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October 10, 2017

Ms. Barcy F. McNeal, Secretary
Ohio Power Siting Board
Docketing Division
180 East Broad Street, 11th Floor
Columbus, OH 43215

Re: Case Nos. 13-197-EL-BGN, 16-1687-EL-BGA, and 17-1099-EL-BGA
Trishe Wind Ohio, LLC
Update to September 18, 2017 Filing Regarding Notification of Compliance with Condition 27 – NPDES Permits

Dear Ms. McNeal:

Trishe Wind Ohio, LLC ("Applicant") is certified to construct a wind-powered electric generation facility in Paulding County, Ohio, in accordance with the December 16, 2013 Opinion, Order, and Certificate ("Certificate") issued by the Ohio Power Siting Board ("OPSB").

Condition 27 of the Certificate requires Applicant to submit a copy of all National Pollution Discharge Elimination System permits including its approved Storm Water Pollution Prevention Plan, approved Spill Prevention, Control, and Countermeasure ("SPCC") Plan procedures, and its erosion and sediment control plan, to staff for review and acceptance. The Applicant is providing this letter to notify the OPSB that the Applicant has developed a final Storm Water Pollution and Prevention Plan, dated September 8, 2017, which is attached hereto. Therefore, the Applicant has satisfied this requirement set forth in Condition 27.

We are available, at your convenience, to answer any questions you may have.

Respectfully submitted,

/s/ *William V. Vorys*
William V. Vorys (0093479)
Christine M.T. Pirik (0029759)
Terrence O'Donnell (0074213)
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Attorneys for Trishe Wind Ohio, LLC

Enclosure
COLUMBUS 73809-1 77443v1

Westwood

STORM WATER POLLUTION PREVENTION PLAN

Northwest Ohio

Paulding County, Ohio
September 2017

Prepared For:

Starwood Energy Group
591 West Putnam Avenue
Greenwich, CT 06830

Storm Water Pollution Prevention Plan (SWP3) Narrative

Northwest Ohio

Paulding County, Ohio

Prepared for:

Starwood Energy Group
591 West Putnam Avenue
Greenwich, CT 06830

Prepared by:

Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
(952) 937-5150

Project Number: 0007186.00

September 8, 2017

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TABLES

ATTACHMENTS

1.0 INTRODUCTION AND PURPOSE

This SWP3 is prepared in accordance with the Ohio General Permit for the Authorization for Storm Water Discharges Associated with Construction Activity under the National Pollutant Discharge Elimination System (NPDES) regulations as established by the Clean Water Act and guided by the State of Ohio Environmental Protection Agency (OHEPA). The Ohio Stormwater Runoff from Construction Activities General Permit (CGP) State Permit No. OHC000004 (Expiration date: April 20, 2018) provides the frame work of requirements for compliance to discharge stormwater from a construction site. The purpose of the SWP3 is to ensure; the design, implementation, management and maintenance of BMPs in order to prevent or minimize sediment and other pollutants in stormwater discharges associated with the land disturbance activities and compliance with the terms and conditions of the state general permit.

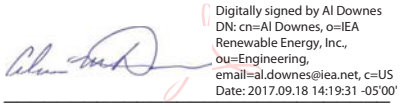
This SWP3 is for implementation by the Owner and Operator, as listed in Section 5.1 of this SWP3, at the Northwest Ohio site, with the project location as defined in Section 4.0 of this SWP3. This report shall be on the site at all times during construction.

The following are outlined in this site specific SWP3:

- Control measures for storm water pollution prevention during each phase of construction
- Control measures for storm water pollution prevention after construction
- Sources of storm water and non-storm water pollution
- Inspection and maintenance procedures

2.0 OPERATOR SWP3 CERTIFICATION AND SIGNATURE

"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."



Signature	Title	Date
	Director of Engineering Managers	09/18/2017
Alan Downes	608-320-2818	White Construction, Inc.
Printed Name	Contact Number	Company

3.0 SWP3 AMENDMENTS

This plan and the attachments must be amended within ten (10) days of a routine inspection results and to include additional requirements or modified requirements which take place during construction if one or more of the following occur:

1. Design, operation, or maintenance of BMPs is changed;
2. Design of the construction project is changed that could significantly affect the quality of the stormwater discharges;
3. Inspections indicate any deficiencies in the SWP3 or BMPs;
4. Department notifies the permittee in writing of deficiencies in the SWP3;
5. SWP3 is determined to be ineffective in minimizing or controlling erosion and sedimentation (e.g., there is visual evidence of excessive site erosion or excessive sediment deposits in streams or lakes);
6. Department determines violations of water quality standards may occur or have occurred;
7. When discharge to a receiving waterbody not originally identified on the NOI is anticipated or realized;
8. If contaminated soils are discovered or endangered species or cultural resources are discover which were not originally identified in the project NOI.

3.1 SWP3 Amendment Log

The following table should be completed as necessary during construction to document changes and amendments to this document. Place the Amendment Number next to all application changes, redlines and information in the document to reference back to the changes summarized below. If an additional sheet is necessary attach the additional sheet to the SWP3.

Table 1: Amendment Log

Amend #	Date	Reason, location and brief description of change or amendment	Authorized by: (name and title)

4.0 SITE INFORMATION AND DESCRIPTION

4.1 Site Location and Vicinity Map

The Northwest Ohio site is located in Paulding County, Ohio. The southern portion of the project area is located within the City of Haviland. The nearest intersection is US Highway 127 and County Road 48. The site is bordered on the north by Town Highway 82, on the south by Van Wert Paulding Co. Line Road, on the west by County Road 71, and on the east by Highway 637. Refer to Attachment D of this SWP3 for the full vicinity map.

Table 2: Project Location

Section	Township	Range
8-11, 13-17, 21-24, 26	1N	2E
3, 7-11, 15-18, 20-22	1N	3E
Latitude and Longitude Points (Decimal)		
Latitude	41.0373	
Longitude	-84.5753	

4.2 Existing Conditions

The slope and terrain of the site generally consists of flat farmland. The site currently has stormwater runoff flowing via overland flow to the north. The site drains primarily to the northeast into Cunningham Creek, Horse Run, Prairie Creek, Hagerman Creek, and Dog Run. These waterbodies ultimately drain into Blue Creek, Town of Charloe-Auglaize River, and Burt Lake-Little Auglaize River.

The site area is located in a non-arid area with an average yearly precipitation amount of 38.4 inches.

Non-vegetative Cover

Prior to construction, impervious surfaces within the project area included gravel roads, bituminous or chip-and-seal roads, and farmsteads and associated buildings and driveways.

Vegetative Cover

Prior to construction, pervious surfaces within the project area included agricultural land, grasslands, wetlands, and hay fields.

Land Use

Prior to construction, the site area was primarily used for agricultural production. Secondary uses included farmsteads, grasslands, and wetlands. At the time of this SWPPP, a Phase 1 Environmental Assessment has not been conducted.

4.3 Soil Information

The soils present on site include the following: Defiance silty clay loam, Haskins loam, Hoytville silty clay loam, Hoytville silty clay, Latty silty clay loam, Latty silty clay, Mermill loam, Nappanee loam, Nappanee silty clay loam, Paulding clay, Saranac silty clay loam, St. Clair silty clay loam, St. Clair silty clay, and Wabasha silty clay loam. These soils belong to hydrologic soil groups D and C/D. Soils belonging to hydrologic soil group D have high runoff potential when wet. Soils belonging to dual hydrologic soil group C/D have moderately high runoff potential when drained and high runoff potential when undrained. At the

time of this SWPPP, no contaminated soils or groundwater contamination have been documented within the site boundary.

Table 3: Soil K Factors and Erosivity Hazards

Soil Name / Type	K Factor	Erosivity Hazard				Reason(s) for Erosivity Rating
		Slight	Moderate	Severe	Very Severe	
Defiance silty clay loam, occasionally flooded	0.28	X				
Haskins loam, 0-2%	0.37	X				
Hoytville silty clay loam, 0-1%	0.20	X				
Hoytville silty clay, 0-1%	0.20	X				
Latty silty clay loam	0.32	X				
Latty silty clay, till substratum, 0-1%	0.24	X				
Mermill loam	0.28	X				
Nappanee loam, 0-2%	0.32	X				
Nappanee silty clay loam, 0-2%	0.32	X				
Nappanee silty clay loam, 2-6%	0.32	X				
Nappanee silty clay loam, 2-6%, eroded	0.32	X				
Paulding clay, 0-1%	0.17	X				
Saranac silty clay loam, occasionally flooded	0.24	X				
St. Clair silty clay loam, 6-12%, eroded	0.32	X				
St. Clair silty clay, 6-12%, severely eroded	0.28	X				
Wabasha silty clay loam, frequently flooded	0.28	X				

Table 4: Soil Particle Sizes

Soil Type	% Sand	% Clay	% Silt	% Site Area
Defiance silty clay loam, occasionally flooded	18.7	33.5	47.8	0.2
Haskins loam, 0-2%	43.8	16.0	40.2	0.1
Hoytville silty clay loam, 0-1%	19.0	39.0	42.0	0.4
Hoytville silty clay, 0-1%	16.0	41.0	43.0	2.8
Latty silty clay loam	7.6	37.5	54.9	0.3
Latty silty clay, till substratum, 0-1%	15.0	44.0	41.0	57.9
Mermill loam	42.0	20.5	37.5	0.1
Nappanee loam, 0-2%	39.2	23.5	37.3	0.2
Nappanee silty clay loam, 0-2%	7.7	36.0	56.3	13
Nappanee silty clay loam, 2-6%	7.7	36.0	56.3	0.5
Nappanee silty clay loam, 2-6%, eroded	7.7	36.0	56.3	1.2
Paulding clay, 0-1%	8.0	61.0	31.0	18.2
Saranac silty clay loam, occasionally flooded	18.7	33.5	47.8	4.3
St. Clair silty clay loam, 6-12%, eroded	18.7	33.5	47.8	0.1
St. Clair silty clay, 6-12%, severely eroded	7.2	45.0	47.8	0.2
Wabasha silty clay loam, frequently flooded	7.6	37.5	54.9	0.4

5.0 PROJECT INFORMATION

5.1 Operator(s) (Owner or General Contractor) and Site Contact Information

Table 5: Operator and Contact Information

Operator Signatory Information		Site Contact Information	
Company:	White Construction, Inc.	**Company:**	White Construction, Inc.
Contact Name:	Alan Downes	**Contact Name:**	Mike Kreuzman
Title:	Director of Engineering Managers	**Title:**	Project Manager
Address:	2647 Waterfront Parkway E. Drive, Suite 100, Indianapolis, IN 47842	**Address:**	2647 Waterfront Parkway E. Drive, Suite 100, Indianapolis, IN 47842
Contact Phone Number:	608-320-2818	**Contact Phone Number:**	812-264-3592
Contact Email:	Al.downes@iea.net	**Contact Email:**	michael.kreuzman@iea.net

The Owner or Operator Responsibilities (i.e. permittee):
The permittee responsibilities include:

- Development of a SWP3 prior to submittal of the Notice of Intent (NOI).
- Submittal of a complete and accurate NOI and submit the SWP3 if applicable to permit requirements.
- Receive an authorization from the OEPA prior to starting construction activity.
- Ensure the Authorized NOI and SWP3 plan is readily available at the construction site.
- Ensure the project specifications allow or provide development of adequate BMPs to meet requirements of permit.
- Provide indications within this SWP3 for areas of the project where they have control and ability to make modifications.
- Ensure other operators affected by modifications in project specifications are notified in a timely manner to modify their BMPs as necessary for SWP3 compliance. A copy of the SWP3 will be made available as well.
- Ensure the SWP3 indicates the name and site specific NPDES authorization number for operators where applicable.
- A knowledgeable person or persons are performing inspections and documenting the inspections and maintenance activities.

5.2 Project Type and Proposed Conditions

Non-vegetative Cover
Post-construction, impervious surfaces on site will include access roads, meteorological towers, an O&M facility, a substation, and turbine foundations.

Vegetative Cover
Post-construction, the site will be restored to its previous vegetative condition as much as feasible. Vegetative cover may include, but is not limited to, Creeping Red Fescue, Domestic Ryegrass, Kentucky Bluegrass, Tall Fescue, Turf type (dwarf) Fescue, Crown Vetch, Flat Pea, and Perennial Ryegrass.

Land Use
The proposed Northwest Ohio project will be a wind energy generation facility. This will include wind turbines, a substation, meteorological towers, an operations and maintenance building, underground electrical collection, and access roads.

5.3 Project Estimates

Table 6: Project Area Estimates

Estimated Area of Site	Estimated Total Disturbed Area	Impervious Area Pre construction	Impervious Area Post construction	% Impervious Created	Runoff Coefficient Pre Construction	Runoff Coefficient Post Construction
10,344 Acres	759 Acres	160 Acres	210 Acres	31.25	0.30	0.35

5.4 Construction Activity Description

Construction activity will include installation of up to 42 primary and 18 alternate wind turbines. Construction of the wind turbines requires, but is not limited to, the installation of a substation, meteorological towers, an operations and maintenance building, two temporary laydown yards, underground electrical collection, and 16-foot wide gravel access roads with temporary 36 foot wide disturbance due to temporary compacted shoulders (10 feet on each side) for truck transport of materials and crane walking paths. Minor construction activity will be necessary for some existing road and radii. The crane paths are specifically designed to follow access roads to limit disturbance of streams and other sensitive areas such as steep slopes and will be approximately 50 feet wide where located away from access roads. All temporary crane paths should be restored to preconstruction conditions after the use of the paths. The SWP3 shall be amended to show locations and disturbance areas as necessary should locations change during construction.

Project Activity Descriptions

NOTE: All sensitive areas shall be marked prior to start of earth disturbance activities. If any subsurface and/or surface drainage features are altered during construction restore to pre-construction conditions and drainage patterns. Coordinate the work with the Land Owner.

1. Access road construction activity and phasing information:
   a. Strip and stockpile top soil along one or both sides of the road in a linear berm
   b. Apply perimeter sediment controls and temporary stabilization of ditch (erosion control blanket or turf reinforcement mat)
   c. Compact subgrade
   d. Apply gravel base
   e. Following turbine erection the soils should be decompacted
   f. Apply topsoil for non-aggregate areas during final grade
   g. Apply final gravel cap to road
   h. Maintain pre-construction drainage patterns and runoff
   i. If any subsurface and/or surface drainage features are altered during construction, restore to pre-construction condition and drainage patterns

j. Return disturbed areas not part of the final road to pre-construction condition.

2. Turning radius and temporary intersections construction activity and phasing information:
   a. Strip and stockpile top soil
   b. Install culvert as called for in plan; apply perimeter sediment controls and temporary stabilization of ditch and banks of road (erosion control blanket or turf reinforcement mat)
   c. Fill with native material to grade
   d. Apply gravel base
   e. Following turbine component delivery or turbine erection, the turning radius should be removed by removing gravel and fill soils
   f. Remove any extra culvert lengths
   g. Reapply topsoil and final grade
   h. Apply seed and erosion control blanket, TRM, or mulch cover for restoration to pre-construction condition

3. Turbine Area
   a. Strip and segregate topsoil; apply topsoil in a soil berm around the down grade perimeter of the turbine pad area
   b. Install silt fence at the perimeter as necessary and as shown on the plans
   c. Excavate areas required for the foundation and stockpile the subsoils
   d. Dewater accumulated ground water or stormwater via pump as necessary, dewatering bag and ensure discharged water does not contribute sedimentation to receiving waters
   e. Provide temporary stabilization measures (mulch, erosion control blanket and turf re-enforcement mat)
   f. Temporary cover the stockpiles with hydromulch or other temporary cover BMP for water and wind erosion protection
   g. Construct concrete washout area or use a common concrete washout during concrete work of mud mat and foundation work
   h. Back fill subsoils and topsoil with a rough grade
   i. Grade crane pad turbine erection
   j. Erect the turbine
   k. Return disturbed areas not part of the final road to pre-construction condition.

4. Temporary Crane Walk
   a. Plan crane walks according to unique area conditions where crane walk will occur.
   b. Walk cranes across waterways/conveyances during dry conditions
   c. Provide timber mat crossings for grass waterway crossings, swale crossings and other gradual conveyance crossings
   d. Install down grade perimeter controls such as fiber logs or silt fence to protect conveyances as field conditions dictate
   e. Provide temporary creek/waterway crossing BMPs according to details shown on plans and explained in this SWP3 narrative.
   f. Restore all disturbed areas to pre-construction condition following crane walk activity by tilling to agricultural condition or applying necessary mulch/erosion control blanket and seeding to areas for restoration to pre-construction condition.

5. Electrical Underground
   a. Open trench or plow collection line across fields; if drain tile is encountered locate, repair/restore as necessary.
   b. Topsoil should be segregated from subsoils unless otherwise agreed upon by the landowner
   c. If required, dewater accumulated ground water or stormwater via pump and dewatering bag, and ensure discharged water does not contribute sedimentation to receiving waters
   d. If open trenching or plowing through a waterway or conveyance, a perimeter control such as logs, silt fence or rock check should be used for perimeter control. Apply seed and erosion control blanket or mulch to restore grass waterway to pre-construction condition

6. Laydown Yards
   a. Provide stable accesses to area; install culverts as necessary and according to the plan for the accesses
   b. Install silt fence and other sediment controls as necessary and as detailed in the plan
   c. Strip and stockpile topsoil around the up-gradient perimeter of the laydown yard for a diversion of water or downgrade perimeter of the yard for runoff control.
   d. Apply rock base to designed thickness
   e. Temporarily cover the stockpiles with hydromulch or wood after seeding with temporary seed mix
   f. Provide necessary secondary containment, secure storage and maintenance activities during operation
   g. Remove rock; decompact and reapply topsoil to the area after the laydown yard is no longer needed.
   h. Return disturbed areas to preconstruction condition which may include applying seed and mulch cover for restoration

7. Met Tower
   a. Strip and stockpile top soil along one or both sides of the access road and tower area in a linear berm
   b. Apply perimeter sediment controls
   c. Compact subgrade
   d. Apply gravel base to tower access
   e. Following tower erection the soils should be decompacted
   f. Apply topsoil during final grade
   g. Apply final gravel cap to tower access
   h. Maintain pre-construction drainage patterns and runoff
   i. Return disturbed areas not part of the final road or tower area by applying seed and mulch cover for restoration to pre-construction condition

8. Collector Substation
   a. Provide stable accesses to area; install culverts as necessary and according to the plan for the accesses
   b. Install silt fence and other sediment controls as necessary and as detailed in the plan
   c. Strip and stockpile topsoil around the up-gradient perimeter for a diversion of water or downgrade perimeter of the substation for runoff control
   d. Apply rock base to designed thickness
   e. Temporarily cover the stockpiles with hydromulch or wood mulch after seeding with temporary seed mix
   f. Concrete washout area needed prior to concrete work

g. Construction of electrical components and fencing
h. Return disturbed areas not part of the final gravel pad to agricultural condition or apply seed and mulch cover for restoration to preconstruction condition.

9. Operation and Maintenance Facility
a. Provide stable accesses to area; install culverts as necessary and according to the plan for the accesses
b. Install silt fence and other sediment controls as necessary and as detailed in the plan
c. Strip and stockpile topsoil around the up-gradient perimeter for a diversion of water or downgrade perimeter of the area for runoff control
d. Temporarily cover the stockpiles with hydromulch or straw mulch after seeding with temporary seed mix
e. Concrete washout area needed prior to concrete work
f. Concrete work and building construction
g. Apply rock base to designed thickness
h. Apply rock base for parking areas as designed
i. Provide mulch and seed or blanket and seed following final grade

5.5 Construction Activity Sequence and Estimated Dates

Table 7: Project Schedule

Activity	Start Date	End Date
Overall Project	10/2/17	7/14/18
Access Roads, Radii and Road Upgrades	10/2/17	12/10/17
Laydown Yards	10/2/17	11/1/17 – build complete, 7/14/18 – removal date
Crane Paths / Turbine Erection	11/6/17	3/30/18
Excavations / Foundations	10/5/17	12/20/17
O&M Facility	1/1/18	6/30/18
Substation	11/1/17	5/3018
Underground Collection	11/1/17	6/30/18

5.6 Project Phasing

The project will be completed in one continuous phase of grading and one continuous phase of utility with the contractor working concurrently and in sequence to complete the wind energy facility, structures, transmission, and operations facilities.

5.7 Stormwater Team and Project Contacts

Table 8: Stormwater Team and Project Contacts

Company*	Name or Position	Responsibility	Contact Number
Starwood Energy Group	Alex Daberko	Site Development	203-422-8104
White Construction, Inc.	Mike Kreuzman	Dirt Work / Grading / Turbine / Cranes / Excavation	812-264-3592
White Construction, Inc.	Mike Kreuzman	Underground Electrical	812-264-3592
White Construction, Inc.	Mike Kreuzman	Overhead Electrical	812-264-3592
White Construction, Inc.	Mike Kreuzman	Met Towers	812-264-3592
White Construction, Inc.	Mike Kreuzman	Substation	812-264-3592
White Construction, Inc.	Mike Kreuzman	O&M Facility	812-264-3592
White Construction, Inc.	Mike Kreuzman	Laydown / Batch Plant	812-264-3592
White Construction, Inc.		Project Environmental Contact	
White Construction, Inc.		Routine SWP3 Inspections	
Westwood Professional Services	Aaron Mlynek, CPESC	SWP3 development	952-697-5710
White Construction, Inc.		Restoration	
White Construction, Inc.		BMP installation	
White Construction, Inc.		BMP Maintenance	

***All contractors and subcontractors identified above (except SWP3 development) should sign a copy of the Certification Statement in Attachment G.**

6.0 ENDANGERED SPECIES AND HISTORICAL PROPERTIES

6.1 Endangered or Threatened Species

According to the Avian Field Survey completed by Westwood Professional Services, dated 07/19/2010, there is a low risk for potential direct impacts to the Northern Harrier.

