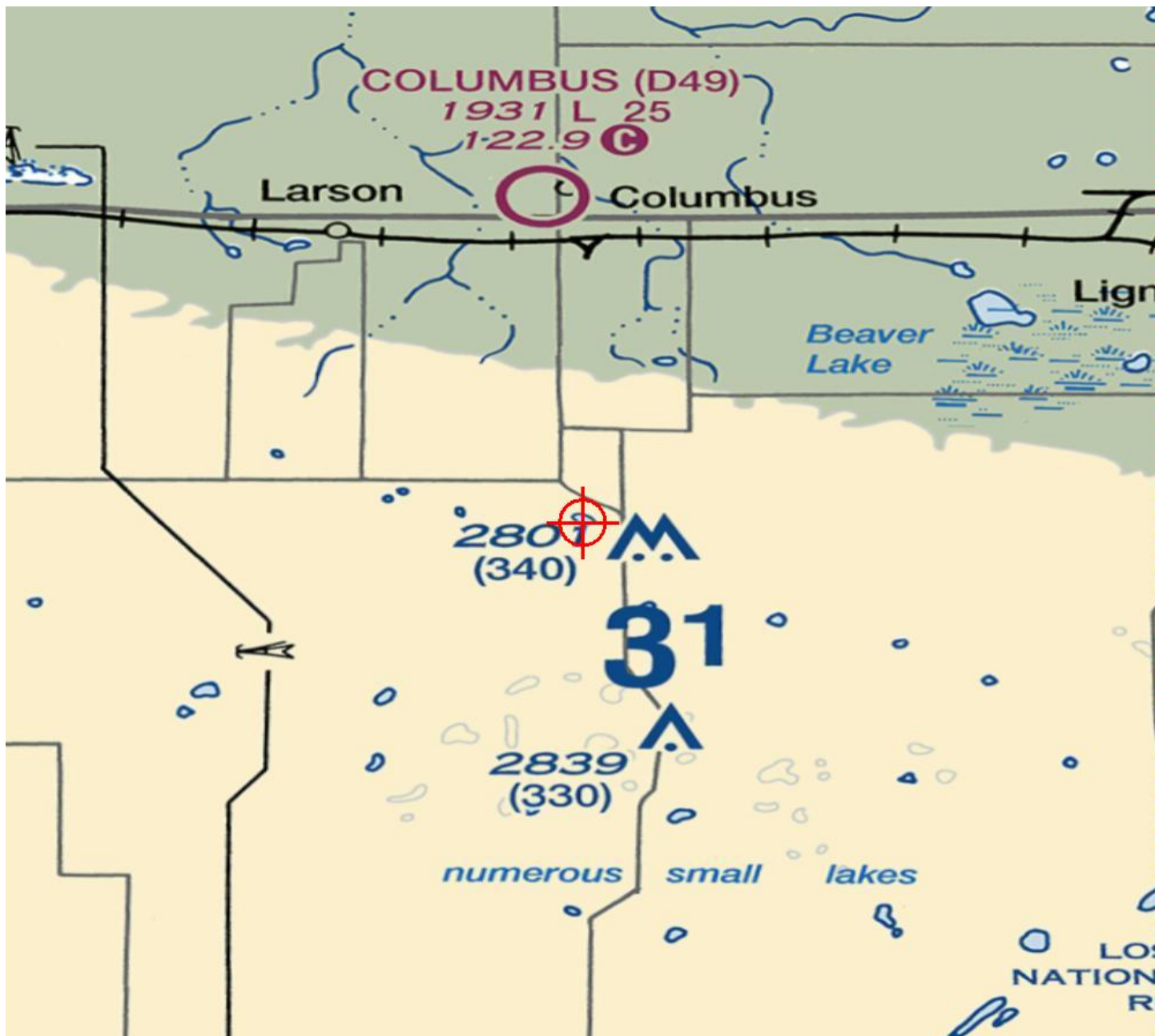
cc: FCC

**Additional information for ASN 2020-WTE-984-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-984-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-985-OE  
Prior Study No.  
2018-WTE-7669-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 58
Location:	Columbus, ND
Latitude:	48-46-23.04N NAD 83
Longitude:	102-47-24.64W
Heights:	2438 feet site elevation (SE) 487 feet above ground level (AGL) 2925 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-985-OE.

**Signature Control No: 431890217-436492289**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

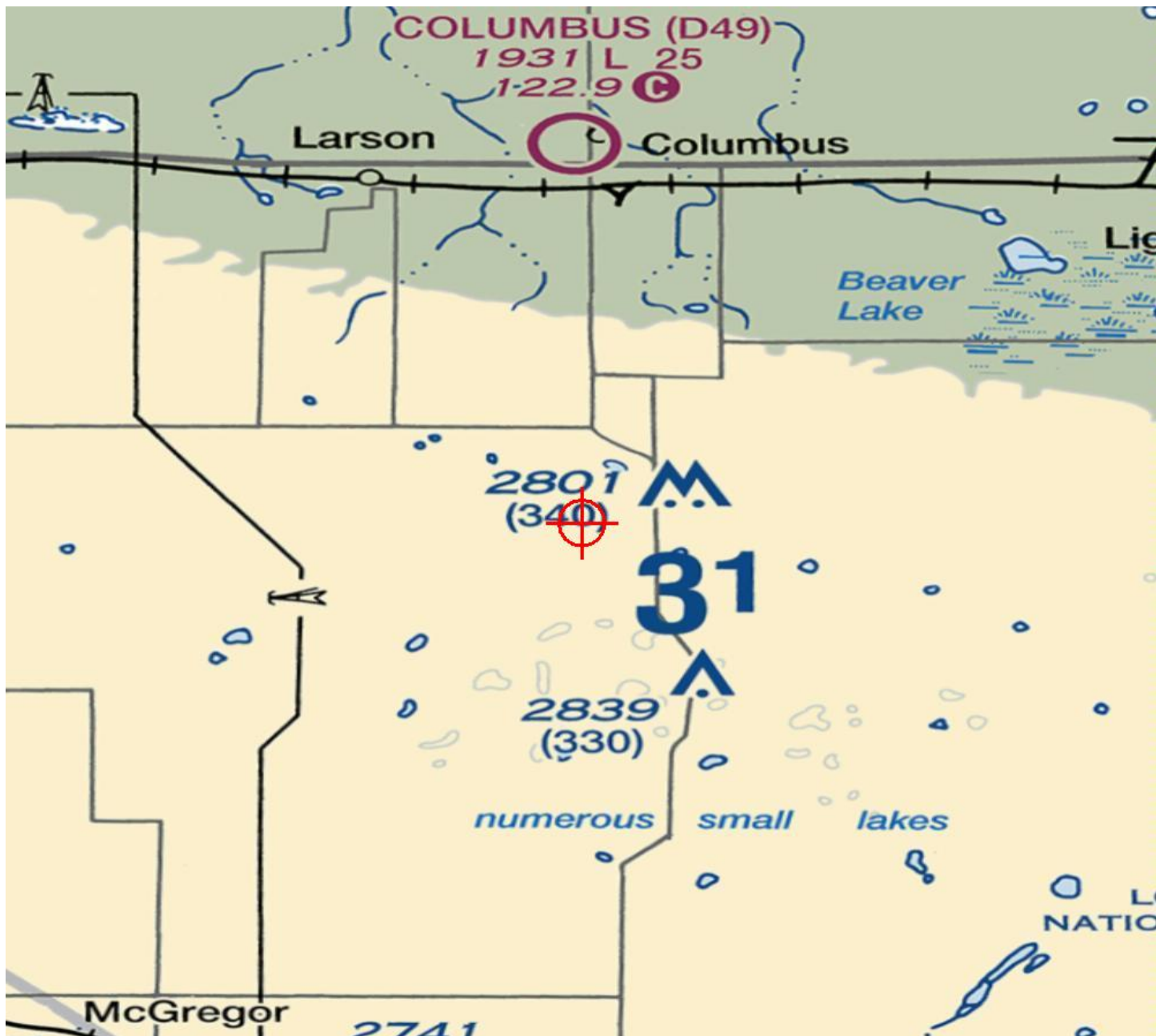
cc: FCC

## **Additional information for ASN 2020-WTE-985-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-985-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-986-OE  
Prior Study No.  
2018-WTE-7670-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 59
Location:	Columbus, ND
Latitude:	48-46-24.03N NAD 83
Longitude:	102-46-53.02W
Heights:	2450 feet site elevation (SE) 487 feet above ground level (AGL) 2937 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-986-OE.

**Signature Control No: 431890229-436492290**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

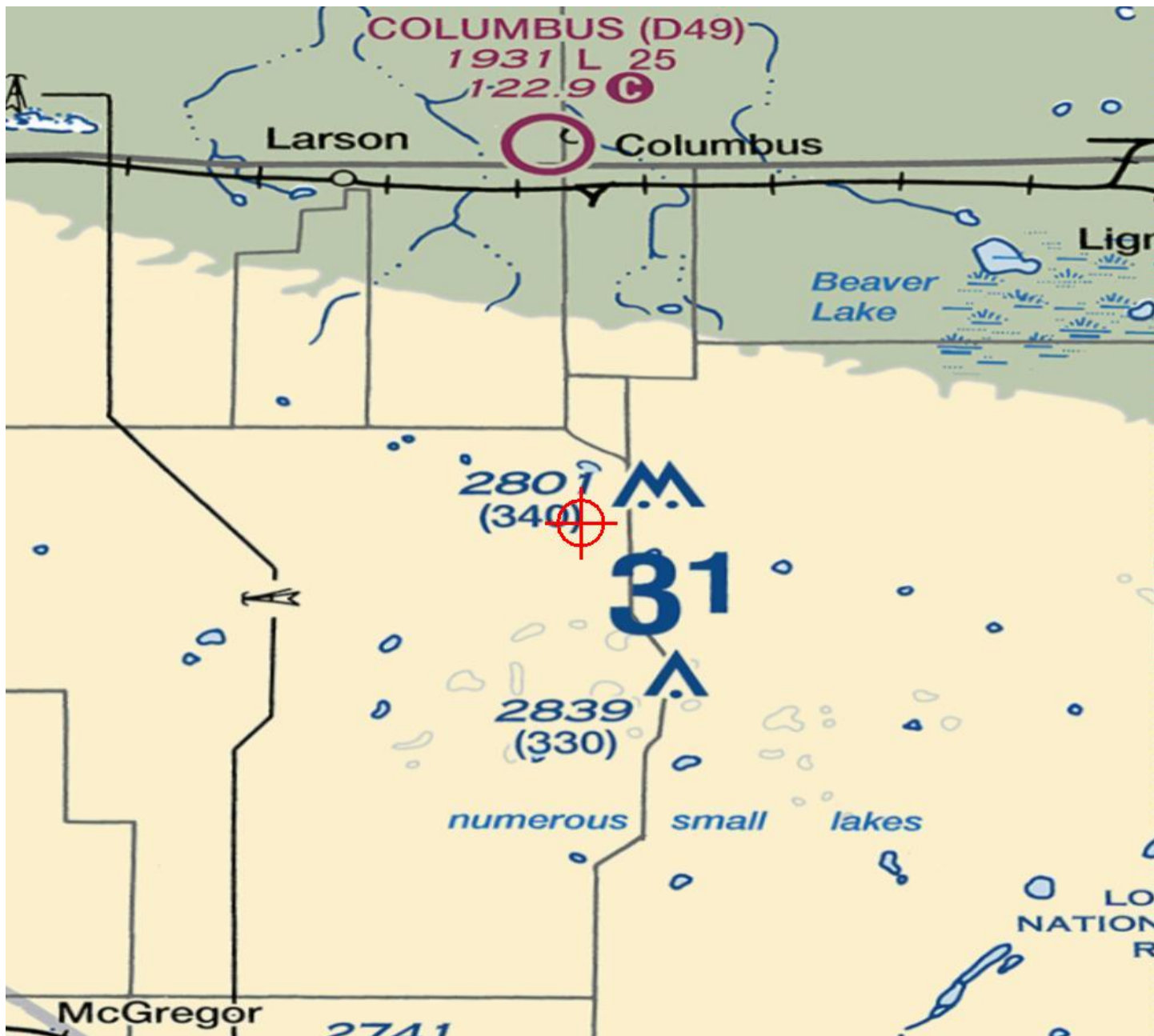
cc: FCC

**Additional information for ASN 2020-WTE-986-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-986-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-987-OE  
Prior Study No.  
2018-WTE-7671-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 60
Location:	Columbus, ND
Latitude:	48-46-34.14N NAD 83
Longitude:	102-46-42.50W
Heights:	2451 feet site elevation (SE) 487 feet above ground level (AGL) 2938 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

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be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-987-OE.

**Signature Control No: 431890230-436492292**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

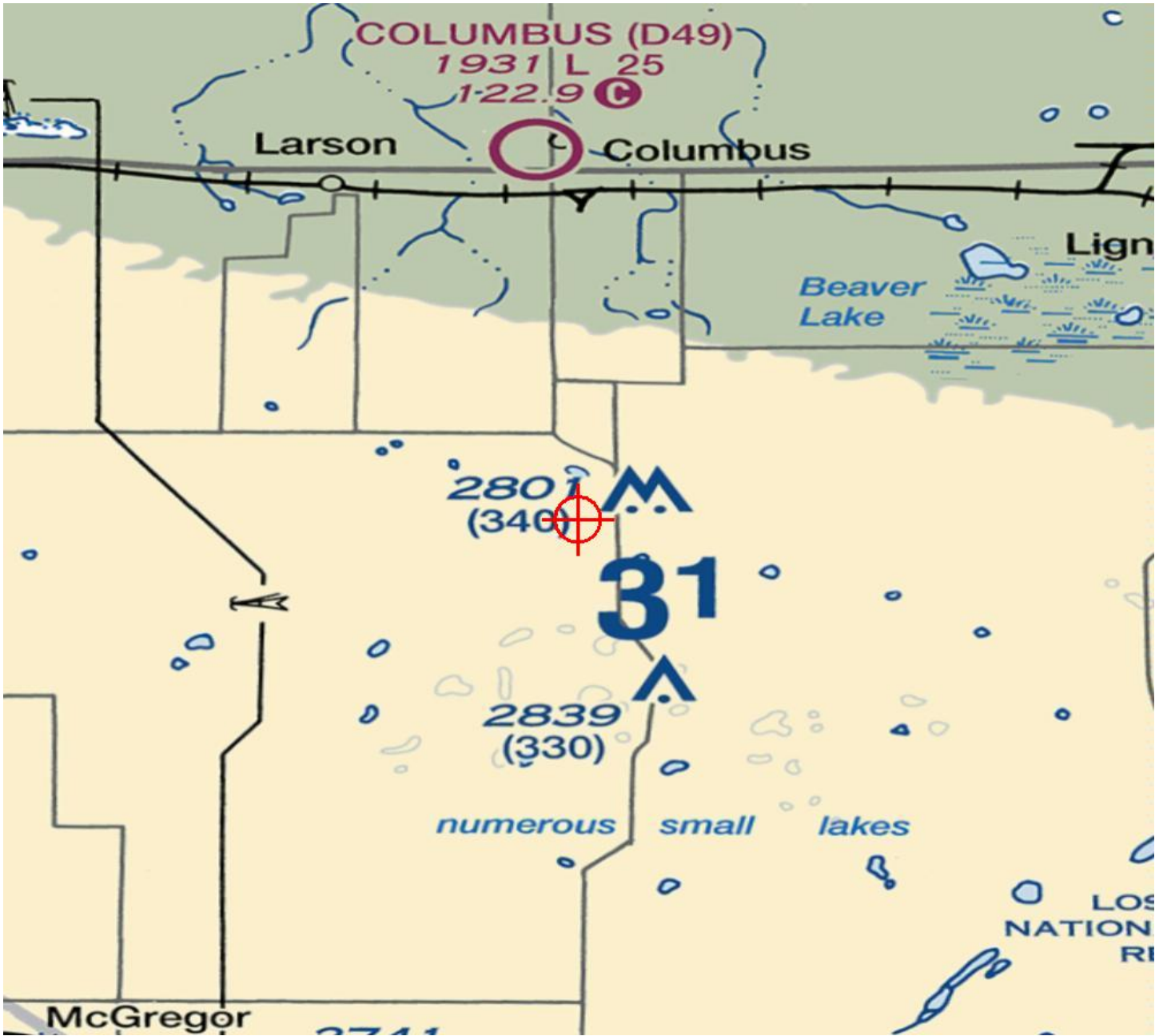
cc: FCC

**Additional information for ASN 2020-WTE-987-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-987-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-988-OE  
Prior Study No.  
2018-WTE-7672-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 61
Location:	Columbus, ND
Latitude:	48-45-05.43N NAD 83
Longitude:	102-46-43.86W
Heights:	2475 feet site elevation (SE) 487 feet above ground level (AGL) 2962 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-988-OE.

**Signature Control No: 431890232-436492294**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

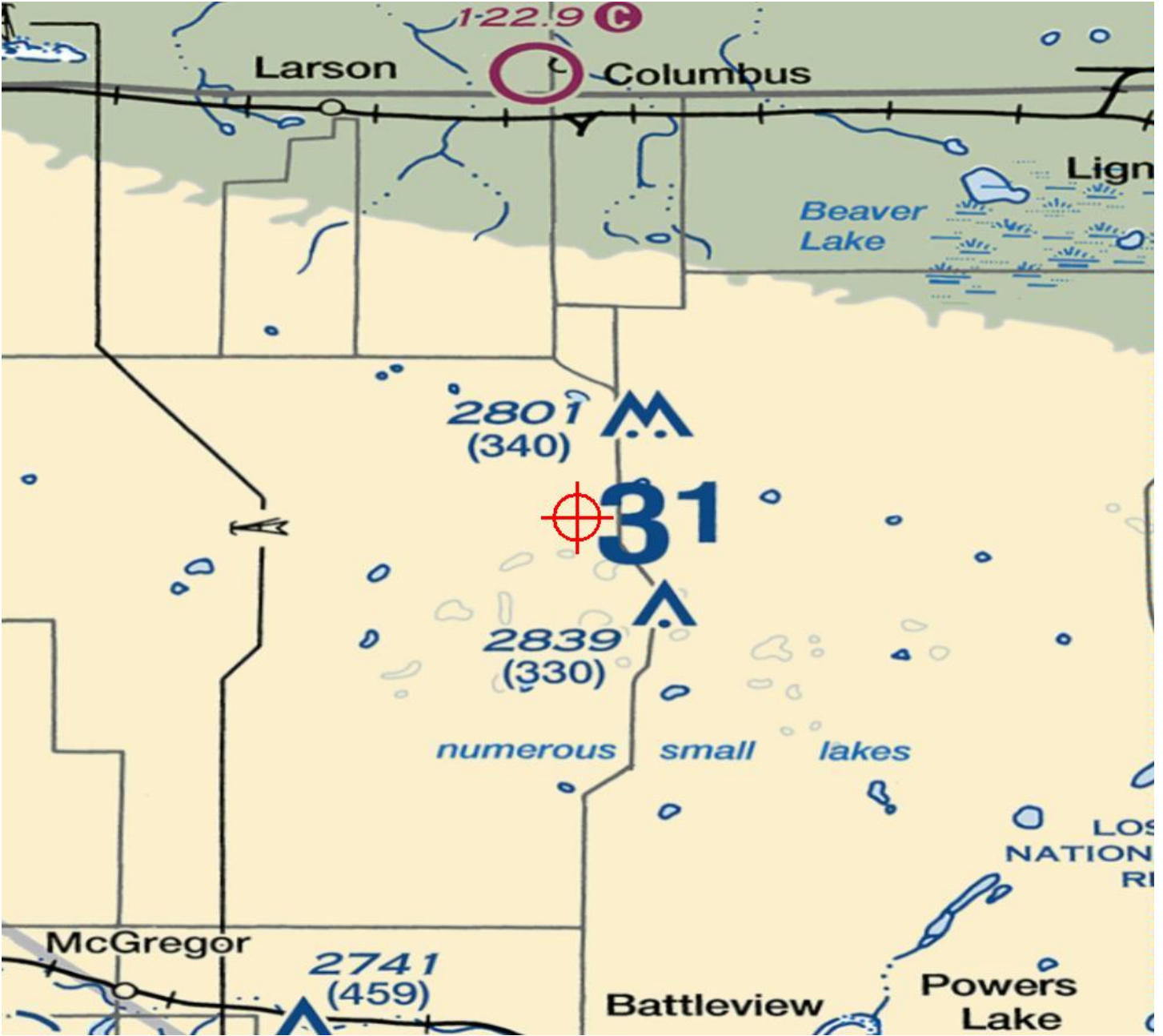
cc: FCC

## **Additional information for ASN 2020-WTE-988-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-988-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-989-OE  
Prior Study No.  
2018-WTE-7673-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 62
Location:	Columbus, ND
Latitude:	48-45-31.03N NAD 83
Longitude:	102-46-43.03W
Heights:	2472 feet site elevation (SE) 487 feet above ground level (AGL) 2959 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-989-OE.

**Signature Control No: 431890233-436492295**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

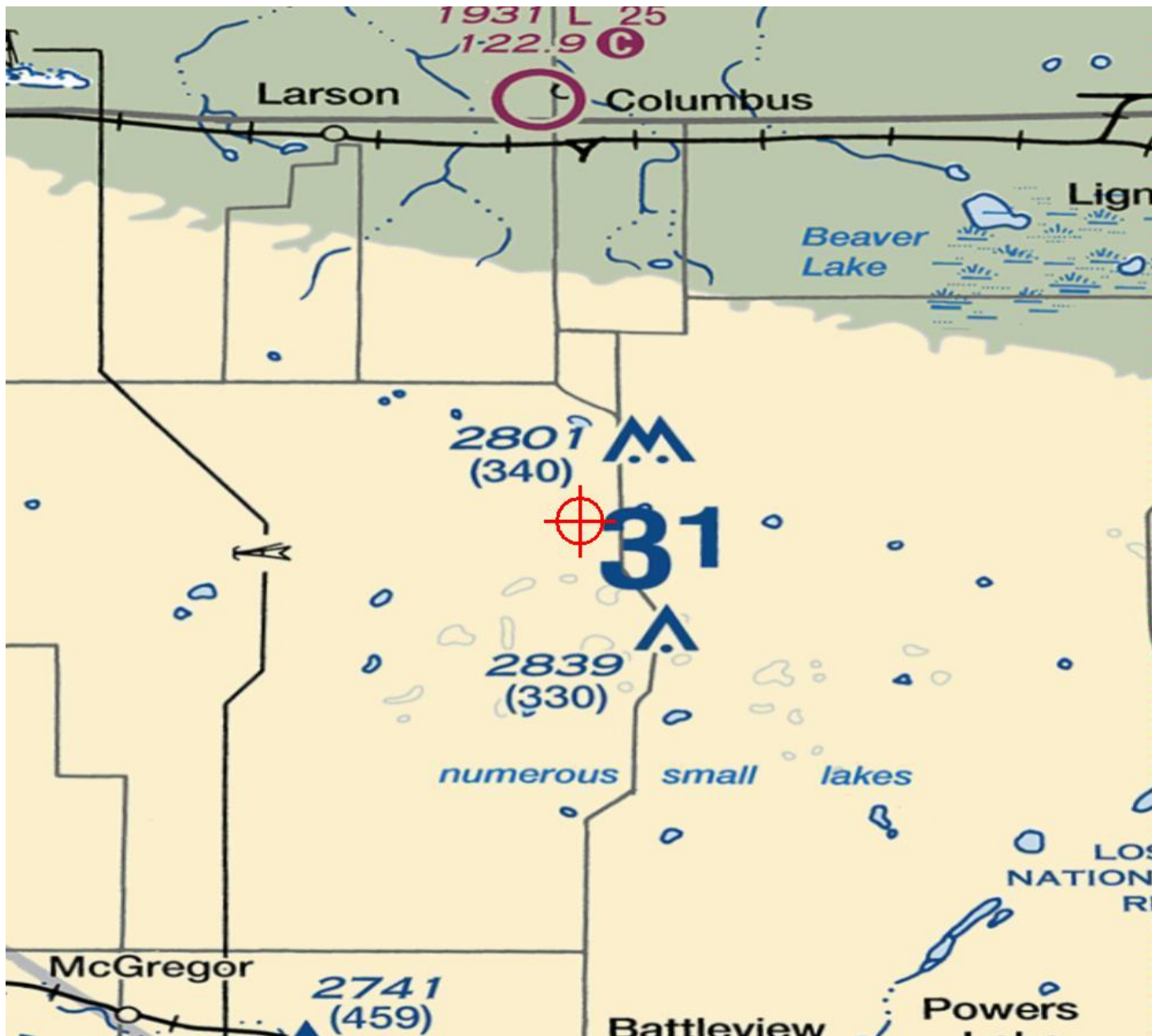
cc: FCC

**Additional information for ASN 2020-WTE-989-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-989-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-990-OE  
Prior Study No.  
2018-WTE-7674-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 63
Location:	Columbus, ND
Latitude:	48-45-41.48N NAD 83
Longitude:	102-46-27.37W
Heights:	2445 feet site elevation (SE) 487 feet above ground level (AGL) 2932 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-990-OE.

**Signature Control No: 431890236-436492296**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

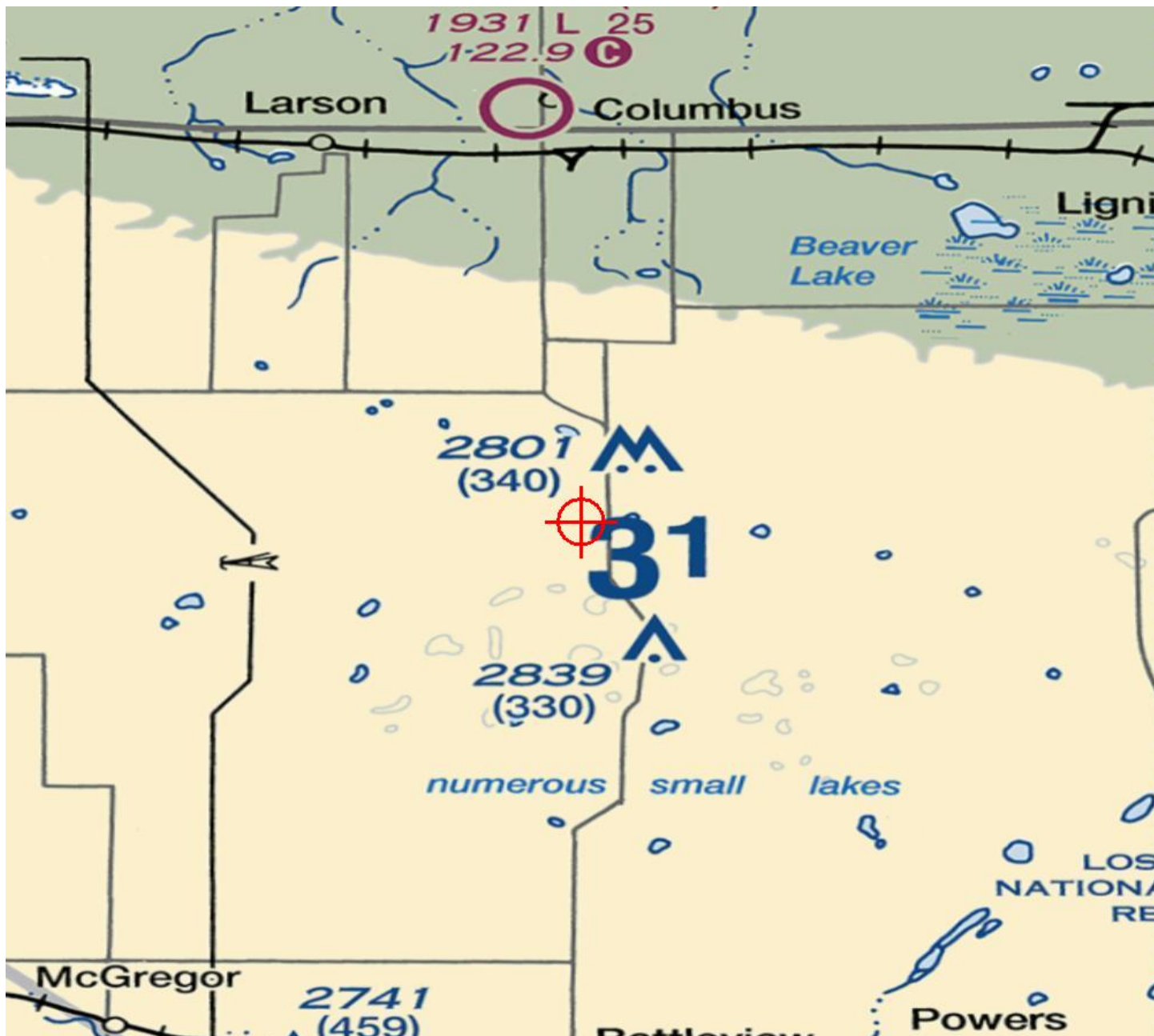
## **Additional information for ASN 2020-WTE-990-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-990-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-990-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-991-OE  
Prior Study No.  
2018-WTE-7675-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 64
Location:	Columbus, ND
Latitude:	48-46-01.71N NAD 83
Longitude:	102-46-13.40W
Heights:	2441 feet site elevation (SE) 487 feet above ground level (AGL) 2928 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-991-OE.

