

COLUMBUS I CLEVELAND CINCINNATI I DAYTON MARIETTA

BRICKER & ECKLER LLP

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Sally W. Bloomfield 614.227.2368 sbloomfield@bricker.com April 13, 2017

Via Electronic Filing

Ms. Barcy McNeal Public Utilities Commission of Ohio Administration/Docketing 180 East Broad Street, 11th Floor Columbus, OH 43215-3793

Re: Hog Creek Wind Farm LLC, Case Nos. 09-277-EL-BGN, 10-654-EL-BGN, 16-1422-EL-BGA and 16-1423-EL-BGA

Dear Ms. McNeal:

On November 29, 2016, the OPSB issued an Order on Certificate approving Hog Creek Wind Farm, LLC's ("Hog Creek") applications to amend its Hog Creek I Certificate (Case No. 09-277-EL-BGN) and Hog Creek II Certificate (Case No. 10-654-EL-BGN) subject to the conditions set forth in the Stipulation and continued compliance with the conditions set forth in the certificate orders as later amended (Order on Certificate at 9).

Within these sets of conditions, Hog Creek I Condition No. 41 and Hog Creek II Condition No. 54(a) require that, at least 30 days before the preconstruction conference, Hog Creek shall submit to staff, for review and approval:

(a) One set of detailed engineering drawings of the final project design, including all turbine locations, collection lines, access roads, the crane route, permanent meteorological towers, substations, construction staging areas, and any other associated facilities and access points, so that staff can determine that the final project design is in compliance with the terms of the certificate. The final project layout shall be provided in hard copy and as geographically referenced electronic data. The final plan shall include both temporary and permanent access routes, as well as the measures to be used for restoring the area around all temporary sections, and a description of any long-term stabilization required along permanent access routes. The plan shall consider the location of streams, wetlands, wooded areas, and sensitive plant species as identified by the ODNR Division of Natural Areas and Preserves, and explain how impacts to all sensitive resources will be avoided or minimized during construction, operation, and maintenance.

Bricker&Eckler

ATTORNEYS AT LAW

Case Nos. 09-277-EL-BGN, 10-654-EL-BGN, 16-1422-EL-BGA and 16-1423-EL-BGA April 13, 2017
Page 2

Also Hog Creek I Condition No. 11 and Hog Creek II Condition No. 9 provided that:

At least 30 days before the preconstruction conference. Hog Creek shall submit to staff, for review and approval, the final turbine foundation design for each turbine location.

On March 14, 2017, Hog Creek submitted the engineering drawings for the final project design. Through an inadvertence, the final turbine foundation plans were not included in the filing. In compliance with Hog Creek I Condition Nos. 11 and 41 and Hog Creek II Condition Nos. 54(a) and 9, attached is the final turbine foundation design plans.

If you have any questions please call at the number listed above.

Sincerely,

Sally W. Bloomfield

Attachment

cc: Andrew Conway (w/Attachment)
Jonathan Pawley (w/Attachment)

Sally N Broompula

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STRUCTURAL FOUNDATION PLANS COVER SHEET

INFORMATION.
TO CHANGE, NOT
FOR
FOR
CONSTRUCTION.

COORDINATE SYSTEM: NADBS OHIO STATE PLANES, NORTH ZONE, US FOOT HORIZONTAL DATUM: NADBS
VERTICAL DATUM: NAVO 88

OWNER HOG CREEK WND PROJECT, LLC

SIE_CONTACT RENEWMER EINEN SYSTEMS AMERICAS INC, 1110 W. 120TH A.E. SUITE 400 BROOMERD, 00 8002T CONTACT: BOB HETCATHORNE PHONE: 303-439-4200

SUBSTATION PLANS SOURCE: NEI ELECTRIC POWER SWITCHYARD PLANS SOURCE: BURNS & McDONNELL CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN SOURCE: TBD GEOTECHNICAL REPORT SOURCE: CORSAIR CONSULTING LLC

TURBINE FOUNDATION PLANS SOURCE: RES AMERICAS ALTA/ACSM SURVEY SOURCE: ATMELL, LLC

 CULTURAL/ ARCHAEOLOGY SOURCE: TETRA TECH, INC. CIVIL CONSTRUCTION PLANS SOURCE: RES AMERICAS

 AMAN AND WIDDLE STUDIES
SOURCE: WESTERN ECOSYSTEMS TECHNOLOGY, INC. DEVELOPER CONSTRAINTS SOURCE: RES AMERICAS 23049S3000

HOG CREEK WIND PROJECT

HARDIN COUNTY, OHIO

STRUCTURAL FOUNDATION PLANS

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COORDINATE SYSTEM:

IST OF CONTACTS:

CALL ENGNEER—TECHNICAL DESIGN FRUWMEER ENROY SYSTEMS AMERICAS IN 11101 W. 120TH ARE. SUITE 400 BROOMERL, D.O. 80C21TE CKNITACT: AMES CORNIN, PE PHONE: 303-439-4200

SURVETOR
ADDRESS, 7100 E. PLEASANT VALLEY ROAD
SUITE 220 INGEROIDENCE, OH 44131
CONTACT, ALEX MARKS
PHONE: 440-349-2000

NOF

 PHASE 1 ENVIRONMENTAL ASSESSMENT SOURCE: KTA ASSOCIATES, INC. WETLANDS REPORT SOURCE: TETRA TECH, INC.