Tragus Environmental Consulting, Inc. recorded five species of bats in Paulding County. These bats have little to know spring migration and a low volume of fall migration from the mid-August to mid-September.

There is potential for nesting Great Blue Herons throughout the state of Ohio. If Great Blue Herons are found nesting within the project area, a 300-meter buffer zone of no construction activity should be observed. If possible, foraging areas within 4-kilometers should also be avoided, if possible, and should be void of any pesticides.

See Attachment H of this SWPPP for Ohio Department of Natural Resources and U.S. Fish and Wildlife Service recommendations regarding endangered and threatened species.

6.2 Historical Property Preservation

According to the Phase I Archaeological Investigations, the site has potential for cultural deposits within the sub-plowzone. In order to avoid these areas, the utility corridor will be constructed via directional drilling. The rest of the project site is not regarded as being archaeologically important or significant. See Attachment H of this SWPPP for the complete Cultural Resources Avoidance Plan.

7.0 RECEIVING WATERS

The table below summarizes the immediate receiving waters from the site. Where necessary the receiving waters has been designated immediate (for the first surface water receiving drainage from the site) and ultimate (for the surface water receiving runoff from site after the immediate receiving waters). The receiving waters listed are located within a mile, and receive water from the site discharge location(s).

The Northwest Ohio site drains primarily to the northeast into Cunningham Creek, Horse Run, Prairie Creek, Hagerman Creek, and Dog Run. These waterbodies ultimately drain into Blue Creek, Town of Charloe-Auglaize River, and Burt Lake-Little Auglaize River. Refer to Attachment D for drainage maps.

Table 9: Receiving Waters

Name of Receiving Waterbody	Immediate (I) or Ultimate (U)	Type (wetland, lake, stream, ditch)	Impaired? Y/N	Approved TMDL?	Drains to or Through an MS4?
Cunningham Creek	I	creek	N	N	Y
Horse Run	I	ditch	N	N	Y
Prairie Creek	I	creek	N	N	Y
Hagerman Creek	I	creek	N	N	Y
Dog Run	I	creek	N	N	Y
Blue Creek	U	creek	Y	N	Y
Town of Charloe-Auglaize River	U	river	N	N	Y
Burt Lake-Little Auglaize River	U	river	N	N	Y

7.1 Impaired and/or TMDL Waters

According to the OEPA website:

http://www.epa.ohio.gov/dsw/tmdl/OhioIntegratedReport.aspx#156069519-report (accessed 09/05/2017), Middle Blue Creek is impaired for aquatic macroinverbrate. The site discharge location to the impaired waterbody is within the project boundary. There is not an approved Total Maximum Daily Load (TMDL) and / or Waste Load Allocation (WLA) plan for this waterbody and impairment.

7.2 404/401 Permit Applicability

The project is subject to section 404 and 401 compliance and has been previously permitted. Updates to this permit are currently pending and will be amended to this SWPPP upon completion. See agency correspondence in Attachment H.

8.0 STORMWATER MANAGMENT

8.1 Temporary Practices

There are no anticipated temporary stormwater management practices at the time of SWP3 completion due to no contiguous 10 acre drainage areas discharging to a common point or other temporary sediment traps. If basins or traps become necessary based upon inspector observations, construction sequencing or methods and/or weather conditions this section will need to be amended.

Calculations

Calculations are not applicable to this project as there are no temporary stormwater management practices requiring calculations. If basins or traps become necessary based upon inspector observations, construction sequencing or methods and/or weather conditions the following table should be completed for documentation.

Table 10: Temporary Sediment Basin Calculations

Basin #	Storm Frequency	Rainfall Amount	Runoff Area	Runoff Volume	Capacity Needed
1	2 yr. / 24 hr.	2.5”	Acres	ac ft.	ac ft.

8.2 Permanent Practices

At the time of this SWPPP, there are no permanent stormwater practices anticipated for the project activity.

Calculations

Calculations are not applicable to this project as there are no permanent stormwater management practices requiring calculations.

9.0 TEMPORARY AND PERMANENT BMPS

9.1 Soil Management and Compaction Minimization

After clearing and grubbing, the operator(s) should strip and stockpile topsoil material for reapplication on all future permanent pervious surface areas. During development, grading and utility construction the subsoils will be compacted as necessary for construction using typical excavation techniques. During final grade, reapplication of the preserved top soil should be completed by a wide-pad dozer and other equipment to minimize compaction of the top soil material. The operator(s) should restrict vehicle and equipment use to avoid soil compaction where feasible; or techniques such as ripping the soil for decompaction should be competed following topsoil placement and prior to reseeding or other restoration activity.

9.2 Natural Buffers and No Disturbance Areas

Natural Buffers

An undisturbed buffer zone should be preserved for all streams, creeks, and wetlands on site. The use of linear sediment controls will be installed upgrade to provide sediment control and delineate the foot buffer. Refer to the site erosion and sediment control plan for the location of the buffer. The following activities are prohibited to take place within the buffer area:

- Placement of stockpiles and / or sediment basins
- Vegetation disturbance
- Placement of construction material
- Storage of gas, oils, other potential pollutant material

No Disturbance Areas

See engineering plans in Attachment E of this SWPPP for applicable no-disturbance limits.

9.3 Erosion Prevention Practices

The following controls are anticipated to minimize soil loss from the construction site area. The controls should help to minimize soil from being transported from water and wind as well as aide in establishment of temporary and permanent vegetation. Prior to grading and during clearing and grubbing, the areas of vegetation preservation, buffers and other areas of no disturbance should be flagged, staked or otherwise delineated.

Soil Stabilization Timing

Temporary or permanent erosion prevention practices should be initiated immediately (end of the same working day) after construction activity disturbing soil is anticipated to temporarily or permanently ceased within the timeframes listed below.

Table 11: Temporary and Permanent Stabilization Timeframes

Permanent Stabilization	
Area Requiring Permanent Stabilization	**Time Frame to Apply Erosion Controls**
Area(s) that will lie dormant for one year or more	Within 7 days of most recent disturbance
Area(s) within 50 feet of a surface water, at final grade	Within 2 days of reaching final grade
Any other areas at final grade	Within 7 days of reaching final grade in that area

Temporary Stabilization	
Area Requiring Permanent Stabilization	**Time Frame to Apply Erosion Controls**
Area(s) within 50 feet of a surface water, not at final grade, will remain idle for 14 days or more	Within 2 days of most recent disturbance
Areas(s) not within 50 feet of a surface water, not at final grade, will remain idle 14 days ≥ 1 year	Within 7 days of most recent disturbance
Area(s) that will remain idle over the winter	Prior to onset of winter weather

Where vegetative stabilization techniques may cause structural instability, or are otherwise unobtainable, alternative stabilization techniques must be employed.

Table 12: Erosion Controls

Potential BMPs	**Construction Phase or Activity**							**Application Notes**	
	Roads	Laydown	Crane Paths / Turbine Erection	Excavations / Foundations	O&M Facility	Substation	Underground Collection		
Construction Phasing	**T**	**T**	**T**	**T**	**T**	**T**	**T**	Minimize soil disturbance, as feasible, per phase. Stake/flag areas that are to be left undisturbed.	
Buffer Strips	**T**	**T**	**T**	**T**	**T**	**T**	**T**	See Section 9.2 for more information.	
Surface Roughing	**T**	**T**	**T**	**T**	**T**	**T**	**T**	Use tracked equipment perpendicular to contour on steep slopes for temp/short term erosion control.	
Erosion Control Blanket	**T**	**T**	**T**	**T**	**T**	**T**	**T**	Blanket (biodegradable netting). Install per manufacturer's recommendations.	
Temporary Seed Mix	**T**	**T**	**T**	**T**	**T**	**T**	**T**	Application Rate = See mix.	Prepare soil prior to seeding. Broadcast and rake seed into soil prior to mulch or blanket.
Permanent Seed Mix	**P**	**P**	**P**	**P**	**P**	**P**	**P**	Application Rate = See mix.	

T= Temporary BMPs which will be removed following construction completion and final stabilization.

P= Permanent BMPs which will provide vegetative, non-vegetative stabilization or will not be removed following completion of construction.

Potential Temporary Seed Mixes

Seeding Dates	Species	Lb./1,000 ft^2	Lb./Acre
Mar. 1 – Aug. 15	Oats Tall Fescue Annual Ryegrass	3 1 1	128 (4 Bushel) 40 40
	Perennial Ryegrass Tall Fescue Annual Ryegrass	1 1 1	40 40 40
	Annual Ryegrass Perennial Ryegrass Creeping Red Fescue Kentucky Bluegrass	1.25 3.25 0.4 0.4	55 142 17 17
	Oats Tall Fescue Annual Ryegrass	3 1 1	128 (3 Bushel) 40 40
Aug. 16 – Nov.	Rye Tall Fescue Annual Ryegrass	3 1 1	112 (2 Bushel) 40 40
	Wheat Tall Fescue Annual Ryegrass	3 1 1	120 (2 Bushel) 40 40
	Perennial Rye Tall Fescue Annual Ryegrass	1 1 1	40 40 40
	Annual Ryegrass Perennial Ryegrass Creeping Red Fescue Kentucky Bluegrass	1.25 3.25 0.4 0.4	40 40 40 40
Nov. 1 – Feb. 29	Use mulch only or dormant seeding.		

Potential Permanent Seed Mixes

Seed Mix	Seeding Rate		Notes:
	Lbs./Acre	Lbs./1,000 ft^2	
General Use			
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20 - 40 10 - 20 20 - 40	½ - 1 ¼ - ½ ½ - 1	For close mowing & for waterways with <2.0 ft/sec velocity
Tall Fescue	40 – 50	1 – 1 ¼	
Turf type (dwarf) Fescue	90	2 ¼	
Steep Banks or Cut Slopes			
Tall Fescue	40 - 50	1 – 1 ¼	
Crown Vetch Tall Fescue	10 - 20 20 - 30	¼ - ½ ½ - ¾	Do not seed later than August
Flat Pea Tall Fescue	20 - 25 20 - 30	½ - ¾ ½ - ¾	Do not seed later than August
Road Ditches and Swales			
Tall Fescue	40 - 50	1 – 1 ¼	
Turf type (dwarf) Fescue Kentucky Bluegrass	90 5	2 ¼ 0.1	
Lawns			
Kentucky Bluegrass Perennial Ryegrass	100 - 120	2 2	
Kentucky Bluegrass Creeping Red Fescue	100 - 120	2 1 – 1 ½	For shaded areas

9.4 Records for Grading and Stabilization Activity Dates

The contractor and/or site inspectors should update the following three tables in this section as information becomes known.

Table 13: Date of Major Grading Activities

Grading Activity	Location of Activity	Dates Scheduled	
		Start Date:	End Date:
		Start Date:	End Date:
		Start Date:	End Date:
		Start Date:	End Date:
		Start Date:	End Date:

Table 14: Dates When Construction Activity Ceases

Location on Site	Dates Activity Ceased	Temporary or Permanently?	
		☐ Temporary	☐ Permanent
		☐ Temporary	☐ Permanent
		☐ Temporary	☐ Permanent
		☐ Temporary	☐ Permanent
		☐ Temporary	☐ Permanent

Table 15: Stabilization Practices, Locations and Dates

Stabilization BMPs	Location on Site	Implementation Date	Temporary or Permanent?
			☐ Temporary ☐ Permanent
			☐ Temporary ☐ Permanent
			☐ Temporary ☐ Permanent
			☐ Temporary ☐ Permanent
			☐ Temporary ☐ Permanent

9.5 Sediment Control Practices

The following controls are anticipated to minimize sediment discharge, capture sediment in suspension and minimize sedimentation offsite.

Table 16: Sediment Controls

Potential BMPs	Construction Phase or Activity							Application Notes
	Roads	Laydown	Crane Paths / Turbine Erection	Excavations / Foundations	O&M Facility	Substation	Underground Collection	
Silt fence	T	T	T	T	T	T		Machine sliced install w/ wood posts at 6' spacing. Install perimeter sf prior to grading
Fiber rolls	T	T	T	T	T	T	T	Install on contour, minimum of 6" roll, wood or straw fiber. Secure with 2" posts every 2' on center.
Top Soil Berm	T	T	T		T	T		See detail in plans.

T= Temporary BMPs which will be removed following construction completion and final stabilization.

P= Permanent BMPs which will provide vegetative, non-vegetative stabilization or will not be removed following completion of construction.

9.6 Run-on and Runoff Controls

The following controls are anticipated to minimize scour, transport water across or down steep slopes or critical areas, divert clean water, and / or provide temporary conveyances to maintain drainage.

Table 17: Run-on and Runoff Controls

Potential BMPs	Construction Phase or Activity							Application Notes
	Roads	Laydown	Crane Paths / Turbine Erection	Excavations / Foundations	O&M Facility	Substation	Underground Collection	
Riprap Apron / Energy Dissipation	T	T			T	T		See detail in plans. Install within 24 hours of connection to surface waters.
Temporary Rock Check Dam		T	T		T	T		See detail in plans.
Culvert Protection	T	T			T	T		See details in plan set. Install within 24 hours of installation of culverts.

T= Temporary BMPs which will be removed following construction completion and final stabilization.

P= Permanent BMPs which will provide vegetative, non-vegetative stabilization or will not be removed following completion of construction.

9.7 Tracking Controls

The following controls are anticipated to minimize or prevent sediment track-out from construction site exits to paved surfaces or to retrieve material tracked onto paved surfaces to minimize or prevent the material from being washed into surface waters or storm water inlets.

Table 18: Tracking Controls

Potential BMPs	Construction Phase or Activity							Application Notes
	Roads	Laydown	Crane Paths / Turbine Erection	Excavations / Foundations	O&M Facility	Substation	Underground Collection	
Rock Construction Entrance	T	T			T	T		See detail in plans. Install at all site exits prior to grading. Maintain for duration of project.
Gravel or Aggregate Road Base	T	T			T	T		See detail and notes in plans.
Street Scraping	T	T	T	T	T	T	T	Scrape large clumps/amounts of material with soft tracked or wheeled equipment prior to sweeping.
Street Sweeping	T	T	T	T	T	T	T	Sweep paved surfaces within 24 hours of discovery.

T= Temporary BMPs which will be removed following construction completion and final stabilization.

P= Permanent BMPs which will provide vegetative, non-vegetative stabilization or will not be removed following completion of construction.

9.8 Dewatering and Basin Draining Practices

Dewatering of turbid water (water that is visibly cloudy or brown in color) should be discharged via pump and hose or overland flow (via temporary ditch or grade cuts) to a temporary sediment basin for pretreatment. The use of riprap apron (energy dissipation) should be used for the discharge location. If riprap is not used, an alternative form of energy dissipation should be used to prevent scour and re-suspension of soil at the discharge point of the hose. If discharge to a temporary sediment basin is not feasible, the use of dewatering dumpsters, dewatering bags or other prefabricated product should be used. The use of rock checks, erosion control blanket and sumps or traps shall be considered for overland flow dewatering. After the use of BMPs, the water could be discharged through a vegetated buffer and energy dissipation. The discharge of water from the site should be visibly clear in appearance.

The discharge of accumulated water should not:

- Contain oil, grease, a sheen, odor, or concrete washout (use an oil-water separator or suitable filtration device is material is found);
- Adversely impact adjacent properties with water or sediment;
- Adversely impact waters of the state;
- Cause erosion of slopes and channels;
- Cause nuisance conditions ;
- Contribute to inundation of wetlands which negatively impact the wetlands.

10.0 POLLUTION PREVENTION MANAGEMENT

Potential pollutant sources including construction and waste materials that are used or stored at the site are described below. Upon proper implementation of the BMP's potential pollutant sources are not reasonably expected to affect the storm water discharges from the site. Construction materials and chemicals used or stored on-site should be kept in small quantities whenever possible. Materials shall only be stored in non-sensitive areas and not in close proximity to watercourses, wetlands or floodplains.

A spill prevention, control and countermeasure plan (SPCC) will be needed if materials or tanks present on site contain more than, or have the ability to contain more than, 1,320 gallons of petroleum products. When not in use, petroleum products should be stored in sealed containers and out of contact with the elements to prevent direct contact with stormwater. Inadvertent spills should be cleaned up immediately upon discovery and the materials should be disposed of in accordance with local, state and federal requirements. Contractors should have spill kits available on site for rapid deployment to contain and cleanup spills.

Table 19: Potential Pollutants List

Potential Pollutant	Location	Control Measure*
Antifreeze	Vehicle/Equipment	S.C./Drip pan
Diesel Fuel	Vehicle/Equipment/Fuel Tank	S.C./Drip pan
Gasoline	Vehicle/Equipment/Fuel Tank	S.C./Drip pan
Hydraulic Oils/Fluids	Vehicle/Equipment	S.C./Drip pan
Grease	Vehicle/Equipment	S.C./Drip pan
Sanitary Waste Restrooms	Portable	Service Provider To Secure Units From Tipping
Trash And Construction Debris	Various	Dumpster
Paints	Contractor	S.C. and secure/covered storage.
Glue/Adhesives/Curing Compounds	Contractor	S.C. and secure/covered storage.
Soil Amendments	Various	S.C. and secure/covered storage.
Landscaping Materials Fertilizer	Various	S.C. and secure/covered storage.
Concrete Mortar	Mobile Mixer	S.C./Washout Area and secure/covered storage
Concrete	Trucks/Washout	Washout Area/S.C.
Bentonite	Directional Boring/Utility Contractor	S.C./Sump area
Sediment	Exposed soils: Disturbed Areas	Sediment, Erosion, Tracking, and Runoff Controls

*S.C. refers to secure secondary containment unit or area.

10.1 Storage, Handling and Disposal of Construction Materials

Storage and Handling

- All products shall be kept in their original container, with original labels still attached, unless the container is not re-sealable.
- Hazardous materials shall be returned to the hazardous material storage area at the end of each day.
- An effort should be made to store only enough products to do the required job.
- The contractor shall provide tanks or barrels to collect liquid byproducts that pose a pollution hazard.
- The pollutants shall be removed from the site on a weekly basis and disposed of in accordance with federal, state and local regulations.
- All spills shall be cleaned up immediately after discovery, in accordance with the manufacture's recommended methods.
- Hazardous materials shall be properly stored to prevent vandalism or unauthorized access.
- Containment units shall be installed in accordance with federal, state, and local regulations.
- No hazardous material shall be stored within 200 feet of an identified special or critical area.
- If building materials, chemicals, or general refuse is being used, stored, disposed of, or otherwise managed inappropriately, the contractor shall correct such defects within 24 hours of detection or notification.

Disposal (Dumpsters)

- Locate dumpsters away from watercourses, streams, creeks and other surface waters or conveyances.
- Site inspector shall regularly observe for and report excess litter and solid waste and request pickup and retrieval of wastes.
- Wastes, litter, debris shall be deposited into dumpsters in a central location and / or in various satellite locations where work is active.
- Dumpsters should be supplied by and regularly maintained, emptied and removed by a waste management company.

10.2 Fueling and Maintenance of Equipment and Vehicles; Spill Response

- Routine maintenance of vehicles shall occur in staging areas only if necessary.
- Maintenance of equipment and vehicles should be avoided and done off site where feasible.
- If fueling is done by mobile tank and dispenser, the transfer of fuel should be done under close supervision and there should be drip pans and spill containment and cleanup materials readily available.
- If fueling is done via temporary tank: the tank should be stored within a bermed area and away from surface waters.
- Spill kits with absorbent materials shall be available on site for use in cleaning up small spills.
- In the event of a spill or discharge of hazardous material of reportable quantity, contact the Ohio Environmental Protection Agency at 1-800-282-9378 within 24 hours of the spill If the hazardous condition involves the release of an EPA regulated material or an oil as defined by the EPA, the release may also need to be reported to the National Response Center. Federal Reporting is required within 15 minutes of event occurrence or discovery. Contact the National Response

Center at (800) 424-8802. The NRC is staffed 24 hours a day. For more information reference the following websites: http://epa.ohio.gov/derr/ersis/er/er.aspx and https://www.epa.gov/emergency-response/when-are-you-required-report-oil-spill-and-hazardous-substance-release.

- If the table below does not cover your situation, reference the 40 CFR 117 and 40 CFR 302 regulations.

Table 20: Reportable Spill Quantities

Material	Where Discharged	Reportable Spill Quantities
Petroleum Material	Land	25 Gallons
Petroleum Material	Water	Enough to create a shine
Other Material that will cause pollution if discharged to waters	Water	Any amount

10.3 Vehicle and Equipment Washing

If necessary, the contractor shall develop a designated wash area with basin containment to prevent the untreated water from discharging from the site to surface waters. BMPs include: temporary basins, inspecting the vehicles and equipment for leaks prior to washing and prohibiting washing activity until discovered leaks are repaired and maintenance is completed of the equipment or vehicle. The area shall be noted on the site plan. The water shall be contained and pumped from the site into a truck for proper disposal at a waste water facility. No engine degreasing shall be done on site.

10.4 Concrete Washout and Other Washout

The direct discharge of concrete truck washout water to surface waters in the state, including storm sewers and other stormwater treatment facilities shall not occur. The following categories provide potential BMPs for the operator(s) to implement to avoid washout waters from impacting receiving waters.

Mobile Concrete or Mortar Mixers

The following BMPs should be considered with the use of mortar or concrete mixers:

- Store bags of concrete and mortar in dry storage.
- Position mixers 100 feet from the nearest watercourse or conveyance.
- If mixers must be positioned closer than 100 feet from a conveyance and temporary berm shall be installed to prevent runoff from the mixer from flowing into the conveyance.
- Use tarp or plastic sheeting as a liner to prevent concrete or mortar from contacting the soil.
- Use buckets to contain washout / rinse water when cleaning the mobile mixer.
- Dump buckets of washout water in a designated concrete washout area.