**Signature Control No: 431890237-436492298**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

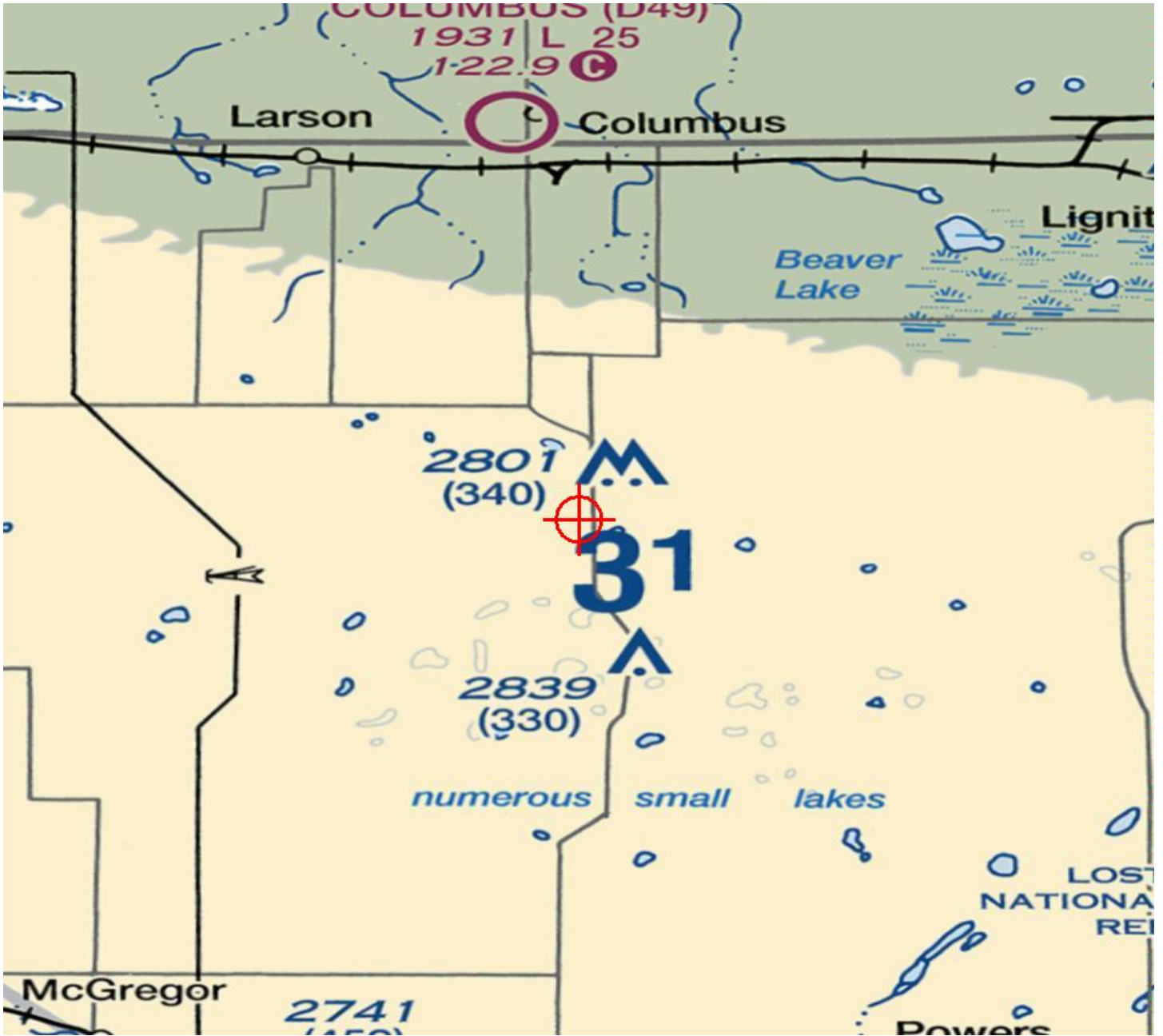
## **Additional information for ASN 2020-WTE-991-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-991-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-991-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-992-OE  
Prior Study No.  
2018-WTE-7676-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 65
Location:	Columbus, ND
Latitude:	48-45-33.29N NAD 83
Longitude:	102-45-36.12W
Heights:	2449 feet site elevation (SE) 487 feet above ground level (AGL) 2936 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

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If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-992-OE.

**Signature Control No: 431890240-436492299**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

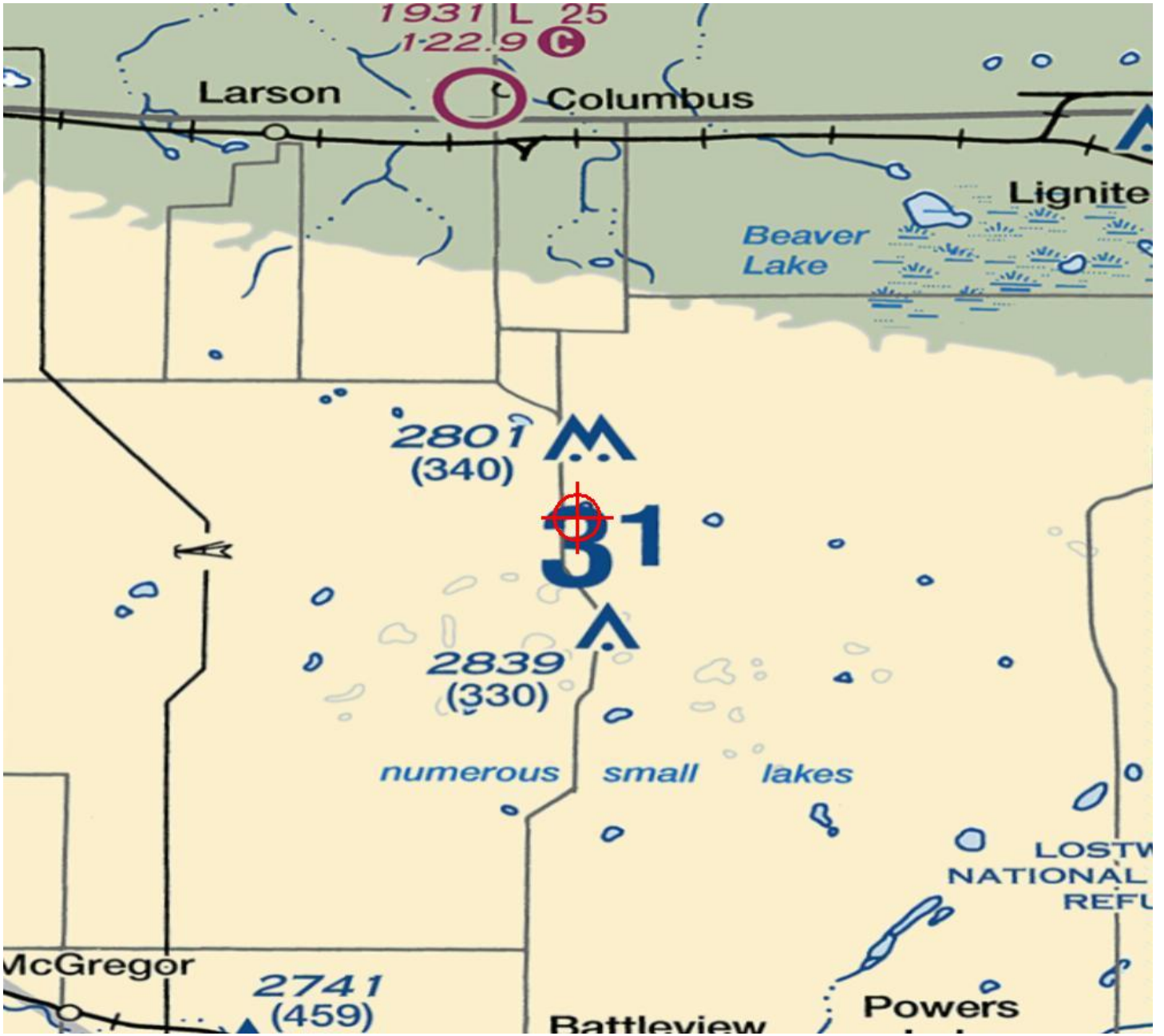
cc: FCC

**Additional information for ASN 2020-WTE-992-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-992-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-993-OE  
Prior Study No.  
2018-WTE-7728-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine ALT 3
Location:	Columbus, ND
Latitude:	48-46-15.55N NAD 83
Longitude:	102-48-59.07W
Heights:	2434 feet site elevation (SE) 487 feet above ground level (AGL) 2921 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-993-OE.

**Signature Control No: 431890243-436492301**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

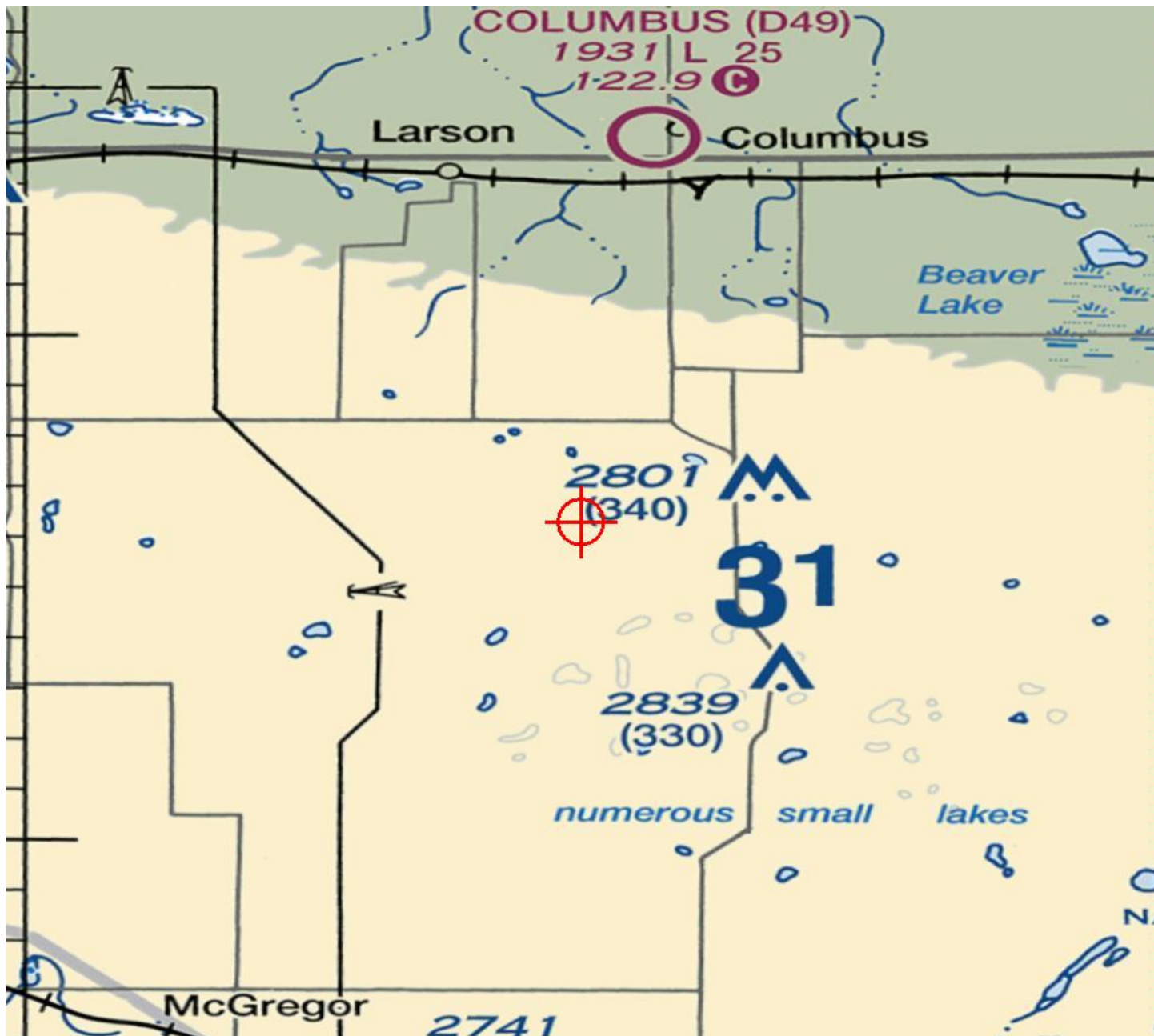
cc: FCC

**Additional information for ASN 2020-WTE-993-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-993-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-994-OE  
Prior Study No.  
2018-WTE-7729-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine ALT 4
Location:	Columbus, ND
Latitude:	48-45-57.80N NAD 83
Longitude:	102-49-00.79W
Heights:	2421 feet site elevation (SE) 487 feet above ground level (AGL) 2908 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-994-OE.

**Signature Control No: 431890256-436492304**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

cc: FCC

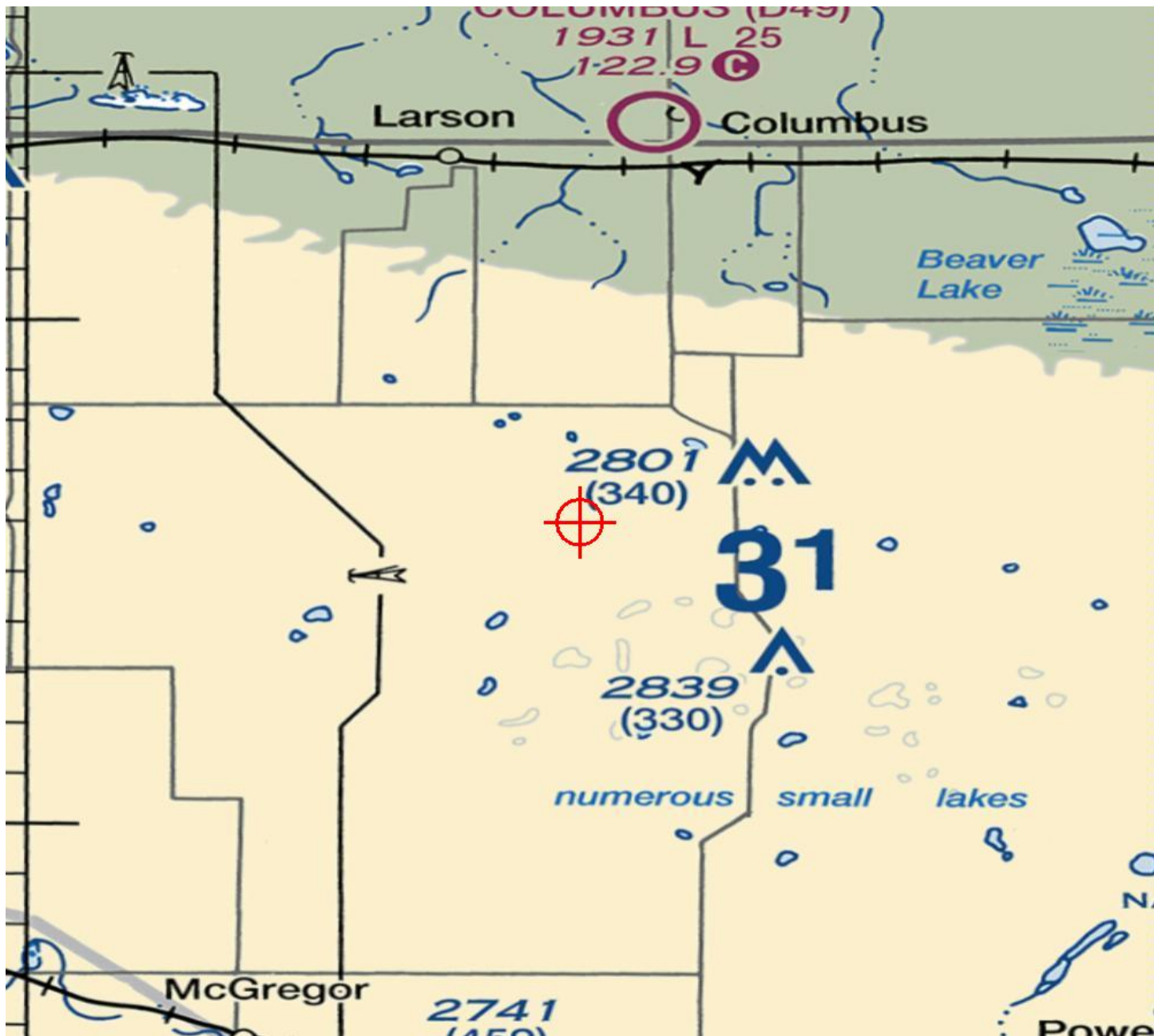
**Additional information for ASN 2020-WTE-994-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-994-OE**

Filing is for ADLS on proposed wind farm.

Sectional Map for ASN 2020-WTE-994-OE





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-995-OE  
Prior Study No.  
2018-WTE-7730-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine ALT 5
Location:	Columbus, ND
Latitude:	48-47-08.22N NAD 83
Longitude:	102-49-28.81W
Heights:	2409 feet site elevation (SE) 487 feet above ground level (AGL) 2896 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-995-OE.

**Signature Control No: 431890257-436492306**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

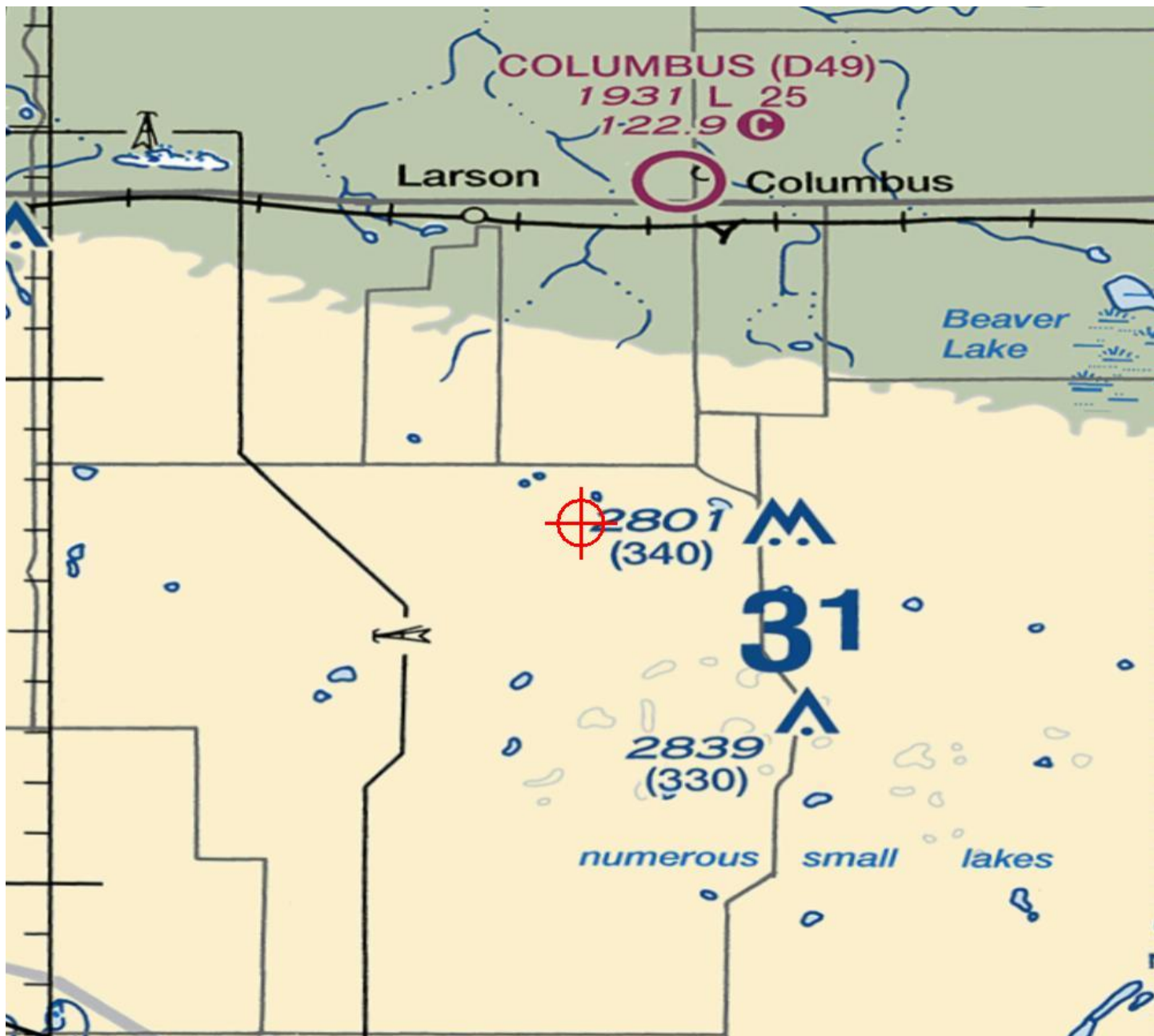
cc: FCC

**Additional information for ASN 2020-WTE-995-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-995-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-996-OE  
Prior Study No.  
2018-WTE-7731-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine ALT 6
Location:	Columbus, ND
Latitude:	48-47-18.96N NAD 83
Longitude:	102-49-14.77W
Heights:	2398 feet site elevation (SE) 487 feet above ground level (AGL) 2885 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-996-OE.

**Signature Control No: 431890261-436492311**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

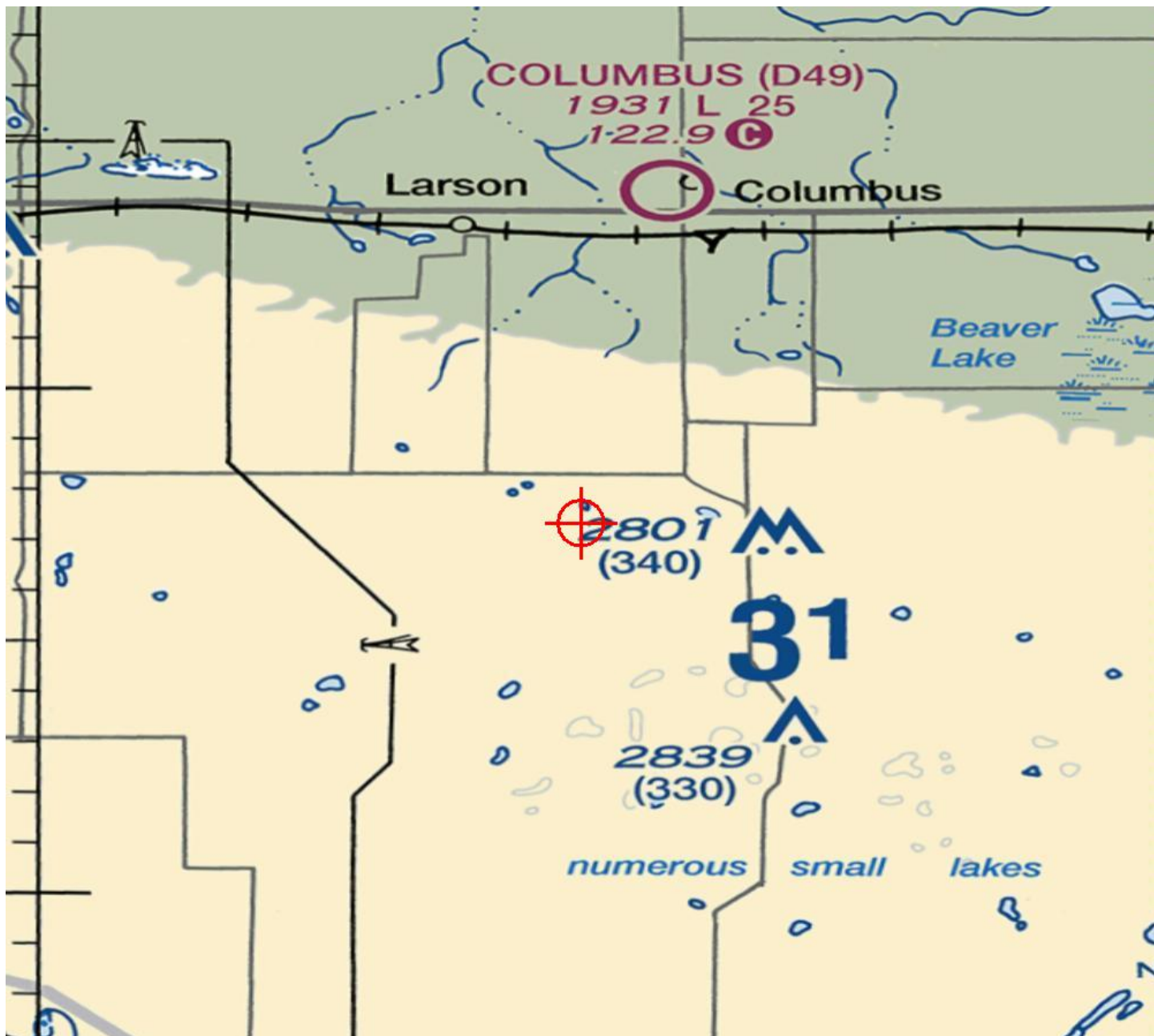
cc: FCC

**Additional information for ASN 2020-WTE-996-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-996-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-997-OE  
Prior Study No.  
2018-WTE-7732-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine ALT 7
Location:	Columbus, ND
Latitude:	48-47-02.26N NAD 83
Longitude:	102-48-45.94W
Heights:	2407 feet site elevation (SE) 487 feet above ground level (AGL) 2894 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-997-OE.

**Signature Control No: 431890267-436492342**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

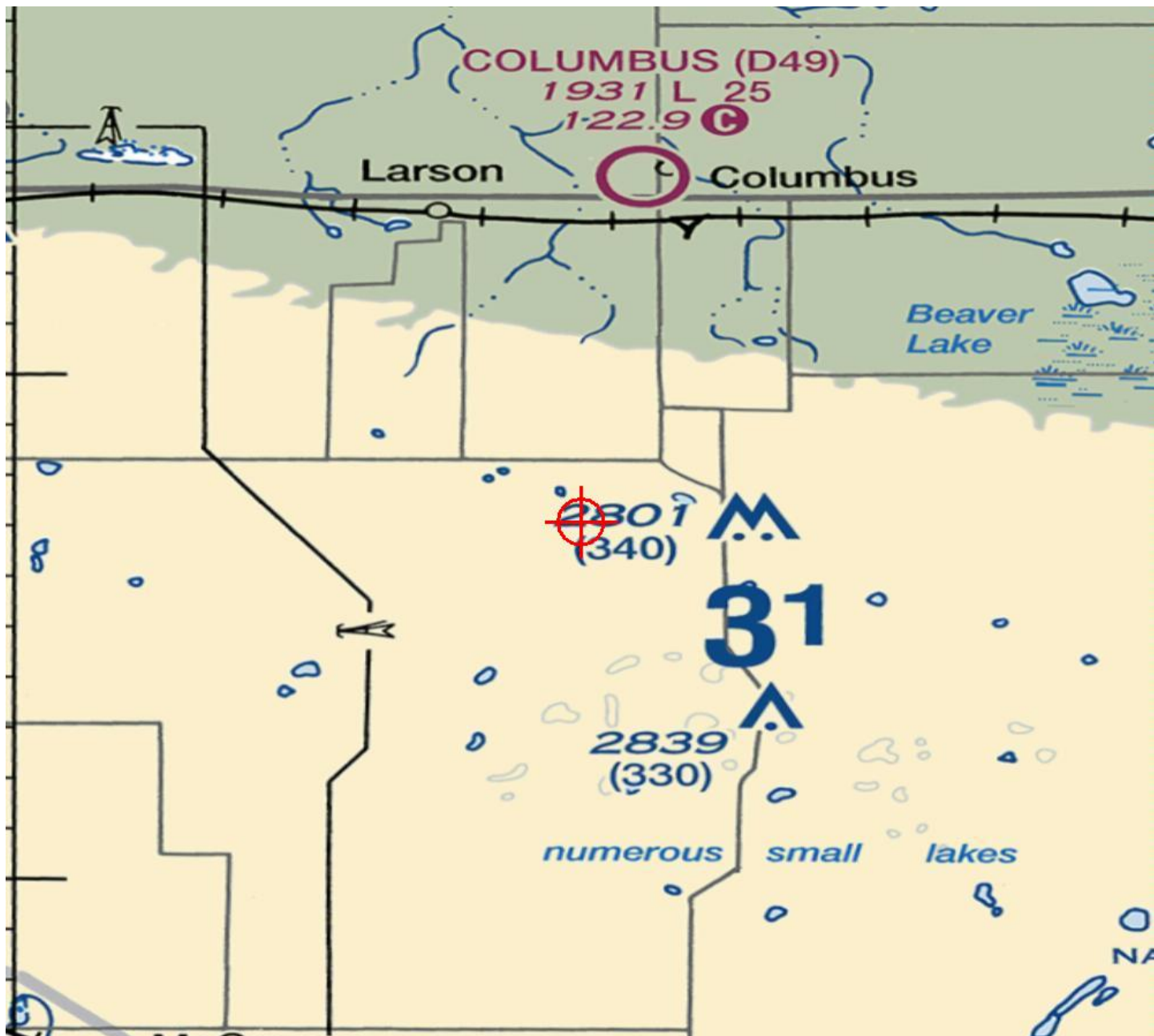
cc: FCC

**Additional information for ASN 2020-WTE-997-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-997-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-998-OE  
Prior Study No.  
2018-WTE-7733-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine ALT 8
Location:	Columbus, ND
Latitude:	48-46-50.26N NAD 83
Longitude:	102-48-57.34W
Heights:	2408 feet site elevation (SE) 487 feet above ground level (AGL) 2895 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-998-OE.