ELECTRICAL COLLECTION SYSTEMS DESIGN PLANS SOURCE: RES AMERICAS

WTG 345 27.5 FOUNDATION DIAMETER (ft) 9-99

394

31.0 31.0

9-19 9-,19 NON-BUOYANT GWT BEGS (ft) NON-BUOYANT 3-0 0.6 7.5 7.5 HUB HEICHT 8 92 8 RATED POWER (MW) 2.2 2.2 2.2 MANUFACTURER AND MODEL TURBINE STATISTICS VESTAS VI10 VESTAS V110 VESTAS V110

WTG & FOUNDATION TYPE A TYPE B TIPE C

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182	LIMA ALEN COUNTY	

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DRAWING INDEX:

GROUND MODIFICATION BELOW BEARING ELEVATION (R)	3-0 OVER-EX		6-0" PAP										S-O'RAP	7-C'RAP	7-CRAP		7-0-RAP					7-0-RAP	3-0" OVER-EX	\$-0 OVER-EX			8-0"RAP		
GWT BEGS (ft)	2	9	9	2	9	9	2	9	9	3.6	2	2	9	9	3.6	9	9	2	30	2	3-6	9	9	9	9	2	9	9	9
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OVER-EXCAVATION AND SOIL IMPROVEMENT

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FER TURBINE MANUFACTURER LOAD DOCUMENTS MINIMUM ROTATIONAL STIFFNESS IS 87.0 GA.m. PAQ. GEOTECHNICAL BASIS

3.1

OVEE 2 - COVERNING FACTORED LOUD CAGE-NORMAL EVIREME LOUDS (PRATIAL LOUD FACTORED LINE)

- UNFACTORED DISHER = 55.550 kHm

- LANAL LOUD - 2.656 kM

- UNFACTORED THEN = 14.44 kM mm

CASE 1 - COMENNING UNFACTORED CASE-ABNURAL EXPREME LOADS
(IOL 22 A SPAILL, LOAD FORTORS = 1.10)
- UNFACTORED STAFF = 63.200 kmm
- UNFACTORED STAFF = 83.500 kmm
- LAMAL, LOAD = 7.264 km kmm
- LAMAL, LOAD = 7.264 km kmm
- UNFACTORED TORQUE = 3.71 km kmm THE HIGHEST LOADS AT 0.2m ABOVE THE BASE OF TOWER ARE:

The company coverts and unknown that the company of second services respectively to section the company of the GEOTECHNICAL DESIGN PARAMETERS ARE BASED ON INFORMATION PROVIDED IN THE PROTECHNICAL REPORT THED FINAL GEOTECHNICAL REPORT, HOS OREEK WIND PROJECT, HARDIN COUNTY, OHIO. PREPARED BY CORSAIR CONSULTING LLC. DATED DECEMBER 19, 2016. STRUCTURAL CONCRETE 4. MATERIALS

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MINIMUM CEMENT CONTENT SHALL BE DETERMINED BASED ON TRAL TESTS BY BATCH PLANT AND APPROVED BY THE ENGINEER.

LEAN CONCRETE 4.2

non-structural concrete (nijo nat concrete) shall have a minaum compressive Strength of 1,000 psi at 28 days. Refer To aci and related standards.

REINFORCING STEEL

AL REPROPOSITED SALL BE ROADE'S TOTOBACE BASS AND COMPLY WITH ASTN MES, AND OTHER RELATED STANDARS CONSTRUCTABLITY BASS, SUCH AS CHAIRS AND ITS, ANY BE GADDE BAS CONTRACTOR SHALL PROMOE ALL CERTIFICATES OF A BEST EMPROPAGE CODY PROJECT AS BLLL AS COOMEDIATION SHOWNE FINL LOCATION OF ALL REBAN WITH ASSOLVEITE MILL CRITICATES.