Concrete Washout

The following BMPs and considerations should be implemented for concrete washout areas:

- Washout water from the tools, equipment and the chutes of concrete trucks, mobile mixers or other containers with concrete material must be contained and not allowed to be discharged into waters of the state or drain onto adjacent properties.
- The washout area should be a defined area with signage notifying the contactors of the location and use.
- The washout area should be a sufficient size to contain the expected washout material. 10’x10’x3’ area should suffice for most activities.

- Multiple washout areas may be needed. Locations of the washouts should be noted on the construction plans by the contractor.
- When noting the location of the concrete washout areas, include the date of install, date of last maintenance and date of removal.
- The use of thick poly sheeting should be used to prevent contamination of the soil and prevent infiltration of the washout material.

Once the material is hardened it can be disposed of in a dumpster. If the material is water or not hardened, the material should be vacuumed and hauled off site to be properly disposed of or recycled at a facility. Some sites will not need the separate washout area if a truck chute washout is available from the concrete supplier.

Truck Chute Washout

Where available, all trucks with self-contained washout and water recycle systems must be used for every truck chute, tool and equipment rinse and washout. The truck should be positioned in a flat area away from inlets and surface waters where feasible. The washout of trucks during rain events should be minimized.

10.5 Portable Sanitary Facilities

All temporary portable sanitary facilities should be managed and maintained with at least the following items considered:

- Locate facilities away from watercourses, streams, creeks and other surface waters or conveyances.
- Facilities should be placed upgrade from perimeter sediment controls and not on paved or other impervious surfaces.
- Secure facilities to the soil with stakes or tether to other non-movable structure to prevent tipping from wind or other factors. If staking or tethering is not feasible; position facilities in a secure location to prevent tipping or from being knocked over by equipment, people or wind.
- Schedule routine and regular cleanout and maintenance of facility from a reliable company.

10.6 Potential Non-stormwater Pollutant Sources and BMPs

Non-storm water discharges shall be eliminated or reduced to the extent feasible, with the exception of those necessary for the completion of certain construction activities. A list of allowable non-stormwater discharges include the items below.

Table 21: Non-stormwater Discharges and Potential BMPs

Type of Allowable Non-Stormwater Discharge	Likely to be Present at Site?
Fire hydrant flushings	☐ YES ☒ NO
Potable water including uncontaminated water line flushings	☐ YES ☒ NO
Discharges from Emergency fire-fighting activities	☐ YES ☒ NO
Street or building rinsing (i.e. turbines) (no cleansers, detergents, solvents or additives allowed)	☒ YES ☐ NO
Waters used to wash vehicles and/or equipment	☒ YES ☐ NO

Uncontaminated, non-turbid discharges of ground water or spring water	☐ YES ☒ NO
Discharges from emergency fire-fighting activities	☐ YES ☒ NO
Water used to control dust	☒ YES ☐ NO
Uncontaminated air conditioning or compressor condensate	☐ YES ☒ NO
Landscape irrigation and water to establish vegetation	☐ YES ☒ NO
Foundation or footing drains (no contamination with solvents or contaminated groundwater)	☒ YES ☐ NO
Construction dewatering water (Uncontaminated)	☒ YES ☐ NO

These authorized non-storm water discharges should be conducted in accordance with the requirements of the Construction General Permit (CGP), and every effort should be made to minimize non-storm water runoff from these site activities.

The operators are responsible to implement the following BMPs and management for non-stormwater discharges.

Waters Used to Wash Vehicles, Buildings, Structures (i.e. Turbines) and Pavement (without detergents): Should washing be necessary to remove soil, mud, dirt and / or dust will likely be needed, the washing of components consists of using high powered sprayers with water could be used to clean off accumulated soil and earth materials. The washing should take place within a defined area. Existing BMPs and infiltration will likely control associated water and runoff due to the washing activity. If existing BMPs are overloaded or not functional maintenance or additional perimeter controls (such as silt fence) may be needed at the discretion of the inspector.

Uncontaminated Excavation Dewatering: Clean water should be discharged to a vegetated area, ditches or other conveyance via hose. Energy dissipation should be applied to the discharge location to minimize scour. Alternatively, uncontaminated water could be discharged to receiving waters as allowed by local permits and regulations or as long as positive drainage is provided, the water could be discharged into the surrounding areas and allowed to infiltrate or drain along existing drainage patterns provided that the water does not cause flooding, prolonged or damaging inundation, or vegetation damage.

Water Used to Control Dust

This is not anticipated to be a contamination / pollution issue. During the dry times when dust control is needed the minimal amount of water is anticipated to be absorbed into the soil. If any runoff does occur, the standard BMPs (such as silt fence, mulch and erosion control blanket, inlet controls and stormwater traps) should adequately control the runoff from reaching off site surface waters.

Foundation or Footing Drains (no contamination with solvents or contaminated groundwater)

See SWP3 section 9.8 for BMPs and dewatering methods.

Construction dewatering water (Uncontaminated)

See SWP3 section 9.8 for BMPs and dewatering methods.

11.0 INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS

Construction activity and all support activities must be inspected (using the inspection form found in Attachment G or an alternative form) within the parameters of the schedules below. The inspector shall be a qualified person knowledgeable with the requirements of this SWP3 and the OEPA NPDES General Permit OHC000004 as well as familiar with the construction site. This person is delegated by the owner and listed in Section 5.7 and could be the qualified person or their delegate.

Scope of inspections* should include:

- Date and time of inspections
- Inspector name
- Observations of disturbed areas and findings of the observations
- Locations of corrective actions needed and where BMPs need maintenance
- Locations where BMPs have filed or proved inadequate for their location
- Locations where additional BMPs are needed
- Locations where vehicles are exiting the site for evidence of offsite tracking
- Waste and storage areas
- Corrective actions taken (date / time / who)
- Date and amount of rainfall**
- Observed discharges
- Locations of discharges of sediment or other pollutants
- Describe discharge with color, odor, floating, settled, solids, foam, oil sheen)
- Photograph discharges
- Amendments from inspections need to be completed within 7 days (see SWP3 section 3.1)
- Signature of the inspector

*All inspections should be documented within 24 hours after completing the field inspection and available in paper or electronic form on site. If the inspection does not have incidents of non-compliance the report should contain a certification that the site is in compliance with the SWP3 and CGP.

**Rainfall amounts should be taken from an onsite rain gauge. If a rain gauge is not feasible, the rainfall data should be observed from the following website:

http://forecast.weather.gov/MapClick.php?lat=41.13779000000005&lon=-84.58073999999993#.Wa7JHrKGPmE.

11.1 Inspection Schedule

Table 22: Inspection Schedule

If the site is:	Then an inspection is needed:	Notes and Information
Active	Once every 7calendar days and within 24 hours of a rainfall equal to or exceeding 0.5".	A rain gauge should be used or rain data should be taken from the link listed above.
Temporarily stabilized but active in other areas	Once per month for the temporary stabilized areas with no construction activity occurring and once every 7 days for the active areas.	Stabilized areas include areas which are mulched / seeded, erosion control blanket and seed or hydromulch and seed is applied.
Final stabilized areas with other areas active or temporarily stabilized	Inspections can cease for the final stabilized areas with no construction activity occurring and once every 7 days for the active areas and once per month for temporary stabilized areas.	Final stabilization includes grass establishment or non-vegetative erosion control which is perennial and permanent. The area of "final stabilization" must be noted in section 9.4 above.
Frozen Site Conditions	During frozen conditions where no construction activity is occurring the inspections can cease.	The start and end date of frozen conditions must be noted in section 9.4 above or in inspection reports to define the period where inspections were not conducted.

11.2 Maintenance Schedule

Table 23: Maintenance Schedule

BMP	Observed Condition for Maintenance	Maintenance Interval
All non-functional BMPs	Sediment overtopping, under water, scoured ends, undermined, destroyed, non- functional as designed, intentionally removed, and ran over by vehicles.	Maintenance or replacement should be done within 3 calendar days after discovery or notification, or as soon as field conditions allow prior to the next anticipated storm event.
Perimeter Sediment Control (silt fence, fiber logs, berms, etc.)	½ full of sediment, flattened to ½ height,	Removal/cleanout of accumulated sediment and deltas to be completed within 3 days or prior to next rainfall; whichever is soonest.
Inlet protection BMPs, conveyances, surface waters	Sediment deposition, sediment deltas and accumulation of sediment material.	Removal/cleanout of accumulated sediment and deltas to be completed within 3 days or prior to next rainfall; whichever is soonest. Stabilize as needed if soils are exposed during removal/cleanout.
Temp sedimentation basins and traps; permanent sediment basins	Sediment deposition and accumulation to ½ of the storage volume.	Cleanout, remove accumulated sediment material within 10 days of observation, or as field conditions allow access prior to the next anticipated storm event.
Site exit locations, rock exit pads, other anti-tracking practices	Accumulated sediment in rock or other anti-tracking BMP, tracking of sediment from the site onto paved surfaces	Top dress rock, maintain rock exit or other anti-tracking controls: to be completed within 3 days or prior to next rainfall; whichever is soonest Scrap paved surfaces, sweep paved surfaces by end of the same working day after discovery or notification and prior to the next anticipated rain event as necessary.
Paved surfaces; adjacent streets	Tracked sediment and soil material from the site hauling or access	Sweep within by end of the same working day after discovery or notification, or as soon as field conditions allow; additional and/or more frequent sweeping may be needed to maintain public safety or prevent washing from forecasted rains.

12.0 FINAL STABLIZATION

Final stabilization is achieved for the project when permanent erosion control BMPs are applied and functioning on the site. The permanent erosion control BMPs may be a combination of vegetative and non-vegetative cover types. Additional requirements to achieving final stabilization include:

- All soil disturbing activity is completed
- Permanent stormwater treatment system (if required) is constructed and accumulated sediment has been removed from construction activity.
- All temporary, synthetic BMPs have been removed from the site.
- In agricultural areas (as applicable), the construction activity area has been restored to the preconstruction agricultural use.
- The vegetative cover for the site is at a density, with a uniform (without large bare areas) perennial cover of 70% of the preconstruction conditions.

13.0 NOTICE OF TERMINATION

Authorization to discharge under the NPDES permit is terminated at midnight on the day the NOT is postmarked for delivery to the OEPA or upon confirmation of receipt from the OEPA on the day the NOT is submitted. The project permit may be terminated in one of the following scenarios:

1. All construction activity is complete for portions of the site that are the responsibility of the operator / permittee, temporary synthetic BMPs are removed, accumulated sediment from construction is removed, and final stabilization is completed with vegetative and / or non-vegetative cover. The Notice of Termination form from the OEPA should be completed within 45 days of meeting the conditions above. OR;
2. Another operator has assumed control over all areas of the site that have not been finally stabilized. OR;
3. Where the project obtained permit coverage but never started construction activity due to cancellation or other reasons. Documentation should be sent to the OEPA with the NOT form and is subject to OEPA approval.

14.0 RECORD RETENTION

14.1 During construction

This report, amendments and attachments, inspections, and maintenance records should be kept on site during normal business hours. The records should be kept by the operator listed on the permit application. The records should be in a mailbox, in a vehicle or in an on-site office trailer.

14.2 Post Construction / Notice of Termination (NOT)

The site operator must retain all the following records for a period of at least three years after the submittal of the NOT.

- The final SWP3 with all field notes / amendments;
- All reports and actions required by the NPDES permit, including a copy of the construction site notice;
- All data used to complete the NOI;
- Inspection and maintenance records;
- All forms and clearance letters or correspondence from COE, ODNR or other agencies.
- A copy of the NOT submitted to the OEPA.

Attachment A

OHC000004 Construction General Permit

Issuance Date: April 11, 2013
Effective Date: April 21, 2013
Expiration Date: April 20, 2018

OHIO ENVIRONMENTAL PROTECTION AGENCY

GENERAL PERMIT AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the federal Water Pollution Control Act, as amended (33 U.S.C. Section 1251 et. seq. hereafter referred to as "the Act") and the Ohio Water Pollution Control Act [Ohio Revised Code ("ORC") Chapter 6111], dischargers of storm water from sites where construction activity is being conducted, as defined in Part I.B of this permit, are authorized by the Ohio Environmental Protection Agency, hereafter referred to as "Ohio EPA," to discharge from the outfalls at the sites and to the receiving surface waters of the state identified in their Notice of Intent ("NOI") application form on file with Ohio EPA in accordance with the conditions specified in Parts I through VII of this permit.

It has been determined that a lowering of water quality of various waters of the state associated with granting coverage under this permit is necessary to accommodate important social and economic development in the state of Ohio. In accordance with OAC 3745-1-05, this decision was reached only after examining a series of technical alternatives, reviewing social and economic issues related to the degradation, and considering all public and intergovernmental comments received concerning the proposal.

This permit is conditioned upon payment of applicable fees, submittal of a complete NOI application form and written approval of coverage from the director of Ohio EPA in accordance with Ohio Administrative Code ("OAC") Rule 3745-38-02.

Scott J. Nally
Director

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By: Jonda Lassiter Date: 4-11-13

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PART I. COVERAGE UNDER THIS PERMIT

A. Permit Area.

This permit covers the entire State of Ohio.

B. Eligibility.

1. Construction activities covered. Except for storm water discharges identified under Part I.B.2, this permit may cover all new and existing discharges composed entirely of storm water discharges associated with construction activity that enter surface waters of the state or a storm drain leading to surface waters of the state.

   For the purposes of this permit, construction activities include any clearing, grading, excavating, grubbing and/or filling activities that disturb the threshold acreage described in the next paragraph. Discharges from trench dewatering are also covered by this permit as long as the dewatering activity is carried out in accordance with the practices outlined in Part III.G.2.g.iv of this permit.

   Construction activities disturbing one or more acres of total land, or will disturb less than one acre of land but are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land will be eligible for coverage under this permit. The threshold acreage includes the entire area disturbed in the larger common plan of development or sale.

   This permit also authorizes storm water discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:

   a. The support activity is directly related to a construction site that is required to have NPDES permit coverage for discharges of storm water associated with construction activity;

   b. The support activity is not a commercial operation serving multiple unrelated construction projects and does not operate beyond the completion of the construction activity at the site it supports;

   c. Appropriate controls and measures are identified in a storm water pollution prevention plan (SWP3) covering the discharges from the support activity; and

   d. The support activity is on or contiguous with the property defined in the NOI (offsite borrow pits and soil disposal areas, which serve only one project, do not have to be contiguous with the construction site).

2. Limitations on coverage. The following storm water discharges associated with construction activity are not covered by this permit:

   a. Storm water discharges that originate from the site after construction activities have been completed, including any temporary support activity, and the site has achieved

final stabilization. Industrial post-construction storm water discharges may need to be covered by an NPDES permit;

b. Storm water discharges associated with construction activity that the director has shown to be or may reasonably expect to be contributing to a violation of a water quality standard; and

c. Storm water discharges authorized by an individual NPDES permit or another NPDES general permit;

3. Waivers. After March 10, 2003, sites whose larger common plan of development or sale have at least one, but less than five acres of land disturbance, which would otherwise require permit coverage for storm water discharges associated with construction activities, may request that the director waive their permit requirement. Entities wishing to request such a waiver must certify in writing that the construction activity meets one of the two waiver conditions:

a. Rainfall Erosivity Waiver. For a construction site to qualify for the rainfall erosivity waiver, the cumulative rainfall erosivity over the project duration must be five or less and the site must be stabilized with a least a 70 percent vegetative cover or other permanent, non-erosive cover. The rainfall erosivity must be calculated according to the method in U.S. EPA Fact Sheet 3.1 Construction Rainfall Erosivity Waiver dated January 2001 and be found at: http://epa.ohio.gov/portals/35/permits/USEPAfact3-1_s.pdf. If it is determined that a construction activity will take place during a time period where the rainfall erosivity factor is less than five, a written waiver certification must be submitted to Ohio EPA at least 21 days before construction activity is scheduled to begin. If the construction activity will extend beyond the dates specified in the waiver certification, the operator must either: (a) recalculate the waiver using the original start date with the new ending date (if the R factor is still less than five, a new waiver certification must be submitted) or (b) submit an NOI application form and fee for coverage under this general permit at least seven days prior to the end of the waiver period; or

b. TMDL (Total Maximum Daily Load) Waiver. Storm water controls are not needed based on a TMDL approved or established by U.S. EPA that addresses the pollutant(s) of concern or, for non-impaired waters that do not require TMDLs, and equivalent analysis that determines allocations for small construction sites for the pollutant(s) of concern or that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. The pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the director of Ohio EPA that the construction activity will take place, and storm water discharges will occur, within the drainage area addressed by the TMDL or equivalent analysis. A written waiver certification must be submitted to Ohio EPA at least 21 days before the construction activity is scheduled to begin.

4. Prohibition on non-storm water discharges. All discharges covered by this permit must be composed entirely of storm water with the exception of the following: discharges from firefighting activities; fire hydrant flushings; potable water sources including waterline flushings; irrigation drainage; lawn watering; routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water from trench or well point dewatering and foundation or footing drains where flows are not contaminated with process materials such as solvents. Dewatering activities must be done in compliance with Part II.C and Part III.G.2.g.iv of this permit. Discharges of material other than storm water or the authorized non-storm water discharges listed above must comply with an individual NPDES permit or an alternative NPDES general permit issued for the discharge.

   Except for flows from firefighting activities, sources of non-storm water listed above that are combined with storm water discharges associated with construction activity must be identified in the SWP3. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

5. Spills and unintended releases (Releases in excess of Reportable Quantities). This permit does not relieve the permittee of the reporting requirements of Title 40 of the Code of Federal Regulations ("CFR") Part 117 and 40 CFR Part 302. In the event of a spill or other unintended release, the discharge of hazardous substances in the storm water discharge(s) from a construction site must be minimized in accordance with the applicable storm water pollution prevention plan for the construction activity and in no case, during any 24-hour period, may the discharge(s) contain a hazardous substance equal to or in excess of reportable quantities.

   40 CFR Part 117 sets forth a determination of the reportable quantity for each substance designated as hazardous in 40 CFR Part 116. The regulation applies to quantities of designated substances equal to or greater than the reportable quantities, when discharged to surface waters of the state. 40 CFR Part 302 designates under section 102(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, those substances in the statutes referred to in section 101(14), identifies reportable quantities for these substances and sets forth the notification requirements for releases of these substances. This regulation also sets forth reportable quantities for hazardous substances designated under section 311(b)(2)(A) of the Clean Water Act (CWA).

C. Requiring an individual NPDES permit or an alternative NPDES general permit.

1. The director may require an alternative permit. The director may require any operator eligible for this permit to apply for and obtain either an individual NPDES permit or coverage under an alternative NPDES general permit in accordance with OAC Rule 3745-38-04. Any interested person may petition the director to take action under this paragraph.

   The director will send written notification that an alternative NPDES permit is required. This notice shall include a brief statement of the reasons for this decision, an application

form and a statement setting a deadline for the operator to file the application. If an operator fails to submit an application in a timely manner as required by the director under this paragraph, then coverage, if in effect, under this permit is automatically terminated at the end of the day specified for application submittal.

2. Operators may request an individual NPDES permit. Any owner or operator eligible for this permit may request to be excluded from the coverage of this permit by applying for an individual permit. The owner or operator shall submit an individual application with reasons supporting the request to the director in accordance with the requirements of 40 CFR 122.26. If the reasons adequately support the request, the director shall grant it by issuing an individual NPDES permit.

3. When an individual NPDES permit is issued to an owner or operator otherwise subject to this permit or the owner or operator is approved for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the alternative general permit, whichever the case may be.

D. Permit requirements when portions of a site are sold

If an operator obtains a permit for a development, and then the operator (permittee) sells off lots or parcels within that development, permit coverage must be continued on those lots until a Notice of Termination (NOT) in accordance with Part IV.B is submitted. For developments which require the use of centralized sediment and erosion controls (i.e., controls that address storm water runoff from one or more lots) for which the current permittee intends to terminate responsibilities under this permit for a lot after sale of the lot to a new owner and such termination will either prevent or impair the implementation of the controls and therefore jeopardize compliance with the terms and conditions of this permit, the permittee will be required to maintain responsibility for the implementation of those controls. For developments where this is not the case, it is the permittee's responsibility to temporarily stabilize all lots sold to individual lot owners unless an exception is approved in accordance with Part III.G.4. In cases where permit responsibilities for individual lot(s) will be terminated after sale of the lot, the permittee shall inform the individual lot owner of the obligations under this permit and ensure that the Individual Lot NOI application is submitted to Ohio EPA.

E. Authorization

1. Obtaining authorization to discharge. Operators that discharge storm water associated with construction activity must submit an NOI application form in accordance with the requirements of Part I.F of this permit to obtain authorization to discharge under this general permit. As required under OAC Rule 3745-38-06(E), the director, in response to the NOI submission, will notify the applicant in writing that he/she has or has not been granted general permit coverage to discharge storm water associated with construction activity under the terms and conditions of this permit or that the applicant must apply for an individual NPDES permit or coverage under an alternate general NPDES permit as described in Part I.C.1.

2. No release from other requirements. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations. Other permit requirements commonly associated with construction activities

include, but are not limited to, section 401 water quality certifications, isolated wetland permits, permits to install sanitary sewers or other devices that discharge or convey polluted water, permits to install drinking water lines, single lot sanitary system permits and disturbance of land which was used to operate a solid or hazardous waste facility (i.e., coverage under this NPDES general permit does not satisfy the requirements of OAC Rule 3745-27-13 or ORC Section 3734.02(H)). The issuance of this permit is subject to resolution of an antidegradation review. This permit does not relieve the permittee of other responsibilities associated with construction activities such as contacting the Ohio Department of Natural Resources, Division of Water, to ensure proper well installation and abandonment of wells.