**Signature Control No: 431890271-436492343**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

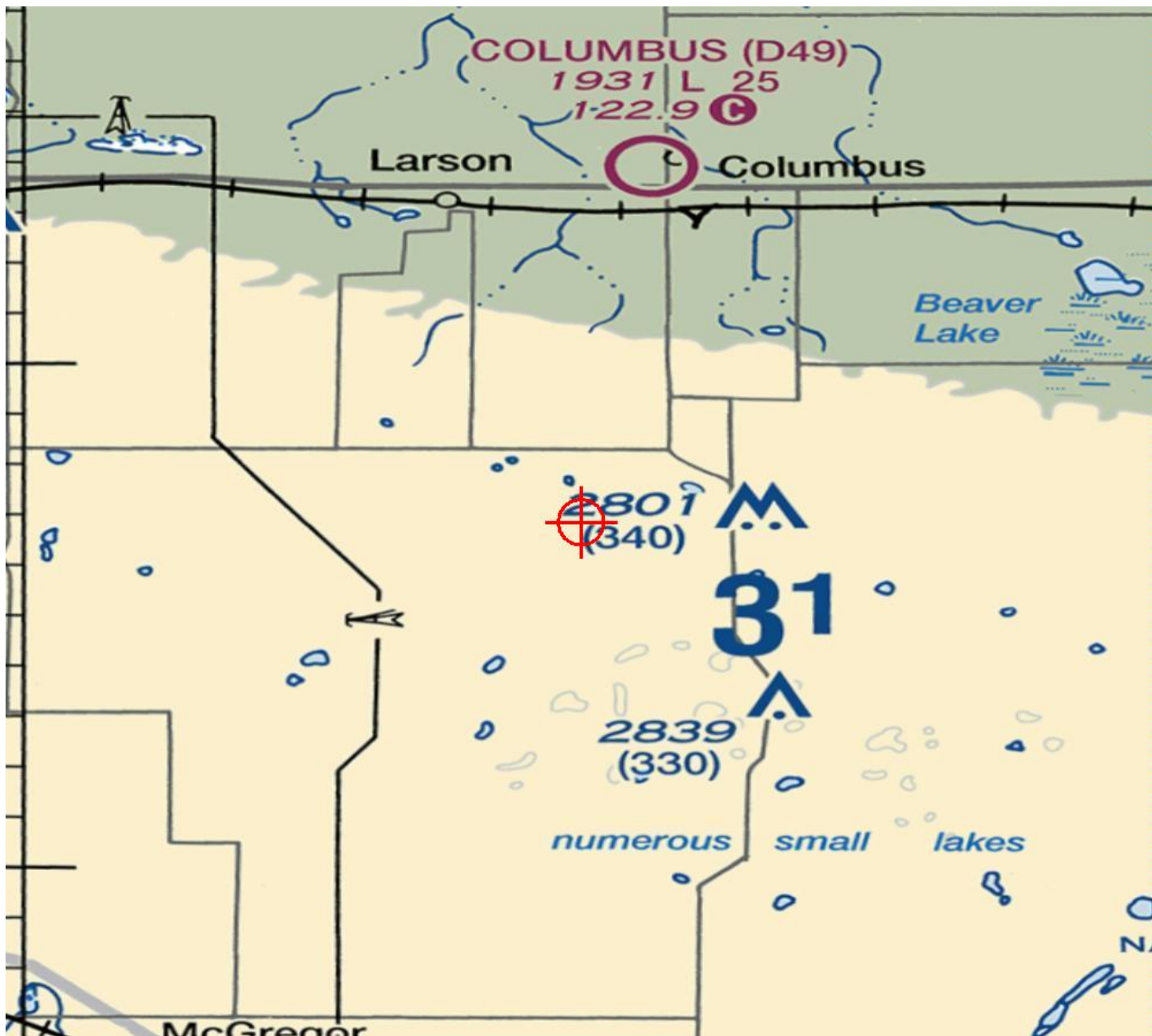
cc: FCC

**Additional information for ASN 2020-WTE-998-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-998-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-999-OE  
Prior Study No.  
2018-WTE-7734-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine ALT 9
Location:	Columbus, ND
Latitude:	48-46-48.76N NAD 83
Longitude:	102-49-23.21W
Heights:	2421 feet site elevation (SE) 487 feet above ground level (AGL) 2908 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-999-OE.

**Signature Control No: 431890273-436492344**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

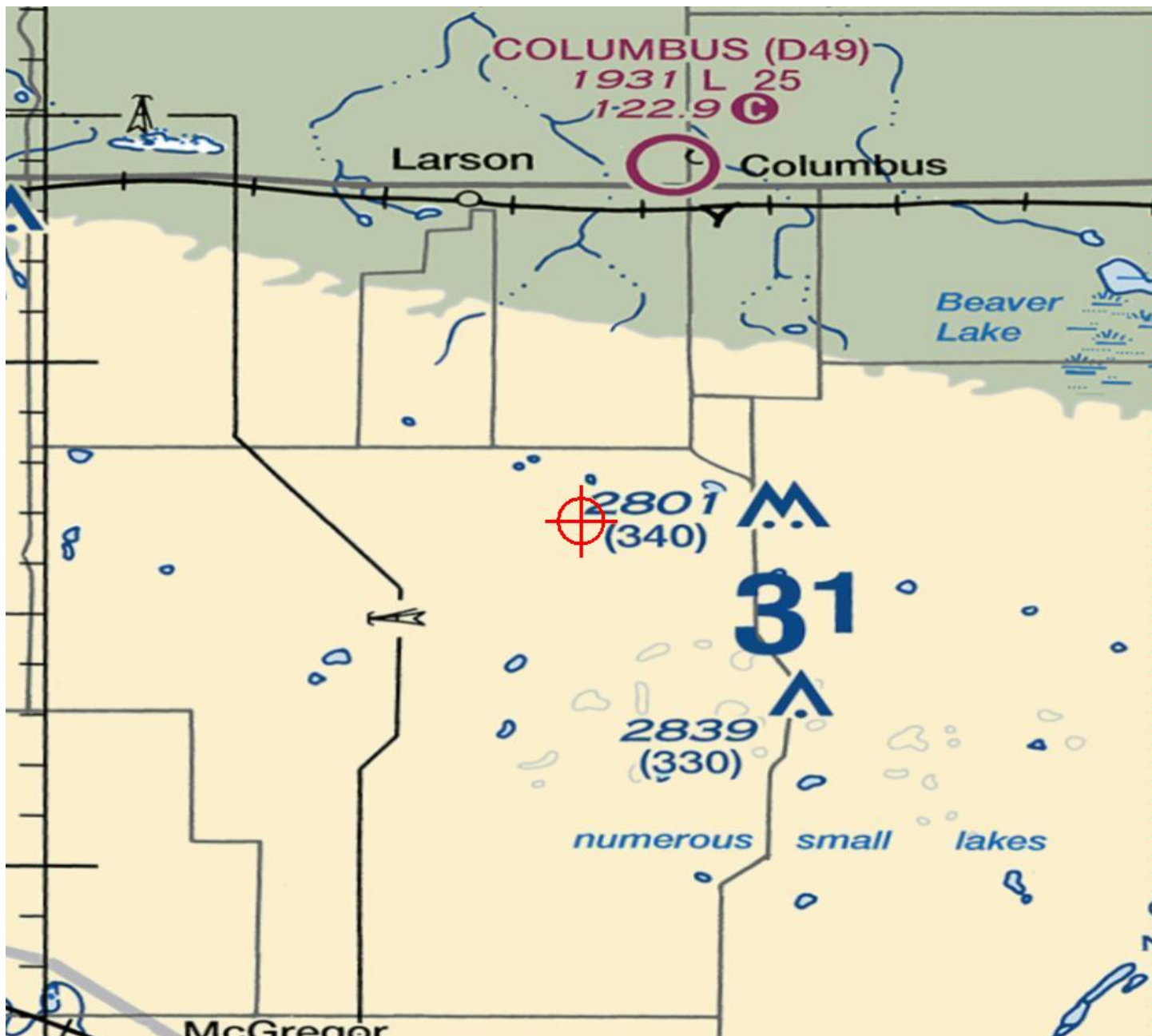
cc: FCC

**Additional information for ASN 2020-WTE-999-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-999-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1000-OE  
Prior Study No.  
2019-WTE-9056-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 4
Location:	Columbus, ND
Latitude:	48-48-35.85N NAD 83
Longitude:	102-53-56.52W
Heights:	2370 feet site elevation (SE) 487 feet above ground level (AGL) 2857 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1000-OE.

**Signature Control No: 431890276-436492349**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

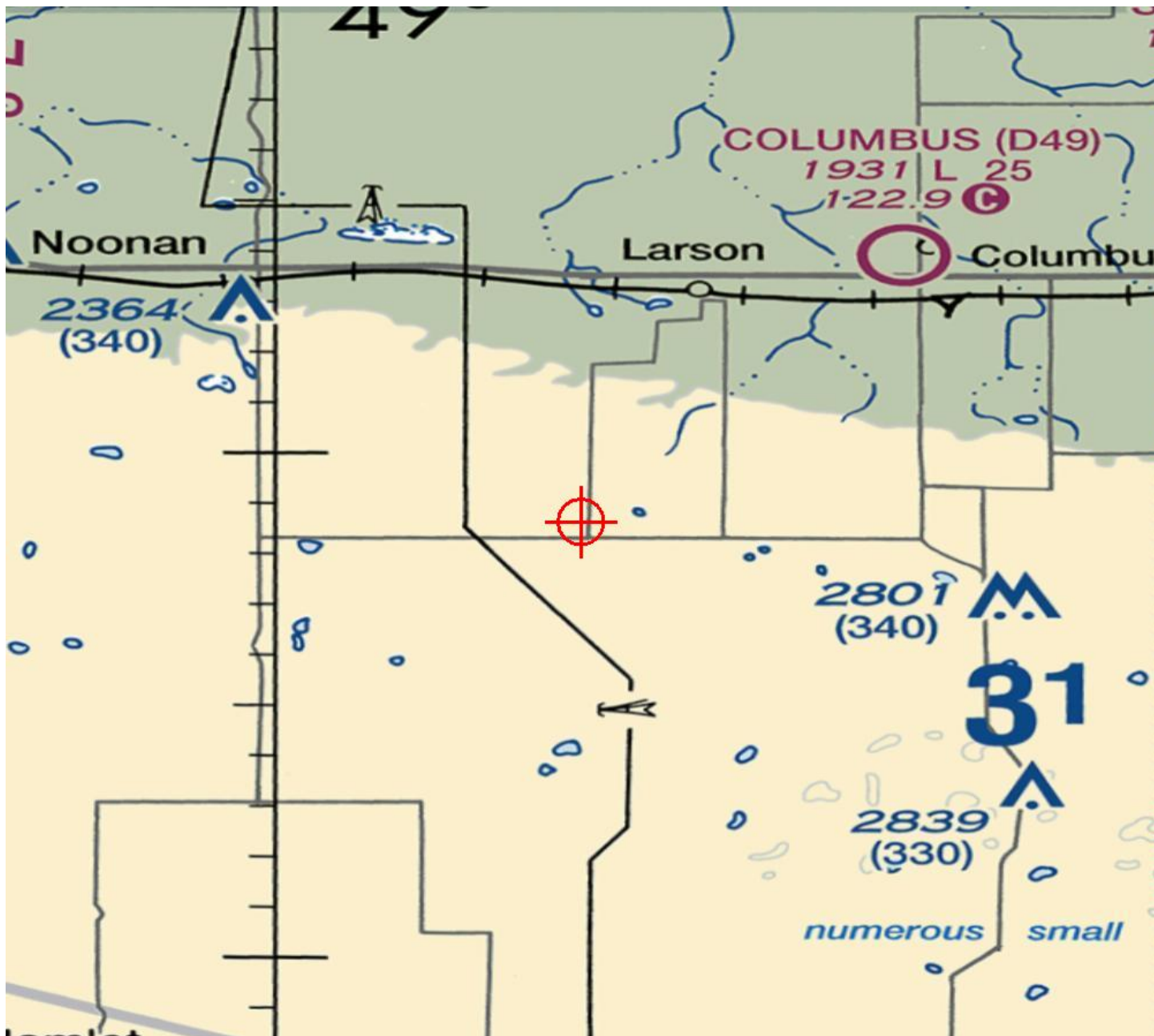
cc: FCC

## **Additional information for ASN 2020-WTE-1000-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1000-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1001-OE  
Prior Study No.  
2019-WTE-9057-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 41
Location:	Columbus, ND
Latitude:	48-48-36.07N NAD 83
Longitude:	102-50-34.36W
Heights:	2323 feet site elevation (SE) 487 feet above ground level (AGL) 2810 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1001-OE.

**Signature Control No: 431890290-436492353**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

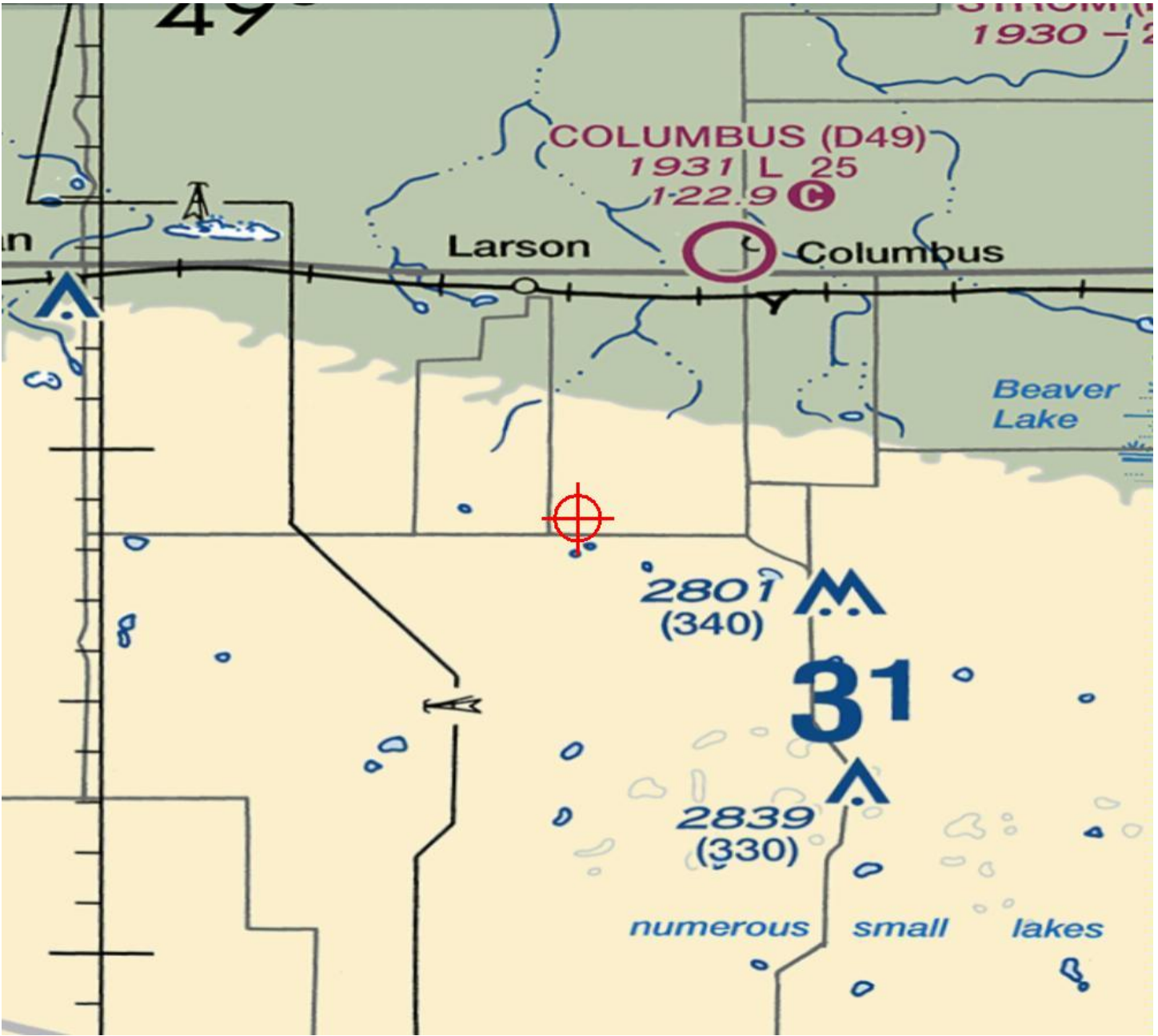
cc: FCC

**Additional information for ASN 2020-WTE-1001-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1001-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1002-OE  
Prior Study No.  
2019-WTE-9058-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 44
Location:	Columbus, ND
Latitude:	48-48-15.69N NAD 83
Longitude:	102-49-19.67W
Heights:	2328 feet site elevation (SE) 487 feet above ground level (AGL) 2815 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1002-OE.

**Signature Control No: 431890293-436492355**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

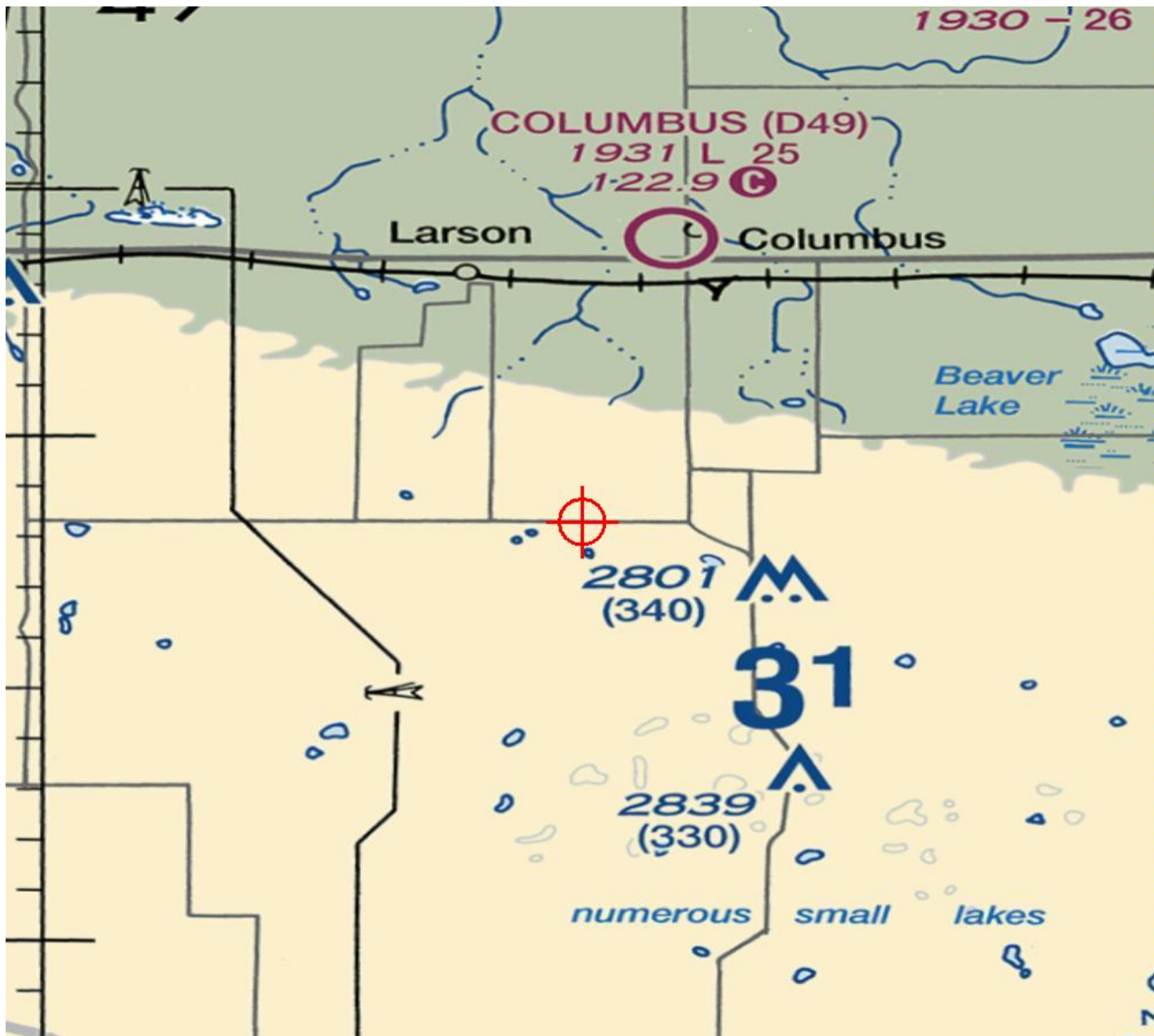
cc: FCC

**Additional information for ASN 2020-WTE-1002-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1002-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1003-OE  
Prior Study No.  
2019-WTE-9059-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 46
Location:	Columbus, ND
Latitude:	48-47-43.96N NAD 83
Longitude:	102-49-17.54W
Heights:	2374 feet site elevation (SE) 487 feet above ground level (AGL) 2861 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1003-OE.

**Signature Control No: 431890294-436492357**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

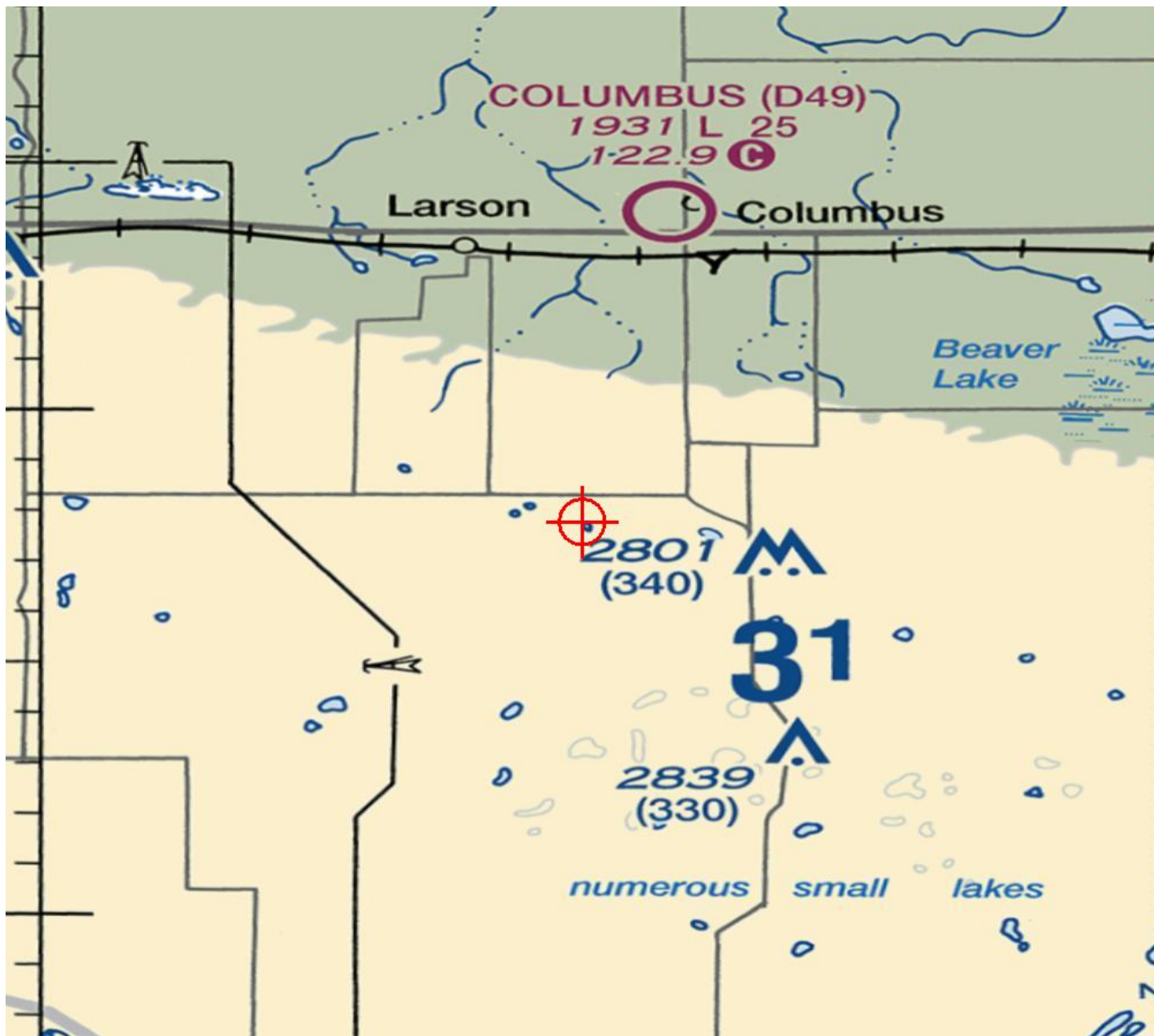
cc: FCC

**Additional information for ASN 2020-WTE-1003-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1003-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1004-OE  
Prior Study No.  
2019-WTE-9060-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 47
Location:	Columbus, ND
Latitude:	48-47-41.01N NAD 83
Longitude:	102-49-35.06W
Heights:	2383 feet site elevation (SE) 487 feet above ground level (AGL) 2870 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1004-OE.

**Signature Control No: 431890295-436492361**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

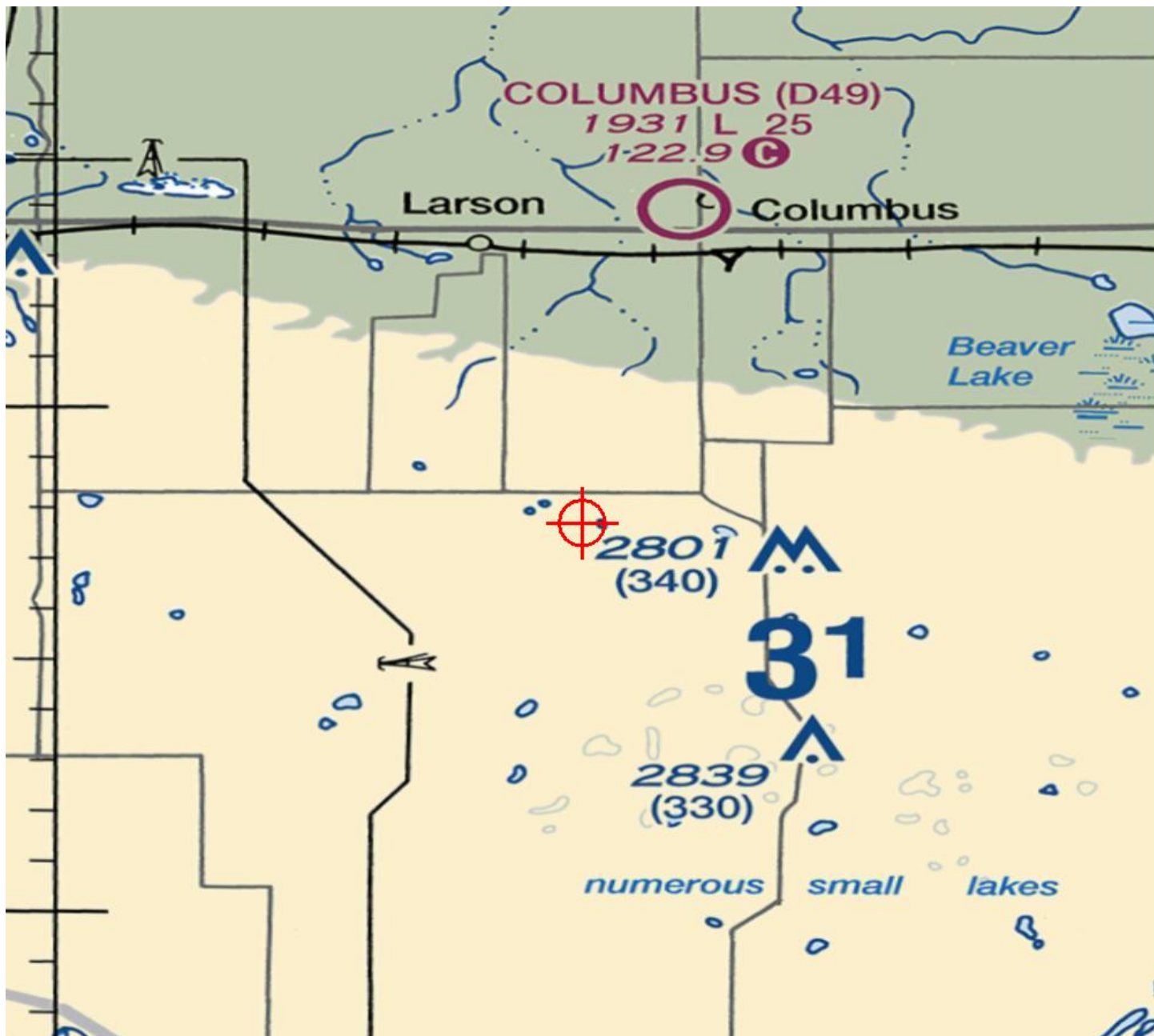
cc: FCC

**Additional information for ASN 2020-WTE-1004-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1004-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1005-OE  
Prior Study No.  
2019-WTE-9061-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 52
Location:	Columbus, ND
Latitude:	48-48-04.37N NAD 83
Longitude:	102-48-55.58W
Heights:	2343 feet site elevation (SE) 487 feet above ground level (AGL) 2830 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1005-OE.