WATE FOR FOUNDATION CONCRETE SHALL BE CLEAN, REASONABLY CLEAR, POTABLE AND THE FIGH IMMIGHOUS AMOUNTS OF OILS, ROGANIC WATER OR MINERAL SALTS, NO WATER NI POESSS OF WIX DESIGN W/C RATIO IS TO BE ADDED TO ANY TRUCK LOAD OF CONCRETE WHINDLY WRITEN PERMISSION FROM RES ENGINEERING. WATER

4.5. ANCHOR RODS

WHORP ROSS SHALL SEE RULLING FOR ALL IT GAREE OF SEE AS SHOWN ON PROMISES, AND SEE AS SHOWN ON PROMISES, ALL IS SHOUTH WITH THE ROSS AS DOWN ON THE ROSS AS SHOWN. CONTRACTOR SHALL FROMER THE SHOWNING TO SHALL SHOWN THE STANDARD SHALL SHOWN THE SHALL SHOWN SHOWN SHALL SHOWN SHOWN SHALL SHOWN SHOWN SHALL SHOWN SHOWN SHALL SHOWN SHALL SHOWN SHOWN SHALL SHOWN SHOWN SHALL SHOWN SHOWN

ALL ANCHOR RODS SHALL BE PULL TESTED TO 80% OF ULTINATE CAPACITY PRIOR TO SHIPMENT TO SHELL TEST RESULTS SHALL ACCOMPANY MILL CERTIFICATES. 4.5.2.

5.1.6. STRUCTURAL FILL REQUIREMENTS

5.1.7. BACKFILLING OF SOIL ABOVE TURBINES BASES

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WHERE CHRISTON THE CHRISTON OF THE PROPERTY MAY RECOME OR FAIR THE CHRISTON OF THE CHRISTON OF

CONCRETING

5.1.3. COLD AND HOT MEATHER CONCRETING

DURNG HOT WEATHER (AS DETNED IN ACI 305R), THE SUBCONTRACTOR SHALL PROVIDE A HOT WEATHER CONCERTING PORCEDURE THAT COMBLES WHIT ACI 305F HOT WEATHER CHORTENING "FOR THE ENGINETIS" SPPROVAL PRIOR TO POURNIC ANY FOUNDATIONS.

5.1.4. SHRINKAGE CRACKS

TAMPED, FLOATED OR BRUSHED FINISHES ARE ALL ACCEPTABLE FOR THE TOP SURFACE OF THE FOUNDATION BASE, TOP SURFACE OF THE PEDESTAL SALLL BE STROKE FINISH INSIDE THE TERMALE RING AND MAY BE BROOM FINISH OUTSIDE THE TEMPLATE RING.

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SHRNKAGE CRACKS SHALL BE EVALUATED AND SEALED PER ACI 224, IF DEEVED NECESSARY BY THE ENGINEER.

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MEAN FOR BETTING ARM SENDED SHOWNERS WIN THE RESULT OF THE PROPERTY OF THE FUNDERS. WIN THE RESULT OF THE PROPERTY OF THE PROP

5.0.1. GROUNDWATER CONTROL

5.1.1. FORMWORK

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THE SUBCOMENCING SHALL SIPEN, SUPPORT FRAMES TO SHIENY THE FOLLOWING EQUINELISMS:

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RESTANT.

THE TEAN "ENGNEER" AS USED IN THESE SPECIFICATIONS IS IN REFERENCE TO RES MEMERS ACTING IN THE CHARACTY OF ENGNEER-OF-RECORD, THE TEAN "SUBCOMPRACTOR" RETERS TO THE FOUNDATION CONSTRUCTION SUBCOMPRACTOR AND/OR ANY OF HIS/THERE SUB-SUBCOMPRACTORS.

GENERAL NOTES

GENERALITIES

UNIESS DESIGNATED AS "MM" ALL DIMENSIONS ARE IN FEET AND INCHES. TURBINE COUNDATIONS STALL BE FOUNDED AT THE FEETS SHOWN ON THE DIMENSIONS SHALL IN TEXTED ABOVE GRADE WHAT THE DIMENSIONS SHOWN ON THE PARKS.

FIELD DEVATIONS FROM THIS DESIGN ARE NOT PERMITTED WITHOUT DOCUMENTATION THROUGH A TEF (TECHNICAL ENQUIRY FORM) APPROVED BY THE ENGINEER.

DESIGN CHANGES

DESIGN CODES AND STANDARDS

ANCHOR ROD SLEEVE

ANCHOR RODS FOR ALL FOUNDATIONS SHALL BE SUPPLED WITH A PING SLEFK (DTHER FALL) LIFE WHICH ARE SOUND WITH EAST SOWN ON THE WORKWASS). IN 100 CASE SHALL DOSS ORKERINE INNET 100 THE WORLD BETTELED PING 100 THE BERLINGS TOWN AND EMPLATE PINGS TOWN AND EMPLATE RIMOS. SLEFKS FOR ANCHOR RODS MAY BE SCHEDULE 40 OR SIZERY POF PIL.

EMBEDMENT & TEMPLATE PLATES 4.6

FINISH. (50 KSI), PLAIN FOR EMBEDMENT PLATES SHALL BE ASTM A529—50 STEEL FOR TEMPLATE PLATES MAY BE ASTM A36, PLAIN FNISH. STEEL

CROUT 4.7.