F. Notice of Intent Requirements

1. Deadlines for notification.

   a. Initial coverage: Operators who intend to obtain initial coverage for a storm water discharge associated with construction activity under this general permit must submit a complete and accurate NOI application form and appropriate fee at least 21 days prior to the commencement of construction activity. If more than one operator, as defined in Part VII of this general permit, will be engaged at a site, each operator shall seek coverage under this general permit. Coverage under this permit is not effective until an approval letter granting coverage from the director of Ohio EPA is received by the applicant. Where one operator has already submitted an NOI prior to other operator(s) being identified, the additional operator shall request modification of coverage to become a co-permittee. In such instances, the co-permittees shall be covered under the same facility permit number. No additional permit fee is required.

   b. Individual lot transfer of coverage: Operators must each submit an individual lot notice of intent (Individual Lot NOI) application form (no fee required) to Ohio EPA at least seven days prior to the date that they intend to accept responsibility for permit requirements for their portion of the original permitted development from the previous permittee. The original permittee may submit an Individual Lot NOT at the time the Individual Lot NOI is submitted. Transfer of permit coverage is not granted until an approval letter from the director of Ohio EPA is received by the applicant.

2. Failure to notify. Operators who fail to notify the director of their intent to be covered and who discharge pollutants to surface waters of the state without an NPDES permit are in violation of ORC Chapter 6111. In such instances, Ohio EPA may bring an enforcement action for any discharges of storm water associated with construction activity.

3. Where to submit an NOI. Operators seeking coverage under this permit must submit a signed NOI form, provided by Ohio EPA, to the address found in the associated instructions.

4. Additional notification. NOIs and SWP3s are considered public documents and shall be made available to the public in accordance with Part III.C.2. The permittee shall make NOIs and SWP3s available upon request of the director of Ohio EPA, local agencies approving sediment and erosion control plans, grading plans or storm water management plans, local governmental officials, or operators of municipal separate storm sewer systems (MS4s) receiving drainage from the permitted site. Each operator

that discharges to an NPDES permitted MS4 shall provide a copy of its Ohio EPA NOI submission to the MS4 in accordance with the MS4's requirements, if applicable.

5. Re-notification. Existing permittees having coverage under the previous generations of this general permit (OHC000003, OHC000002 and OHR100000) shall have continuing coverage under OHC000004 with the submittal of a timely renewal application. Existing permittees will receive a renewal application and instructions for how to continue coverage under OHC000004. Within 90 days of receiving a renewal application from Ohio EPA, existing permittees shall submit the completed renewal application expressing their intent for continued coverage. In accordance with Ohio Administrative Code (OAC) 3745-38-02(E)(2)(a)(i), a renewal application fee will only apply to existing permittees having general permit coverage for 5 or more years as of the effective date of this general permit. Permit coverage will be terminated if Ohio EPA does not receive the renewal application within this 90 day period.

Part II. NON-NUMERIC EFFLUENT LIMITATIONS

You shall comply with the following non-numeric effluent limitations for discharges from your site and/or from construction support activities. Part III of this permit contains the specific design criteria to meet the objectives of the following non-numeric effluent limitations.

A. Erosion and Sediment Controls. You shall design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls shall be designed, installed and maintained to:

1. Control storm water volume and velocity within the site to minimize soil erosion;

2. Control storm water discharges, including both peak flowrates and total storm water volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;

3. Minimize the amount of soil exposed during construction activity;

4. Minimize the disturbance of steep slopes;

5. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls shall address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting storm water runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;

6. If feasible, provide and maintain a 50-foot undisturbed natural buffer around surface waters of the state, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration. If it is infeasible to provide and maintain an undisturbed 50-foot natural buffer, you shall comply with the stabilization requirements found in Part II.B for areas within 50 feet of a surface water; and

7. Minimize soil compaction and, unless infeasible, preserve topsoil.

B. **Soil Stabilization**. Stabilization of disturbed areas shall, at a minimum, be initiated in accordance with the time frames specified in the following tables.

Table 1: Permanent Stabilization

Area requiring permanent stabilization	Time frame to apply erosion controls
Any areas that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of reaching final grade
Any other areas at final grade	Within seven days of reaching final grade within that area

Table 2: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed areas within 50 feet of a surface water of the state and not at final grade	Within two days of the most recent disturbance if the area will remain idle for more than 14 days
For all construction activities, any disturbed areas that will be dormant for more than 14 days but less than one year, and not within 50 feet of a surface water of the state	Within seven days of the most recent disturbance within the area For residential subdivisions, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s).
Disturbed areas that will be idle over winter	Prior to the onset of winter weather

Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed. Permanent and temporary stabilization are defined in Part VII.

C. **Dewatering.** Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls.

D. **Pollution Prevention Measures.** Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:

1. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters shall be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;

2. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to storm water; and

3. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

E. Prohibited Discharges. The following discharges are prohibited:

1. Wastewater from washout of concrete, unless managed by an appropriate control;

2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and

4. Soaps or solvents used in vehicle and equipment washing.

F. Surface Outlets. When discharging from sediment basins utilize outlet structures that withdraw water from the surface, unless infeasible. (Note: Ohio EPA believes that the circumstances in which it is infeasible to design outlet structures in this manner are rare. Exceptions may include time periods with extended cold weather during winter months. If you have determined that it is infeasible to meet this requirement, you shall provide documentation in your SWP3 to support your determination.)

PART III. STORM WATER POLLUTION PREVENTION PLAN (SWP3)

A. Storm Water Pollution Prevention Plans.

A SWP3 shall be developed for each site covered by this permit. For a multi-phase construction project, a separate NOI shall be submitted when a separate SWP3 will be prepared for subsequent phases. SWP3s shall be prepared in accordance with sound engineering and/or conservation practices by a professional experienced in the design and implementation of standard erosion and sediment controls and storm water management practices addressing all phases of construction. The SWP3 shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction activities. The SWP3 shall be a comprehensive, stand-alone document, which is not complete unless it contains the information required by Part III.G of this permit. In addition, the SWP3 shall describe and ensure the implementation of best management practices (BMPs) that reduce the pollutants in storm water discharges during construction and pollutants associated with post-construction activities to ensure compliance with ORC Section 6111.04, OAC Chapter 3745-1 and the terms and conditions of this permit.

B. Timing

A SWP3 shall be completed prior to the timely submittal of an NOI and updated in accordance with Part III.D. Upon request and good cause shown, the director may waive the requirement to have a SWP3 completed at the time of NOI submission. If a waiver has been granted, the

SWP3 must be completed prior to the initiation of construction activities. The SWP3 must be implemented upon initiation of construction activities.

If you wish to continue coverage from the previous generations of this permit (OHR100000, OHC000002 and OHC000003) you shall review and update your SWP3 to ensure that this permit's requirements are addressed within 180 days after the effective date of this permit. If it is infeasible for you to comply with a specific requirement in this permit because (1) the provision was not part of the permit you were previously covered under (OHR100000, OHC000002 and OHC000003), and (2) because you are prevented from compliance due to the nature or location of earth disturbances that commenced prior to the effective date of this permit, you shall include documentation within your SWP3 of the reasons why it is infeasible for you to meet the specific requirement. (Note: Ohio EPA believes examples of OHC000004 permit conditions that would be infeasible for permittees renewing coverage to comply with include: (1) Post-Construction Storm Water Management requirements, if general permit coverage was obtained prior to April 21, 2003, and (2) Sediment settling pond design requirements, if the general permit coverage was obtained prior to the effective date of this permit and the sediment settling pond has been installed.)

C. SWP3 Signature and Review.

1. Plan Signature and Retention On-Site. The SWP3 shall include the certification in Part V.H, be signed in accordance with Part V.G., and be retained on site during working hours.

2. Plan Availability

   a. On-site: The plan shall be made available immediately upon request of the director or his authorized representative and MS4 operators or their authorized representative during working hours. A copy of the NOI and letter granting permit coverage under this general permit also shall be made available at the site.

   b. By written request: The permittee must provide the most recent copy of the SWP3 within 10 days upon written request by any of the following:

      i. The director or the director's authorized representative;

      ii. A local agency approving sediment and erosion plans, grading plans or storm water management plans; or

      iii. In the case of a storm water discharge associated with construction activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the operator of the system.

   c. To the public: All NOIs, general permit approval for coverage letters, and SWP3s are considered reports that shall be available to the public in accordance with the Ohio Public Records law. The permittee shall make documents available to the public upon request or provide a copy at public expense, at cost, in a timely manner. However, the permittee may claim to Ohio EPA any portion of an SWP3 as confidential in accordance with Ohio law.

3. Plan Revision. The director or authorized representative may notify the permittee at any time that the SWP3 does not meet one or more of the minimum requirements of this part. Within 10 days after such notification from the director or authorized representative (or as otherwise provided in the notification), the permittee shall make the required changes to the SWP3 and, if requested, shall submit to Ohio EPA the revised SWP3 or a written certification that the requested changes have been made.

D. Amendments

The permittee shall amend the SWP3 whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the potential for the discharge of pollutants to surface waters of the state or if the SWP3 proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with construction activity. Amendments to the SWP3 may be reviewed by Ohio EPA in the same manner as Part III.C.

E. Duty to inform contractors and subcontractors

The permittee shall inform all contractors and subcontractors not otherwise defined as "operators" in Part VII of this general permit who will be involved in the implementation of the SWP3 of the terms and conditions of this general permit. The permittee shall maintain a written document containing the signatures of all contractors and subcontractors involved in the implementation of the SWP3 as proof acknowledging that they reviewed and understand the conditions and responsibilities of the SWP3. The written document shall be created and signatures shall be obtained prior to commencement of work on the construction site.

F. Total Maximum Daily Load (TMDL) allocations

If a TMDL is approved for any waterbody into which the permittee's site discharges and requires specific BMPs for construction sites, the director may require the permittee to revise his/her SWP3.

G. SWP3 Requirements

Operations that discharge storm water from construction activities are subject to the following requirements and the SWP3 shall include the following items:

1. Site description. Each SWP3 shall provide:

    a. A description of the nature and type of the construction activity (e.g., low density residential, shopping mall, highway, etc.);

    b. Total area of the site and the area of the site that is expected to be disturbed (i.e., grubbing, clearing, excavation, filling or grading, including off-site borrow areas);

    c. An estimate of the impervious area and percent imperviousness created by the construction activity;

d. A calculation of the runoff coefficients for both the pre-construction and post-construction site conditions;

e. Existing data describing the soil and, if available, the quality of any discharge from the site;

f. A description of prior land uses at the site;

g. An implementation schedule which describes the sequence of major construction operations (i.e., designation of vegetative preservation areas, grubbing, excavating, grading, utilities and infrastructure installation) and the implementation of erosion, sediment and storm water management practices or facilities to be employed during each operation of the sequence;

h. The name and/or location of the immediate receiving stream or surface water(s) and the first subsequent named receiving water(s) and the areal extent and description of wetlands or other special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project. For discharges to an MS4, the point of discharge to the MS4 and the location where the MS4 ultimately discharges to a stream or surface water of the state shall be indicated;

i. For subdivided developments where the SWP3 does not call for a centralized sediment control capable of controlling multiple individual lots, a detail drawing of a typical individual lot showing standard individual lot erosion and sediment control practices.

   This does not remove the responsibility to designate specific erosion and sediment control practices in the SWP3 for critical areas such as steep slopes, stream banks, drainage ways and riparian zones;

j. Location and description of any storm water discharges associated with dedicated asphalt and dedicated concrete plants covered by this permit and the best management practices to address pollutants in these storm water discharges;

k. A copy of the permit requirements (attaching a copy of this permit is acceptable);

l. A cover page or title identifying the name and location of the site, the name and contact information of all construction site operators, the name and contact information for the person responsible for authorizing and amending the SWP3, preparation date, and the estimated dates that construction will start and be complete;

m. A log documenting grading and stabilization activities as well as amendments to the SWP3, which occur after construction activities commence; and

n. Site map showing:

i. Limits of earth-disturbing activity of the site including associated off-site borrow or spoil areas that are not addressed by a separate NOI and associated SWP3;

ii. Soils types for all areas of the site, including locations of unstable or highly erodible soils;

iii. Existing and proposed contours. A delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres;

iv. Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate for which the permittee is seeking approval from the Army Corps of Engineers and/or Ohio EPA;

v. Existing and planned locations of buildings, roads, parking facilities and utilities;

vi. The location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during the course of site development;

vii. Sediment and storm water management basins noting their sediment settling volume and contributing drainage area. Ohio EPA recommends the use of data sheets (see ODNR's Rainwater and Land Development manual for examples) to provide data for all sediment traps, sediment basins and storm water management treatment practices noting important inputs to design and resulting parameters such as their contributing drainage area, disturbed area, water quality volume, sedimentation volume, practice surface area, facility discharge and dewatering time, outlet type and dimensions;

viii. The location of permanent storm water management practices to be used to control pollutants in storm water after construction operations have been completed;

ix. Areas designated for the storage or disposal of solid, sanitary and toxic wastes, including dumpster areas, areas designated for cement truck washout, and vehicle fueling;

x. The location of designated construction entrances where the vehicles will access the construction site; and

xi. The location of any in-stream activities including stream crossings.

2. Controls. In accordance with Part II.A, the SWP3 shall contain a description of the controls appropriate for each construction operation covered by this permit and the operator(s) shall implement such controls. The SWP3 shall clearly describe for each

major construction activity identified in Part III.G.1.g: (a) appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented; and (b) which contractor is responsible for implementation (e.g., contractor A will clear land and install perimeter controls and contractor B will maintain perimeter controls until final stabilization). The SWP3 shall identify the subcontractors engaged in activities that could impact storm water runoff. The SWP3 shall contain signatures from all of the identified subcontractors indicating that they have been informed and understand their roles and responsibilities in complying with the SWP3. Ohio EPA recommends that the primary site operator review the SWP3 with the primary contractor prior to commencement of construction activities and keep a SWP3 training log to demonstrate that this review has occurred.

Ohio EPA recommends that the erosion, sediment, and storm water management practices used to satisfy the conditions of this permit should meet the standards and specifications in the most current edition of Ohio's Rainwater and Land Development (see definitions) manual or other standards acceptable to Ohio EPA. The controls shall include the following minimum components:

a. Non-Structural Preservation Methods. The SWP3 shall make use of practices which preserve the existing natural condition as much as feasible. Such practices may include: preserving existing vegetation and vegetative buffer strips, phasing of construction operations in order to minimize the amount of disturbed land at any one time and designation of tree preservation areas or other protective clearing or grubbing practices. For all construction activities immediately adjacent to surface waters of the state, the permittee shall comply with the buffer non-numeric effluent limitation in Part II.A.6, as measured from the ordinary high water mark of the surface water.

b. Erosion Control Practices. The SWP3 shall make use of erosion controls that are capable of providing cover over disturbed soils unless an exception is approved in accordance with Part III.G.4. A description of control practices designed to restabilize disturbed areas after grading or construction shall be included in the SWP3. The SWP3 shall provide specifications for stabilization of all disturbed areas of the site and provide guidance as to which method of stabilization will be employed for any time of the year. Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing of construction operations, use of construction entrances and the use of alternative ground cover.

    i. **Stabilization.** Disturbed areas shall be stabilized in accordance with Table 1 (Permanent Stabilization) and Table 2 (Temporary Stabilization) in Part II.B of this permit.

    ii. **Permanent stabilization of conveyance channels**. Operators shall undertake special measures to stabilize channels and outfalls and prevent erosive flows. Measures may include seeding, dormant seeding (as defined in the most current edition of the Rainwater and Land Development manual), mulching, erosion control matting, sodding, riprap, natural channel design with bioengineering techniques or rock check dams.

c. Runoff Control Practices. The SWP3 shall incorporate measures which control the flow of runoff from disturbed areas so as to prevent erosion from occurring. Such practices may include rock check dams, pipe slope drains, diversions to direct flow away from exposed soils and protective grading practices. These practices shall divert runoff away from disturbed areas and steep slopes where practicable. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to provide non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.

d. Sediment Control Practices. The plan shall include a description of structural practices that shall store runoff allowing sediments to settle and/or divert flows away from exposed soils or otherwise limit runoff from exposed areas. Structural practices shall be used to control erosion and trap sediment from a site remaining disturbed for more than 14 days. Such practices may include, among others: sediment settling ponds, silt fences, earth diversion dikes or channels which direct runoff to a sediment settling pond and storm drain inlet protection. All sediment control practices must be capable of ponding runoff in order to be considered functional. Earth diversion dikes or channels alone are not considered a sediment control practice unless those are used in conjunction with a sediment settling pond.

The SWP3 shall contain detail drawings for all structural practices.

i. **Timing.** Sediment control structures shall be functional throughout the course of earth disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven days from the start of grubbing. They shall continue to function until the up slope development area is restabilized. As construction progresses and the topography is altered, appropriate controls shall be constructed or existing controls altered to address the changing drainage patterns.

ii. **Sediment settling ponds.** A sediment settling pond is required for any one of the following conditions:

- Concentrated storm water runoff (e.g., storm sewer or ditch);
- Runoff from drainage areas, which exceed the design capacity of silt fence or other sediment barriers;
- Runoff from drainage areas that exceed the design capacity of inlet protection; or
- Runoff from common drainage locations with 10 or more acres of disturbed land.

The permittee may request approval from Ohio EPA to use alternative controls if the permittee can demonstrate the alternative controls are equivalent in effectiveness to a sediment settling pond.

In accordance with Part II.F, if feasible, sediment settling ponds shall be dewatered at the pond surface using a skimmer or equivalent device. The sediment settling pond volume consists of both a dewatering zone and a sediment storage zone. The volume of the dewatering zone shall

be a minimum of 1800 cubic feet (ft^3) per acre of drainage (67 yd^3/acre) with a minimum 48-hour drain time for sediment basins serving a drainage area over 5 acres. The volume of the sediment storage zone shall be calculated by one of the following methods:

Method 1: The volume of the sediment storage zone shall be 1000 ft^3 per disturbed acre within the watershed of the basin. OR

Method 2: The volume of the sediment storage zone shall be the volume necessary to store the sediment as calculated with RUSLE or a similar generally accepted erosion prediction model.

The accumulated sediment shall be removed from the sediment storage zone once it's full. When determining the total contributing drainage area, off-site areas and areas which remain undisturbed by construction activity shall be included unless runoff from these areas is diverted away from the sediment settling pond and is not co-mingled with sediment-laden runoff. The depth of the dewatering zone shall be less than or equal to five feet. The configuration between inlets and the outlet of the basin shall provide at least two units of length for each one unit of width (> 2:1 length:width ratio); however, a length to width ratio of 4:1 is recommended. When designing sediment settling ponds, the permittee shall consider public safety, especially as it relates to children, as a design factor for the sediment basin and alternative sediment controls shall be used where site limitations would preclude a safe design. The use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal is encouraged.

iii. **Silt Fence and Diversions.** Sheet flow runoff from denuded areas shall be intercepted by silt fence or diversions to protect adjacent properties and water resources from sediment transported via sheet flow. Where intended to provide sediment control, silt fence shall be placed on a level contour downslope of the disturbed area. This permit does not preclude the use of other sediment barriers designed to control sheet flow runoff. The relationship between the maximum drainage area to silt fence for a particular slope range is shown in the following table:

Silt Fence Maximum Drainage Area Based on Slope

Maximum drainage area (in acres) to 100 linear feet of silt fence	**Range of slope for a particular drainage area (in percent)**
0.5	< 2%
0.25	≥ 2% but < 20%
0.125	≥ 20% but < 50%

Placing silt fence in a parallel series does not extend the size of the drainage area. Storm water diversion practices shall be used to keep runoff away from disturbed areas and steep slopes where practicable. Such devices, which include swales, dikes or berms, may receive storm water runoff from areas up to 10 acres.

iv. **Inlet Protection.** Other erosion and sediment control practices shall minimize sediment laden water entering active storm drain systems, unless the storm drain system drains to a sediment settling pond. All inlets receiving runoff from drainage areas of one or more acres will require a sediment settling pond.

v. **Surface Waters of the State Protection.** If construction activities disturb areas adjacent to surface waters of the state, structural practices shall be designed and implemented on site to protect all adjacent surface waters of the state from the impacts of sediment runoff. No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond) shall be used in a surface water of the state. For all construction activities immediately adjacent to surface waters of the state, the permittee shall comply with the buffer non-numeric effluent limitation in Part II.A.6, as measured from the ordinary high water mark of the surface water. Where impacts within this buffer area are unavoidable, due to the nature of the construction (e.g., stream crossings for roads or utilities), the project shall be designed such that the number of stream crossings and the width of the disturbance within the buffer area are minimized.

vi. **Modifying Controls**. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the permittee shall replace or modify the control for site conditions.

e. Post-Construction Storm Water Management Requirements. So that receiving stream's physical, chemical and biological characteristics are protected and stream functions are maintained, post-construction storm water practices shall provide perpetual management of runoff quality and quantity. To meet the post-construction requirements of this permit, the SWP3 shall contain a description of the post-construction BMPs that will be installed during construction for the site and the rationale for their selection. The rationale shall address the anticipated impacts on the channel and floodplain morphology, hydrology, and water quality. Post-construction BMPs cannot be installed within a surface water of the state (e.g., wetland or stream) unless it's authorized by a CWA 401 water quality certification, CWA 404 permit, or Ohio EPA non-jurisdictional wetland/stream program approval. Note: localities may have more stringent post-construction requirements.

Detail drawings and maintenance plans shall be provided for all post-construction BMPs. Maintenance plans shall be provided by the permittee to the post-construction operator of the site (including homeowner associations) upon completion of construction activities (prior to termination of permit coverage). For sites located within a community with a regulated municipal separate storm sewer system (MS4), the permittee, land owner, or other entity with legal control of the property may be required to develop and implement a maintenance plan to comply with the requirements of the MS4. Maintenance plans shall ensure that pollutants collected within structural post-construction practices, be disposed of in accordance with local, state, and federal regulations. To ensure that storm water management systems function as they were designed and constructed, the post-construction operation and maintenance plan shall be a stand-alone

document, which contains: (1) a designated entity for storm water inspection and maintenance responsibilities; (2) the routine and non-routine maintenance tasks to be undertaken; (3) a schedule for inspection and maintenance; (4) any necessary legally binding maintenance easements and agreements; and (5) a map showing all access and maintenance easements. Permittees are not responsible under this permit for operation and maintenance of post-construction practices once coverage under this permit is terminated.