**Signature Control No: 431890296-436492363**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

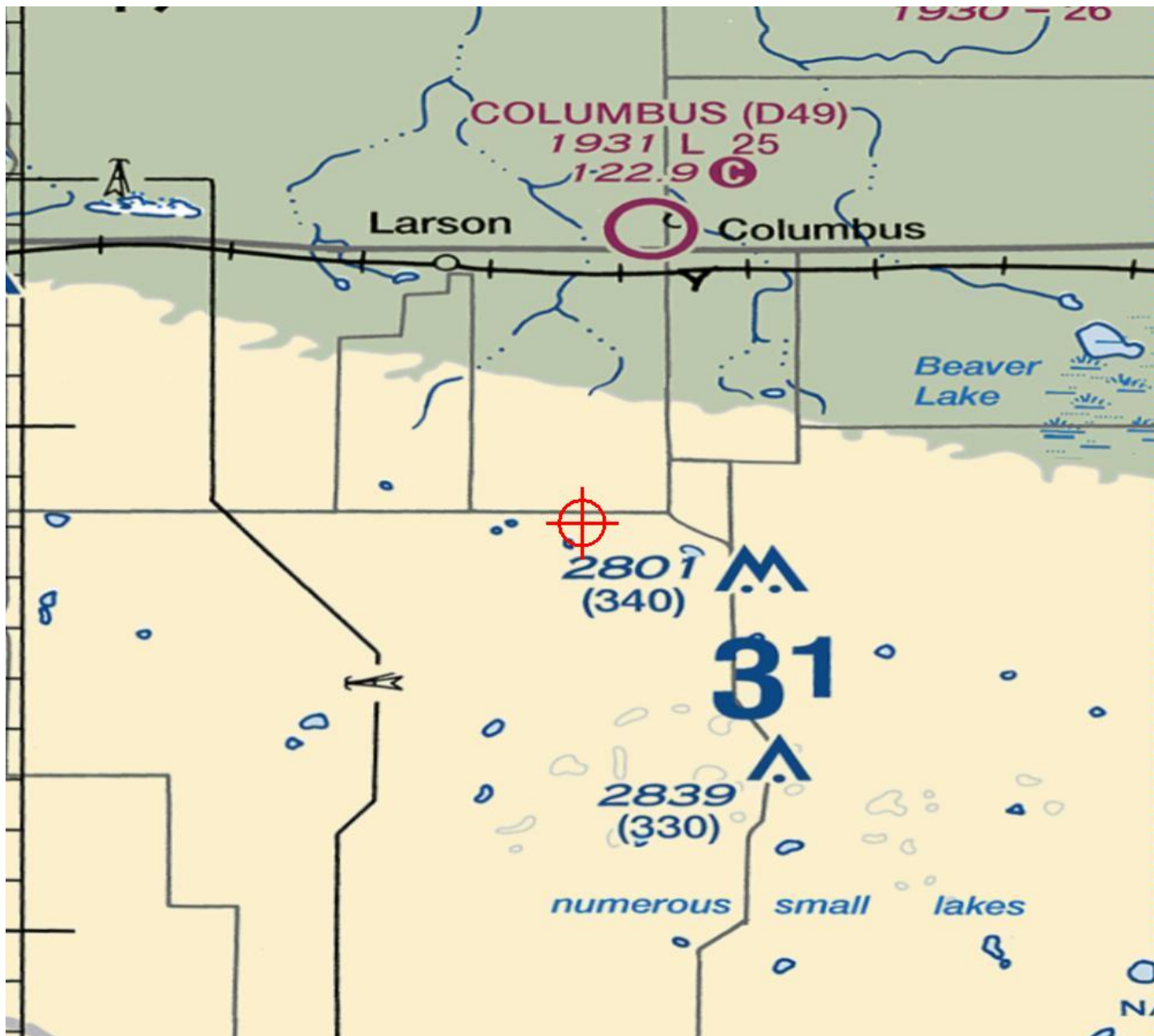
cc: FCC

**Additional information for ASN 2020-WTE-1005-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1005-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1006-OE  
Prior Study No.  
2019-WTE-9062-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 1a
Location:	Columbus, ND
Latitude:	48-46-53.61N NAD 83
Longitude:	102-55-55.03W
Heights:	2428 feet site elevation (SE) 487 feet above ground level (AGL) 2915 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1006-OE.

**Signature Control No: 431890297-436492365**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

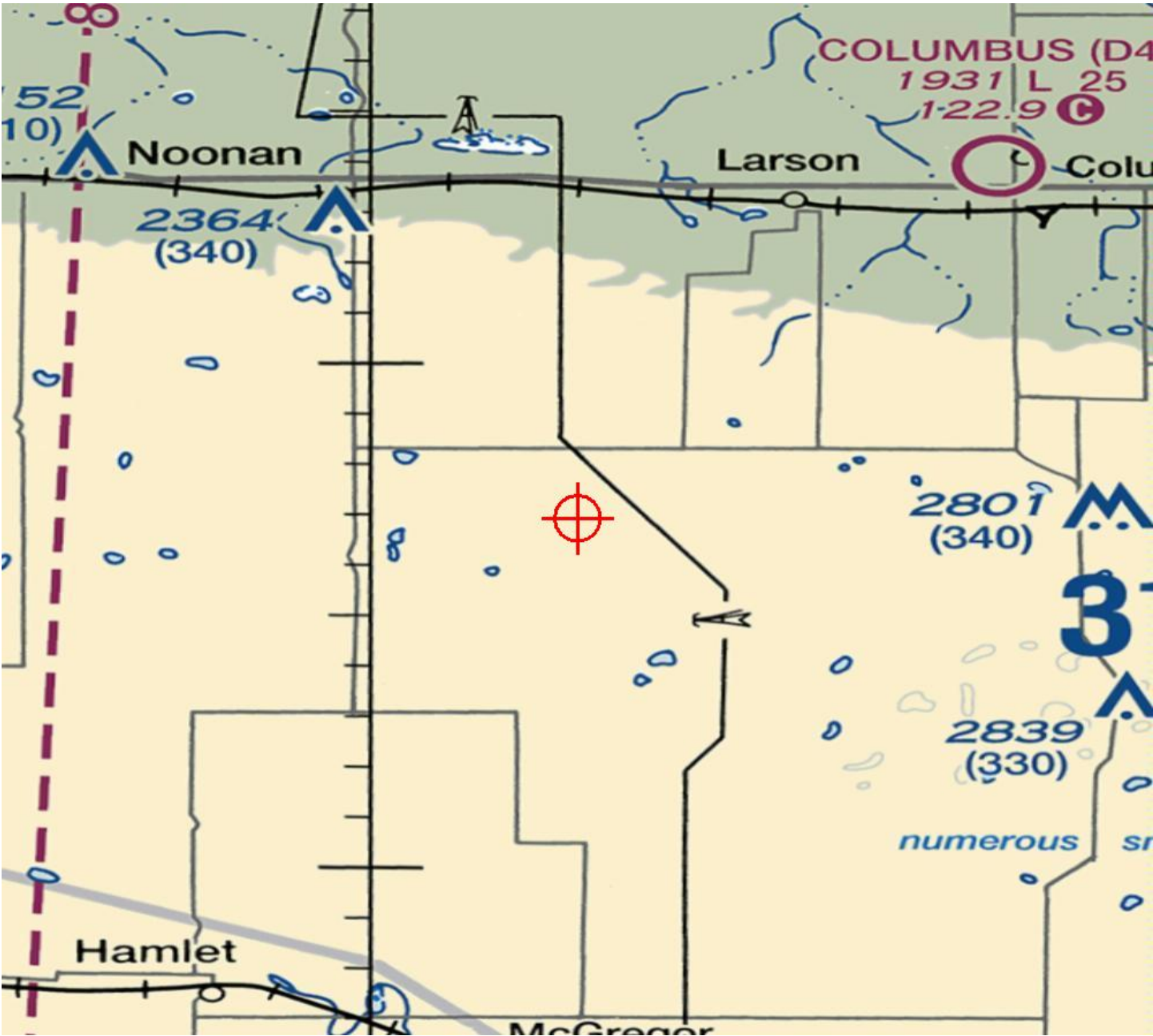
cc: FCC

**Additional information for ASN 2020-WTE-1006-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1006-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1007-OE  
Prior Study No.  
2019-WTE-9063-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 2a
Location:	Columbus, ND
Latitude:	48-47-17.44N NAD 83
Longitude:	102-56-05.38W
Heights:	2414 feet site elevation (SE) 487 feet above ground level (AGL) 2901 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1007-OE.

**Signature Control No: 431890298-436492379**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

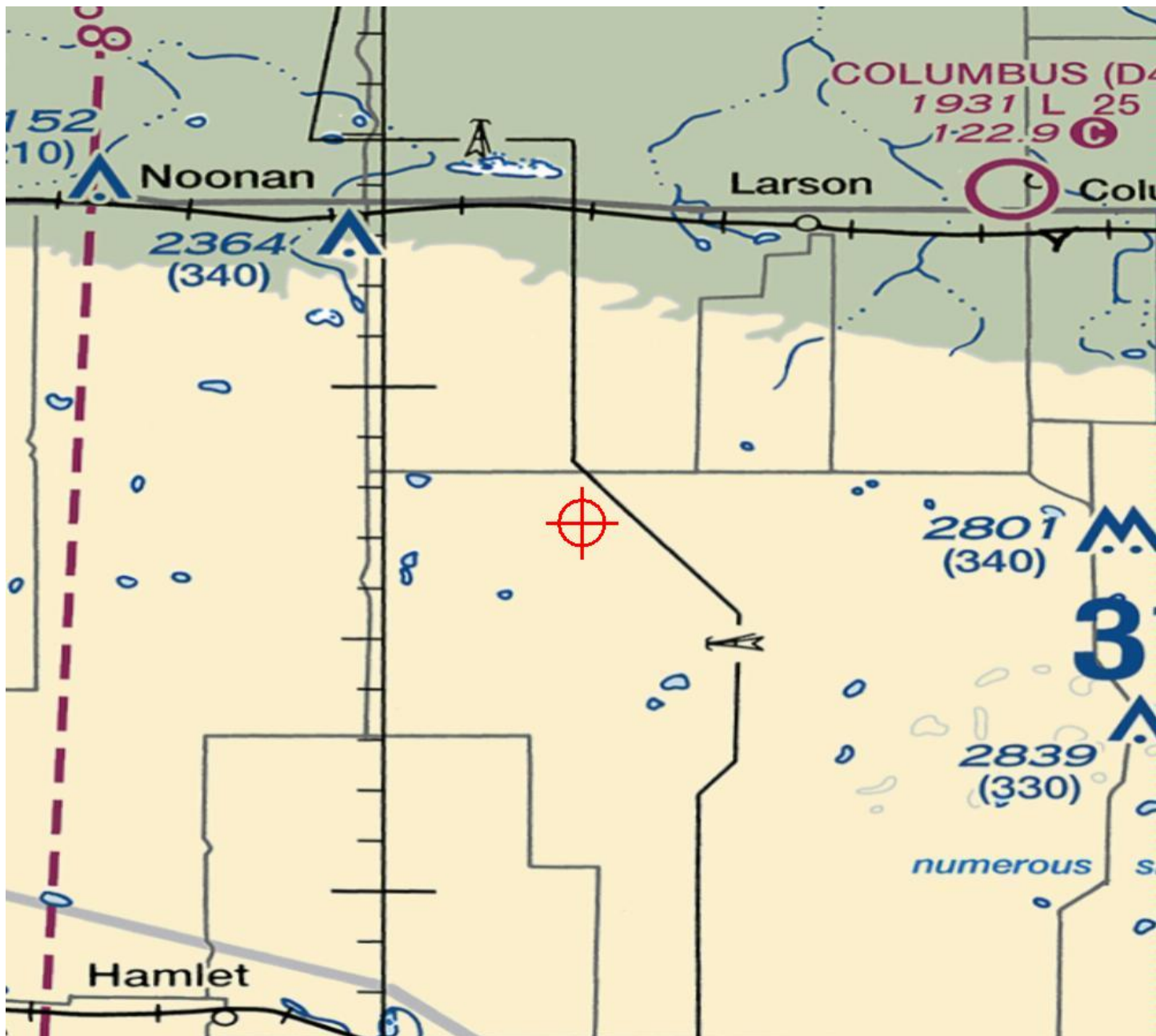
cc: FCC

**Additional information for ASN 2020-WTE-1007-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1007-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1008-OE  
Prior Study No.  
2019-WTE-9064-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 3a
Location:	Columbus, ND
Latitude:	48-47-24.87N NAD 83
Longitude:	102-55-49.37W
Heights:	2412 feet site elevation (SE) 487 feet above ground level (AGL) 2899 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1008-OE.

**Signature Control No: 431890299-436492381**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

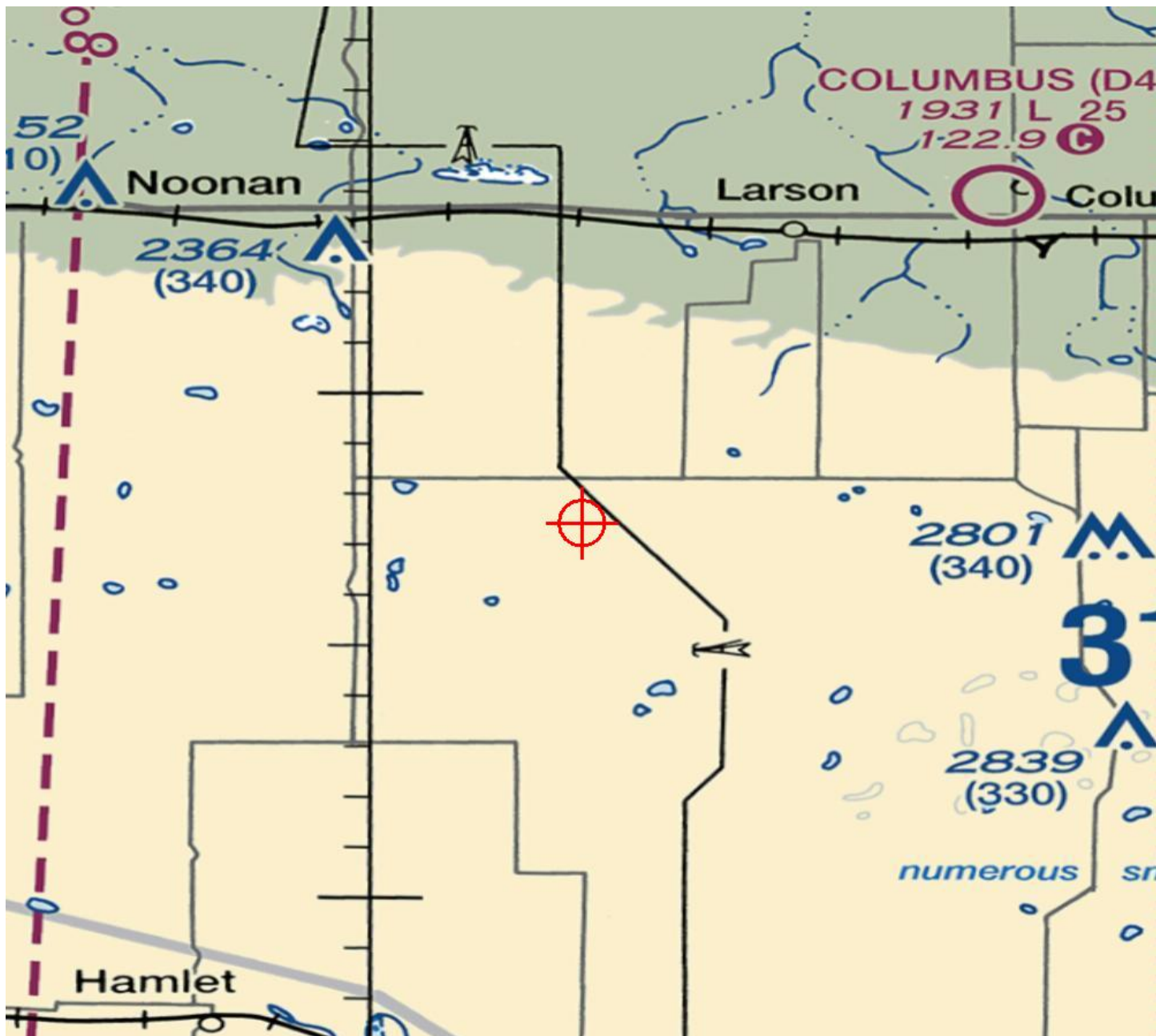
cc: FCC

**Additional information for ASN 2020-WTE-1008-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1008-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1009-OE  
Prior Study No.  
2019-WTE-9065-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 4a
Location:	Columbus, ND
Latitude:	48-48-10.47N NAD 83
Longitude:	102-56-10.39W
Heights:	2397 feet site elevation (SE) 487 feet above ground level (AGL) 2884 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1009-OE.

**Signature Control No: 431890300-436492382**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

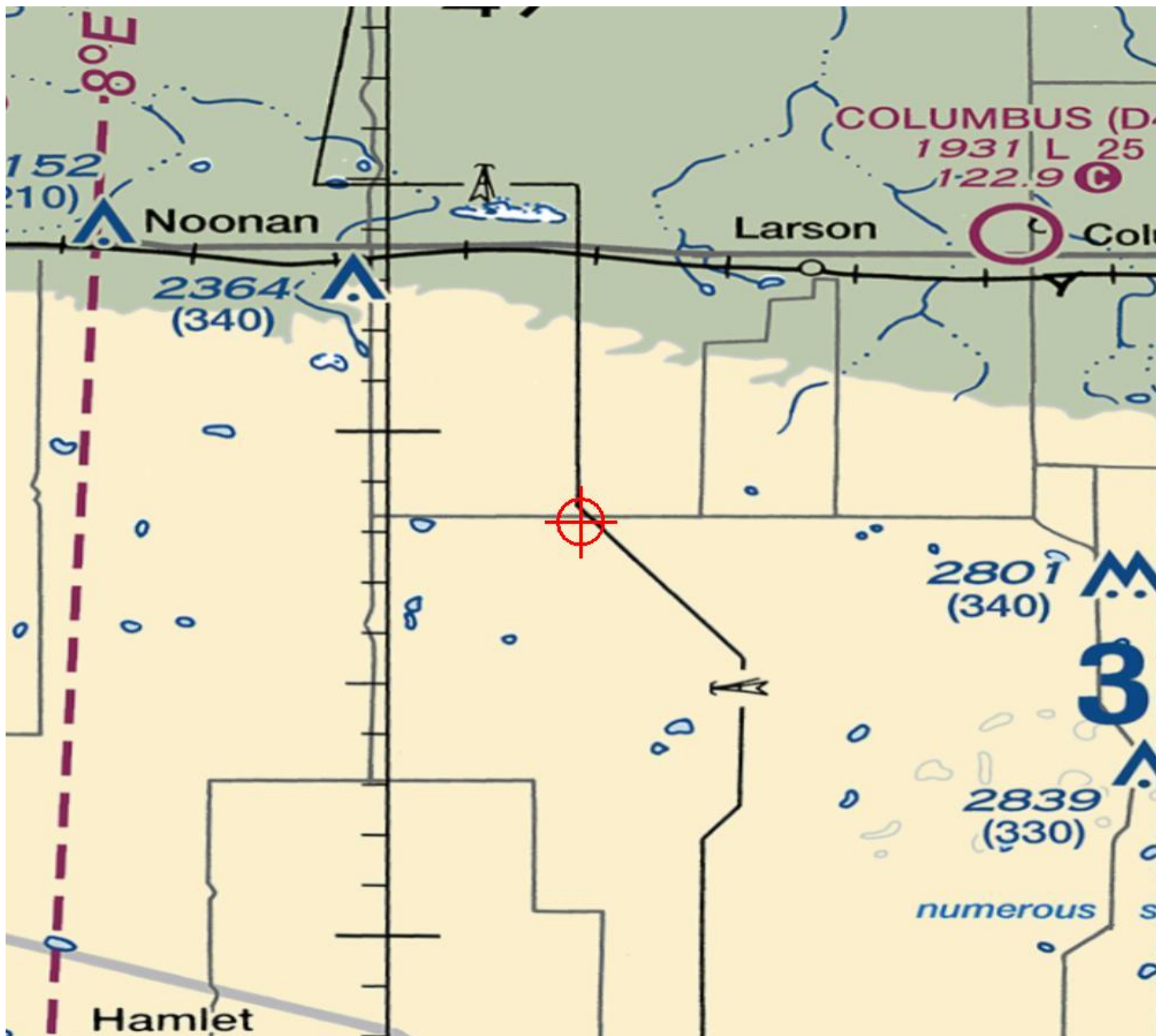
cc: FCC

**Additional information for ASN 2020-WTE-1009-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1009-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1010-OE  
Prior Study No.  
2019-WTE-9066-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 5a
Location:	Columbus, ND
Latitude:	48-48-42.73N NAD 83
Longitude:	102-56-11.61W
Heights:	2361 feet site elevation (SE) 487 feet above ground level (AGL) 2848 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1010-OE.

**Signature Control No: 431890303-436492383**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

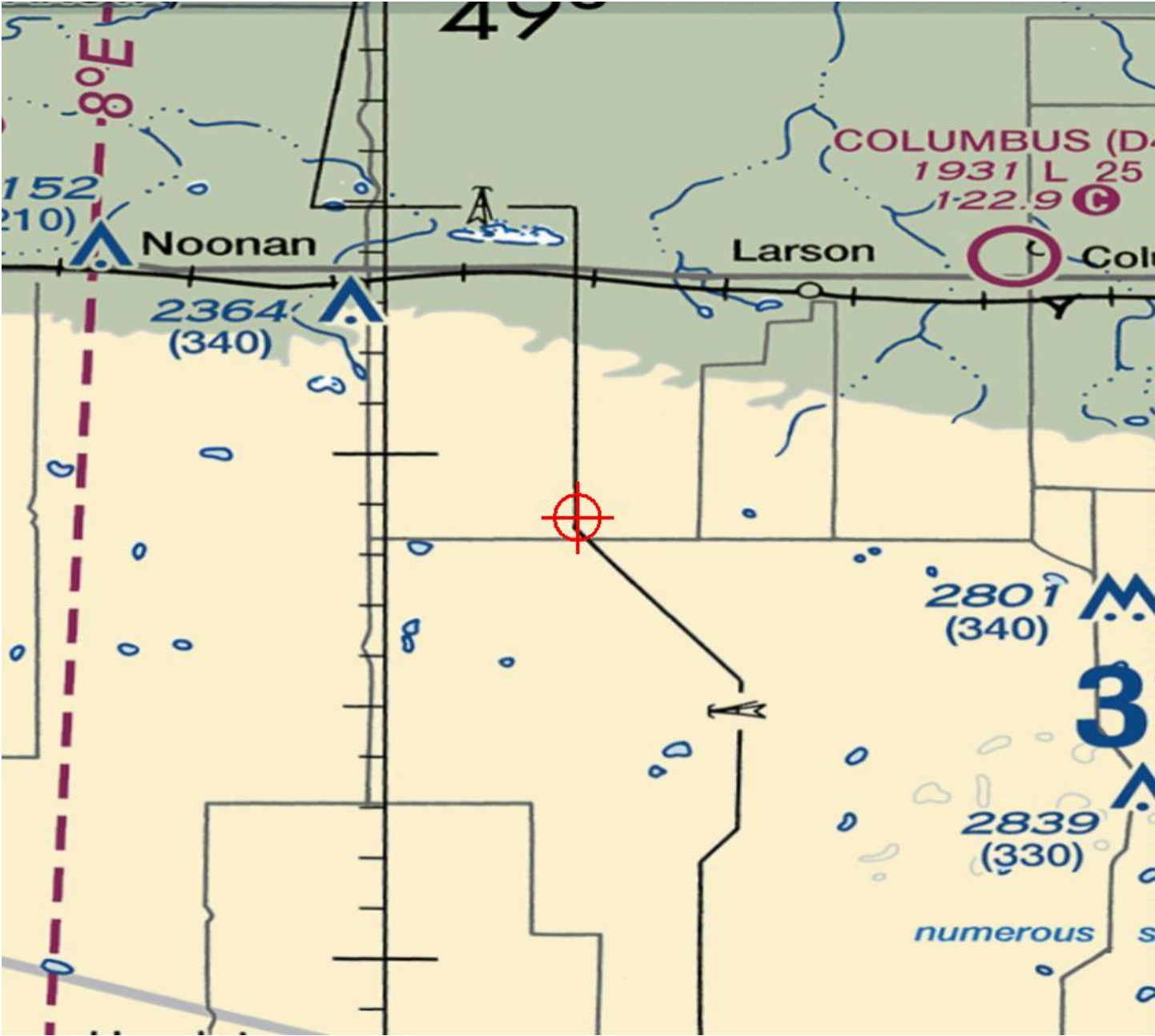
cc: FCC

**Additional information for ASN 2020-WTE-1010-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1010-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1011-OE  
Prior Study No.  
2019-WTE-9067-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 6a
Location:	Columbus, ND
Latitude:	48-48-58.63N NAD 83
Longitude:	102-56-09.54W
Heights:	2348 feet site elevation (SE) 487 feet above ground level (AGL) 2835 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1011-OE.

**Signature Control No: 431890304-436492384**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

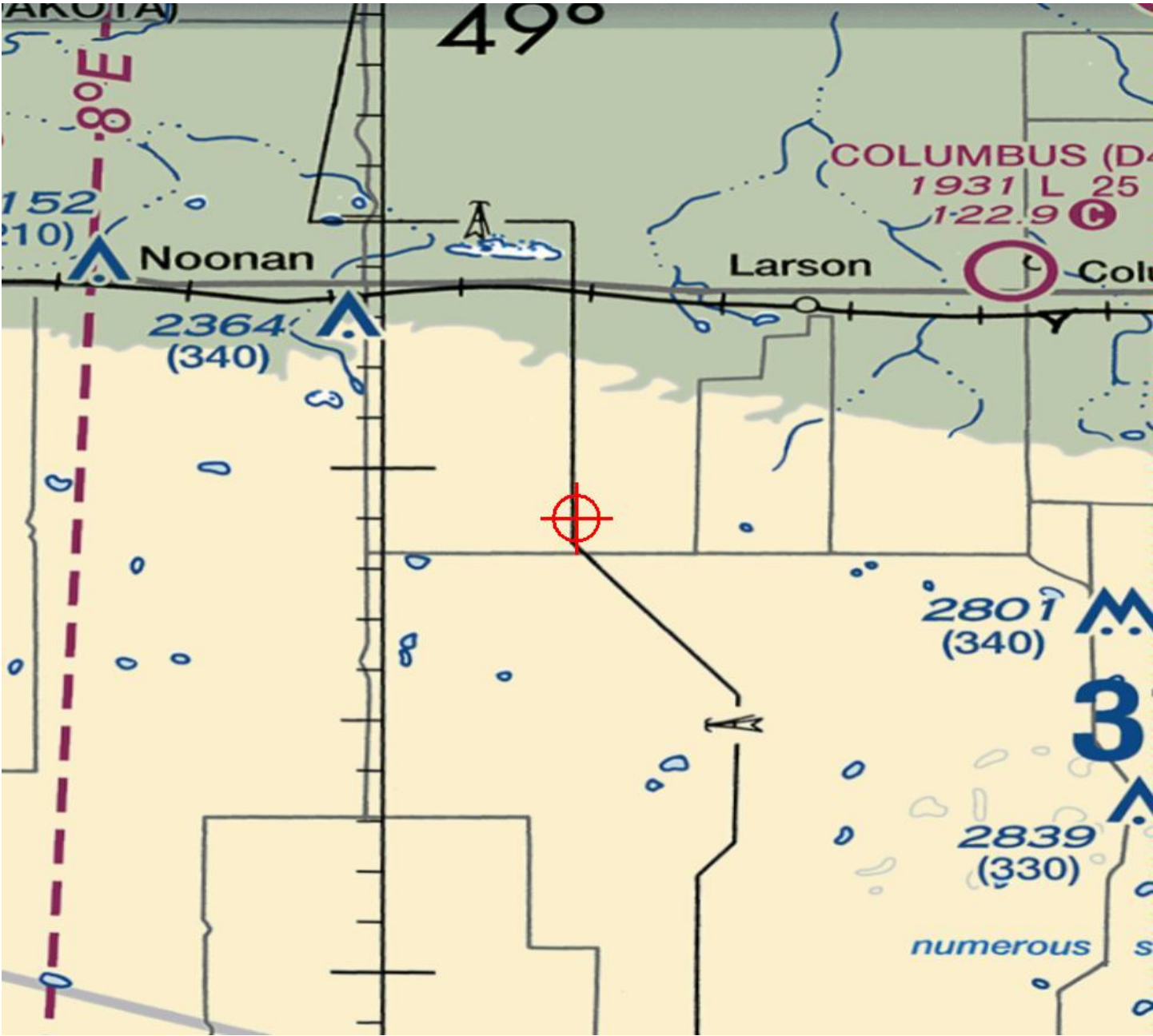
cc: FCC

**Additional information for ASN 2020-WTE-1011-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1011-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1012-OE  
Prior Study No.  
2019-WTE-9068-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 7a
Location:	Columbus, ND
Latitude:	48-49-11.25N NAD 83
Longitude:	102-56-02.98W
Heights:	2318 feet site elevation (SE) 487 feet above ground level (AGL) 2805 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1012-OE.