FORMATION DESIGN IS IN ACCEDIANCE WITH THE NITEMATIONAL BUILDING CODE 2009 AND
ACD 19 MEADED AS PROFILED. FOR THE LOCAL MAINTENT HINNE JASSICITION.
STRUCTURE, CONNECTE 1944L CABAT' WITH ACD 18, AND 30 (DODE TO CORNECTE).
STRUCTURE, AND INCIDENT OF HORSE APPROXIMENT STANDARDS IT PRESENT MATERIALS AND
USED, ALL CONSTRUCTION ACTIVITIES SHALL MET GISH, SERTT REQUIREDRIAL.

DESIGN CRITERIA

DESIGN LOADS

3.1

LOADS ARE PROVIDED IN VESTAS DOCUMENT TITLED: "FOUNDATION LOADS FOR VIO-2.0/2.2MM, MATO, IEC IIIB/S, 95m (TOMEN TOXXXI), 604z, VSS/VSSS", DOCUMENT ID: 00625-5349 VER 01, DATED 12/13/2016. PROVIDED BY VESTAS WIND SYSTEMS A/S.

GROUT UNDER TOWER BOTTOM FLANCE

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4.8. SHIM STACK

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4.8.1. STEEL SHIMS

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4.8.2. FIBER PLATE SHIM

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CONDUITS 6.4

ALL CONDUITS SHALL BE MINIMUM SCHEDULE 40 PVC. REFER TO THE ELECTRICAL DRAWNOS FOR CONDUIT SPECIFICATIONS.

5. PROCEDURES

EXCAVATION AND BACKFILLING 5.1.

THERME FOUNDATIONS SHALL BE FOUNDED AT THE LEVELS SHOWN ON THE PRAMESE, CONDISIONS SHALL BEACH OW COMETION LIMITAGES. CONSISTENT WITH PROMESE, FROM THE GEOTESHICAL REPORT, ALL FOUNDATIONS SHALL BE EXCAVABLE OF THE ACM PROMISMORY SHALL BE ACM SHOWN ON THE LAVINE TOWN THE CASHE WITH THAT SHOWN ON THE LAVINE. 5.1.1.

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ACCEPTABLE FOUNDATION BEARING MATERIALS 5.1.3

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SHOULD IT BE NECESSARY TO POUR CONCRETE IN TEMPERATURES BELOW 37 DEGREES F (3 DEGREES C), A COLUME WITH AD 300R TOLOURE WEATHER CONCRETING PROCIDING THAT COMPLES WITH AD 300R VOLD WEATHER CONCRETING SHALL BE PRODUCED BY THE SUBCOMMACTOR AND AGREED UPON WITH THE EMONHERA.

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5.1.5. CONCRETE FINISHING

STRUCTURAL FOUNDATION PLANS GENERAL NOTES CONT.

HOG CREEK WIND PROJECT

5

INFORMATION
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TO CHANGE, NOT
FOR
CONSTRUCTION.

ZIVE SISS

PERIODIC CHECKS BASED ON 10% OF RODS (SELECTED RANDOMLY AND FROM ALL 4 QUADRANTS) SHALL BE CARRIED OUT AT ALL TURBINES AT THE FOLLOWING INTERVALS

- ONE YEAR AFTER THE INITIAL 100% CHECK - EVERY OTHER YEAR FOR REMAINING PROJECT LIFE

MORE THAN TWO RODS OUT OF THE 10% DO NOT MEET THE SPECIFIED MINIMUM ENSION ALL RODS IN THE FOUNDATION SHALL BE RETENSIONED.

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10. FACILITIES

UNIESS OTHERWISE STATED THE DOOR SHALL FACE THE ACCESS ROAD. PLANS FOR DETAILS.

ALIWAYS REFER TO THE ELECTRICAL DRAWING 22003D4201 FOR CONDUIT LAYOUT IN REFERENCE TO THE DOOR ORIENTATION

MILL CERIFICATES ARE TO BE PROVIDED TO RES PROJECT CIVIL DIGNEER WITH ALL ASHIPARTIN FOR STEEL INCHAING THE SHIPMENT MENTALL, CONTENT OF STEEL GRADE, ASHIPMENT MENTALL, CONTENT OF STEEL GRADE, ASHIPMENT MENTALL, CONTENT OF STEEL GRADE, ASHIPMENT MENTALL CONTENTS AND FOUNDATION LOCATION. 6.8. CONSTRUCTION JOINTS

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SEGOTRACTION ALL SERVA, A MESSAGE SERVEN GENERAL PROFESSION, AND SERVEN AND SERVEN SER

6.3. CONCRETE PLACEMENT METHOD STATEMENT

CONCRETE WORKMANSHP AND FORMWORK SHALL BE IN ACCORDANCE WITH APPROPRIATE NATIONAL STANDARDS. 6.9. CONCRETE WORKMANSHIP AND FORMWORK