Post-construction storm water BMPs that discharge pollutants from point sources once construction is completed, may in themselves, need authorization under a separate NPDES permit (one example is storm water discharges from regulated industrial sites).

Construction activities that do not include the installation of any impervious surface (e.g., soccer fields), abandoned mine land reclamation activities regulated by the Ohio Department of Natural Resources, stream and wetland restoration activities, and wetland mitigation activities are not required to comply with the conditions of Part III.G.2.e of this permit. Linear construction projects, (e.g., pipeline or utility line installation), which do not result in the installation of additional impervious surface, are not required to comply with the conditions of Part III.G.2.e of this permit. However, linear construction projects shall be designed to minimize the number of stream crossings and the width of disturbance and achieve final stabilization of the disturbed area as defined in Part VII.J.1.

Large Construction Activities. For all large construction activities (involving the disturbance of five or more acres of land or will disturb less than five acres, but is a part of a larger common plan of development or sale which will disturb five or more acres of land), the post construction BMP(s) chosen shall be able to detain storm water runoff for protection of the stream channels, stream erosion control, and improved water quality. The BMP(s) chosen must be compatible with site and soil conditions. Structural post-construction storm water treatment practices shall be incorporated into the permanent drainage system for the site. The BMP(s) chosen must be sized to treat the water quality volume (WQ_v) and ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1. The WQ_v shall be equivalent to the volume of runoff from a 0.75-inch rainfall and shall be determined according to the following equation:

$WQ_v = C * P * A / 12$

where:

WQ_v = water quality volume in acre-feet

C = runoff coefficient appropriate for storms less than 1 inch

(Either use the following formula: $C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$, where i = fraction of post-construction impervious surface or use Table 1)

P = 0.75 inch precipitation depth

A = area draining into the BMP in acres

Table 1
Runoff Coefficients Based on the Type of Land Use

Land Use	Runoff Coefficient
Industrial & Commercial	0.8
High Density Residential (>8 dwellings/acre)	0.5
Medium Density Residential (4 to 8 dwellings/acre)	0.4
Low Density Residential (<4 dwellings/acre)	0.3
Open Space and Recreational Areas	0.2

Where the land use will be mixed, the runoff coefficient should be calculated using a weighted average. For example, if 60% of the contributing drainage area to the storm water treatment structure is Low Density Residential, 30% is High Density Residential, and 10% is Open Space, the runoff coefficient is calculated as follows (0.6)(0.3) + (0.3)(0.5) + (0.1)(0.2) = 0.35.

An additional volume equal to 20 percent of the WQ_v shall be incorporated into the BMP for sediment storage. Ohio EPA recommends that BMPs be designed according to the methodology included in the most current edition of the Rainwater and Land Development manual or in another design manual acceptable for use by Ohio EPA.

The BMPs listed in Table 2 below shall be considered standard BMPs approved for general use. However communities with a regulated MS4 may limit the use of some of these BMPs. BMPs shall be designed such that the drain time is long enough to provide treatment, but short enough to provide storage for successive rainfall events and avoid the creation of nuisance conditions. The outlet structure for the post-construction BMP shall not discharge more than the first half of the WQv or extended detention volume (EDv) in less than one-third of the drain time. The EDv is the volume of storm water runoff that must be detained by a structural post-construction BMP. The EDv is equal to 75 percent of the WQv for wet extended detention basins, but is equal to the WQv for all other BMPs listed in Table 2.

Table 2
Structural Post-Construction BMPs & Associated Drain (Drawdown) Times

Best Management Practice	Drain Time of WQv
Infiltration Basin or Trench[1]	48 hours
Permeable Pavement – Infiltration[1]	48 hours
Permeable Pavement – Extended Detention	24 hours
Dry Extended Detention Basin[2]	48 hours
Wet Extended Detention Basin[3]	24 hours
Constructed Wetland (above permanent pool)[4]	24 hours
Sand & Other Media Filtration[5]	24 hours
Bioretention Area/Cell[5,6]	24 hours
Pocket Wetland[7]	24 hours

[1] Practices that are designed to fully infiltrate the WQv (basin, trench, permeable pavement) shall empty within 48 hours to provide storage for the subsequent storm events.
[2] Dry basins must include forebay and micropool each sized at 10% of the WQv.
[3] Provide both a permanent pool and an EDv above the permanent pool, each sized at 0.75 WQv.
[4] Extended detention shall be provided for the WQv above the permanent water pool.
[5] The surface ponding area (WQv) shall completely empty within 24 hours so that there is no standing water. Shorter drawdown times are acceptable as long as design criteria in Ohio's Rainwater and Land Development manual have been met.
[6] This would include Grassed Linear Bioretention which was previously called Enhanced Water Quality Swale.
[7] Pocket wetlands must have a wet pool equal to the WQv, with 25% of the WQv in a pool and 75% in marshes. The EDv above the permanent pool must be equal to the WQv.

The permittee may request approval from Ohio EPA to use alternative structural post-construction BMPs if the permittee can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 2 above. Construction activities shall be exempt from this condition if it can be demonstrated that the WQ_v is provided within an existing structural post-construction BMP that is part of a larger common plan of development or if structural post-construction BMPs are addressed in a regional or local storm water management plan. A municipally operated regional storm water BMP can be used as a post-construction BMP provided that the BMP can detain the WQv from its entire drainage area and release it over a 24 hour period.

Transportation Projects. The construction of new roads and roadway improvement projects by public entities (i.e., the state, counties, townships, cities, or villages) may implement post-construction BMPs in compliance with the current version (as of the effective date of this permit) of the Ohio Department of Transportation's "Location and Design Manual, Volume Two Drainage Design" that has been accepted by Ohio EPA as an alternative to the conditions of this permit.

Offsite Mitigation of Post-Construction. Ohio EPA may authorize the offsite mitigation of the post-construction requirements of Part III.G.2.e of this permit on a case by case basis provided the permittee clearly demonstrates the BMPs listed in Table 2 are not feasible and the following criteria is met: (1) a maintenance agreement or policy is established to ensure operations and treatment in perpetuity; (2) the offsite location discharges to the same HUC-14 watershed unit; and (3) the mitigation ratio of the WQv is 1.5 to 1 or the WQv at the point of retrofit, whichever is greater. Requests for offsite mitigation must be received prior to receipt of the NOI applications.

Redevelopment Projects Sites that have been previously developed where no post-construction BMPs were installed shall either ensure a 20 percent net reduction of the site impervious area, provide for treatment of at least 20 percent of the WQv, or a combination of the two. A one-for-one credit towards the 20 percent net reduction of impervious area can be obtained through the use of green roofs. Where projects are a combination of new development and redevelopment, the total WQv that must be treated shall be calculated by a weighted average based on acreage, with the new development at 100 percent WQv and redevelopment at 20 percent WQv.

Non-Structural Post-Construction BMPs The size of the structural post-construction can be reduced by incorporating non-structural post-construction BMPs into the design. Practices such as preserving open space will reduce the runoff coefficient and, thus, the WQv. Ohio EPA encourages the implementation of riparian and wetland setbacks. Practices which reduce storm water runoff include green roofs, rain barrels, conservation development, smart growth, low-impact development, and other site design techniques. For examples, see the Ohio Lake Erie Commission's Balanced Growth Program at http://balancedgrowth.ohio.gov/.

In order to promote the implementation of such practices, the Director may consider the use of non-structural practices to demonstrate compliance with Part III.G.2.e of this permit for areas of the site not draining into a common drainage system of the site, i.e., sheet flow from perimeter areas such as the rear yards of residential lots, for low density development scenarios, or where the permittee can demonstrate that the intent of pollutant removal and stream protection, as required in Part III.G.2.e of this permit is being addressed through non-structural post-construction BMPs based upon review and approval by Ohio EPA.

Use of Alternative Post-Construction BMPs This permit does not preclude the use of innovative or experimental post-construction storm water management technologies. However, the Director may require these practices to be tested using the protocol outlined in the Technology Acceptance Reciprocity Partnership's (TARP) Protocol for Stormwater Best Management Practice Demonstrations or other approvable protocol. For guidance, see the following:

- http://www.njstormwater.org
- http://www.mastep.net/

The Director may require discharges from such structures to be monitored to ensure compliance with Part III.G.2.e of this permit. Permittees shall request

approval from Ohio EPA to use alternative post-construction BMPs if the permittee can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 2 above. To demonstrate this equivalency, the permittee shall show that the alternative BMP has a minimum total suspended solids (TSS) removal efficiency of 80 percent under both laboratory and field conditions. Tests shall be conducted by an independent, third party tester. Also, the WQv discharge rate from the practice shall be reduced to prevent stream bed erosion and protect the physical and biological stream integrity unless there will be negligible hydrological impact to the receiving surface water of the state. The discharges will have a negligible impact if the permittee can demonstrate that one of the following four conditions exist:

i. The entire WQv is recharged to groundwater;
ii. The larger common plan of development or sale will create less than one acre of impervious surface;
iii. The project is a redevelopment project within an ultra-urban setting (i.e., a downtown area or on a site where 100 percent of the project area is already impervious surface and the storm water discharge is directed into an existing storm sewer system); or
iv. The storm water drainage system of the development discharges directly into a large river (fourth order or greater) or to a lake and where the development area is less than 5 percent of the watershed area upstream of the development site, unless a TMDL identified water quality problems into the receiving surface waters of the state.

The Director shall only consider the use of alternative BMPs on projects where the permittee can demonstrate that the implementation of the BMPs listed in Table 2 is infeasible due to physical site constraints that prevent the ability to provide functional BMP design. Alternative practices may include, but are not limited to, underground detention structures, vegetated swales and vegetated filter strips designed using water quality flow, natural depressions, rain barrels, green roofs, rain gardens, catch basin inserts, and hydrodynamics separators. The Director may also consider non-structural post-construction approaches where no local requirements for such practices exist.

Small Construction Activities For all small land disturbance activities (which disturb one or more, but less than five acres of land and is not a part of a larger common plan of development or sale which will disturb five or more acres of land), a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed must be included in the SWP3. Structural measures should be placed on upland soils to the degree attainable. Such practices may include, but are not limited to: storm water detention structures (including wet basins); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices). The SWP3 shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed pre-development levels.

f. Surface Water Protection. If the project site contains any streams, rivers, lakes, wetlands or other surface waters, certain construction activities at the site may be regulated under the CWA and/or state isolated wetland permit requirements. Sections 404 and 401 of the Act regulate the discharge of dredged or fill material into surface waters and the impacts of such activities on water quality, respectively. Construction activities in surface waters which may be subject to CWA regulation and/or state isolated wetland permit requirements include, but are not limited to: sewer line crossings, grading, backfilling or culverting streams, filling wetlands, road and utility line construction, bridge installation and installation of flow control structures. If the project contains streams, rivers, lakes or wetlands or possible wetlands, the permittee shall contact the appropriate U.S. Army Corps of Engineers District Office. (CAUTION: Any area of seasonally wet hydric soil is a potential wetland - please consult the Soil Survey and list of hydric soils for your County, available at your county's Soil and Water Conservation District. If you have any questions about Section 401 water quality certification, please contact the Ohio Environmental Protection Agency, Section 401 Coordinator.)

U.S. Army Corps of Engineers (Section 404 regulation):

- Huntington, WV District (304) 399-5210 (Muskingum River, Hocking River, Scioto River, Little Miami River, and Great Miami River Basins)
- Buffalo, NY District (716) 879-4330 (Lake Erie Basin)
- Pittsburgh, PA District (412) 395-7155 (Mahoning River Basin)
- Louisville, KY District (502) 315-6686 (Ohio River)

Ohio EPA 401/404 and non-jurisdictional stream/wetland coordinator can be contacted at (614) 644-2001 (all of Ohio)

Concentrated storm water runoff from BMPs to natural wetlands shall be converted to diffuse flow before the runoff enters the wetlands. The flow should be released such that no erosion occurs downslope. Level spreaders may need to be placed in series, particularly on steep sloped sites, to ensure non-erosive velocities. Other structural BMPs may be used between storm water features and natural wetlands, in order to protect the natural hydrology, hydroperiod, and wetland flora. If the applicant proposes to discharge to natural wetlands, a hydrologic analysis shall be performed. The applicant shall attempt to match the pre-development hydroperiods and hydrodynamics that support the wetland. The applicant shall assess whether their construction activity will adversely impact the hydrologic flora and fauna of the wetland. Practices such as vegetative buffers, infiltration basins, conservation of forest cover, and the preservation of intermittent streams, depressions, and drainage corridors may be used to maintain wetland hydrology.

g. Other controls.

i. **Non-Sediment Pollutant Controls.** In accordance with Part II.E, no solid (other than sediment) or liquid waste, including building materials, shall be discharged in storm water runoff. The permittee must implement all necessary BMPs to prevent the discharge of non-sediment pollutants to the drainage system of the site or surface waters of the state. Under

no circumstance shall wastewater from the washout of concrete trucks, stucco, paint, form release oils, curing compounds, and other construction materials be discharged directly into a drainage channel, storm sewer or surface waters of the state. Also, no pollutants from vehicle fuel, oils, or other vehicle fluids can be discharged to surface waters of the state. No exposure of storm water to waste materials is recommended. The SWP3 must include methods to minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, and sanitary waste to precipitation, storm water runoff, and snow melt. In accordance with Part II.D.3, the SWP3 shall include measures to prevent and respond to chemical spills and leaks. You may also reference the existence of other plans (i.e., Spill Prevention Control and Countermeasure (SPCC) plans, spill control programs, Safety Response Plans, etc.) provided that such plan addresses conditions of this permit condition and a copy of such plan is maintained on site.

ii. **Off-site traffic.** Off-site vehicle tracking of sediments and dust generation shall be minimized. In accordance with Part II.D.1, the SWP3 shall include methods to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. No detergents may be used to wash vehicles. Wash waters shall be treated in a sediment basin or alternative control that provides equivalent treatment prior to discharge.

iii. **Compliance with other requirements.** The SWP3 shall be consistent with applicable State and/or local waste disposal, sanitary sewer or septic system regulations, including provisions prohibiting waste disposal by open burning and shall provide for the proper disposal of contaminated soils to the extent these are located within the permitted area.

iv. **Trench and ground water control**. In accordance with Part II.C, there shall be no turbid discharges to surface waters of the state resulting from dewatering activities. If trench or ground water contains sediment, it shall pass through a sediment settling pond or other equally effective sediment control device, prior to being discharged from the construction site. Alternatively, sediment may be removed by settling in place or by dewatering into a sump pit, filter bag or comparable practice. Ground water which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care must be taken when discharging ground water to ensure that it does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.

v. **Contaminated Sediment.** Where construction activities are to occur on sites with contamination from previous activities, operators shall be aware that concentrations of materials that meet other criteria (is not considered a Hazardous Waste, meeting VAP standards, etc.) may still result in storm water discharges in excess of Ohio Water Quality Standards. Such discharges are not authorized by this permit. Appropriate BMPs include, but are not limited to:

- The use of berms, trenches, and pits to collect contaminated runoff and prevent discharges;
- Pumping runoff into a sanitary sewer (with prior approval of the sanitary sewer operator) or into a container for transport to an appropriate treatment/disposal facility; and
- Covering areas of contamination with tarps or other methods that prevent storm water from coming into contact with the material.

Operators should consult with Ohio EPA Division of Surface Water prior to seeking permit coverage.

h. Maintenance. All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices must be maintained in a functional condition until all up slope areas they control are permanently stabilized. The SWP3 shall be designed to minimize maintenance requirements. The applicant shall provide a description of maintenance procedures needed to ensure the continued performance of control practices.

i. Inspections. At a minimum, procedures in an SWP3 shall provide that all controls on the site are inspected at least once every seven calendar days and within 24 hours after any storm event greater than one-half inch of rain per 24 hour period. The inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized or runoff is unlikely due to weather conditions (e.g., site is covered with snow, ice, or the ground is frozen). A waiver of inspection requirements is available until one month before thawing conditions are expected to result in a discharge if all of the following conditions are met: the project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e., more than one month); land disturbance activities have been suspended; and the beginning and ending dates of the waiver period are documented in the SWP3. Once a definable area is finally stabilized, the area may be marked on the SWP3 and no further inspection requirements apply to that portion of the site. The permittee shall assign "qualified inspection personnel" to conduct these inspections to ensure that the control practices are functional and to evaluate whether the SWP3 is adequate and properly implemented in accordance with the schedule proposed in Part III.G.1.g of this permit or whether additional control measures are required.

Following each inspection, a checklist must be completed and signed by the qualified inspection personnel representative. At a minimum, the inspection report shall include:

i. the inspection date;
ii. names, titles, and qualifications of personnel making the inspection;
iii. weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall for each storm event (in inches), and whether any discharges occurred;
iv. weather information and a description of any discharges occurring at the time of the inspection;

v. location(s) of discharges of sediment or other pollutants from the site;
vi. location(s) of BMPs that need to be maintained;
vii. location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
viii. location(s) where additional BMPs are needed that did not exist at the time of inspection; and
ix. corrective action required including any changes to the SWP3 necessary and implementation dates.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of or the potential for pollutants entering the drainage system. Erosion and sediment control measures identified in the SWP3 shall be observed to ensure that those are operating correctly. Discharge locations shall be inspected to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to the receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.

The permittee shall maintain for three years following the submittal of a notice of termination form, a record summarizing the results of the inspection, names(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWP3 and a certification as to whether the facility is in compliance with the SWP3 and the permit and identify any incidents of non-compliance. The record and certification shall be signed in accordance with Part V.G. of this permit.

i. **When practices require repair or maintenance.** If the inspection reveals that a control practice is in need of repair or maintenance, with the exception of a sediment settling pond, it shall be repaired or maintained within 3 days of the inspection. Sediment settling ponds shall be repaired or maintained within 10 days of the inspection.

ii. **When practices fail to provide their intended function.** If the inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, the SWP3 shall be amended and the new control practice shall be installed within 10 days of the inspection.

iii. **When practices depicted on the SWP3 are not installed.** If the inspection reveals that a control practice has not been implemented in accordance with the schedule contained in Part III.G.1.g of this permit, the control practice shall be implemented within 10 days from the date of the inspection. If the inspection reveals that the planned control practice is not needed, the record shall contain a statement of explanation as to why the control practice is not needed.

3. Approved State or local plans. All dischargers regulated under this general permit must comply, except those exempted under state law, with the lawful requirements of municipalities, counties and other local agencies regarding discharges of storm water from construction activities. All erosion and sediment control plans and storm water

management plans approved by local officials shall be retained with the SWP3 prepared in accordance with this permit. Applicable requirements for erosion and sediment control and storm water management approved by local officials are, upon submittal of a NOI form, incorporated by reference and enforceable under this permit even if they are not specifically included in an SWP3 required under this permit. When the project is located within the jurisdiction of a regulated municipal separate storm sewer system (MS4), the permittee shall certify that the SWP3 complies with the requirements of the storm water management program of the MS4 operator.

4. Exceptions. If specific site conditions prohibit the implementation of any of the erosion and sediment control practices contained in this permit or site specific conditions are such that implementation of any erosion and sediment control practices contained in this permit will result in no environmental benefit, then the permittee shall provide justification for rejecting each practice based on site conditions. Exceptions from implementing the erosion and sediment control standards contained in this permit will be approved or denied on a case-by-case basis.

   The permittee may request approval from Ohio EPA to use alternative methods to satisfy conditions in this permit if the permittee can demonstrate that the alternative methods are sufficient to protect the overall integrity of receiving streams and the watershed. Alternative methods will be approved or denied on a case-by-case basis.

PART IV. NOTICE OF TERMINATION REQUIREMENTS

A. Failure to notify.

The terms and conditions of this permit shall remain in effect until a signed Notice of Termination (NOT) form is submitted. Failure to submit an NOT constitutes a violation of this permit and may affect the ability of the permittee to obtain general permit coverage in the future.

B. When to submit an NOT.

1. Permittees wishing to terminate coverage under this permit shall submit an NOT form in accordance with Part V.G. of this permit. Compliance with this permit is required until an NOT form is submitted. The permittee's authorization to discharge under this permit terminates at midnight of the day the NOT form is submitted. Prior to submitting the NOT form, the permittee shall conduct a site inspection in accordance with Part III.G.2.i of this permit and have a maintenance agreement in place to ensure all post-construction BMPs will be maintained in perpetuity.

2. All permittees shall submit an NOT form within 45 days of completing all permit requirements. Enforcement actions may be taken if a permittee submits an NOT form without meeting one or more of the following conditions:

   a. Final stabilization (see definition in Part VII) has been achieved on all portions of the site for which the permittee is responsible (including, if applicable, returning agricultural land to its pre-construction agricultural use);

   b. Another operator(s) has assumed control over all areas of the site that have not been finally stabilized;

c. For residential construction only, temporary stabilization has been completed and the lot, which includes a home, has been transferred to the homeowner. (Note: For individual lots without housing, which are sold by the developer, the individual lot permittee shall implement final stabilization prior to the individual lot permittee terminating permit coverage.); or

d. An exception has been granted under Part III.G.4.

C. How to submit an NOT.

Permittees shall use Ohio EPA's approved NOT form. The form shall be completed and mailed according to the instructions and signed in accordance with Part V.G of this permit.

PART V. STANDARD PERMIT CONDITIONS.

A. Duty to comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of ORC Chapter 6111 and is grounds for enforcement action.

Ohio law imposes penalties and fines for persons who knowingly make false statements or knowingly swear or affirm the truth of a false statement previously made.

B. Continuation of an expired general permit.

An expired general permit continues in force and effect until a new general permit is issued.

C. 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.

D. Duty to mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Duty to provide information.

The permittee shall furnish to the director, within 10 days of written request, any information which the director 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 director upon request copies of records required to be kept by this permit.