**Signature Control No: 431890305-436492385**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

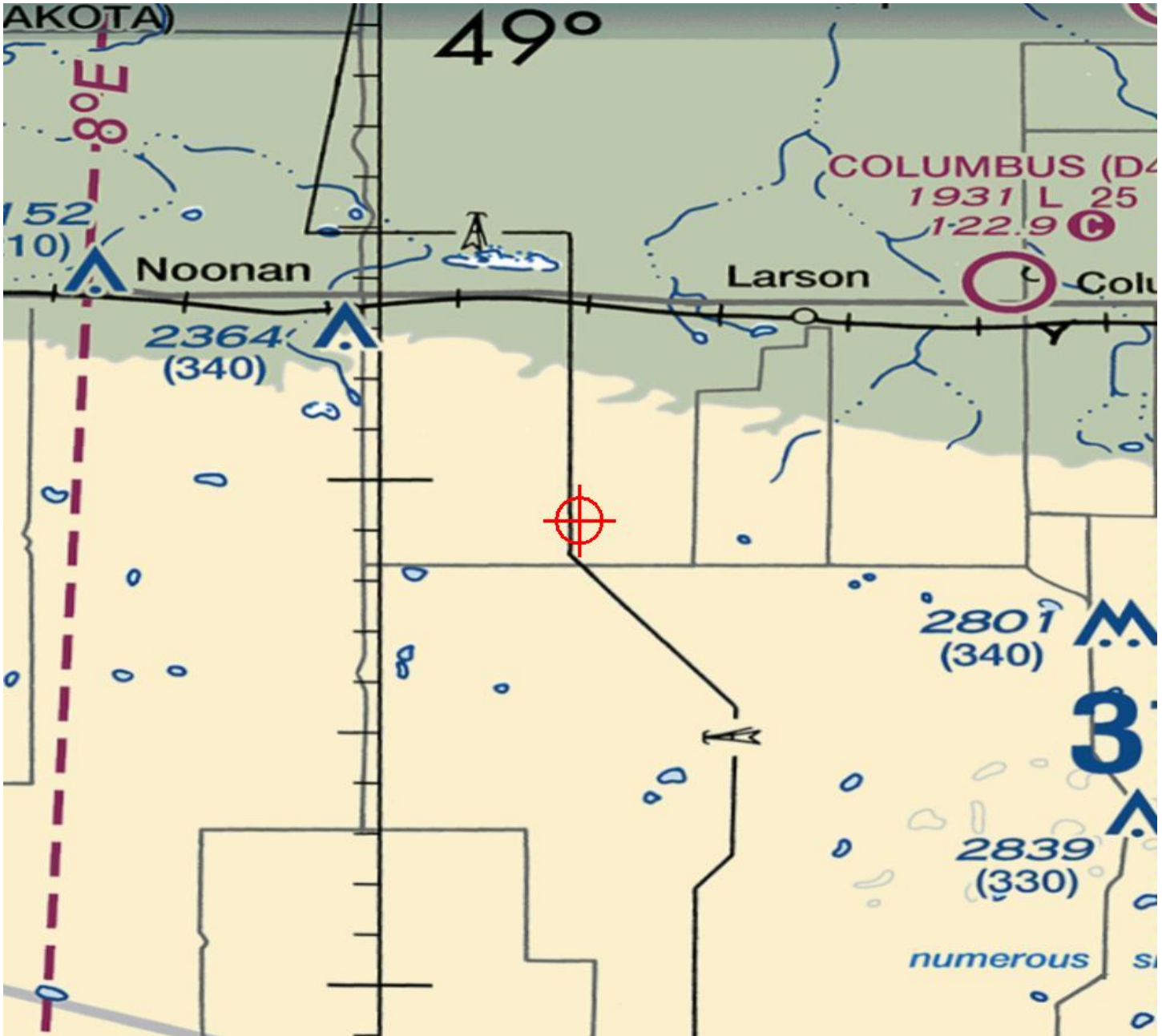
cc: FCC

**Additional information for ASN 2020-WTE-1012-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1012-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1013-OE  
Prior Study No.  
2019-WTE-9069-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 8a
Location:	Columbus, ND
Latitude:	48-49-25.96N NAD 83
Longitude:	102-55-55.55W
Heights:	2292 feet site elevation (SE) 487 feet above ground level (AGL) 2779 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1013-OE.

**Signature Control No: 431890306-436492386**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

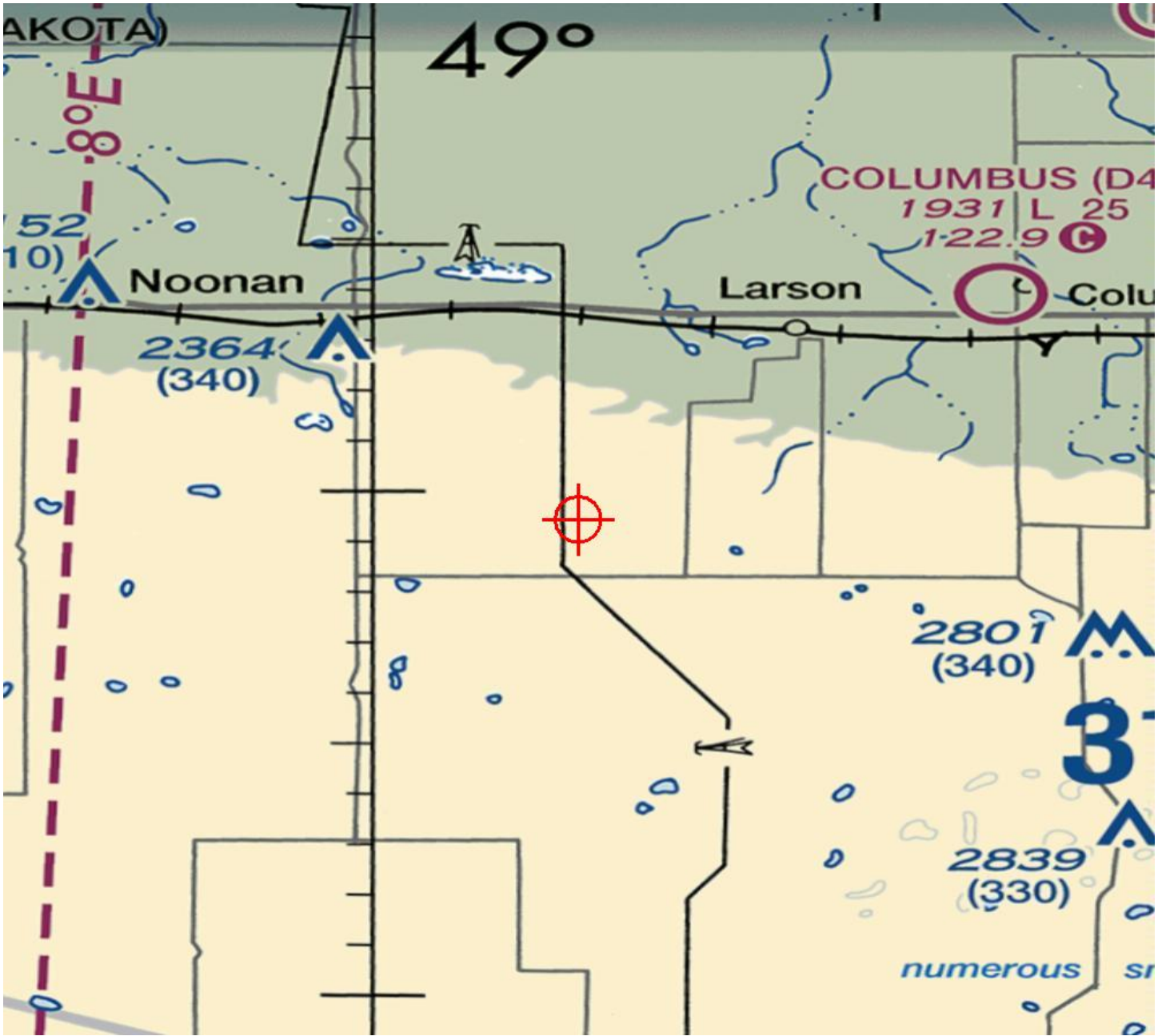
cc: FCC

**Additional information for ASN 2020-WTE-1013-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1013-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1014-OE  
Prior Study No.  
2019-WTE-9070-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 9a
Location:	Columbus, ND
Latitude:	48-49-25.10N NAD 83
Longitude:	102-55-21.38W
Heights:	2272 feet site elevation (SE) 487 feet above ground level (AGL) 2759 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1014-OE.

**Signature Control No: 431890307-436492387**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

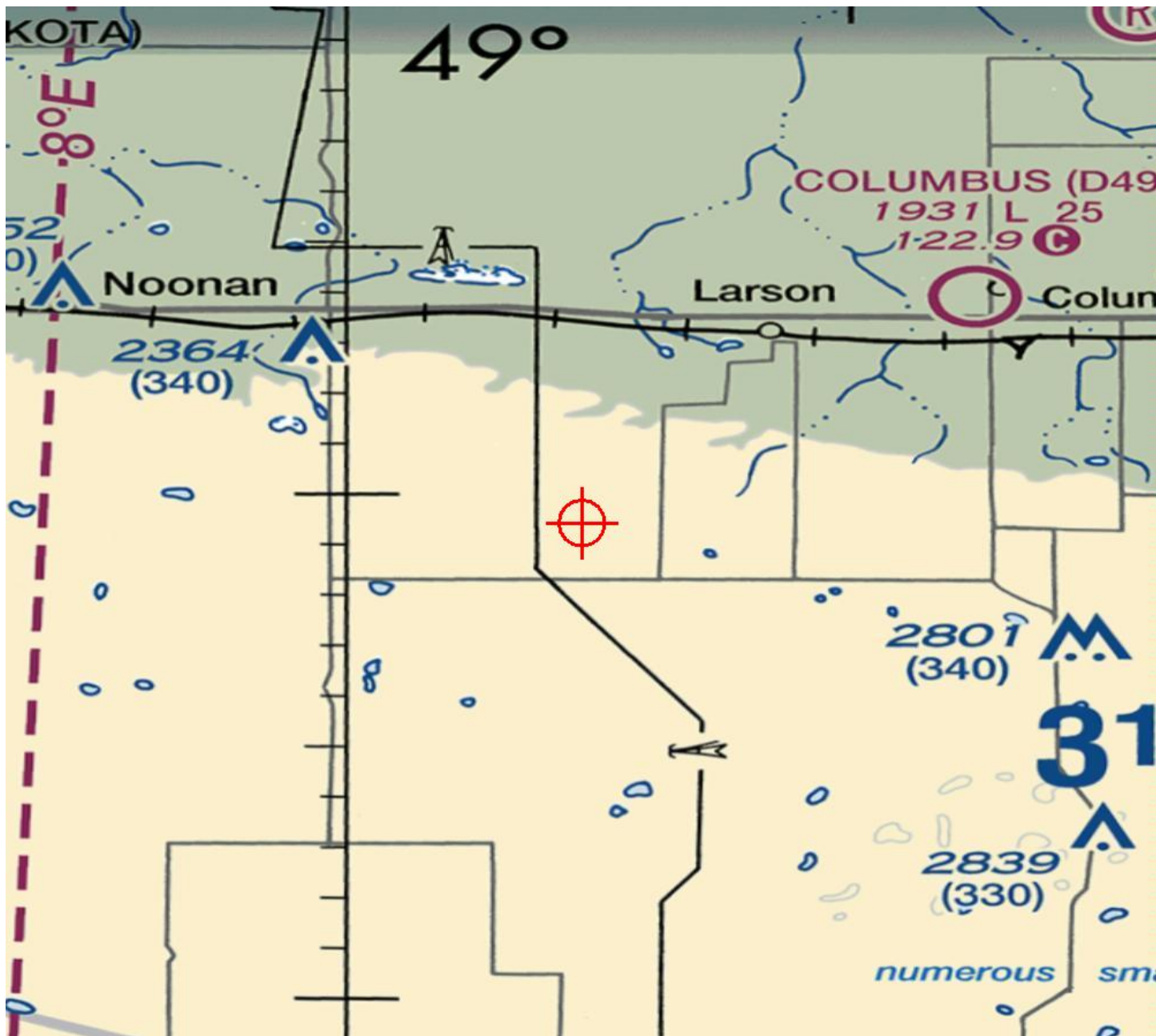
cc: FCC

**Additional information for ASN 2020-WTE-1014-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1014-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1015-OE  
Prior Study No.  
2019-WTE-9071-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 10a
Location:	Columbus, ND
Latitude:	48-49-08.42N NAD 83
Longitude:	102-55-28.64W
Heights:	2320 feet site elevation (SE) 487 feet above ground level (AGL) 2807 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1015-OE.

**Signature Control No: 431890308-436492388**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

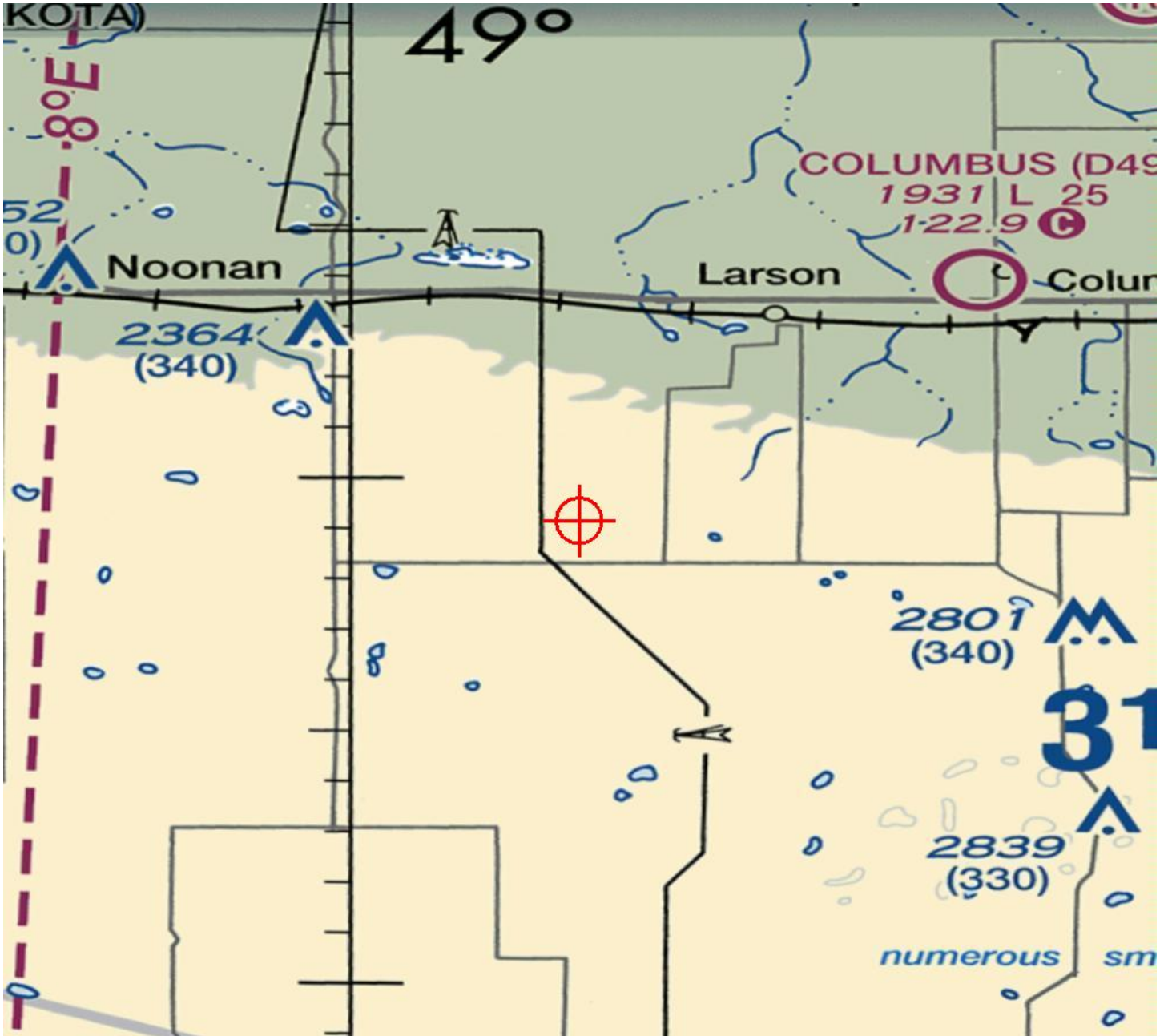
cc: FCC

**Additional information for ASN 2020-WTE-1015-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1015-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1016-OE  
Prior Study No.  
2019-WTE-9072-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 11a
Location:	Columbus, ND
Latitude:	48-48-58.04N NAD 83
Longitude:	102-55-38.86W
Heights:	2353 feet site elevation (SE) 487 feet above ground level (AGL) 2840 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1016-OE.

**Signature Control No: 431890311-436492390**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

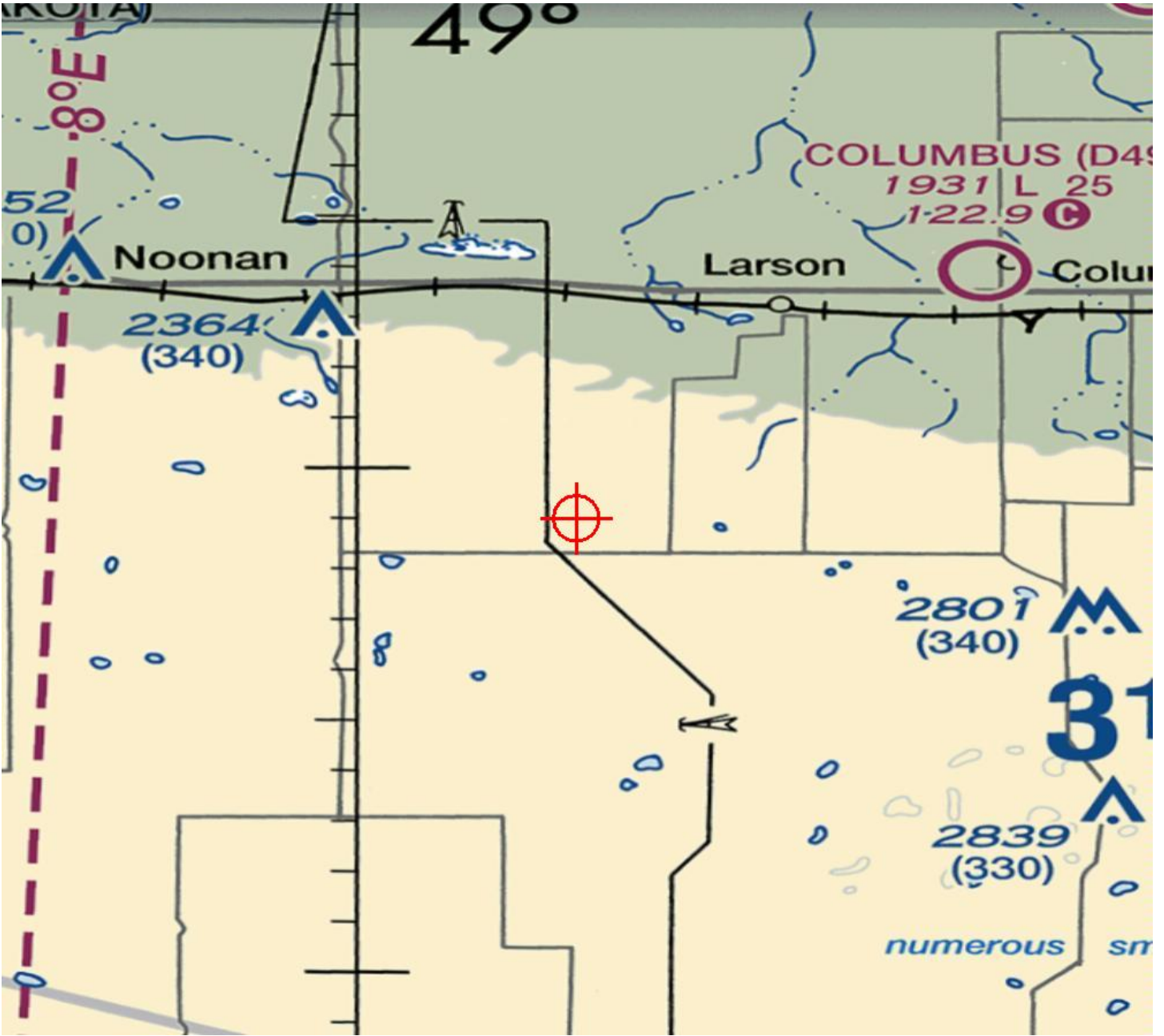
cc: FCC

**Additional information for ASN 2020-WTE-1016-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1016-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1017-OE  
Prior Study No.  
2019-WTE-9073-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 12a
Location:	Columbus, ND
Latitude:	48-50-05.08N NAD 83
Longitude:	102-55-15.78W
Heights:	2210 feet site elevation (SE) 487 feet above ground level (AGL) 2697 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1017-OE.

**Signature Control No: 431890312-436492394**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

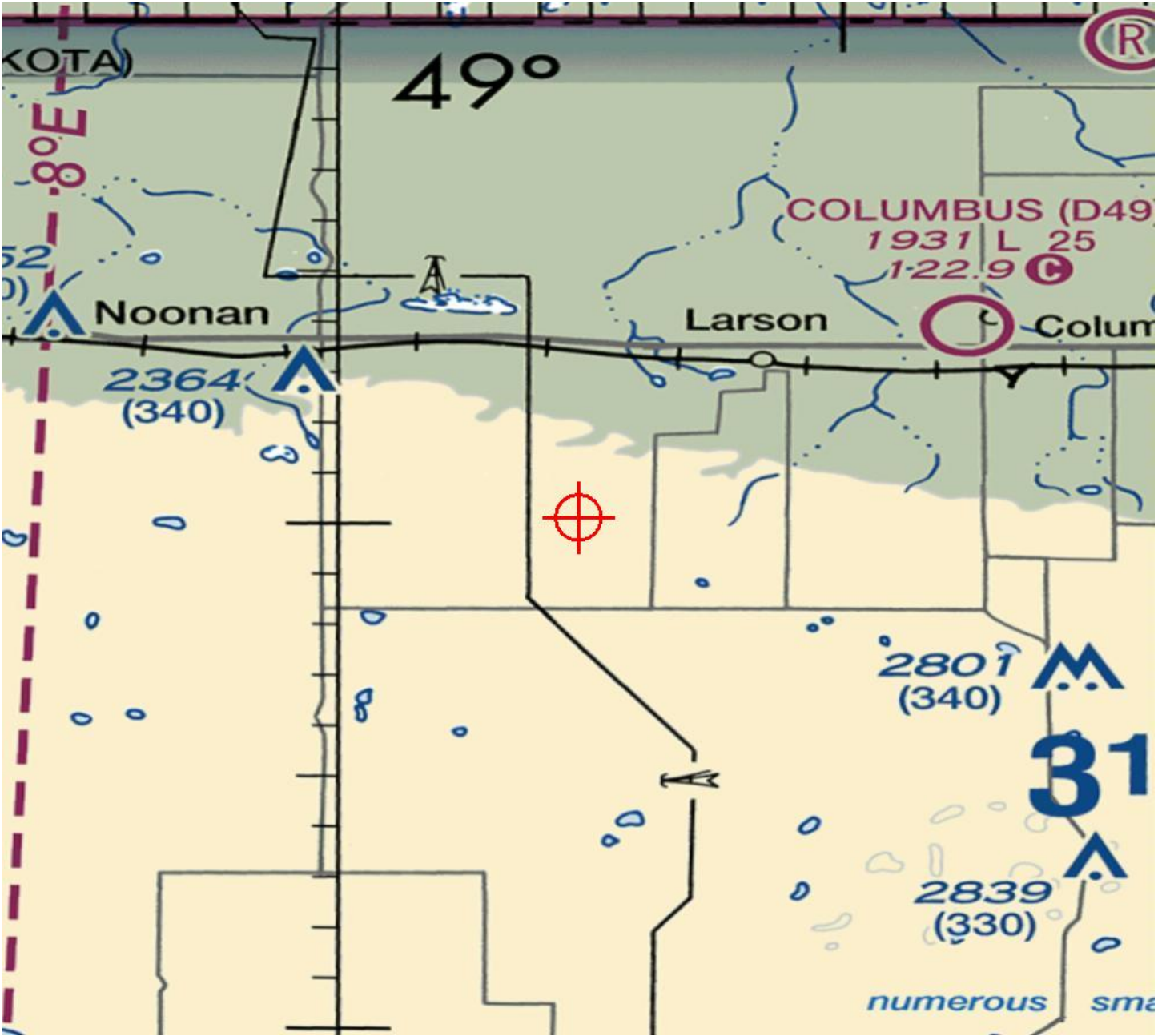
cc: FCC

**Additional information for ASN 2020-WTE-1017-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1017-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1018-OE  
Prior Study No.  
2019-WTE-9074-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 13a
Location:	Columbus, ND
Latitude:	48-50-20.12N NAD 83
Longitude:	102-54-55.63W
Heights:	2214 feet site elevation (SE) 487 feet above ground level (AGL) 2701 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1018-OE.

**Signature Control No: 431890316-436492395**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

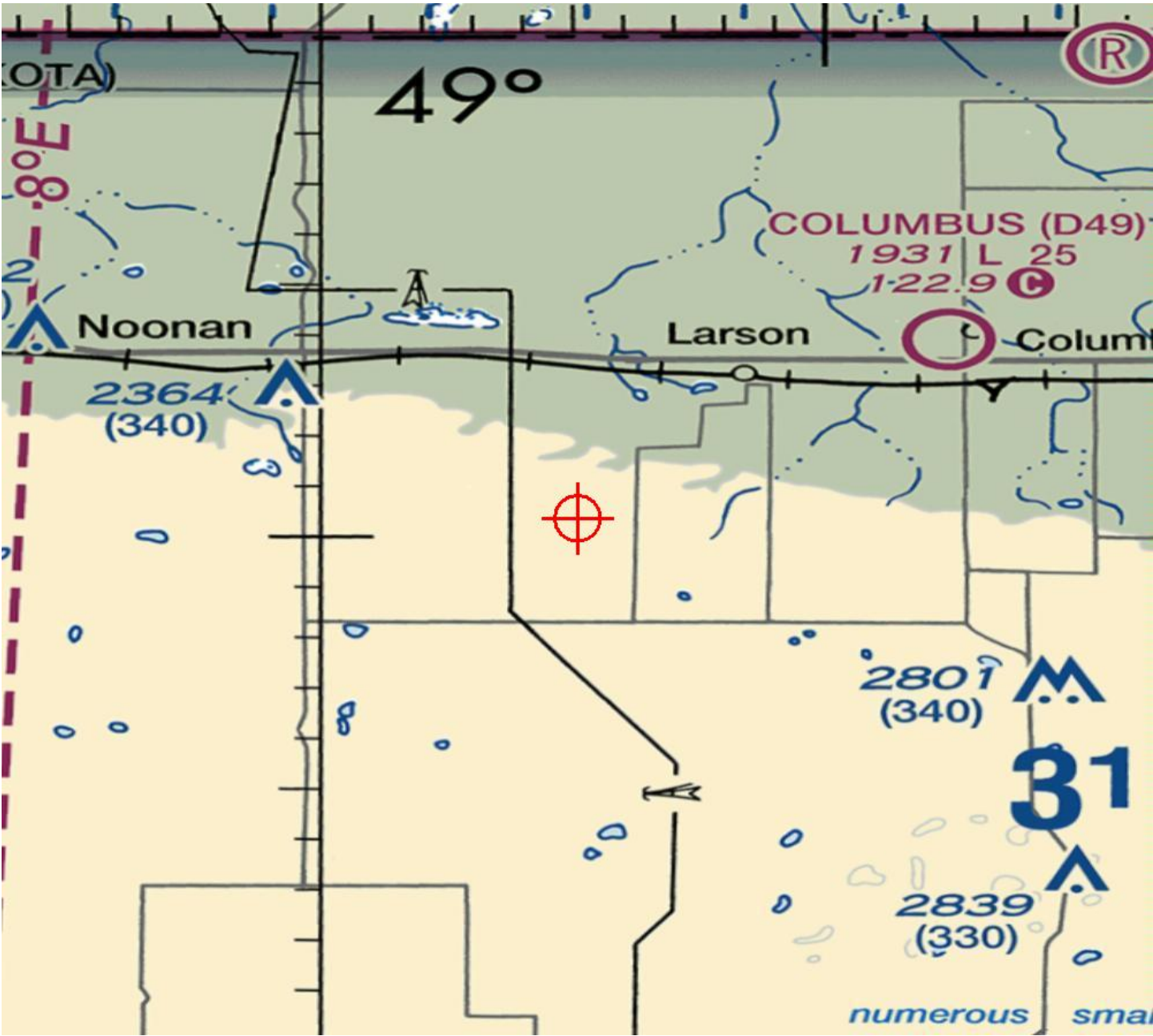
cc: FCC

**Additional information for ASN 2020-WTE-1018-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1018-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1019-OE  
Prior Study No.  
2019-WTE-9075-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 14a
Location:	Columbus, ND
Latitude:	48-50-17.25N NAD 83
Longitude:	102-54-23.26W
Heights:	2215 feet site elevation (SE) 487 feet above ground level (AGL) 2702 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1019-OE.