PROP IN PARKS CHARGE, AN EXPENSION TERS WHEN FOR 1005R WIST OF ORDER CHARGES WHIT COLD PRICE BROWS STREAM. HIS SERCONARDORS WITH COLD PRICE BROWS STREAM. HIS SHOWN HANDLE, AS A MANUAL STRAIN FINENCE BROWS STREAM. MALLOE, AS A MANUAL TOWNER STREAM MALLOE, AS A MANUAL TOWNER STREAM FOR PRICE BROWS WITH STATE AND PRICE BROWS WITH STATE BROWS WITH

7.1. REINFORCING STEEL PLACEMENT TOLERANCES 7. TOLERANCES

- TOLSMACT FOR REAM, SYLCHING SHALL RE:
- HORIZON'LL FOSTION'S 1/24 NORTHS
- KERTALL FOSTION'S 1/24 NORTHS
- CORDERT, CORNER TO SHARMALN WALLS
- LUP INDIVISION OF REAM SHALL RE: A MINIBUM OF
- TOWERT SOURCE FOR REAM.

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CONCRETE PLACEMENT RECORDS

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WHEN ASSEMBLED ON A FLAT SURFACE, THE EMBEDMENT RING SHALL NOT DEVIATE FROM THE LIGHTONIAL PLANE AT ANY POINT BY WORE THAM ±1/4 MOHES, EMBEDMENT PLATES SHALL BE FARBICATED WITH SPLICE CONNECTIONS TO FACULTATE TRUE FE-ASSEMBLY ON STE.

USE E70 ELECTRODE (70,000 PSI TENSILE STRENGTH) FOR ANY WELDING OF EMBEDNENT/TEMPLATE RINGS.

SIRCONTRACTOR SAUL PREPARE AND SHARIT INSPECTION REPORTS FOR EJOUR CONCETT FACADEM INCLUDION FOR EDIOMATION AND MARGING OF TELCOMATION AND MARGING OF TELCOMATION AND MARGING OF TELCOMATION AND MARGING OF THE EDIOMATION AND MARGING OF THE INSPECTION FOR POSTBOOM AND MARGING OF THE INSPECTION FOR THE INSPECTION FOR POSTBOOM AND MARGING OF THE INSPECTION FOR THE INSPEC

- RECORDS OF CYLINDERS SPECIMEN COLLECTED
- ANY DEVIATIONS FROM SPECIFICATIONS

CONCRETE STRENGTH TESTING

7.3. TEMPLATE PLATE

THE POSITIONAL TOLEDANCE OF EACH HOLE IN THE TEAPLAIT RING, AS JACASIRED FROM THE TEAPLAIR RENOWER BETWEN ADALEST ROB HOLES THE DISTANCE BETWEN ADALEST ROB HOLES 4.1/16 INCHES, AND THE ABSOLUTE POSITION OF THE ROB HOLES ON PLAN SHALL BE NO MORE THAN 1/10 INCHES OUT OF POSITION IN ANY DIRECTION.

WHEN ASSIDBLED ON A FLAT SURFACE, THE TEMPLATE RING SHALL NOT DEVANTE FROM THE HENGENSTAIL PARK AT WIT POINT BY MORE THAN 41/14. THATE PLATE PLATE THE PLATE SHALL BE ARREACHED WITH SHALL DEVANCENCE TO PACHATINE THE PLATE SHALL BE ARREACHED WITH SHALL SHALL STREAMENT OF ARREACHED FOR ANY MELDING OF TEMPLATE STREAMENT FOR ANY MELDING OF TEMPLATE STREAMENT FING.

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7.4. SHIMMING AND BASE FLANGE LEVELNESS

SHINS SHALL RESULT IN THE BASE FLANCE BOTTOM BENG LEVEL TO WITH ± 1mm AS MEASURED AT 6 POINTS EVENLY DISTRIBUTED AROUND THE CIRCUMFERENCE. 7.5. ANCHOR ROD ASSEMBLY

THE REPO RESERVE VAILE RE TOTAL PART TOTAL TOTAL TOTAL TOTAL TOTAL THE ILLUS. SHOWN AND WHEN HE FOLLOWE TOLLOWER SERVETS.

- HERCHALF POSTION ALS AND ENCY (RALLINE TO ENSEM FOR SERVE)

- WETHOUT, POSTION OF ROOS +1/2 MONEY-O (RALLINE TO ENSEM FOR CONCRETE [LEXT.)

- FOR THE ILLUST OF SERVE SER

ANCHOR ROD SLEEVE

THE INTERNAL DIAMETER OF THE ANCHOR ROD SLETYE SHOULD BE 1/8 INCH LARGER THAN THE ROO OUTER DIAMETER. CONTENSIONS OF RODS WITHIN THE SLEEVES PROVIDES VALHABLE TORERANCE FOR TOMER INSTALLATION.