F. Other information.

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI, SWP3, NOT or in any other report to the director, he or she shall promptly submit such facts or information.

G. Signatory requirements.

All NOIs, NOTs, SWP3s, reports, certifications or information either submitted to the director or that this permit requires to be maintained by the permittee, shall be signed.

1. These items shall be signed as follows:

    a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

        i. A president, secretary, treasurer or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation; or

        ii. The manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

    b. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

    c. For a municipality, State, Federal or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).

2. All reports required by the permits and other information requested by the director shall be signed by a person described in Part V.G.1 of this permit 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 in Part V.G.1 of this permit and submitted to the director;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator of a well or well field, superintendent, position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

c. The written authorization is submitted to the director.

3. Changes to authorization. If an authorization under Part V.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.G.2 of this permit must be submitted to the director prior to or together with any reports, information or applications to be signed by an authorized representative.

H. Certification.

Any person signing documents 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 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."

I. 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 CWA or 40 CFR Part 112. 40 CFR Part 112 establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable surface waters of the state or adjoining shorelines.

J. 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 nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

K. 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.

L. Transfers.

Ohio NPDES general permit coverage is transferable. Ohio EPA must be notified in writing sixty days prior to any proposed transfer of coverage under an Ohio NPDES general permit. The transferee must inform Ohio EPA it will assume the responsibilities of the original permittee transferor.

M. Environmental laws.

No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

N. Proper operation and maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWP3s. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

O. Inspection and entry.

The permittee shall allow the director or an authorized representative of Ohio EPA, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment); and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

P. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

Q. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. 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.

R. Bypass

The provisions of 40 CFR Section 122.41(m), relating to "Bypass," are specifically incorporated herein by reference in their entirety. For definition of "Bypass," see Part VII.C.

S. Upset

The provisions of 40 CFR Section 122.41(n), relating to "Upset," are specifically incorporated herein by reference in their entirety. For definition of "Upset," see Part VII.GG.

T. Monitoring and Records

The provisions of 40 CFR Section 122.41(j), relating to "Monitoring and Records," are specifically incorporated herein by reference in their entirety.

U. Reporting Requirements

The provisions of 40 CFR Section 122.41(l), relating to "Reporting Requirements," are specifically incorporated herein by reference in their entirety.

PART VI. REOPENER CLAUSE

If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with construction activity covered by this permit, the permittee of such discharge may be required to obtain coverage under an individual permit or an alternative general permit in accordance with Part I.C of this permit or the permit may be modified to include different limitations and/or requirements.

Permit modification or revocation will be conducted according to ORC Chapter 6111.

PART VII. DEFINITIONS

A. "Act" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117 and Pub. L. 100-4, 33 U.S.C. 1251 et. seq.

B. "Best management practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices (both structural and non-structural) to prevent or reduce the pollution of surface waters of the state. BMP's also include treatment requirements, operating procedures and practices to control plant and/or construction site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.

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

D. "Commencement of construction" means the initial disturbance of soils associated with clearing, grubbing, grading, placement of fill, or excavating activities or other construction activities.

E. "Concentrated storm water runoff" means any storm water runoff which flows through a drainage pipe, ditch, diversion or other discrete conveyance channel.

F. "Director" means the director of the Ohio Environmental Protection Agency.

G. "Discharge" means the addition of any pollutant to the surface waters of the state from a point source.

H. "Disturbance" means any clearing, grading, excavating, filling, or other alteration of land surface where natural or man-made cover is destroyed in a manner that exposes the underlying soils.

I. "Drainage watershed" means for purposes of this permit the total contributing drainage area to a BMP, i.e., the "watershed" directed to the practice. This would also include any off-site drainage.

J. "Final stabilization" means that either:

1. All soil disturbing activities at the site are complete and a uniform perennial vegetative cover (e.g., evenly distributed, without large bare areas) with a density of at least 70 percent cover for the area has been established on all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures (such as the use of mulches, rip-rap, gabions or geotextiles) have been employed. In addition, all temporary erosion and sediment control practices are removed and disposed of and all trapped sediment is permanently stabilized to prevent further erosion; or

2. For individual lots in residential construction by either:

    a. The homebuilder completing final stabilization as specified above or

    b. The homebuilder establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for and benefits of, final stabilization. (Homeowners typically have an incentive to put in the landscaping functionally equivalent to final stabilization as quick as possible to keep mud out of their homes and off sidewalks and driveways.); or

3. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its pre-construction agricultural use. Areas disturbed that were previously used for agricultural activities, such as buffer strips immediately adjacent to surface waters of the state and which are not being returned to their pre-construction agricultural use, must meet the final stabilization criteria in (1) or (2) above.

K. "Individual Lot NOI" means a Notice of Intent for an individual lot to be covered by this permit (see Part I of this permit).

L. "Larger common plan of development or sale"- means a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

M. "MS4" means municipal separate storm sewer system which means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) that are:

1. Owned or operated by the federal government, state, municipality, township, county, district(s) or other public body (created by or pursuant to state or federal law) including special district under state law such as a sewer district, flood control district or drainage districts or similar entity or a designated and approved management agency under section 208 of the act that discharges into surface waters of the state; and
2. Designed or used for collecting or conveying solely storm water,
3. Which is not a combined sewer and
4. Which is not a part of a publicly owned treatment works.

N. "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and enforcing pretreatment requirements, under sections 307, 402, 318 and 405 of the CWA. The term includes an "approved program."

O. "NOI" means notice of intent to be covered by this permit.

P. "NOT" means notice of termination.

Q. "Operator" means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or

2. The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with an SWP3 for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

As set forth in Part I.F.1, there can be more than one operator at a site and under these circumstances, the operators shall be co-permittees.

R. "Ordinary high water mark" means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

S. "Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

T. "Permanent stabilization" means the establishment of permanent vegetation, decorative landscape mulching, matting, sod, rip rap and landscaping techniques to provide permanent erosion control on areas where construction operations are complete or where no further disturbance is expected for at least one year.

U. "Percent imperviousness" means the impervious area created divided by the total area of the project site.

V. "Point source" means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or the floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

W. "Qualified inspection personnel" means a person knowledgeable in the principles and practice of erosion and sediment controls, who possesses the skills to assess all conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity.

X. "Rainwater and Land Development" is a manual describing construction and post-construction best management practices and associated specifications. A copy of the manual may be obtained by contacting the Ohio Department of Natural Resources, Division of Soil & Water Conservation.

Y. "Riparian area" means the transition area between flowing water and terrestrial (land) ecosystems composed of trees, shrubs and surrounding vegetation which serve to stabilize erodible soil, improve both surface and ground water quality, increase stream shading and enhance wildlife habitat.

Z. "Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

AA. "Sediment settling pond" means a sediment trap, sediment basin or permanent basin that has been temporarily modified for sediment control, as described in the latest edition of the Rainwater and Land Development manual.

BB. "State isolated wetland permit requirements" means the requirements set forth in Sections 6111.02 through 6111.029 of the ORC.

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

DD. "Steep slopes" means slopes that are 15 percent or greater in grade. Where a local government or industry technical manual has defined what is to be considered a "steep slope," this permit's definition automatically adopts that definition.

EE. "Surface waters of the state" or "water bodies" means all streams, lakes, reservoirs, ponds, marshes, wetlands or other waterways which are situated wholly or partially within the boundaries of the state, except those private waters which do not combine or effect a junction with natural surface or underground waters. Waters defined as

sewerage systems, treatment works or disposal systems in Section 6111.01 of the ORC are not included.

FF. "SWP3" means storm water pollution prevention plan.

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

HH. "Temporary stabilization" means the establishment of temporary vegetation, mulching, geotextiles, sod, preservation of existing vegetation and other techniques capable of quickly establishing cover over disturbed areas to provide erosion control between construction operations.

II. "Water Quality Volume (WQ_v)" means the volume of storm water runoff which must be captured and treated prior to discharge from the developed site after construction is complete. WQ_v is based on the expected runoff generated by the mean storm precipitation volume from post-construction site conditions at which rapidly diminishing returns in the number of runoff events captured begins to occur.

Attachment B

Permitting Documentation
(NOI, Permit Card, Permit Letters, Blank NOT)

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

Sep 13, 2017

White Construction, Inc.
Alan Downes
3900 East White Avenue
Clinton, IN 47842

Re: Approval Under Ohio EPA National Pollutant Discharge Elimination System (NPDES) - Construction Site Stormwater General Permit - OHC000004

Dear Applicant,

Your NPDES Notice of Intent (NOI) application is approved for the following facility/site. Please use your Ohio EPA Facility Permit Number in all future correspondence.

Facility Name:	Northwest Ohio Wind Project
Facility Location:	Intersection of US Hwy 127 and CoRd 48
City:	Haviland
County:	Paulding
Township:	Paulding
Ohio EPA Facility Permit Number:	2GC05032*AG
Permit Effective Date:	Sep 13, 2017

Please read and review the permit carefully. The permit contains requirements and prohibitions with which you must comply. Coverage under this permit will remain in effect until a renewal of the permit is issued by the Ohio EPA.

If more than one operator (defined in the permit) will be engaged at the site, each operator shall seek coverage under the general permit. Additional operator(s) shall submit a Co-Permittee NOI to be covered under this permit. There is no fee associated with the Co-Permittee NOI form.

Please be aware that this letter only authorizes discharges in accordance with the above referenced NPDES CGP. The placement to fill into regulated waters of the state may require a 401 Water Quality Certification and/or Isolated Wetlands Permit from Ohio EPA. Also, a Permit-To-Install (PTI) is required for the construction of sanitary or industrial wastewater collection, conveyance, storage, treatment, or disposal facility; unless a specific exemption by rule exists. Failure to obtain the required permits in advance is a violation of Ohio Revised Code 6111 and potentially subjects you to enforcement and civil penalties.

To view your electronic submissions and permits please Logon in to the Ohio EPA's eBusiness Center at http://ebiz.epa.ohio.gov.

If you need assistance or have questions please call (614) 644-2001 and ask for Construction Site Stormwater General Permit support or visit our website at http://www.epa.ohio.gov.

Sincerely,

Craig W. Butler
Director

Division of Surface Water - *Notice of Intent (NOI) For Coverage Under Ohio Environmental Protection Agency General NPDES Permit*

(Read accompanying instructions carefully before completing this form.)

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. Complete all required information as indicated by the instructions. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. A check for the proper amount must accompany this form and be made payable to "Treasurer, State of Ohio." (See the fee table in Attachment C of the NOI instructions for the appropriate processing fee.)

I. Applicant Information/Mailing Address

Company (Applicant) Name: Click here to enter text.

Mailing (Applicant) Address: Click here to enter text.

City: Click here to enter text. **State:** Click here to enter text. **Zip Code:** Click here.

Contact Person: Click here to enter text. **Phone:** Click here to enter text. **Fax:** Click here.

Contact E-mail Address: Click here to enter text.

II. Facility/Site Location Information

Facility Name: Click here to enter text.

Facility Address/Location: Click here to enter text.

City: Click here to enter text. **State:** Ohio **Zip Code:** Click here.

County(ies): Click here to enter text. **Township(s):** Click here to enter text.

Facility Contact Person: Click here to enter text. **Phone:** Click here to enter text. **Fax:** Click here.

Facility Contact E-mail Address: Click here to enter text.

(For Construction & Coal, must complete lat/long & attach map) **Latitude:** Click here to enter text. **Longitude:** Click here to enter text.

Receiving Stream or MS4: Click here to enter text.

III. General Permit Information

General Permit Number: Choose an item. **Initial Coverage:** ☐ **Renewal Coverage:** ☐

Type of Activity: Choose an item. **SIC Code(s):** Click here to enter text.

Existing NPDES Permit Number: **ODNR Coal Mining Application Number:**

If Household Sewage Treatment System, is system for: ☐ **new home construction or** ☐ **replacement of failed**

Outfall:	Design Flow (MGD):	Associated Permit Effluent Table:	Latitude:	Longitude:
#.	Flow.	Choose an item.	Click here.	Click here.

Are These Permits Required? **PTI** Choose item. **Individual 401 Water Quality Certification** Choose item.

Isolated Wetland Choose item. **USACE Nationwide Permit** Choose item. **Individual NPDES** Choose item.

Proposed Project Start Date: Click here to enter a date. **Estimated Completion Date:** Click here to enter a date.

Total Land Disturbance (Acres): **MS4 Drainage Area (Sq. Miles):**

IV. Payment Information

Check #: Click here to enter text.

Check Amount: Click here to enter text.

Date of Check: Click here to enter a date.

For Ohio EPA Use Only

Check ID (OFA): _____ **ORG #:** _____

Rev ID: _____ **DOC #:** _____

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.

Applicant Name: Click here to enter text. **Title:** Click here to enter text.

Applicant Signature: **Date:** Click here to enter a date.

Notice of Termination (NOT) of Coverage Under Ohio Environmental Protection Agency General NPDES Permit

Division of Surface Water

(Read accompanying instructions carefully before completing this form.)

Submission of this NOT constitutes notice that the party identified in Section II of this form is no longer authorized to discharge into state waters under the NPDES general permit program. NOTE: All necessary information must be provided on this form. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. There is no fee associated with submitting this form.

I. Permit Information:

NPDES General Permit Number: OH

Facility General Permit Number:

II. Owner/Applicant Information/Mailing Address

Company (Applicant) Name:

Mailing (Applicant) Address:

City: **State:** Ohio **Zip Code:** -

Contact Person: **Phone:** ( ) - **Fax:** ( ) -

Contact Email:

III. Facility/Site Location Information

Facility Name:

Facility Address/Location:

City: **State:** Ohio **Zip Code:** -

County: **Township(s):** **Section:**

Facility Contact Person: **Phone:** ( ) - **Fax:** ( ) -

Facility Contact Email:

IV. Reason for Termination

Transfer of Ownership ☐ Cease to Discharge ☐ Facility Closed ☐

Project Completed ☐ Obtained Individual Permit ☐

V. Certifications

Standard Certification:

I certify under penalty of law that all discharges authorized by the NPDES general permit have been eliminated or that I am no longer the operator of the facility. I understand that by submitting this NOT, I am no longer authorized to discharge under this general permit and that discharging pollutants to waters of the state without an NPDES permit is unlawful under ORC 6111.

Name (typed): **Title:**

Signature: **Date:**

Industrial Storm Water and Coal Mining Activity Certification Only:

I certify under penalty of law that all discharges associated with the identified facility that are authorized by the above referenced NPDES general permit have been eliminated, that I am no longer the operator of the facility, or in the case of a coal mine that the SMCRA bond has been released by ODNR-Division of Reclamation. I understand that by submitting this NOT, I am no longer authorized to discharge storm water associated with industrial activity under this general permit, and that discharging pollutants in storm water associated with industrial activity to waters of the state is unlawful under ORC 6111 where the discharge is not authorized by an NPDES permit.

Name (typed): **Title:**

Signature: **Date:**

Storm Water Construction Activity Certification Only:

I certify under penalty of law that all elements of the storm water pollution prevention plan have been completed, the disturbed soil at the identified facility have been stabilized and temporary erosion and sediment control measures have been removed at the appropriate time, or that all storm water discharges associated with construction activity from the identified facility that are authorized by the above referenced NPDES general permit have otherwise been eliminated. I understand that, by submitting this NOT, I am no longer authorized to discharge storm water associated with construction activity by the general permit, and that discharging pollutants in storm water associated with construction activity to waters of the state is unlawful under ORC 6111 where the discharge is not authorized by an NPDES permit.

Name (typed): **Title:**

Signature: **Date:**

National Pollutant Discharge Elimination System General Permit Coverage Transfer Application Form

Division of Surface Water

Instructions: *Submit the completed form below with the original signatures of the previous and new owners or those responsible for the permit. Send to the following address: Ohio EPA, Division of Surface Water, P.O. Box 1049, Columbus, Ohio 43216-1049. A letter will be sent to the transferee and a copy of the letter will be sent to the transferor after the application is reviewed.*

A. Existing Permit Holder Information (Transferor)

1. Facility Permit Number:

2. General Permit Number: OH

3. Corporate (Parent Company) Name:

4. Contact:

5. Division Name:

6. Facility Name:

7. Mailing Address After Transfer:

B. Proposed Permit Holder Information (Transferee)

1. Corporate (Parent Company) Name (New):

2. Phone Number: ( ) -

3. Division Name:

4. Facility Name:

5. Mailing Address for all permit-related correspondence:

6. Facility Mailing Address (if different):

7. Individual authorized to sign applications and Transfer Agreement pursuant to OAC 3745-33-03(F) (principal executive officer, vice president or higher for a corporation; a general partner of a partnership; the proprietor of a proprietorship; principal executive officer, ranking elected official or duly authorized employee of a public entity):

Authorized Individual

8. Authorization: Pursuant to 40 CFR Part 122.22(b), the individual or position identified in this space is duly authorized by the individual in Item 7 to sign all reports required by permit and other information that may be required by the Director:

Name/Title/Position

9. Operator of Facility

Name:

Address:

10. Contact Person for Facility Information or Inspections

Name: Phone: ( ) -

11. Describe any material modifications to production or facilities, subsequent to the transfer, which may alter the volume or characteristics of this discharge (including change of SIC code): (Attach additional pages as necessary)

Agreement to Transfer Permit

_____ as the holder of an NPDES permit which stipulates
(Transferor)

responsibility, coverage and liability for operations involving discharges of wastewater from the facility located at

_____ hereby applies for approval of the Director to transfer the permit
(Facility Location)

responsibility, coverage and liability to _____ .
(Transferee)

_____ agrees to continue to assume the responsibility for compliance
(Transferor)

with all terms, limitations and conditions and any coverage or liability thereunder for a period ending on

_____ . _____ as the proposed new permittee, hereby
(Date) *(Transferee)*

agrees to assume the responsibility for compliance with the entirety of the coverage, responsibility and liability of the

NPDES permit commencing at _____ .
(Date)

In witness whereof, the parties have executed this Agreement on _____ , it is so agreed.
(Date)

Transferor: *(Company Name)* _____ Transferee: *(Company Name)* _____

By: *(Company Representative Signature)* _____ By: *(Company Representative Signature)* _____

Title: _____ Title: _____

12. By signing this form, I (transferee), certify and acknowledge that I have read and fully understood terms and conditions of General Permit Number: OH

I certify under penalty of law that the information submitted is 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.

Transferee Signature: _____

Title: _____

Date: _____

Division of Surface Water

Co-Permittee Notice of Intent (NOI) for Coverage Under Ohio EPA Construction Storm Water General Permit

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized by Ohio's NPDES general permit for storm water associated with construction activity. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. NOTE: All necessary information must be provided on this form. Read the accompanying instructions carefully before completing the form. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. There is no fee associated with submitting this form.

I. Applicant Information/Mailing Address

Company (Applicant) Name: Click here to enter text - Required.

Mailing (Applicant) Address: Click here to enter text - Required.

City: Click here to enter text - Required.	**State:** Click here to enter text - Required.	**Zip Code:** Click here to enter text - Required.
Contact Person: Click here to enter text - Required.	**Phone:** Click here to enter text - Required.	**Fax:** **Click here to enter text.**

Contact E-mail Address: Click here to enter text.

II. Facility/Site Location Information

Existing Ohio EPA Facility Permit Number: Click here to enter text - Required.

Initial Permittee Name: Click here to enter text - Required.

Facility/Site Name: Click here to enter text - Required.

City: Click here to enter text - Required.	**State:** Ohio	**Zip Code:** Click here to enter text - Required.
County(ies): Click here to enter text - Required.	**Township:** Click here to enter text - Required.	
Facility Contact Person: Click here to enter text - Required.	**Phone:** Click here to enter text - Required.	**Fax:** **Click here to enter text.**

Facility Contact E-mail Address: Click here to enter text.

III. Certification

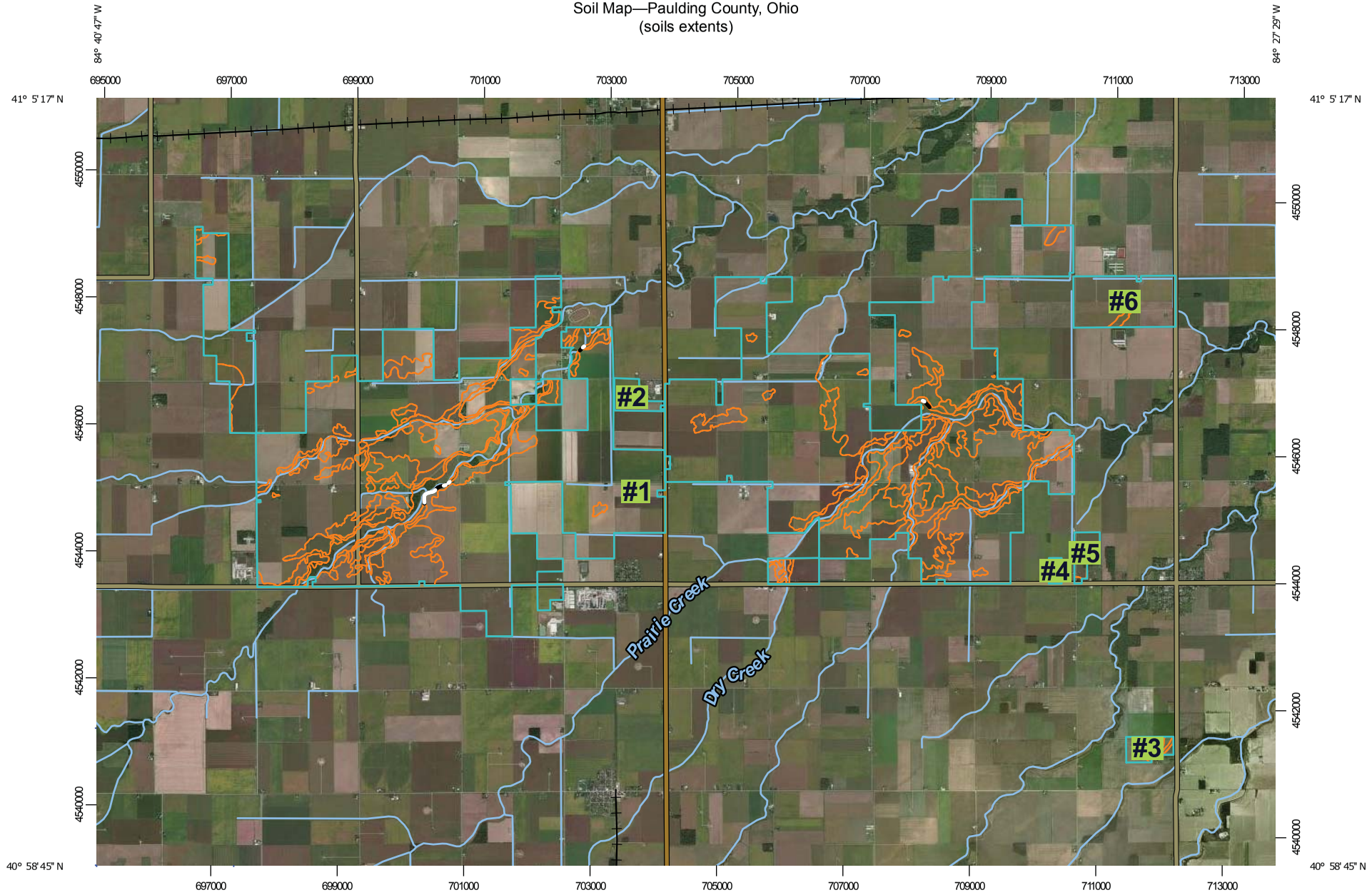
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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 the fine and imprisonment for knowing violations.