**Signature Control No: 431890317-436492408**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

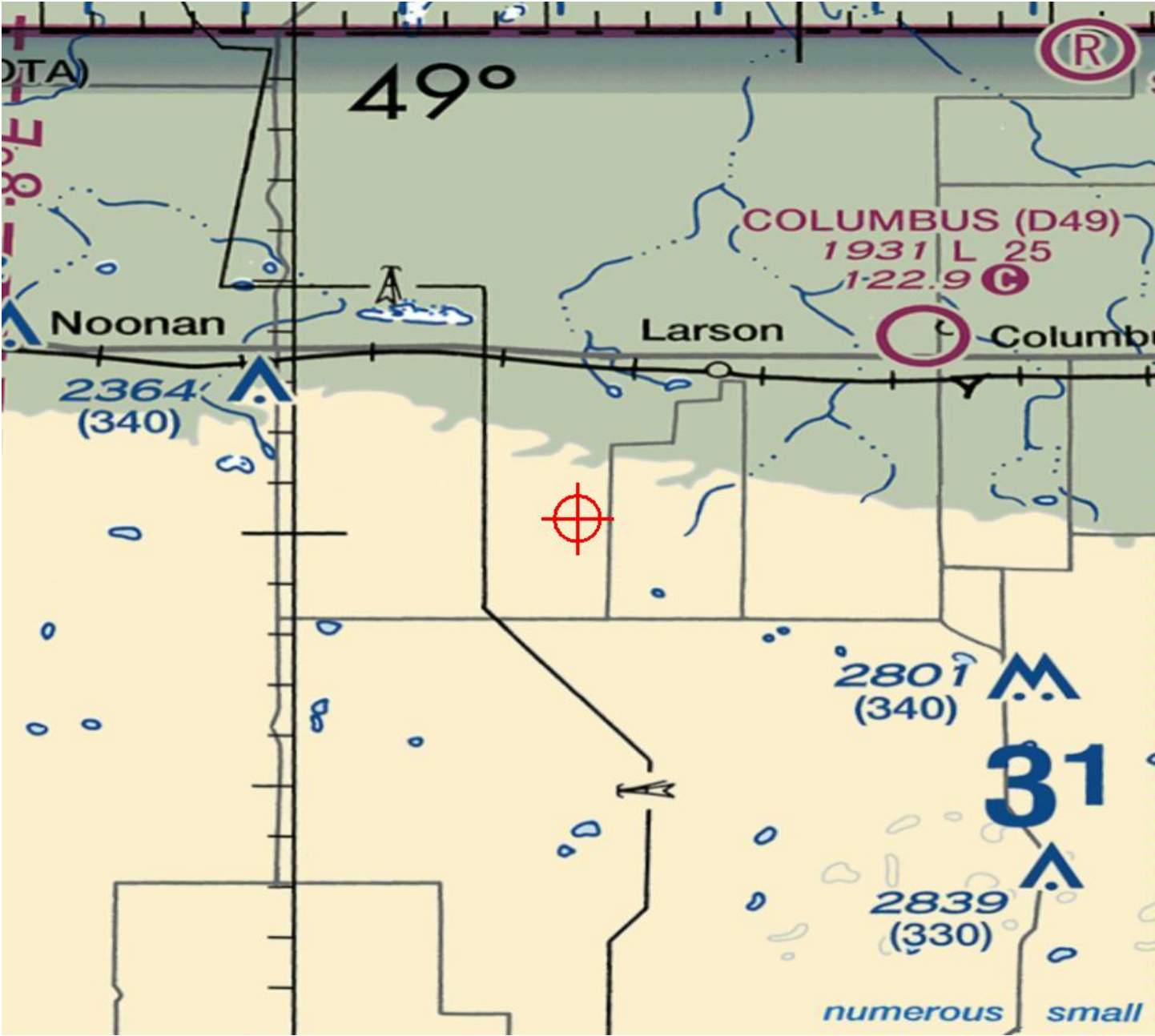
cc: FCC

**Additional information for ASN 2020-WTE-1019-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1019-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1020-OE  
Prior Study No.  
2019-WTE-9076-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 15a
Location:	Columbus, ND
Latitude:	48-49-56.32N NAD 83
Longitude:	102-54-42.93W
Heights:	2234 feet site elevation (SE) 487 feet above ground level (AGL) 2721 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1020-OE.

**Signature Control No: 431890318-436492409**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

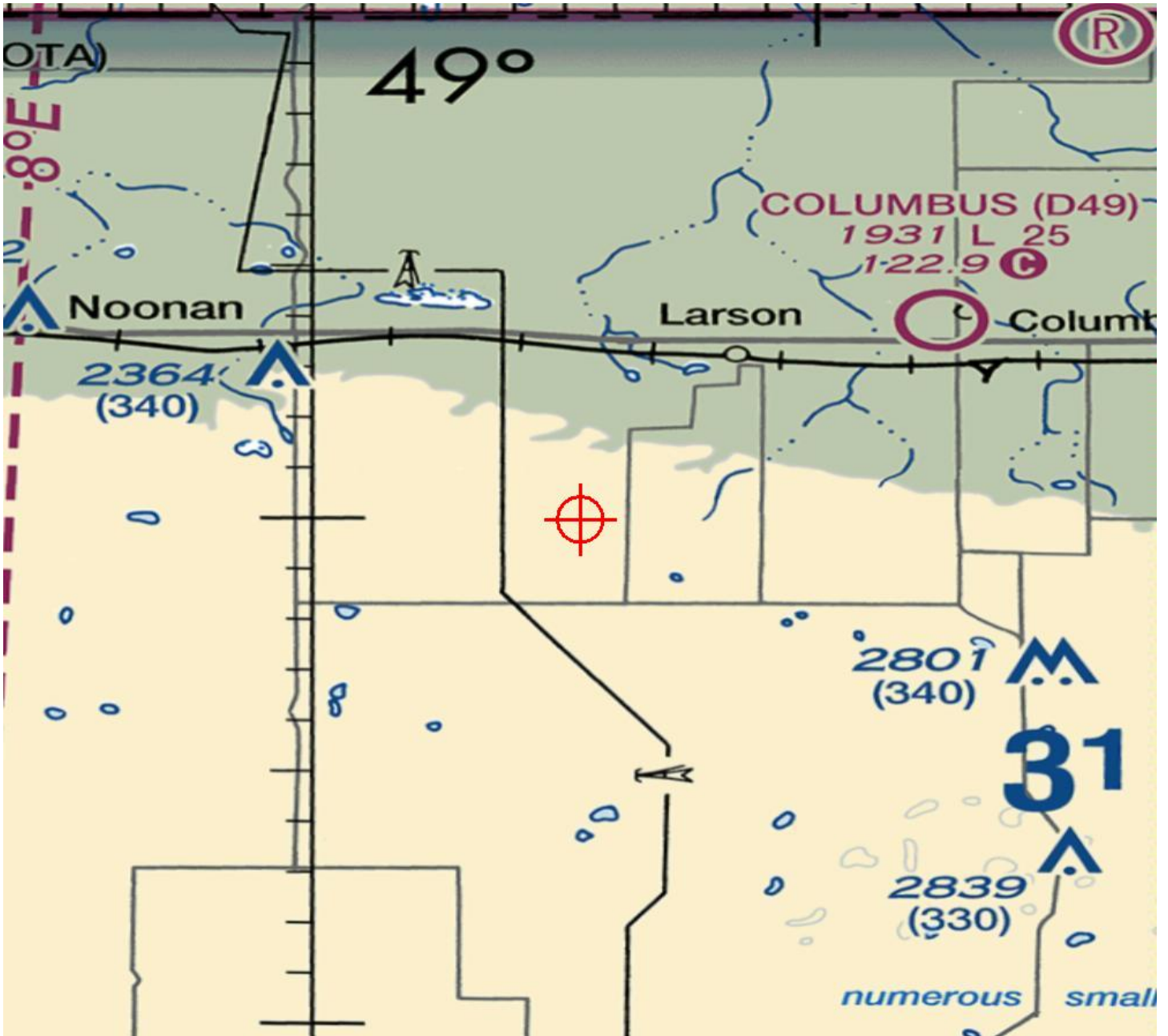
cc: FCC

**Additional information for ASN 2020-WTE-1020-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1020-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1021-OE  
Prior Study No.  
2019-WTE-9077-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 16a
Location:	Columbus, ND
Latitude:	48-49-28.43N NAD 83
Longitude:	102-54-51.64W
Heights:	2278 feet site elevation (SE) 487 feet above ground level (AGL) 2765 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1021-OE.

**Signature Control No: 431890319-436492411**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

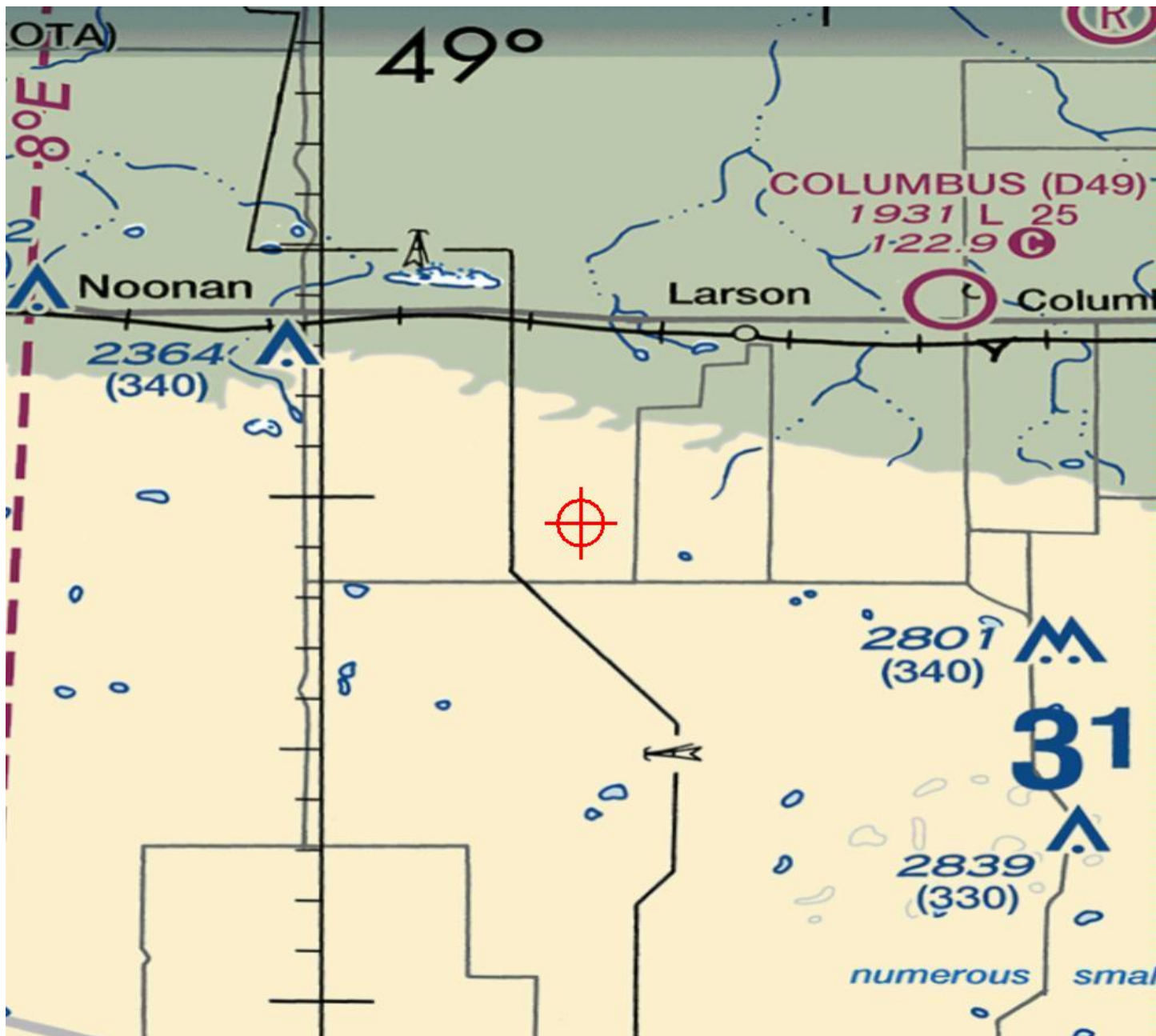
cc: FCC

**Additional information for ASN 2020-WTE-1021-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1021-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1022-OE  
Prior Study No.  
2019-WTE-9078-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 17a
Location:	Columbus, ND
Latitude:	48-48-45.70N NAD 83
Longitude:	102-55-14.88W
Heights:	2364 feet site elevation (SE) 487 feet above ground level (AGL) 2851 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1022-OE.

**Signature Control No: 431890322-436492413**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

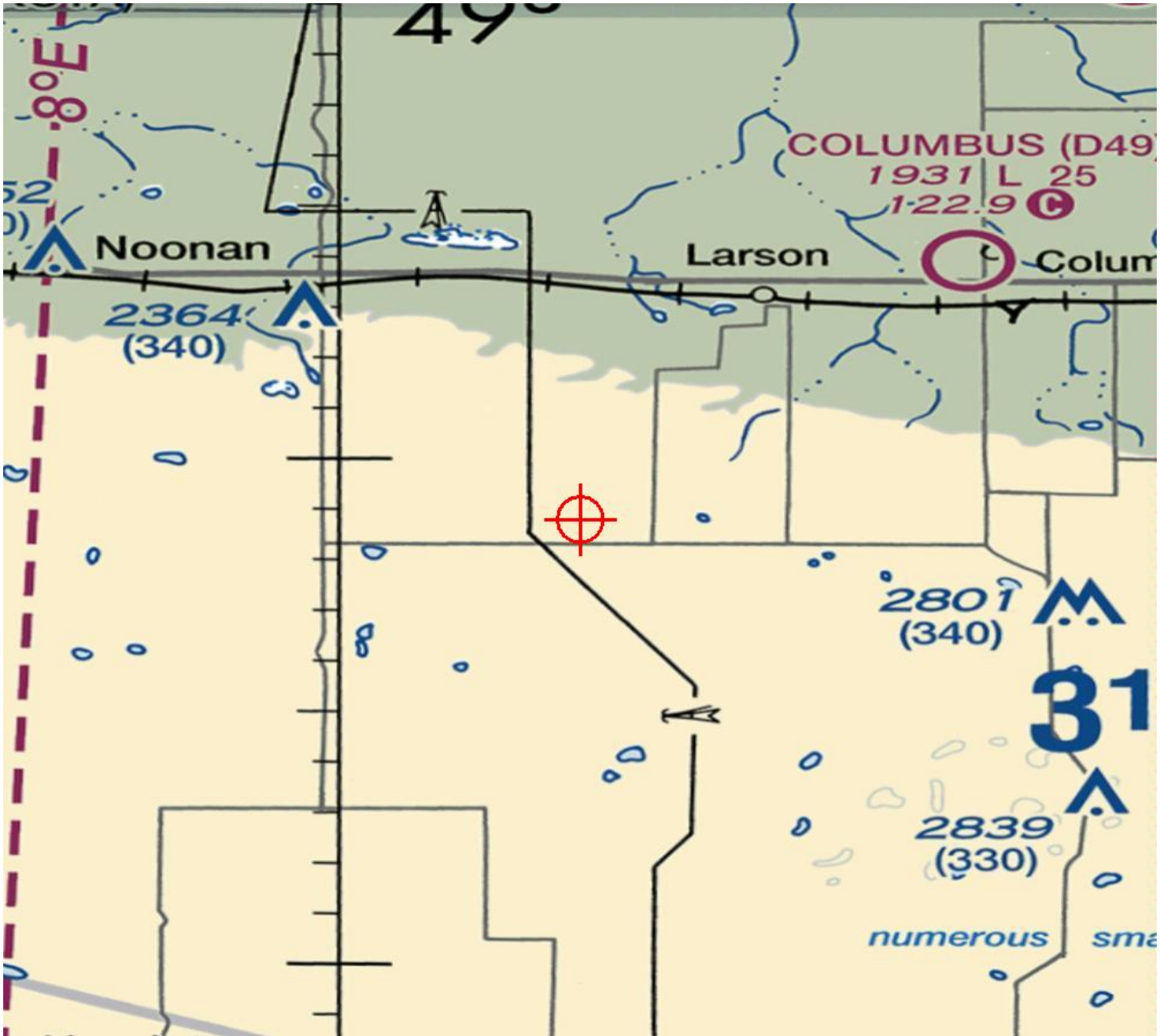
cc: FCC

**Additional information for ASN 2020-WTE-1022-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1022-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1023-OE  
Prior Study No.  
2019-WTE-9079-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 20a
Location:	Columbus, ND
Latitude:	48-49-25.47N NAD 83
Longitude:	102-54-14.55W
Heights:	2297 feet site elevation (SE) 487 feet above ground level (AGL) 2784 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1023-OE.

**Signature Control No: 431890324-436492414**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

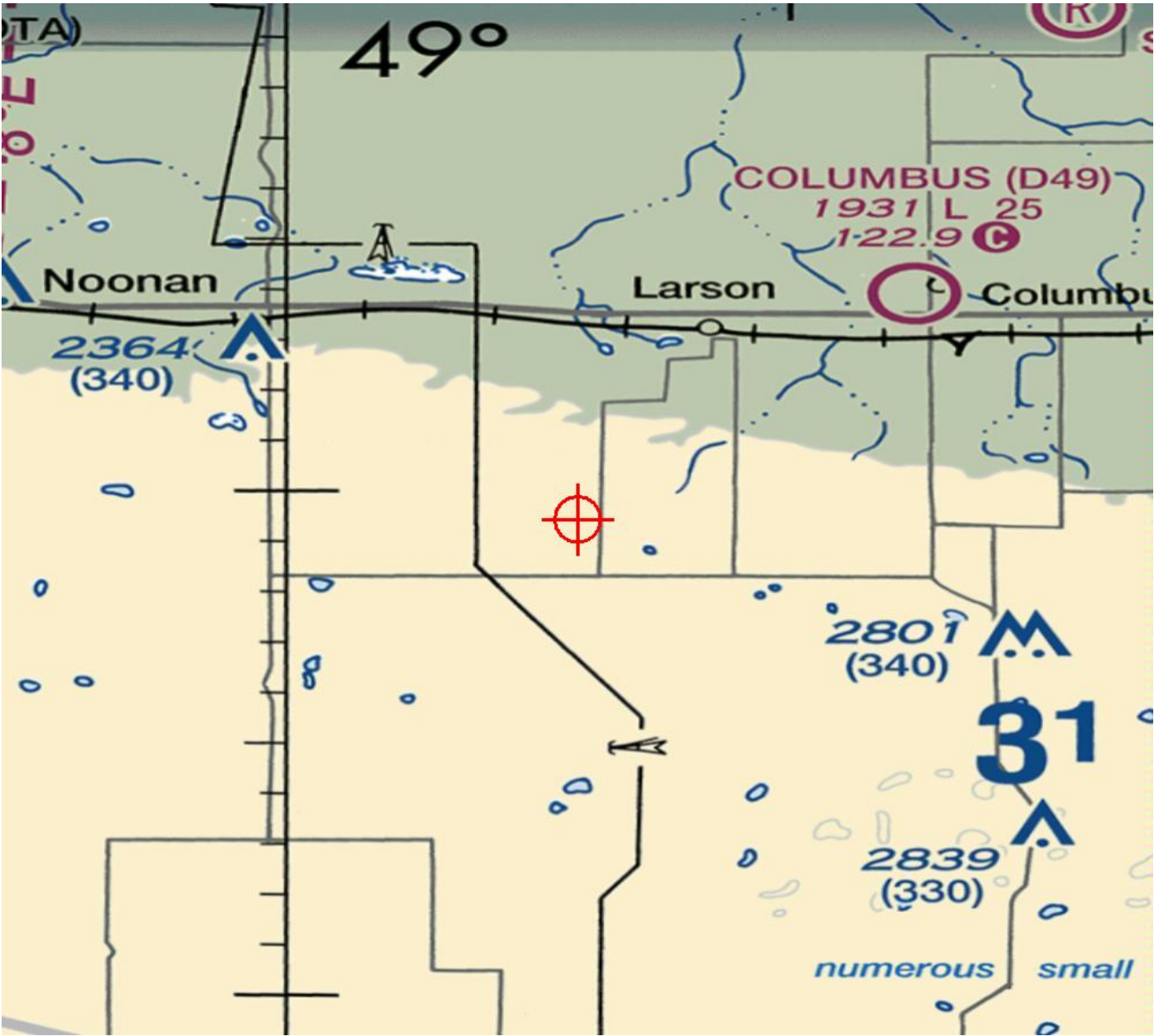
cc: FCC

## **Additional information for ASN 2020-WTE-1023-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1023-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1024-OE  
Prior Study No.  
2019-WTE-9080-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 21a
Location:	Columbus, ND
Latitude:	48-49-36.53N NAD 83
Longitude:	102-53-59.20W
Heights:	2279 feet site elevation (SE) 487 feet above ground level (AGL) 2766 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1024-OE.

**Signature Control No: 431890325-436492416**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

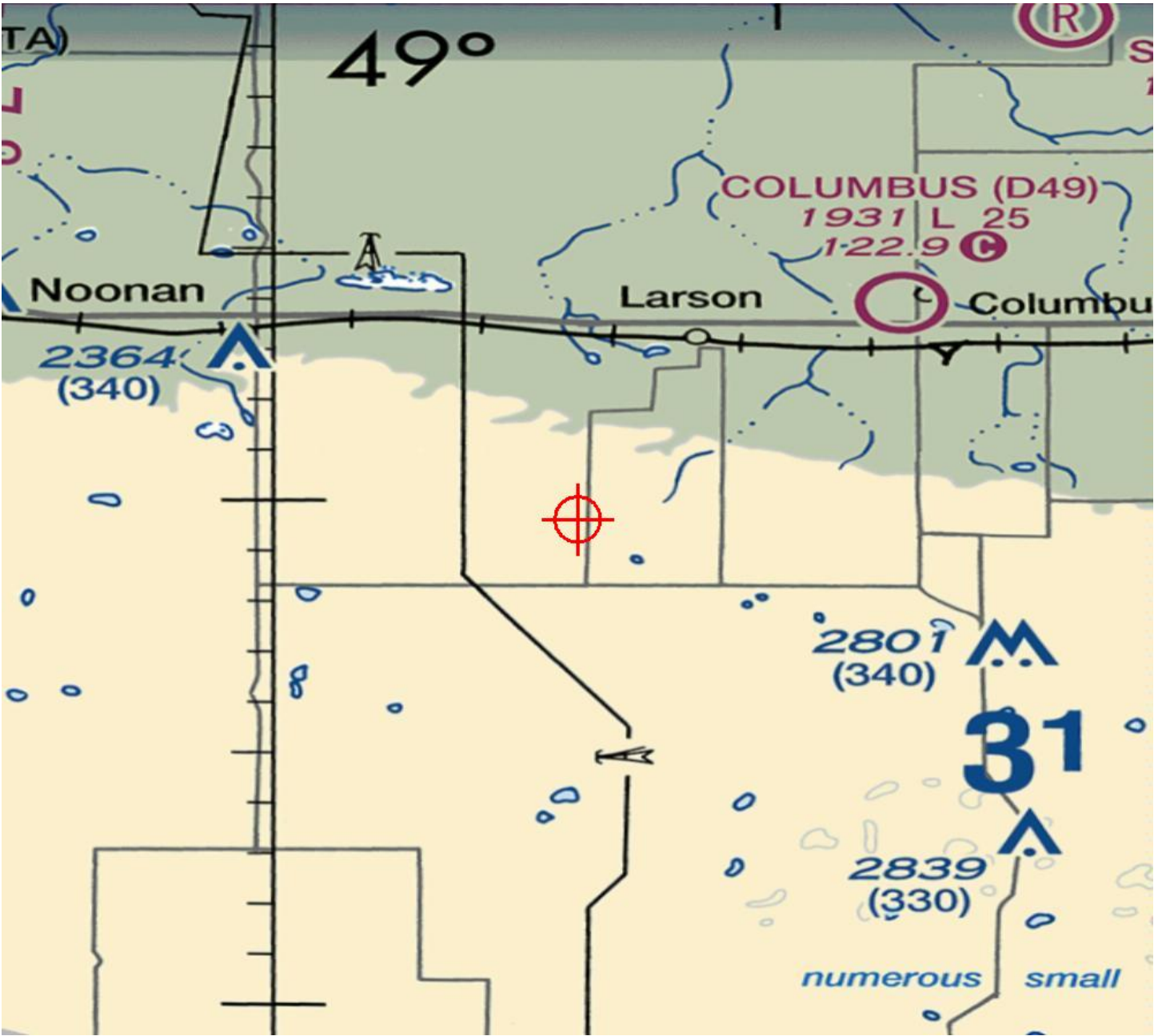
cc: FCC

**Additional information for ASN 2020-WTE-1024-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1024-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1025-OE  
Prior Study No.  
2019-WTE-9081-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 22a
Location:	Columbus, ND
Latitude:	48-49-52.58N NAD 83
Longitude:	102-53-55.51W
Heights:	2246 feet site elevation (SE) 487 feet above ground level (AGL) 2733 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1025-OE.

**Signature Control No: 431890326-436492417**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

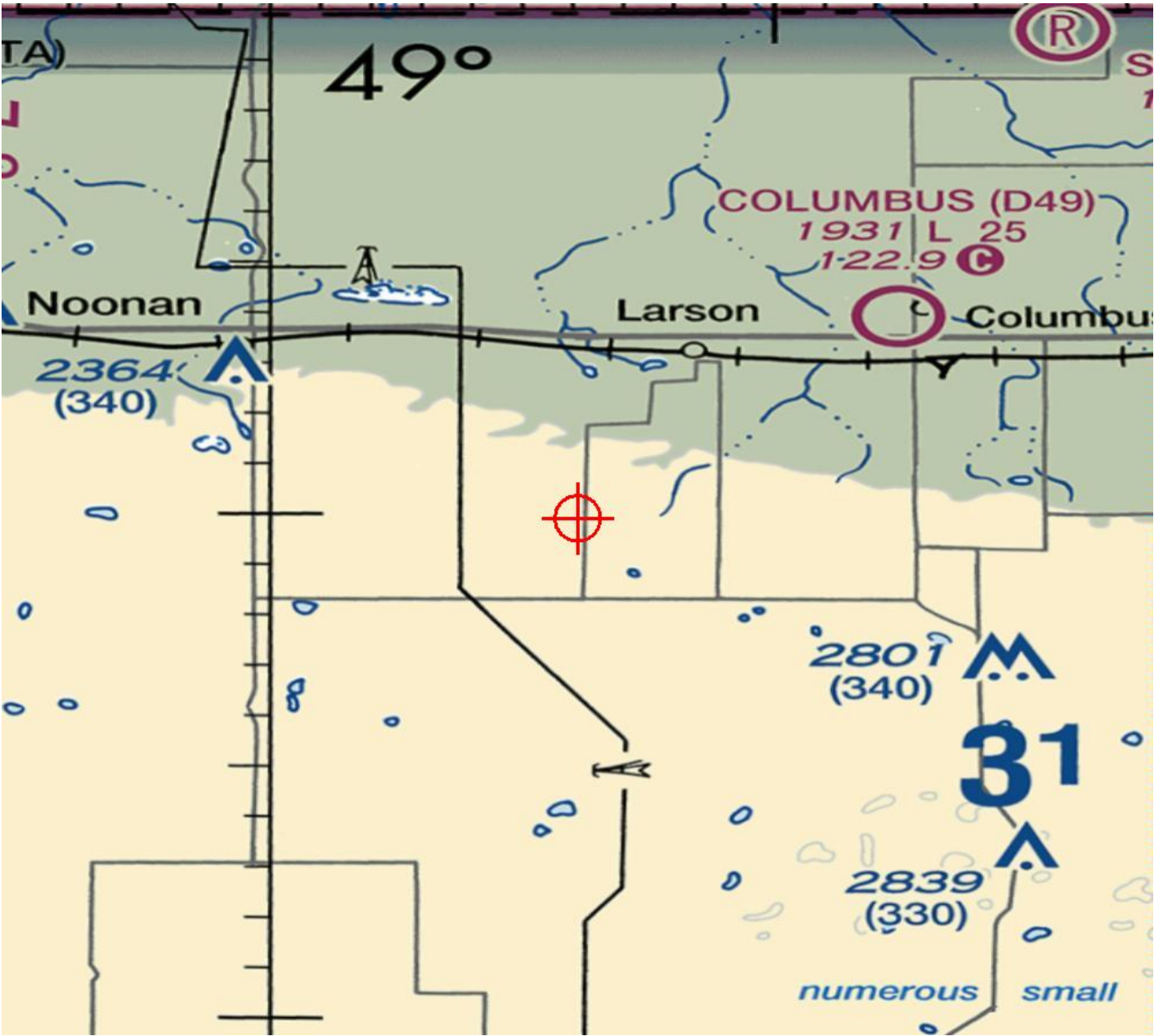
cc: FCC

**Additional information for ASN 2020-WTE-1025-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1025-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1026-OE  
Prior Study No.  
2019-WTE-9082-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 23a
Location:	Columbus, ND
Latitude:	48-50-17.30N NAD 83
Longitude:	102-54-02.02W
Heights:	2203 feet site elevation (SE) 487 feet above ground level (AGL) 2690 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1026-OE.