7.7. FORMWORK

GROUT STRENGTH TESTING

6.7. REINFORCING STEEL

ACCEPTANCE ON BUT ALTONOMY SUBSECTION OF SUBSECTION SUB

CONCRETE MIX DESIGN

6.2.

THE SUBCONTRACTOR SHALL KEEP COPIES OF ALL CERTIFICATES RELATING TO QUALITY CONTROL. IN SPECTIONA WE ASSIST NO FOR MALKELS. AND WINNANDERS IN A COULTY ASSISTANCE OF MALKELE FOR INSECTION ROT THE WINN SHALL RELATIVE TO THE TOORIEST. IN ADDITION OF CONTEST OF THE SIGNED SHALL RESULT OF THE TESTING AGENCY SHALL RESULT OF THE ENAMERE.

FOUNDATION SUBGRADES

SENERAL NOTES (CONTINUED)

DN 1HC 1HH 1H

Forwage Tolerances Shall be per act 117, uno. Maxinou peruited duefusional Demations of concrete construction is ±1/2 inches for base sections. Forwagen shall comply with act 9P-4 "Forware for concrete".

8. ANCHOR ROD TENSION CHECKS, MAINTENANCE PLAN

ANCHOR ROD TENSION SHALL BE CHECKED AT 100% OF RODS AFTER 500 HOURS OF TURBINE OPERATION. 8.1. INITIAL TENSION CHECK OF ALL RODS

8.2. SUBSEQUENT PERIODIC CHECKS

9. SUBMITTALS

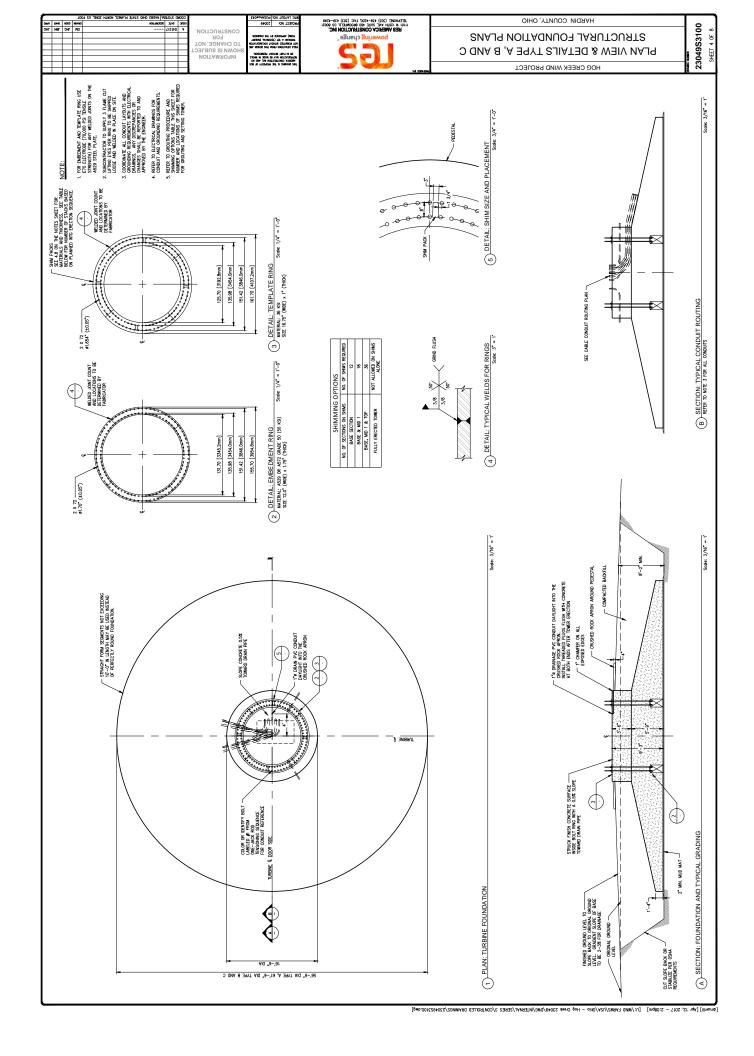
THE FOLLOWING IS A NOW-EXHAUSTIVE SUMMARY OF SUBMITTALS REQUIRED ON THIS PROJECT. THE ENGINEER MAY REQUIEST ADDITIONAL SUBMITTALS IF DIFFERENT CONSTRUCTION METHODS ARE USED OR AS DEMED NECESSARY:

10.1.1. STANDARD ORIENTATION 10.1. DOOR ORIENTATION

10.1.2. CONDUIT LAYOUT

2 AT 3 DAYS, 2 AT 7 DAYS AND 2 AT 28 DAYS. THE 28-DAY BREAKS NEED NOT BE CARRED OUT IF THE 28-DAY STRENGTH IS REACHED AT AN EARLIER AGE 2 EACH AT 3 DAYS, 7 DAYS, 14 DAYS, 28 DAYS, AND 2 EXTRA 2 EACH AT 3 DAYS, 7 DAYS, 14 DAYS, 28 DAYS, AND 3 EXTRA BREAK SCHEDULE TEN (10) 6'x12' OR SIX (6) 6"x12" OR FIFTEDN (15) 4"x8" NINE (9) 4 x8 # OF SAMPLES PER WTG FOUNDATIO PER 100 CONCRETE TYPE STRUCTURAL

ADDITIONAL CYLINDERS MAY BE BROKEN AS DIRECTED BY THE ENGINEER. CONTINUOUS MALA MONIORING OF CHORCHE LOUGHSY AND AGACIARY IS REQUIRED TO LOCK FOR ANOMALES, AND DETECT CHANGES, SUMP TESTING IS REQUIRED FOR EVERY FIFTH TRUCK LOAD OF CONCORTE, AND WHENEVER ANOMALIES, ARE DETECTED.



НАRDIN COUNTY, ОНЮ

STRUCTURAL FOUNDATION PLANS ANCHOR BOLT DETAILS

23049S3200

3 DETAIL: TWO-JACK ROD TENSIONING SEQUENCE scale: 1/2" = 1

2 DETAIL: ONE-JACK ROD TENSIONING SEQUENCE Scale: 1/2" = 1'

127.70 [3243.6mm]

HOG CREEK WIND PROJECT

	52048	50N TO
INFORMATION SHOWN IS SUBJECT TO CHANGE, NOT FOR CONSTRUCTION.	A LIFE DIGITIST TO SHORE THE DIGITIST TO SHORE THE SHORE	FOURTHOOD AD BY YAM HOTOUG OHTHE THAY W CHEW COSTANS OHTHE COSTANS OTT A HOL

MARRIERA MARRIERA OUR NEW NOT NEW MOUNTS MOU

J. PLACE EPOXY GROUT PER APPROVED PROCEDURE, TROWEL, FINISH TRIM AND CLEAN AS NECESSARY TO PRODUCE A NEAT GROUT REIN INTINATE CONTACT WITH THE BOTTOM OF THE BASE FLANCE.

K. NTEMEDATE TOWER SECTIONS MAY BE SET WHILE GROUT IS GAMNS STREAGH. THE NUMBER OF SECTIONS THAT MAY BE STACKED IS A FUNCTION OF THE NUMBER OF SHM STACKS AS INDICATED ON SHEET SE-3100.

L. WEIG GROUT RELOGES 14,000 POS AND DOTH THE BASE AND PRESSION OF ALL MOST WAN BENEFITS SOON POST ALL MOST WAN BENEFITS TRIGORIED OF THE SOUND THE SECTION OF ALL MOST WAN BENEFITS AND THE SOUNDER SECTION PROSPERIOR OF THE SECTION PROSPERIOR SECTION FOR CITIES. ALLOW INSTITUTION SECURACE STOWN.

M. WHEN GROUT AND CONCRETE REACH THEIR RESPECTIVE 28—DAY STRENGTHS THE TURBINE MAY BE OPERATED. N. NO TURBINE TESTING IS PERMITTED PRIOR TO GROUT AND CONCRETE REACHING THEIR RESPECTIVE FULL 28—DAY STRENGTHS 15000 AND 5500 PSI. 3. DESIGN ROD POST-TENSION LOADS:

I. ALL ANCHOR RODS, JAM NUTS AND WASHERS SHALL BE PROVIDED BY THE SAME SUPPLIER.

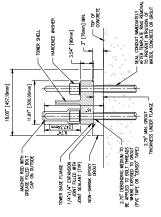
Scale: N.T.S.

TOWER DOOR

TOWER DOOR

HOUGH RID HOUSE FORTHWISH RID RANGE FORTHWISH RID RANGE FORTHWISH RID RANGE FORTHWISH RID RANGE FOR HOUSE FOR HO	ANCHOR ROD (ANCHOR ROD CAGE MATERIAL SPECIFICATION
	ITEM	SPECFICATION
	ANCHOR ROD (ALL THREAD REBAR)	WILLIAMS FORM #11 GRADE 150 RODS (ASTM A722)
	HEX NUT	R73 HEX NUT FOR #11 R0D (ASTM A29 OR A576)
	HARDENED WASHER #1	R9F, 3-1/4" 0.D., 1-5/8" I.D., 3/8" THICKNESS (COMPLY TO ASTM-F436 A490, TYP)
	HARDENED WASHER #2	R9F, 3" 0.D., 1-5/8" I.D., 5/32" THICKNESS
	JAM NUT	R73, JN JAM NUT FOR #11 R0D (COMPLY TO ASTM-A29 C1045, TYP OR ALTERNATE MEANS OF SECURING NUT)
	ROD SHEATH	1 1/2" DIA. SOR21 OR 2" DIA. SCHEDULE 40 PVC PIPE

NOTE: ALTERNATIVE RODS MAY BE USED IF EQUIVALENT IN SIZE AND STRENGTH AND IF APPROVED BY THE ENGNEER.