Applicant Name *(printed or typed)*:	**Title:**
Signature:	**Date:**

Attachment C

Soil Maps

Soil Map—Paulding County, Ohio
(soils extents)



Map Scale: 1:85,200 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 1000 2000 4000 6000

Feet
0 4000 8000 16000 24000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Paulding County, Ohio
Survey Area Data: Version 14, Sep 19, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2011—Sep 24, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

#1, Paulding County, Ohio (OH125)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Db	Defiance silty clay loam, occasionally flooded	17.7	0.2%
HcA	Hoytville silty clay loam, 0 to 1 percent slopes	41.4	0.4%
HkA	Haskins loam, 0 to 2 percent slopes	8.9	0.1%
HtA	Hoytville silty clay, 0 to 1 percent slopes	302.3	2.8%
Lb	Latty silty clay loam	30.7	0.3%
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	6,107.5	56.9%
Me	Mermill loam	9.8	0.1%
NnA	Nappanee loam, 0 to 2 percent slopes	21.4	0.2%
NpA	Nappanee silty clay loam, 0 to 2 percent slopes	1,368.9	12.8%
NpB	Nappanee silty clay loam, 2 to 6 percent slopes	52.8	0.5%
NpB2	Nappanee silty clay loam, 2 to 6 percent slopes, eroded	123.8	1.2%
Pc	Paulding clay, 0 to 1 percent slopes	1,578.6	14.7%
Sb	Saranac silty clay loam, occasionally flooded	465.3	4.3%
StC2	St. Clair silty clay loam, 6 to 12 percent slopes, eroded	11.9	0.1%
SuC3	St. Clair silty clay, 6 to 12 percent slopes, severely eroded	16.6	0.2%
W	Water	1.9	0.0%
Wb	Wabasha silty clay loam, frequently flooded	40.6	0.4%
Subtotals for #1		**10,200.1**	**95.1%**
Totals for Area of Interest		**10,728.3**	**100.0%**

#2, Paulding County, Ohio (OH125)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	63.7	0.6%
Subtotals for #2		**63.7**	**0.6%**
Totals for Area of Interest		**10,728.3**	**100.0%**

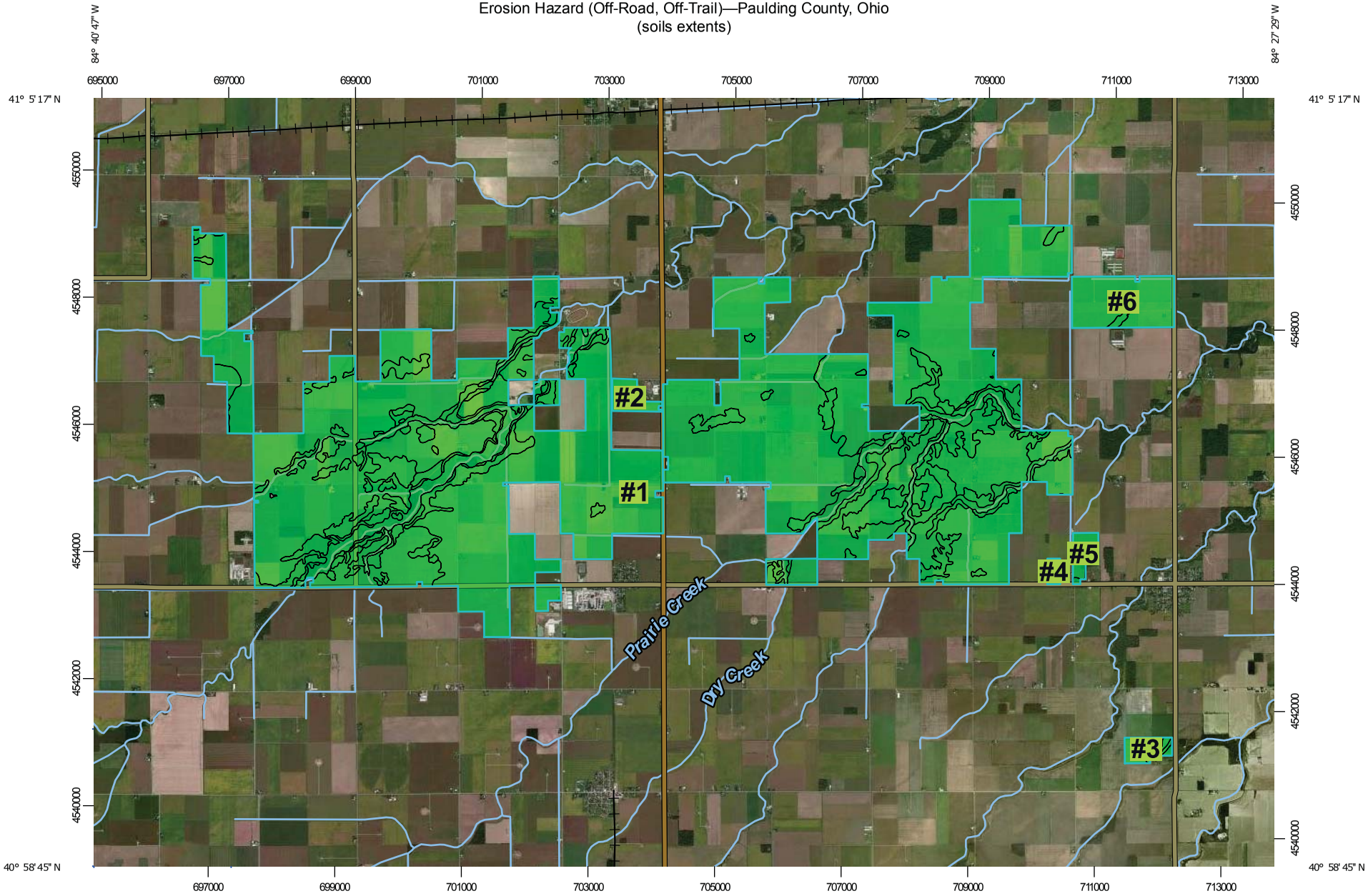
#3, Paulding County, Ohio (OH125)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	32.2	0.3%
NpA	Nappanee silty clay loam, 0 to 2 percent slopes	24.1	0.2%
Pc	Paulding clay, 0 to 1 percent slopes	4.2	0.0%
Wb	Wabasha silty clay loam, frequently flooded	4.1	0.0%
Subtotals for #3		**64.6**	**0.6%**
Totals for Area of Interest		**10,728.3**	**100.0%**

#4, Paulding County, Ohio (OH125)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	4.5	0.0%
Pc	Paulding clay, 0 to 1 percent slopes	15.7	0.1%
Subtotals for #4		**20.1**	**0.2%**
Totals for Area of Interest		**10,728.3**	**100.0%**

#5, Paulding County, Ohio (OH125)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	3.0	0.0%
Pc	Paulding clay, 0 to 1 percent slopes	55.8	0.5%
Subtotals for #5		**58.8**	**0.5%**
Totals for Area of Interest		**10,728.3**	**100.0%**

#6, Paulding County, Ohio (OH125)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	11.1	0.1%
Pc	Paulding clay, 0 to 1 percent slopes	310.0	2.9%
Subtotals for #6		**321.0**	**3.0%**
Totals for Area of Interest		**10,728.3**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)—Paulding County, Ohio
(soils extents)



Map Scale: 1:85,200 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 1000 2000 4000 6000

Feet
0 4000 8000 16000 24000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Lines
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Points
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Paulding County, Ohio
Survey Area Data: Version 14, Sep 19, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2011—Sep 24, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Erosion Hazard (Off-Road, Off-Trail)

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #1, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Db	Defiance silty clay loam, occasionally flooded	Slight	Defiance (93%)		17.7	0.2%
HcA	Hoytville silty clay loam, 0 to 1 percent slopes	Slight	Hoytville (90%)		41.4	0.4%
			Nappanee (10%)			
HkA	Haskins loam, 0 to 2 percent slopes	Slight	Haskins (95%)		8.9	0.1%
HtA	Hoytville silty clay, 0 to 1 percent slopes	Slight	Hoytville (90%)		302.3	2.8%
			Nappanee (10%)			
Lb	Latty silty clay loam	Slight	Latty (90%)		30.7	0.3%
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	Slight	Latty, till substratum (87%)		6,107.5	56.9%
			Nappanee (6%)			
			Fulton (6%)			
			Haskins (1%)			
Me	Mermill loam	Slight	Mermill (92%)		9.8	0.1%
NnA	Nappanee loam, 0 to 2 percent slopes	Slight	Nappanee (93%)		21.4	0.2%
NpA	Nappanee silty clay loam, 0 to 2 percent slopes	Slight	Nappanee (90%)		1,368.9	12.8%
NpB	Nappanee silty clay loam, 2 to 6 percent slopes	Slight	Nappanee (95%)		52.8	0.5%
NpB2	Nappanee silty clay loam, 2 to 6 percent slopes, eroded	Slight	Nappanee (95%)		123.8	1.2%
Pc	Paulding clay, 0 to 1 percent slopes	Slight	Paulding (93%)		1,578.6	14.7%
			Roselms (4%)			
			Latty (2%)			
			Rimer (1%)			

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #1, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Sb	Saranac silty clay loam, occasionally flooded	Slight	Saranac (90%)		465.3	4.3%
StC2	St. Clair silty clay loam, 6 to 12 percent slopes, eroded	Slight	St. Clair (97%)		11.9	0.1%
SuC3	St. Clair silty clay, 6 to 12 percent slopes, severely eroded	Slight	St. Clair (95%)		16.6	0.2%
W	Water	Not rated	Water (100%)		1.9	0.0%
Wb	Wabasha silty clay loam, frequently flooded	Slight	Wabasha (90%)		40.6	0.4%
Subtotals for #1					**10,200.1**	**95.1%**
Totals for Area of Interest					**10,728.3**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #2, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	Slight	Latty, till substratum (87%)		63.7	0.6%
			Nappanee (6%)			
			Fulton (6%)			
			Haskins (1%)			
Subtotals for #2					**63.7**	**0.6%**
Totals for Area of Interest					**10,728.3**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #3, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	Slight	Latty, till substratum (87%)		32.2	0.3%
			Nappanee (6%)			
			Fulton (6%)			
			Haskins (1%)			

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #3, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
NpA	Nappanee silty clay loam, 0 to 2 percent slopes	Slight	Nappanee (90%)		24.1	0.2%
Pc	Paulding clay, 0 to 1 percent slopes	Slight	Paulding (93%)		4.2	0.0%
			Roselms (4%)			
			Latty (2%)			
			Rimer (1%)			
Wb	Wabasha silty clay loam, frequently flooded	Slight	Wabasha (90%)		4.1	0.0%
Subtotals for #3					**64.6**	**0.6%**
Totals for Area of Interest					**10,728.3**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #4, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	Slight	Latty, till substratum (87%)		4.5	0.0%
			Nappanee (6%)			
			Fulton (6%)			
			Haskins (1%)			
Pc	Paulding clay, 0 to 1 percent slopes	Slight	Paulding (93%)		15.7	0.1%
			Roselms (4%)			
			Latty (2%)			
			Rimer (1%)			
Subtotals for #4					**20.1**	**0.2%**
Totals for Area of Interest					**10,728.3**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #5, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	Slight	Latty, till substratum (87%)		3.0	0.0%
			Nappanee (6%)			
			Fulton (6%)			
			Haskins (1%)			

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #5, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Pc	Paulding clay, 0 to 1 percent slopes	Slight	Paulding (93%)		55.8	0.5%
			Roselms (4%)			
			Latty (2%)			
			Rimer (1%)			
Subtotals for #5					**58.8**	**0.5%**
Totals for Area of Interest					**10,728.3**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — #6, Paulding County, Ohio (OH125)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Lc	Latty silty clay, till substratum, 0 to 1 percent slopes	Slight	Latty, till substratum (87%)		11.1	0.1%
			Nappanee (6%)			
			Fulton (6%)			
			Haskins (1%)			
Pc	Paulding clay, 0 to 1 percent slopes	Slight	Paulding (93%)		310.0	2.9%
			Roselms (4%)			
			Latty (2%)			
			Rimer (1%)			
Subtotals for #6					**321.0**	**3.0%**
Totals for Area of Interest					**10,728.3**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)— Summary by Rating Value		
Rating	**Acres in AOI**	**Percent of AOI**
Slight	10,726.4	100.0%
Null or Not Rated	1.9	0.0%
Totals for Area of Interest	**10,728.3**	**100.0%**

Description

The ratings in this interpretation indicate the hazard of soil loss from off-road and off-trail areas after disturbance activities that expose the soil surface. The ratings are based on slope and soil erosion factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance.

The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," "severe," or "very severe." A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

RUSLE2 Related Attributes

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic surface layer. .

Report—RUSLE2 Related Attributes

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed. Organic surface horizons are not displayed.

RUSLE2 Related Attributes–Paulding County, Ohio								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
Db—Defiance silty clay loam, occasionally flooded								
Defiance	93	200	C/D	.28	5	18.7	47.8	33.5
HcA—Hoytville silty clay loam, 0 to 1 percent slopes								
Hoytville	90	200	C/D	.20	4	19.0	42.0	39.0
HkA—Haskins loam, 0 to 2 percent slopes								
Haskins	95	151	C/D	.37	5	43.8	40.2	16.0
HtA—Hoytville silty clay, 0 to 1 percent slopes								
Hoytville	90	200	C/D	.20	5	16.0	43.0	41.0
Lb—Latty silty clay loam								
Latty	90	200	C/D	.32	5	7.6	54.9	37.5
Lc—Latty silty clay, till substratum, 0 to 1 percent slopes								
Latty, till substratum	87	98	D	.24	5	15.0	41.0	44.0
Me—Mermill loam								
Mermill	92	298	C/D	.28	5	42.0	37.5	20.5
NnA—Nappanee loam, 0 to 2 percent slopes								
Nappanee	93	200	C/D	.32	3	39.2	37.3	23.5
NpA—Nappanee silty clay loam, 0 to 2 percent slopes								
Nappanee	90	200	C/D	.32	5	7.7	56.3	36.0

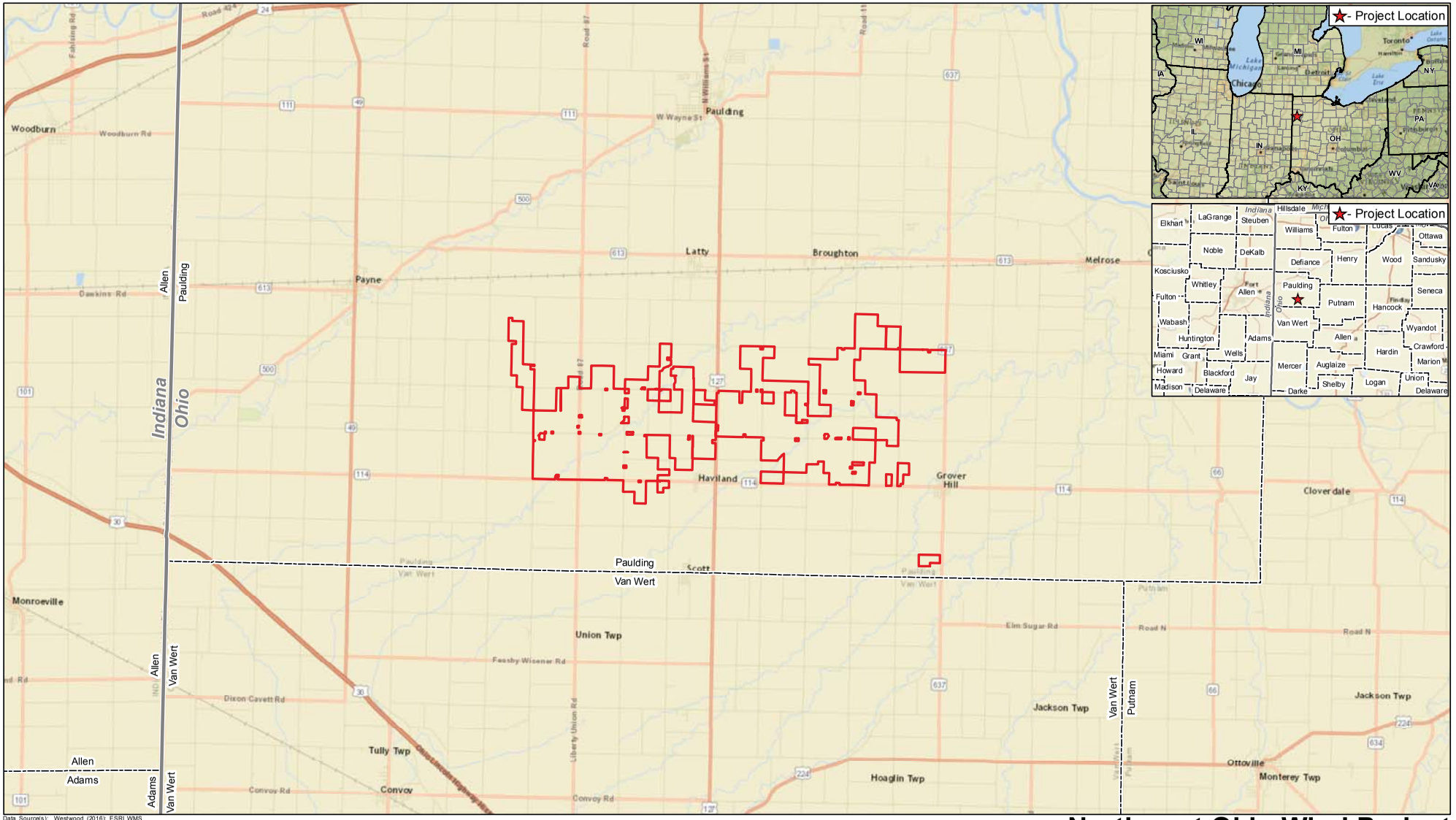
RUSLE2 Related Attributes–Paulding County, Ohio								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
NpB—Nappanee silty clay loam, 2 to 6 percent slopes								
Nappanee	95	174	C/D	.32	5	7.7	56.3	36.0
NpB2—Nappanee silty clay loam, 2 to 6 percent slopes, eroded								
Nappanee	95	174	C/D	.32	5	7.7	56.3	36.0
Pc—Paulding clay, 0 to 1 percent slopes								
Paulding	93	98	D	.17	4	8.0	31.0	61.0
Sb—Saranac silty clay loam, occasionally flooded								
Saranac	90	200	C/D	.24	5	18.7	47.8	33.5
StC2—St. Clair silty clay loam, 6 to 12 percent slopes, eroded								
St. Clair	97	98	D	.32	5	18.7	47.8	33.5
SuC3—St. Clair silty clay, 6 to 12 percent slopes, severely eroded								
St. Clair	95	98	D	.28	4	7.2	47.8	45.0
Wb—Wabasha silty clay loam, frequently flooded								
Wabasha	90	200	C/D	.28	5	7.6	54.9	37.5

Data Source Information

Soil Survey Area: Paulding County, Ohio
Survey Area Data: Version 14, Sep 19, 2016

Attachment D

Pre and Post Drainage Maps, Impaired Water Maps



Data Source(s): Westwood (2016); ESRI WMS World Streets Basemap Imagery (Accessed 2016).