**Signature Control No: 431890327-436492418**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

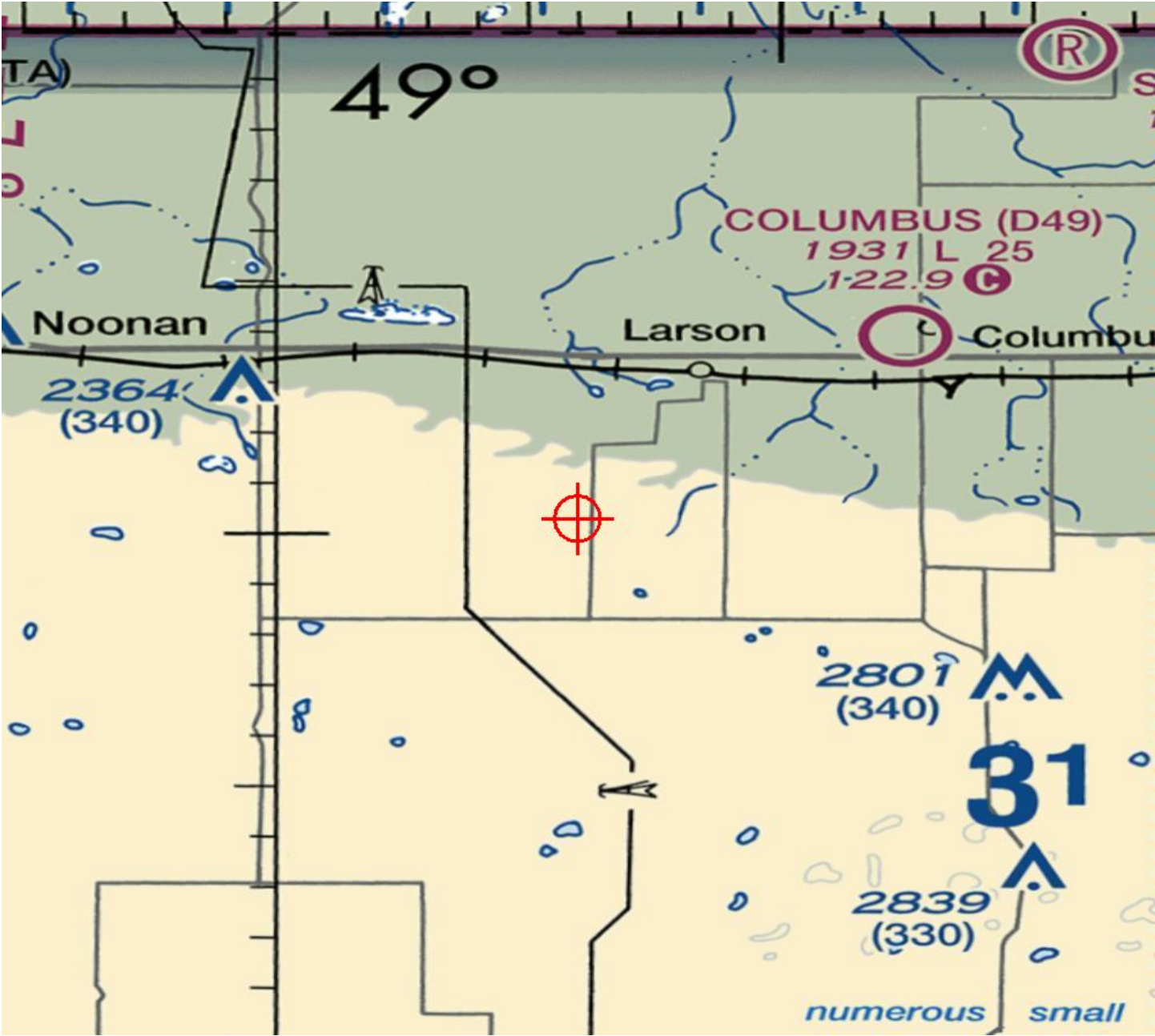
cc: FCC

**Additional information for ASN 2020-WTE-1026-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1026-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1027-OE  
Prior Study No.  
2019-WTE-9083-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 29a
Location:	Columbus, ND
Latitude:	48-49-38.96N NAD 83
Longitude:	102-53-18.41W
Heights:	2281 feet site elevation (SE) 487 feet above ground level (AGL) 2768 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1027-OE.

**Signature Control No: 431890328-436492420**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

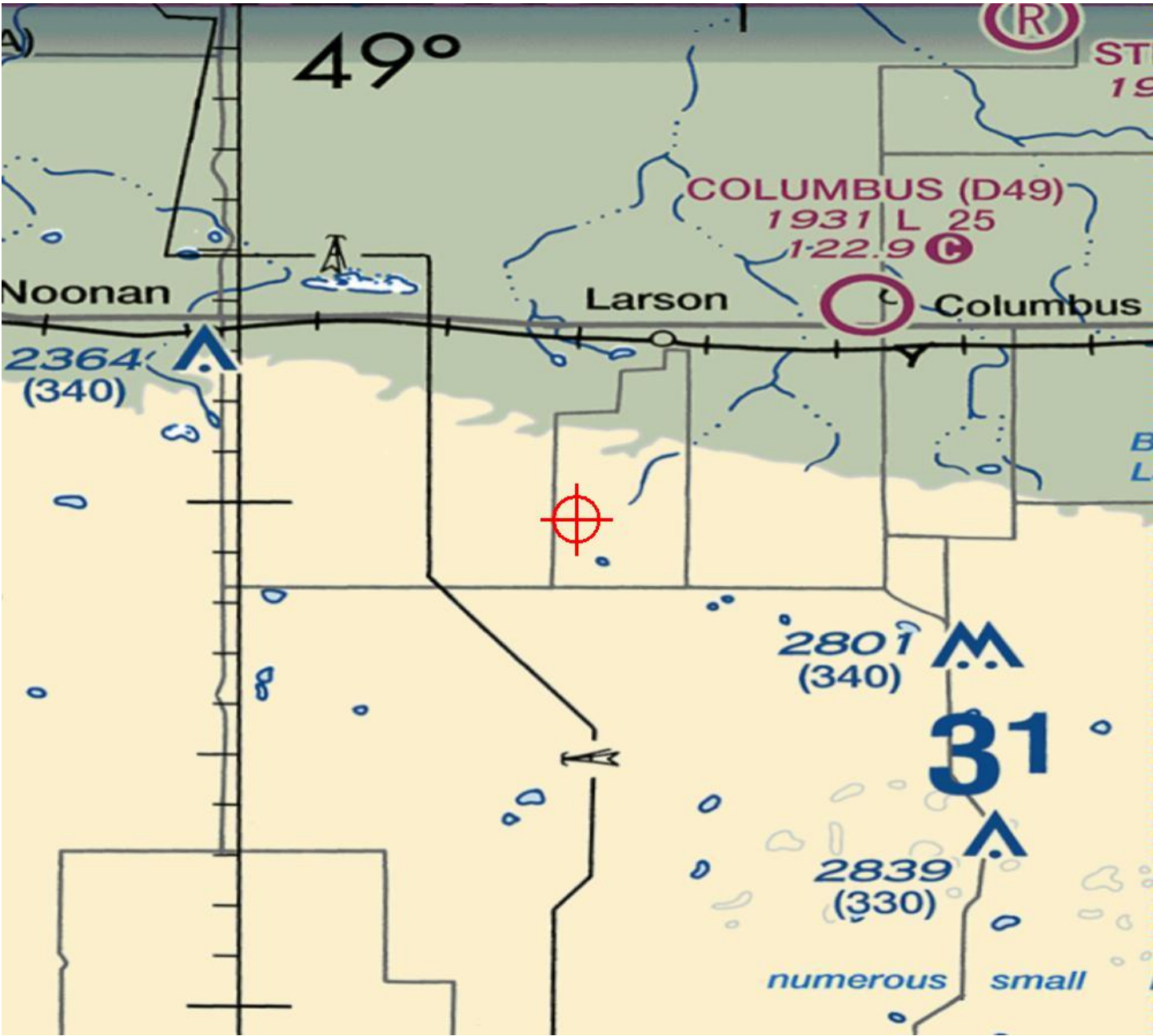
cc: FCC

**Additional information for ASN 2020-WTE-1027-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1027-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1028-OE  
Prior Study No.  
2019-WTE-9084-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 31a
Location:	Columbus, ND
Latitude:	48-49-39.68N NAD 83
Longitude:	102-51-34.21W
Heights:	2215 feet site elevation (SE) 487 feet above ground level (AGL) 2702 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1028-OE.

**Signature Control No: 431890331-436492424**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

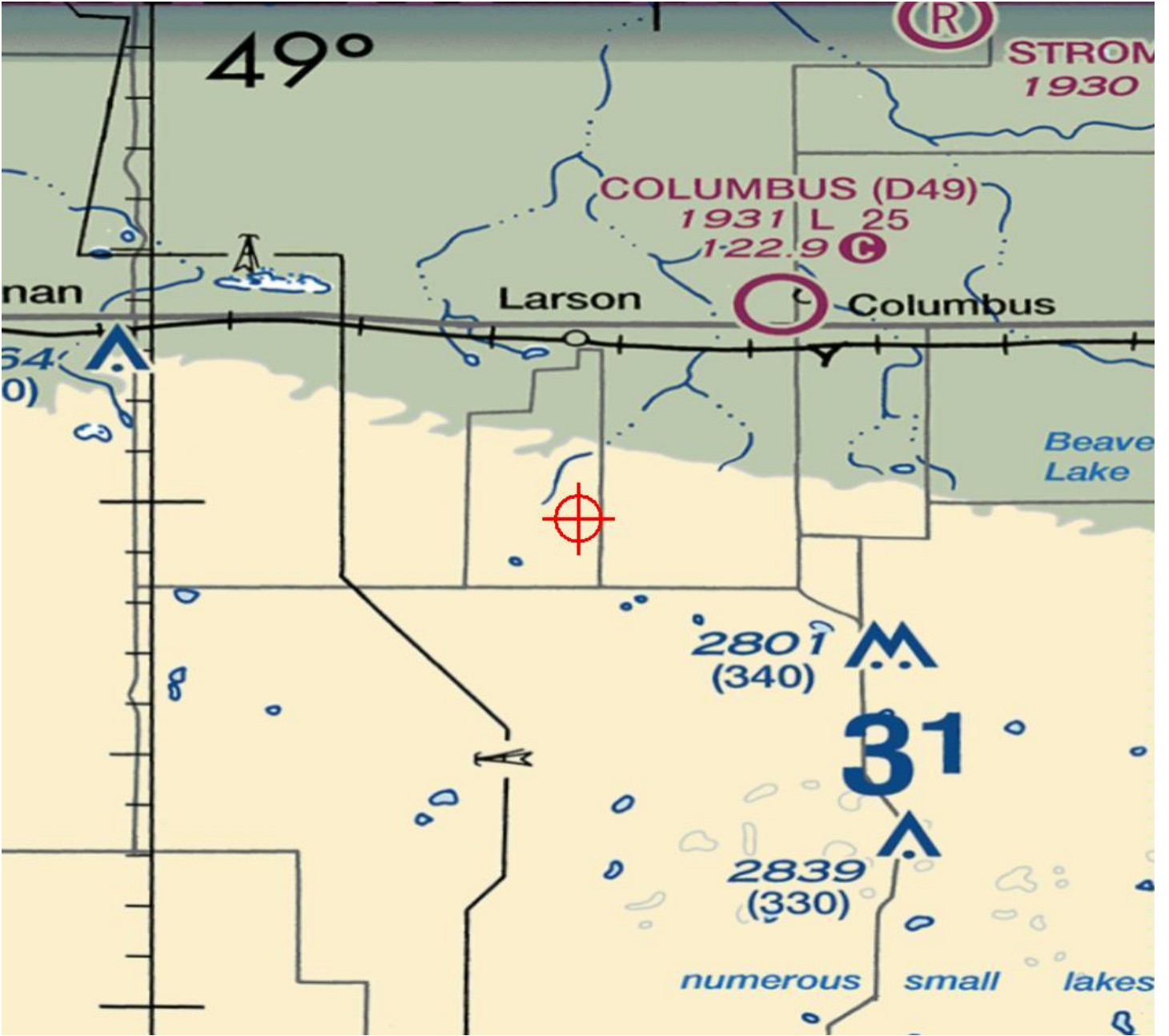
cc: FCC

**Additional information for ASN 2020-WTE-1028-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1028-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1029-OE  
Prior Study No.  
2019-WTE-9085-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 35a
Location:	Columbus, ND
Latitude:	48-48-09.53N NAD 83
Longitude:	102-52-02.47W
Heights:	2351 feet site elevation (SE) 487 feet above ground level (AGL) 2838 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1029-OE.

**Signature Control No: 431890334-436492425**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

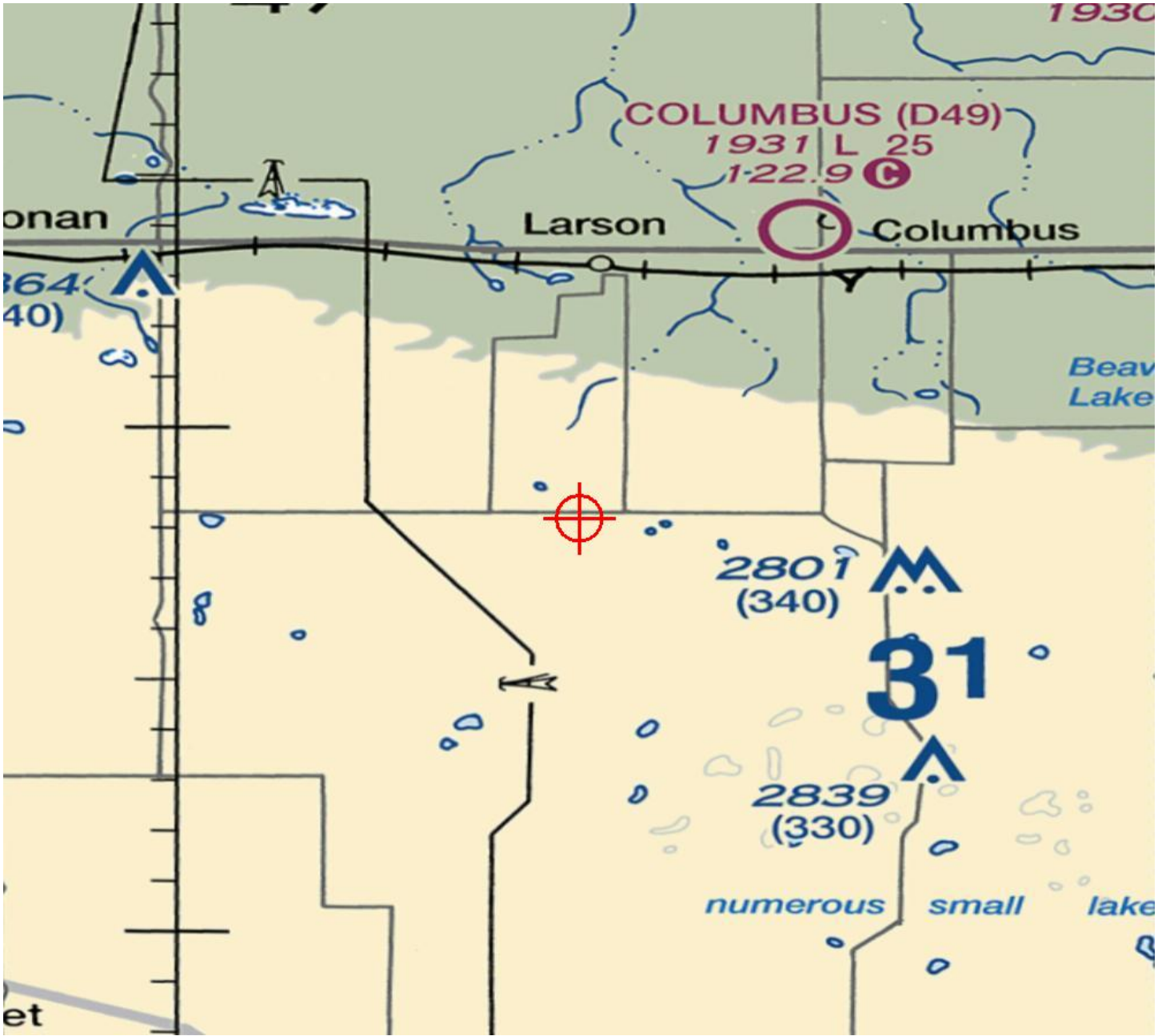
cc: FCC

**Additional information for ASN 2020-WTE-1029-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1029-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1030-OE  
Prior Study No.  
2019-WTE-9086-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 42a
Location:	Columbus, ND
Latitude:	48-49-25.74N NAD 83
Longitude:	102-50-00.07W
Heights:	2192 feet site elevation (SE) 487 feet above ground level (AGL) 2679 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1030-OE.

**Signature Control No: 431890338-436492426**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

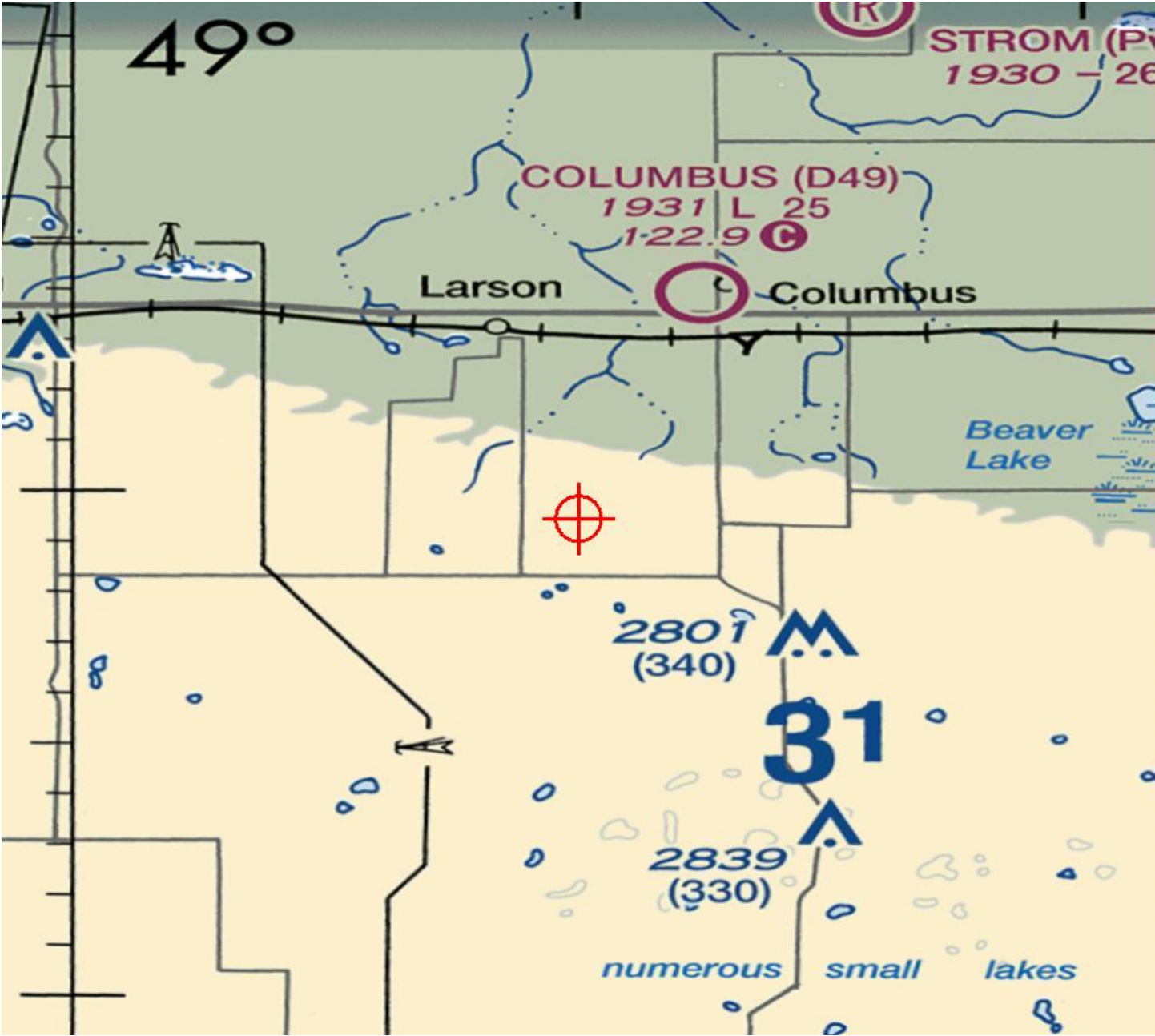
cc: FCC

## **Additional information for ASN 2020-WTE-1030-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1030-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1031-OE  
Prior Study No.  
2019-WTE-9087-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 62a
Location:	Columbus, ND
Latitude:	48-48-36.65N NAD 83
Longitude:	102-48-21.00W
Heights:	2279 feet site elevation (SE) 487 feet above ground level (AGL) 2766 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1031-OE.

**Signature Control No: 431890339-436492427**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

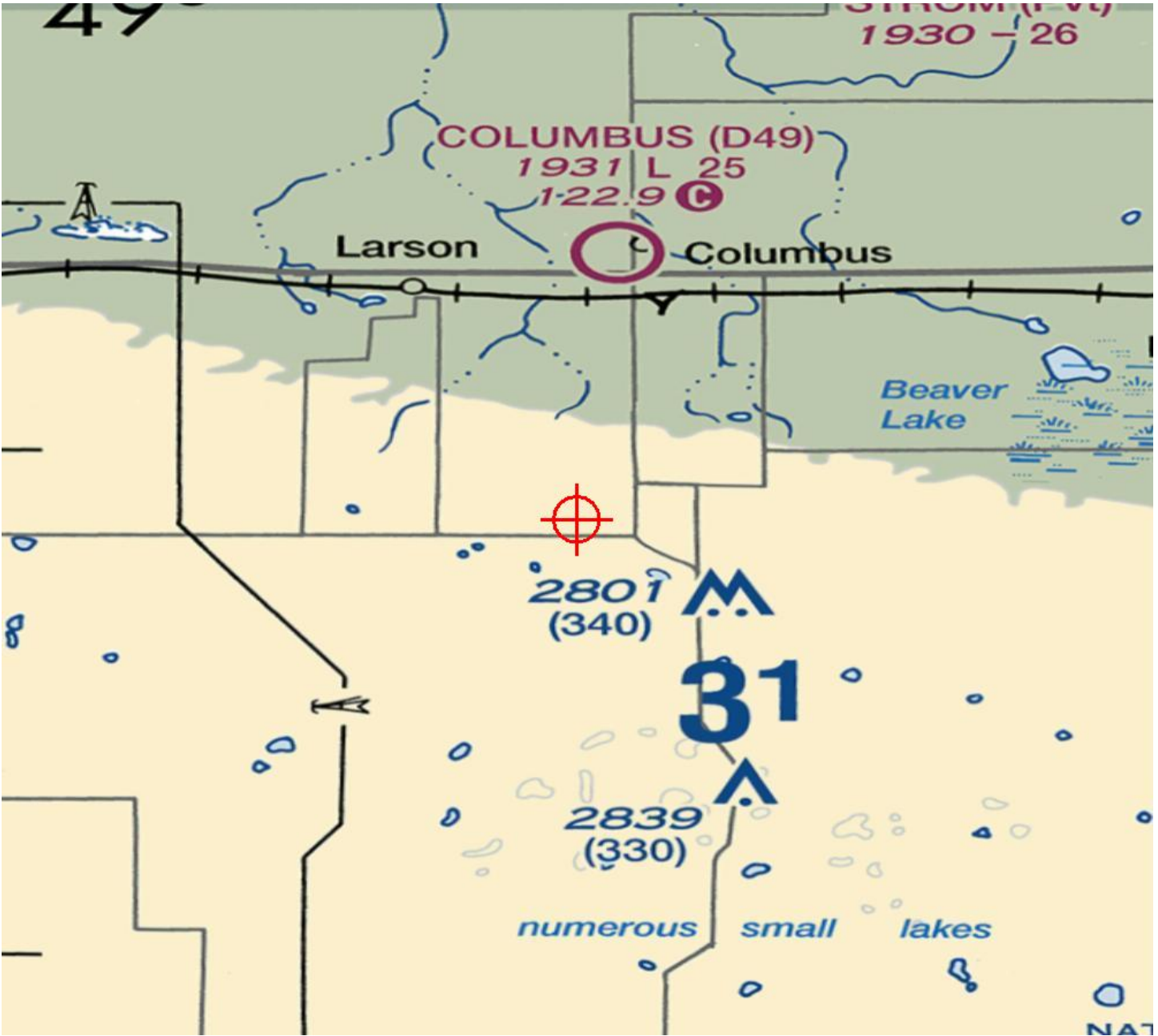
cc: FCC

**Additional information for ASN 2020-WTE-1031-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1031-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1032-OE  
Prior Study No.  
2019-WTE-9088-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 63a
Location:	Columbus, ND
Latitude:	48-48-47.22N NAD 83
Longitude:	102-48-11.03W
Heights:	2243 feet site elevation (SE) 487 feet above ground level (AGL) 2730 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1032-OE.

**Signature Control No: 431890340-436492428**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

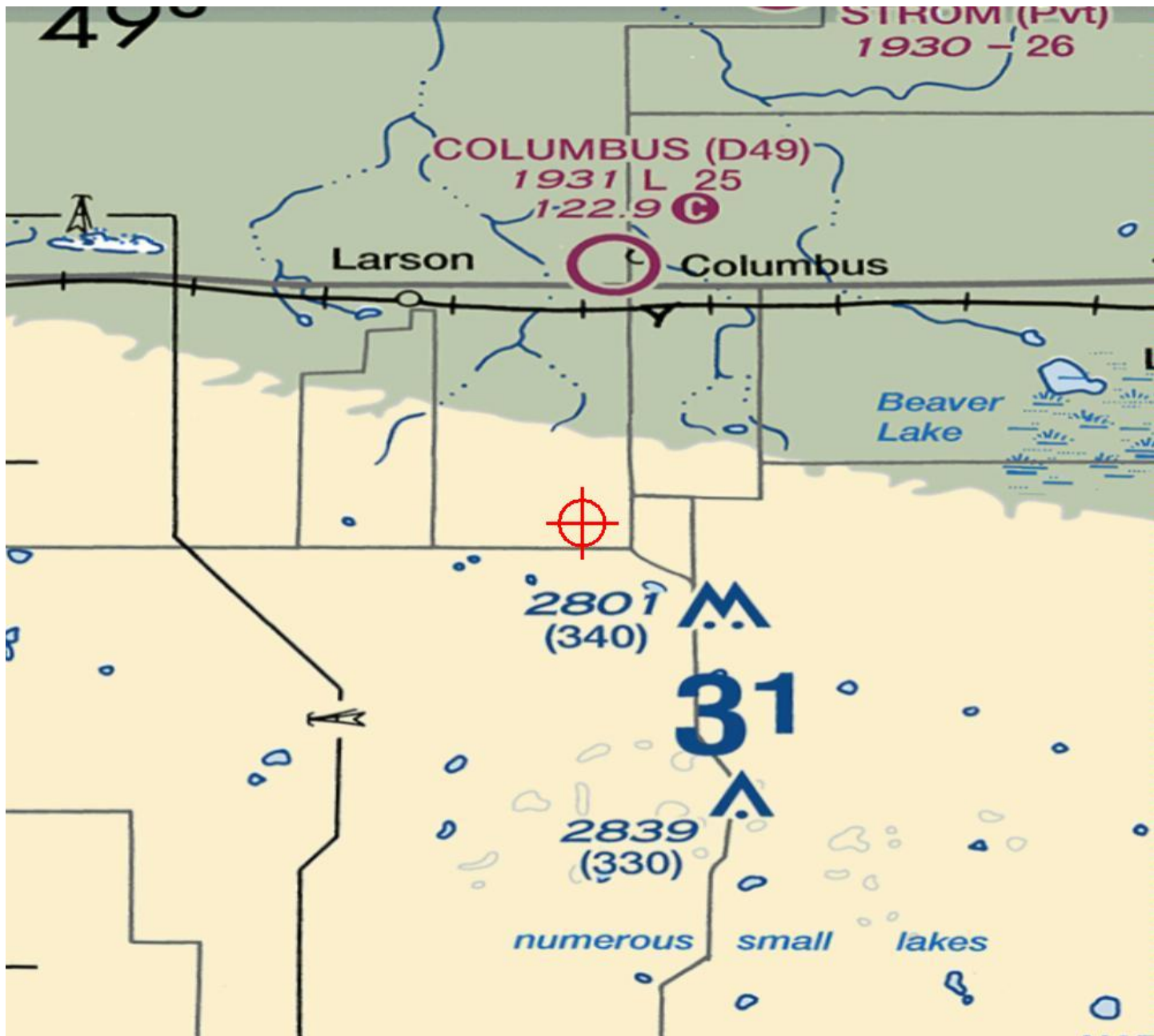
cc: FCC

**Additional information for ASN 2020-WTE-1032-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1032-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1033-OE  
Prior Study No.  
2019-WTE-9089-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 64a
Location:	Columbus, ND
Latitude:	48-48-16.91N NAD 83
Longitude:	102-47-59.95W
Heights:	2322 feet site elevation (SE) 487 feet above ground level (AGL) 2809 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1033-OE.