CONSTRUCTION SEQUENCE FOR CONCRETE AND GROUT (FOR MORE DETAILED GROUTING STEPS, SEE GROUTING SPECIFICATIONS):

A ASSEMBLE ROD CAGE & INSTALL ON SUPPORTS, HEX NUTS ABOVE AND BELOW THE EMBEDMENT RING SHALL BE HAND TORQUED TO A MINIMUM OF 50 FT-LIBS BEFORE

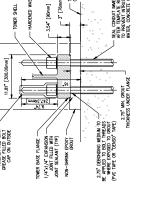
B. ASSEMBLE REBAR FOR BASE SLAB & PEDESTAL STARTERS. C. Polir Base slab concrete up to construction joint.

D. ASSEMBLE PEDESTAL REBAR. E. POUR PEDESTAL CONCRETE. F. PLACE AND COMPACT FOUNDATION BACKFILL. THIS STEP CANNOT TAKE PLACE PRIOR TO THE CONCRETE REACHING 60% OF ITS DESIGN STRENGTH (3300 PS).

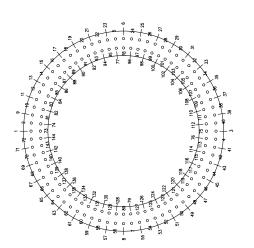
H. SET SHINS THEN SET THE TOWER BASE SECTION ON THE SHINS. TOWER BASE SECTION TO BE LEVELED FER WTG MANUFACTURER'S REQUIREMENTS.

G. REMOVE TEMPLATE RING.

RATTLE DOWN ALL NUTS ABOVE BASE FLANCE AND APPLY NOMI TORQUE OF 100 FT-LBS FOLLOWING TIGHTENING SEQUENCE SHOW



GREASE FILED BOLT 11.81" [300.00mm] CAP ON OUTSDE	TONES BACE FLANCE 1/4 AVA CEROMON CHANGE 1/4 AVA CEROMON CHANGE 2.27 KEROMON CHANA TO THE CEROMON CHANA TO THE		(B) DETAIL: BOTTOM FLANGE SEATED ON GROUT
I EMPCAIL KING	THE RECORD HELDER TO BE THE THE THE THE THE THE THE THE THE TH	FOD CASE SUPPORT BOTTOW WAT BANS	DMENT RING ASSEMBLY Sode: N.T.S.



[dmow.ii] [Apr 12, 2017 - 2:08pm] [U:/WIND FARMS/USA/Onio - Hog Crook 23049/DWC/INTERNAL/SERES 3/COUTROLLED DRAMINGS/2304953201.dwg]

[mwnoriii] [Apr 12, 2017 - 2:08pm] [U:\Wind Farms/Usa/Onio - Hog Creek 23049/DWc/Internal/Seres 3/controlled dramings/2304953202.dwg]

НАВДІИ СОЛИТУ, ОНІО 23049S3033 SHET 8 OF 8 INFORMATION
HOWN IS SUBJECT
TO CHANGE, NOT
FOR
CONSTRUCTION. STRUCTURAL FOUNDATION PLANS REINFORCEMENT & MISC. DETAILS HOG CREEK WIND PROJECT OVER-EXCAVATION DEPTH, IF ANY SEE SHEET 1 STAGGER MK-34 BARS 2" VERTICAL TO AVOID CONFLICT - ALIGN MK-10 BARS WITH ANCHOR RODS AND ROTATE TO AVOID CONFLICT ANCHOR RODS (TYP) SLOPE OR BENCH PER OSHA REQUIREMENTS C SECTION: PEDESTAL EXISTING GROUND BACKFILL PER SPECIFICATION 5.1.4 ON SHEET 2 FOR STRUCTURAL FILL REQUIREMENTS Scale: 1/4" = 1'-0" SLOPE VI/HI PER OSHA REQUIREMENTS FOR SITE SPECIFIC SOILS
 SLOPE VI/H4 PER CIVIL PLANS B SECTION: PEDESTAL (E) SECTION: OVER-EXCAVATION AND BACKFILL PLACEMENT Scale: 1/4" = 1'-0 A SECTION: TOP OF PEDESTAL WK-35 (0-A) 6 6" 0.C. E.W. (BOTH SIDES)

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

4/13/2017 9:53:14 AM

in

Case No(s). 09-0277-EL-BGN, 10-0654-EL-BGN, 16-1422-EL-BGA, 16-1423-EL-BGA

Summary: Correspondence of Hog Creek Wind Farm LLC in Compliance with Condition No. 54(a) - Final Turbine Foundation Design Plans electronically filed by Teresa Orahood on behalf of Sally W. Bloomfield