**Signature Control No: 431890341-436492429**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

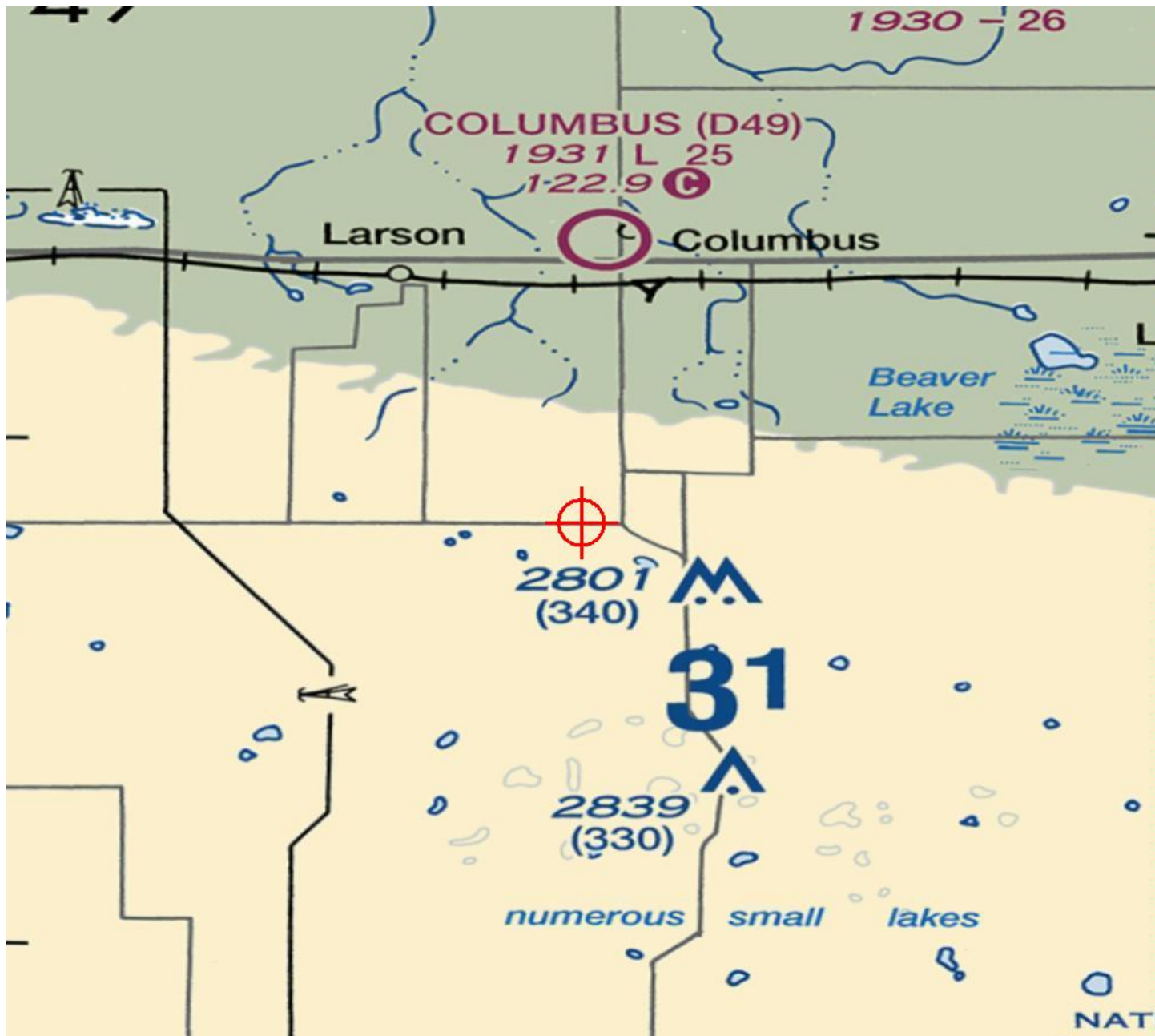
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**Additional information for ASN 2020-WTE-1033-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1033-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1034-OE  
Prior Study No.  
2019-WTE-9090-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 71a
Location:	Columbus, ND
Latitude:	48-48-07.13N NAD 83
Longitude:	102-46-29.15W
Heights:	2327 feet site elevation (SE) 487 feet above ground level (AGL) 2814 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1034-OE.

**Signature Control No: 431890342-436492430**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

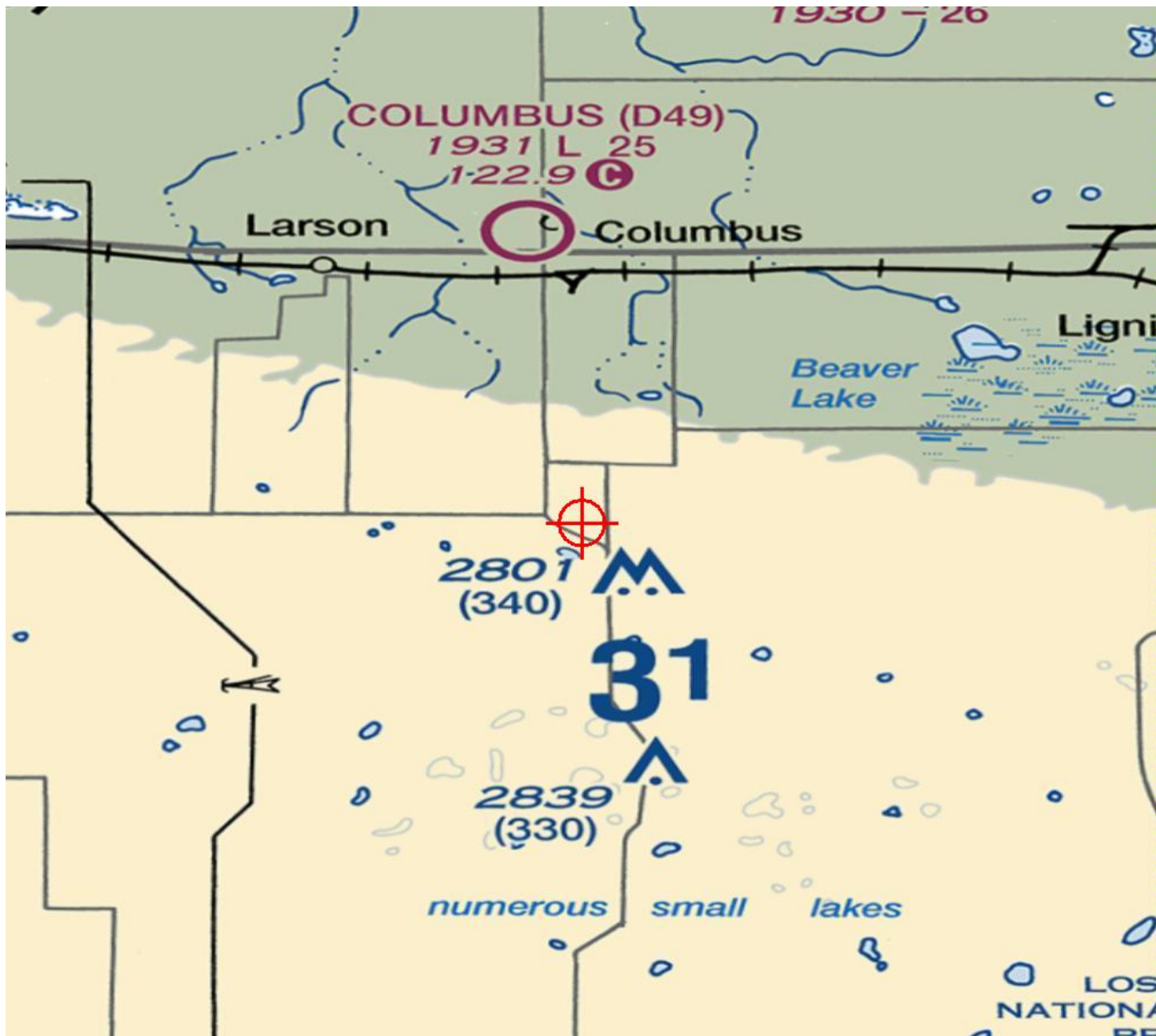
cc: FCC

**Additional information for ASN 2020-WTE-1034-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1034-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1035-OE  
Prior Study No.  
2019-WTE-9091-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 72a
Location:	Columbus, ND
Latitude:	48-48-20.79N NAD 83
Longitude:	102-46-04.66W
Heights:	2259 feet site elevation (SE) 487 feet above ground level (AGL) 2746 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1035-OE.

**Signature Control No: 431890346-436492431**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

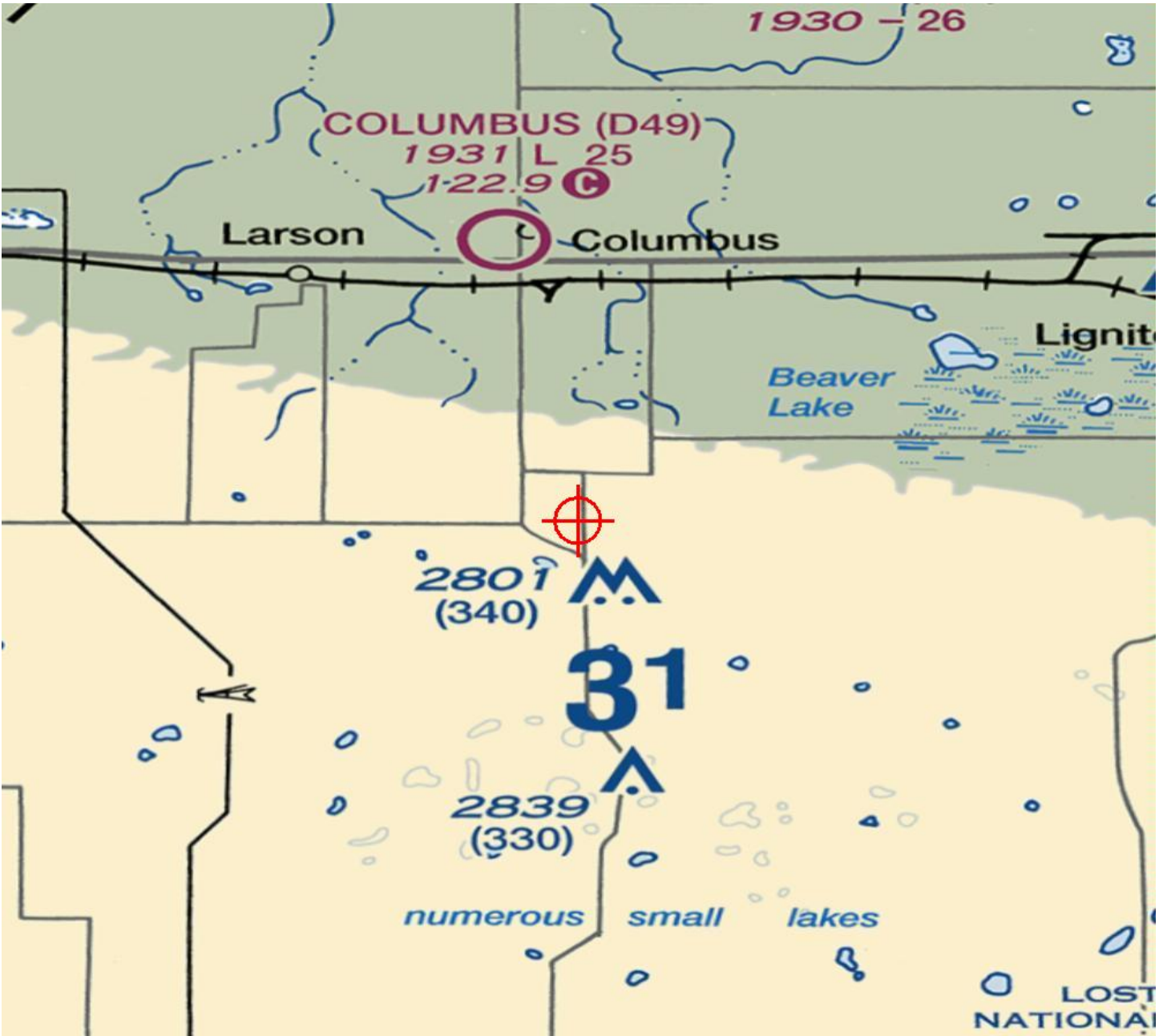
cc: FCC

**Additional information for ASN 2020-WTE-1035-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1035-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1036-OE  
Prior Study No.  
2019-WTE-9092-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 73a
Location:	Columbus, ND
Latitude:	48-48-06.32N NAD 83
Longitude:	102-45-40.40W
Heights:	2275 feet site elevation (SE) 487 feet above ground level (AGL) 2762 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1036-OE.

**Signature Control No: 431890347-436492432**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

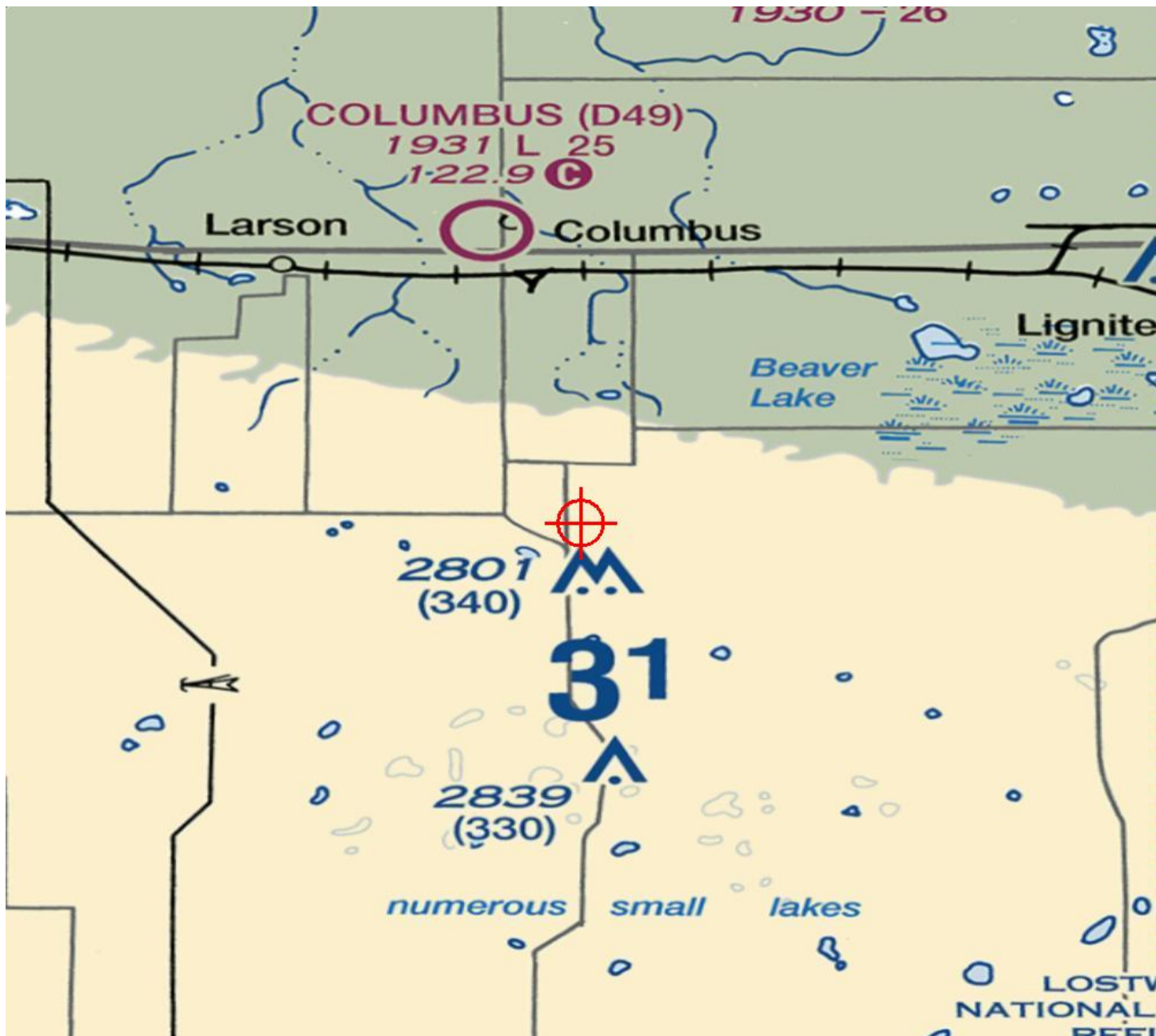
cc: FCC

**Additional information for ASN 2020-WTE-1036-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1036-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1037-OE  
Prior Study No.  
2019-WTE-9093-OE

Issued Date: 04/15/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Wind Turbine 74a
Location:	Columbus, ND
Latitude:	48-48-18.65N NAD 83
Longitude:	102-45-32.44W
Heights:	2230 feet site elevation (SE) 487 feet above ground level (AGL) 2717 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

So that aeronautical charts and records can be updated, it is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed when the new system is installed and operational.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1037-OE.

**Signature Control No: 431890348-436492437**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description  
Map(s)

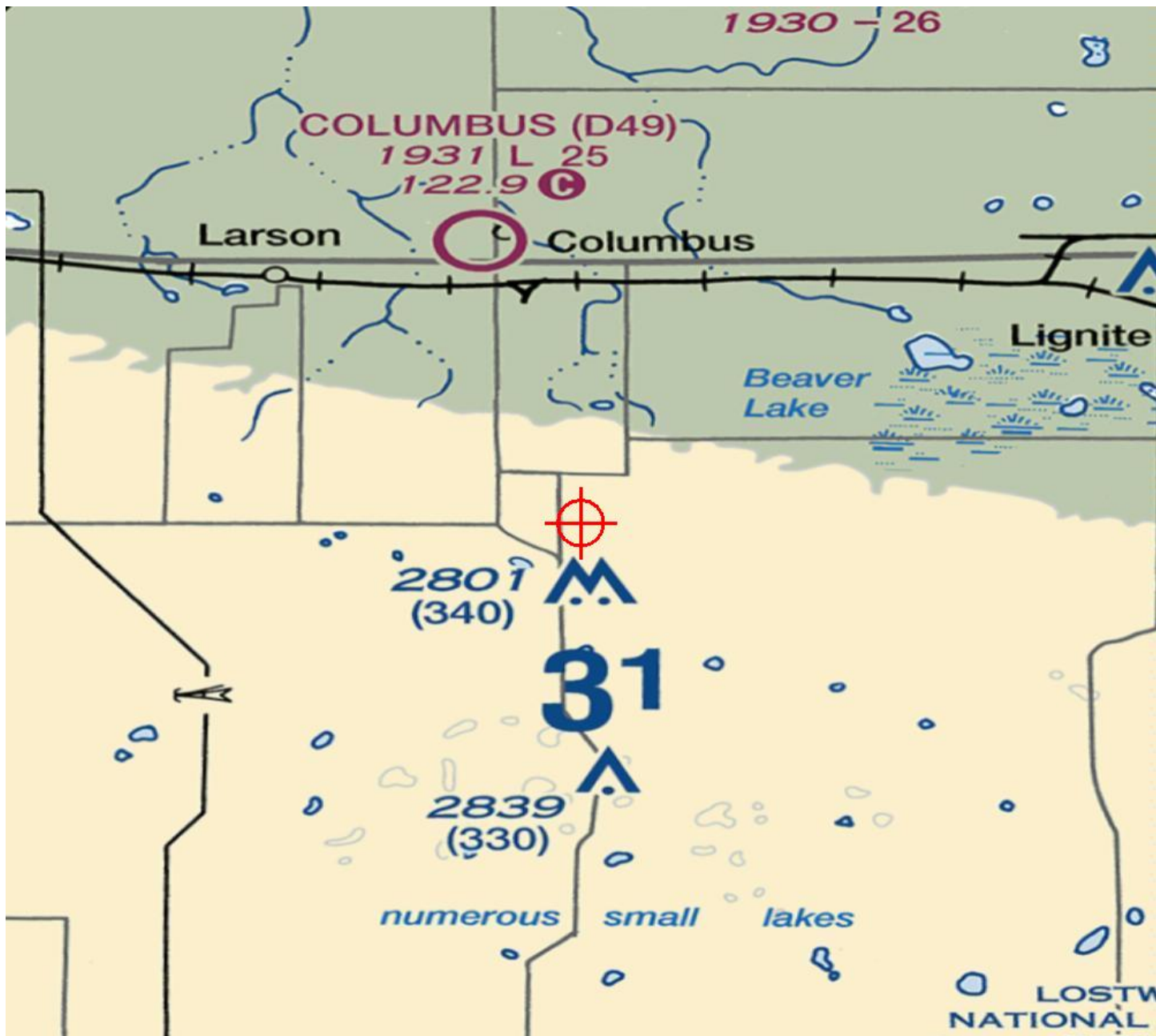
cc: FCC

**Additional information for ASN 2020-WTE-1037-OE**

Our review of your request to utilize an Aircraft Detection Lighting System (ADLS) to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this structure. Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this structure whether it requires a light now or at some point in the future.

**Case Description for ASN 2020-WTE-1037-OE**

Filing is for ADLS on proposed wind farm.





Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1038-OE  
Prior Study No.  
2019-WTE-3033-OE

Issued Date: 04/17/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Met Tower WBC1-SM01-Alt
Location:	Columbus, ND
Latitude:	48-46-25.64N NAD 83
Longitude:	102-52-55.47W
Heights:	2391 feet site elevation (SE) 296 feet above ground level (AGL) 2687 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

Action will be taken to ensure aeronautical charts and records are updated to reflect the marking/lighting changes which exist at this time.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1038-OE.

**Signature Control No: 431894492-436868866**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information

cc: FCC

## **Additional information for ASN 2020-WTE-1038-OE**

There is no objection to the use of an ADLS for the associated wind farm. As a condition of this determination, the sponsor will ensure the ADLS is continuously monitored, meets the requirements of the applicable FAA Technical Note and maintains the aircraft detection capabilities specified in the current version of AC 70/7460-1. The sponsor will ensure this responsibility is specifically transferred to any subsequent owners of the project.

In addition to obstruction lighting, the structure should be marked in accordance with AC 70/7460-1L, CHG 2, Chapter 2.7:

### **Painting.**

The meteorological evaluation tower (MET) should be painted in accordance with the criteria contained in Chapter 3, paragraphs 3.1 through 3.4, specifically, with alternate bands of aviation orange and white paint. In addition, paragraph 3.5 states that all markings should be replaced when faded or otherwise deteriorated.

### **High-Visibility Sleeves.**

It is recommended that several high-visibility sleeves be installed on the MET's outer guy wires. One high-visibility sleeve should be installed on each guy wire, as close to the anchor point as possible, but at a height well above the crop or vegetation canopy. A second sleeve should be installed on the same outer guy wires midway between the location of the lower sleeve and the upper attachment point of the guy wire to the MET. The use of sleeves should not impact the placement of spherical marker balls.

### **Spherical Markers.**

It is also recommended that high-visibility aviation orange spherical marker (or cable) balls be attached to the guy wires. The FAA recommends a total of 8 high visibility spherical marker (or cable balls) of aviation orange color attached to the guy wires; 4 marker balls should be attached to guy wires at the top of the tower no further than 15 feet from the top wire connection to the tower, and 4 marker balls at or below the mid point of the structure on the outer guy wires.

The FAA recognizes that various weather conditions and manufacturing placement standards may affect the placement and use of high-visibility sleeves and/or spherical markers. Thus, some flexibility is allowed when determining sleeve length and marker placement on METs.



Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1039-OE  
Prior Study No.  
2019-WTE-3034-OE

Issued Date: 04/17/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Met Tower WBC1-SM01
Location:	Columbus, ND
Latitude:	48-47-27.45N NAD 83
Longitude:	102-52-49.51W
Heights:	2421 feet site elevation (SE) 296 feet above ground level (AGL) 2717 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

Action will be taken to ensure aeronautical charts and records are updated to reflect the marking/lighting changes which exist at this time.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1039-OE.

**Signature Control No: 431894498-436868867**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information

cc: FCC

## **Additional information for ASN 2020-WTE-1039-OE**

There is no objection to the use of an ADLS for the associated wind farm. As a condition of this determination, the sponsor will ensure the ADLS is continuously monitored, meets the requirements of the applicable FAA Technical Note and maintains the aircraft detection capabilities specified in the current version of AC 70/7460-1. The sponsor will ensure this responsibility is specifically transferred to any subsequent owners of the project.

In addition to obstruction lighting, the structure should be marked in accordance with AC 70/7460-1L, CHG 2, Chapter 2.7:

### **Painting.**

The meteorological evaluation tower (MET) should be painted in accordance with the criteria contained in Chapter 3, paragraphs 3.1 through 3.4, specifically, with alternate bands of aviation orange and white paint. In addition, paragraph 3.5 states that all markings should be replaced when faded or otherwise deteriorated.

### **High-Visibility Sleeves.**

It is recommended that several high-visibility sleeves be installed on the MET's outer guy wires. One high-visibility sleeve should be installed on each guy wire, as close to the anchor point as possible, but at a height well above the crop or vegetation canopy. A second sleeve should be installed on the same outer guy wires midway between the location of the lower sleeve and the upper attachment point of the guy wire to the MET. The use of sleeves should not impact the placement of spherical marker balls.

### **Spherical Markers.**

It is also recommended that high-visibility aviation orange spherical marker (or cable) balls be attached to the guy wires. The FAA recommends a total of 8 high visibility spherical marker (or cable balls) of aviation orange color attached to the guy wires; 4 marker balls should be attached to guy wires at the top of the tower no further than 15 feet from the top wire connection to the tower, and 4 marker balls at or below the mid point of the structure on the outer guy wires.

The FAA recognizes that various weather conditions and manufacturing placement standards may affect the placement and use of high-visibility sleeves and/or spherical markers. Thus, some flexibility is allowed when determining sleeve length and marker placement on METs.



Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2020-WTE-1040-OE  
Prior Study No.  
2019-WTE-3035-OE

Issued Date: 04/17/2020

Clay Cameron  
Northern Divide Wind LLC  
700 Universe Blvd.  
Juno Beach, FL 33486

**\*\* MARKING & LIGHTING RECOMMENDATION \*\***

The Federal Aviation Administration has completed an evaluation of your request concerning:

Structure:	Lighting Study for Met Tower WBC1-021-M90-P
Location:	Columbus, ND
Latitude:	48-45-56.78N NAD 83
Longitude:	102-53-00.85W
Heights:	2391 feet site elevation (SE) 296 feet above ground level (AGL) 2687 feet above mean sea level (AMSL)

Based on this evaluation, we have no objection to the change provided the structure is marked/lighted in accordance with FAA Advisory Circular 70/7460-1, L Change 2 , Obstruction Marking and Lighting, paint/red lights - Chapters 3(Marked),4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

Action will be taken to ensure aeronautical charts and records are updated to reflect the marking/lighting changes which exist at this time.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved. See attached for additional condition(s) or information.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should

be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This evaluation concerns the effect of the marking/lighting changes on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6645, or Lan.norris@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-WTE-1040-OE.

**Signature Control No: 431894502-436867922**

( MAL -WT )

Lan Norris  
Specialist

Attachment(s)  
Additional Information  
Case Description

cc: FCC

## Additional information for ASN 2020-WTE-1040-OE

There is no objection to the use of an ADLS for the associated wind farm. As a condition of this determination, the sponsor will ensure the ADLS is continuously monitored, meets the requirements of the applicable FAA Technical Note and maintains the aircraft detection capabilities specified in the current version of AC 70/7460-1. The sponsor will ensure this responsibility is specifically transferred to any subsequent owners of the project.

In addition to obstruction lighting, the structure should be marked in accordance with AC 70/7460-1L, CHG 2, Chapter 2.7:

### Painting.

The meteorological evaluation tower (MET) should be painted in accordance with the criteria contained in Chapter 3, paragraphs 3.1 through 3.4, specifically, with alternate bands of aviation orange and white paint. In addition, paragraph 3.5 states that all markings should be replaced when faded or otherwise deteriorated.

### High-Visibility Sleeves.

It is recommended that several high-visibility sleeves be installed on the MET's outer guy wires. One high-visibility sleeve should be installed on each guy wire, as close to the anchor point as possible, but at a height well above the crop or vegetation canopy. A second sleeve should be installed on the same outer guy wires midway between the location of the lower sleeve and the upper attachment point of the guy wire to the MET. The use of sleeves should not impact the placement of spherical marker balls.

### Spherical Markers.

It is also recommended that high-visibility aviation orange spherical marker (or cable) balls be attached to the guy wires. The FAA recommends a total of 8 high visibility spherical marker (or cable balls) of aviation orange color attached to the guy wires; 4 marker balls should be attached to guy wires at the top of the tower no further than 15 feet from the top wire connection to the tower, and 4 marker balls at or below the mid point of the structure on the outer guy wires.

The FAA recognizes that various weather conditions and manufacturing placement standards may affect the placement and use of high-visibility sleeves and/or spherical markers. Thus, some flexibility is allowed when determining sleeve length and marker placement on METs.

**Case Description for ASN 2020-WTE-1040-OE**

Filing is for ADLS on proposed wind farm.