Legend

- Project Boundary
- County Boundary

Westwood
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

N

0 2 Miles

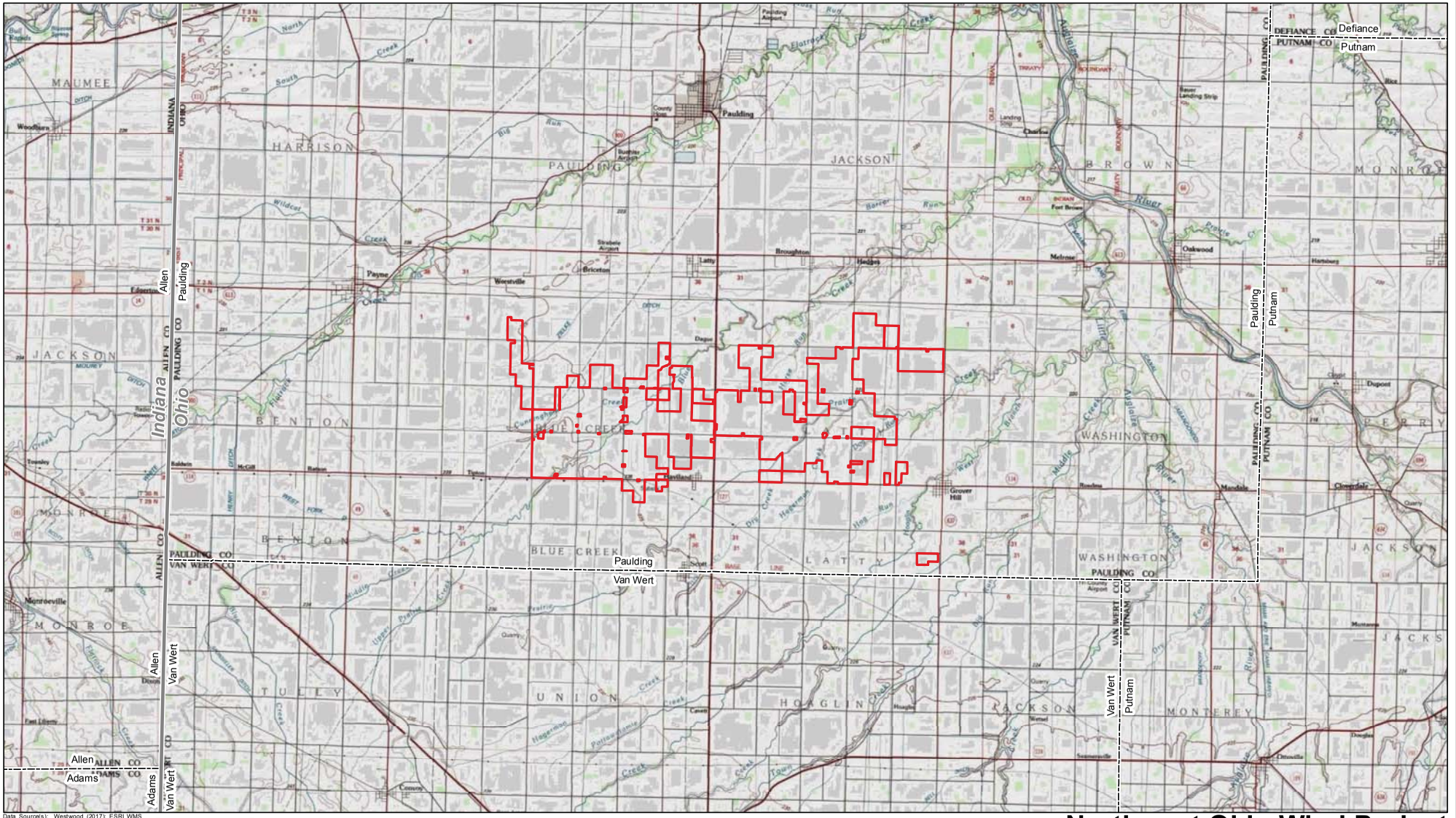
Northwest Ohio Wind Project

Paulding County, Ohio

Vicinity Map

August 21, 2017

Map Document: N:\0007186.00\GIS\SWPPP\ExhibitsNW_Ex1_SWPPPVicinityMap_170821.mxd 8/21/2017 3:02:48 PM



Data Source(s): Westwood (2017); ESRI WMS World Streets Basemap Imagery (Accessed 2017).

Legend

- Project Boundary
- County Boundary

Westwood
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

N

0 Miles 2

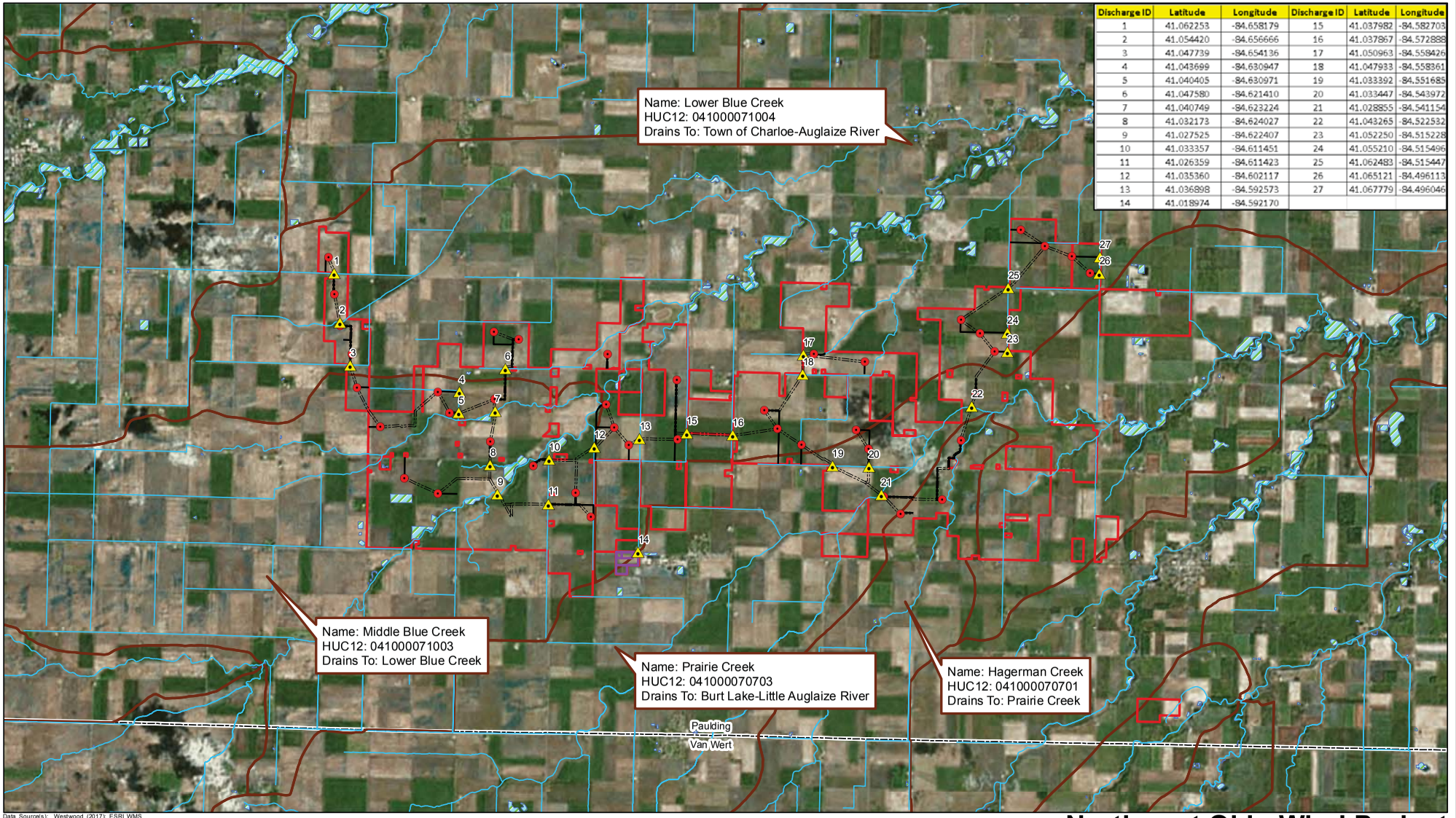
Northwest Ohio Wind Project

Paulding County, Ohio

USGS Topographic Map

August 21, 2017

Map Document: N:\0007186.00\GIS\MXD\PP Exhibits\NW_ExO_SWPPPTopoMap_170821.mxd 8/21/2017 3:05:34 PM



Discharge ID	Latitude	Longitude	Discharge ID	Latitude	Longitude
1	41.062253	-84.658179	15	41.037982	-84.582703
2	41.054420	-84.656666	16	41.037867	-84.572888
3	41.047739	-84.654136	17	41.050963	-84.558426
4	41.043699	-84.630947	18	41.047933	-84.558361
5	41.040405	-84.630971	19	41.033392	-84.551685
6	41.047580	-84.621410	20	41.033447	-84.543972
7	41.040749	-84.623224	21	41.028855	-84.541154
8	41.032173	-84.624027	22	41.043265	-84.522532
9	41.027525	-84.622407	23	41.052250	-84.515228
10	41.033357	-84.611451	24	41.055210	-84.515496
11	41.026359	-84.611423	25	41.062483	-84.515447
12	41.035360	-84.602117	26	41.065121	-84.496113
13	41.036898	-84.592573	27	41.067779	-84.496046
14	41.018974	-84.592170			

Data Source(s): Westwood (2017); ESRI WMS World Streets Basemap Imagery (Accessed 2017).

Legend

- Project Boundary
- County Boundary
- HUC 12 Boundary
- NWI Wetlands
- NHD Flowline
- Turbine Array
- Access Road
- Crane Path
- Project Facilities
- Discharge Location

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N

0 1 Miles

Northwest Ohio Wind Project

Paulding County, Ohio

Drainage Map

August 21, 2017

Attachment E

Site Plans, Erosion and Sediment Control Plans, Details

90% Civil Construction Plans

for

Wind Turbine Generators, Access Roads, Drainage and Erosion Control

for

Northwest Ohio Wind Project

Paulding, Ohio

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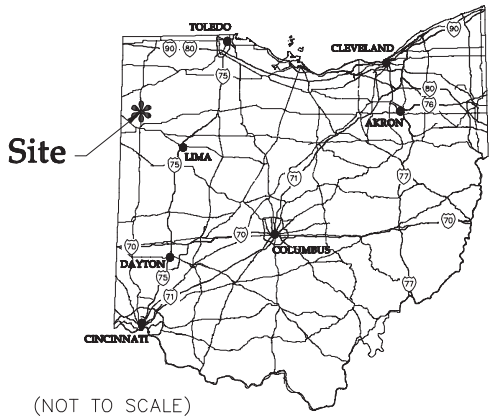
30	Civil Site Plan T39 T40
31	Civil Site Plan T46
32	Civil Site Plan
33	Turbine Delivery and Public Intersection Plan
34	Concrete Haul Route Plan
35	Aggregate Haul Route Plan
36	Intersection Type A
37	Intersection Type B
38	Intersection Type C

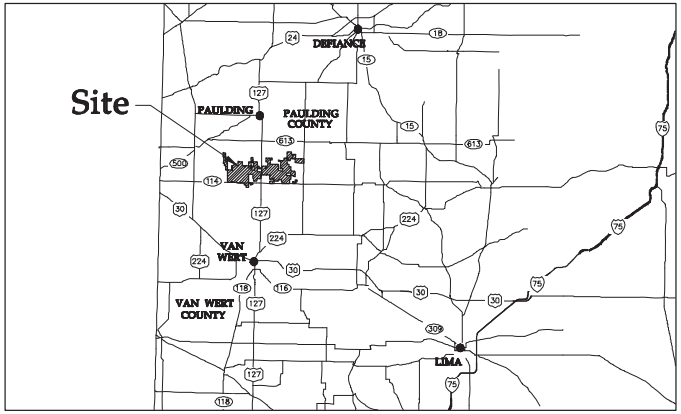
NO.	DATE	REVISION	SHEETS

DATA SET INFORMATION			
BASE FILE	FILE NAME / NOTES	PROVIDER	DATE
AERIAL IMAGE	Northwest_Ohio_Wind_Project.sid	ESRI	4/5/2013
ALTA SURVEY/LAND CONTROL	20101023.01SURV.dwg | | NWO.dwg	Westwood	ONGOING
TOPOGRAPHY	DTM-LIDAR-Thinned-dot10.xyz	State of Ohio	4/4/2013
TURBINE ARRAY	Aug_42vGE2.5-116_Trishe_Ohio_SPN_NAD83.shp	Starwood	8/11/2017
UNDERGROUND COLLECTION	NWO_Collector_Lines.shp	Westwood	8/22/2017
STREAMS/WETLANDS	NW_Ohio_WTLD_GPS_May20Updated.shp	Westwood	5/20/2013

State Map



Vicinity Map



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Designed: KLG
Checked: SJS
Drawn: KLG
As-Built Drawing:

Revisions		
#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

Prepared for:

WHITE an IEA company

3900 E White Ave
Clinton, IN 47842

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c/o Starwood Energy Group, LLC
5 Greenwich Office Park, 2nd Floor
Greenwich, CT 06831

Northwest Ohio Wind Project
Paulding, Ohio

Cover

Not For Construction
Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 1 OF 38

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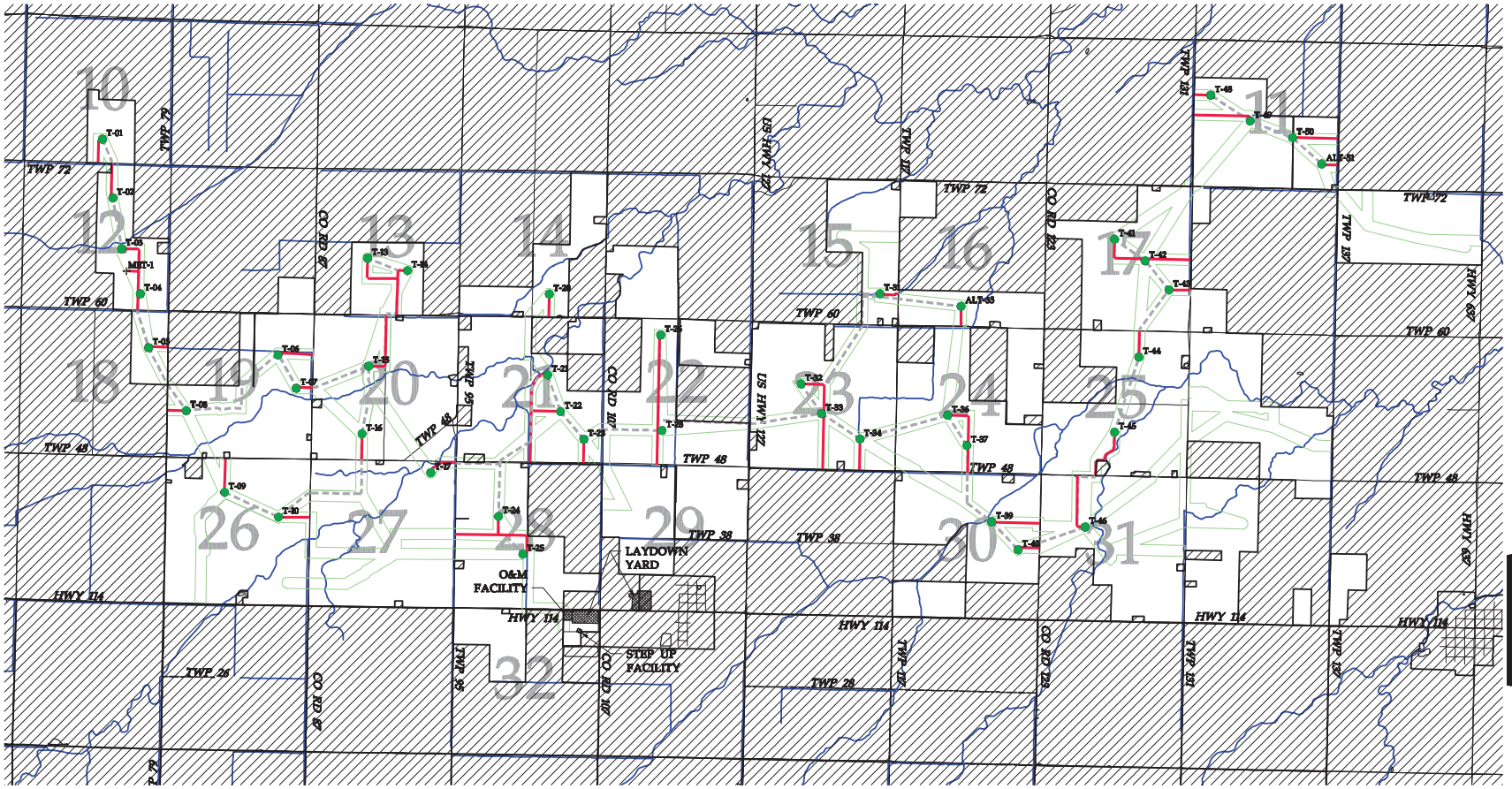

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Paulding, Ohio

Overall Civil Site Plan

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Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 2 OF 38

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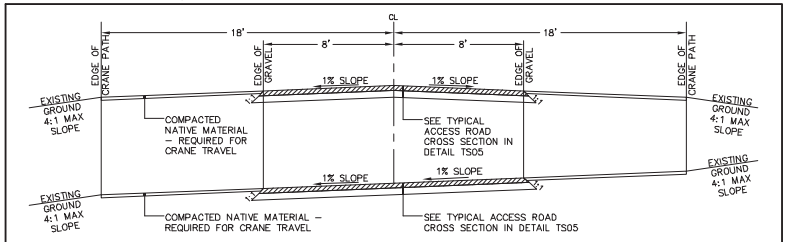
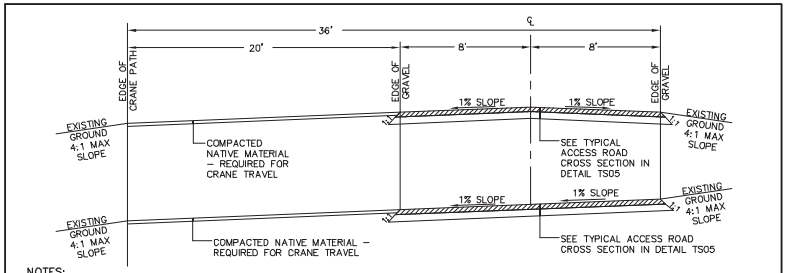


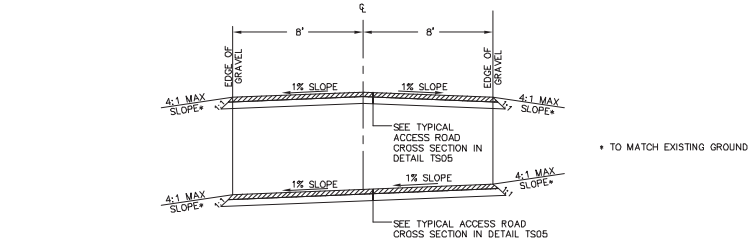
NOTES:
1. CONTRACTOR SHALL CONSTRUCT CROSS-SLOPE ROAD SECTION WHERE ACCESS ROADS ARE CONSTRUCTED ON A SIDE SLOPE, AND WHERE OTHERWISE NOTED ON PLANS, TO ENSURE THAT ROADS AND SHOULDERS REMAIN WELL DRAINED AT ALL TIMES.
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%
3. WHEN CRANE PATH IS NOT NEEDED, MATCH THE ACCESS ROAD DIRECTLY INTO EXISTING GROUND SURFACE
4. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS EXCEPT IF GRADES EXCEED TURBINE DELIVERY VEHICLE CAPABILITIES, IF THIS OCCURS GENERAL CONTRACTOR MAY PROVIDE ASSIST VEHICLE OR MODIFY GRADE

Westwood	TYPICAL TURBINE ACCESS ROAD	LAST REVISED: 04/08/09
		RD01



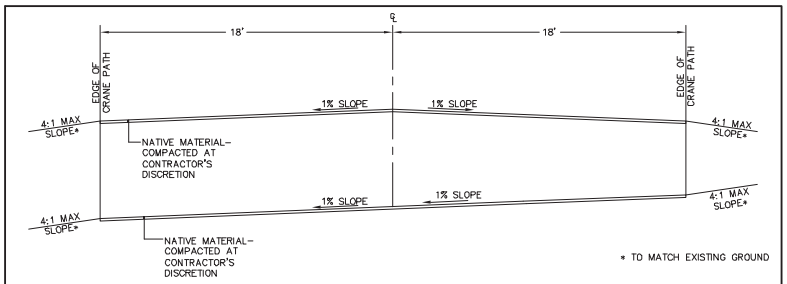
NOTES:
1. CONTRACTOR SHALL CONSTRUCT CROSS-SLOPE ROAD SECTION WHERE ACCESS ROADS ARE CONSTRUCTED ON A SIDE SLOPE, AND WHERE OTHERWISE NOTED ON PLANS, TO ENSURE THAT ROADS AND SHOULDERS REMAIN WELL DRAINED AT ALL TIMES.
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%
3. WHEN CRANE PATH IS NOT NEEDED, MATCH THE ACCESS ROAD DIRECTLY INTO EXISTING GROUND SURFACE
4. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS EXCEPT IF GRADES EXCEED TURBINE DELIVERY VEHICLE CAPABILITIES, IF THIS OCCURS GENERAL CONTRACTOR MAY PROVIDE ASSIST VEHICLE OR MODIFY GRADE

Westwood	TYPICAL TURBINE ACCESS ROAD AND OFFSET CRANE PATH	LAST REVISED: 3/19/12
		RD01-A



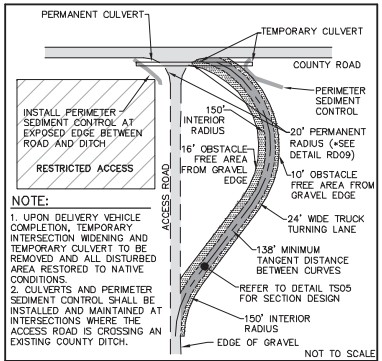
NOTES:
1. CONTRACTOR SHALL CONSTRUCT CROSS-SLOPE ROAD SECTION WHERE ACCESS ROADS ARE CONSTRUCTED ON A SIDE SLOPE (PARALLEL TO CONTOUR) TO ENSURE THAT ROADS AND SHOULDERS REMAIN WELL DRAINED AT ALL TIMES.
2. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS EXCEPT IF GRADES EXCEED TURBINE DELIVERY VEHICLE CAPABILITIES, IF THIS OCCURS GENERAL CONTRACTOR MAY PROVIDE ASSIST VEHICLE OR MODIFY GRADE.

Westwood	TYPICAL TURBINE ACCESS ROAD	LAST REVISED: 2/4/15
		RD01-B



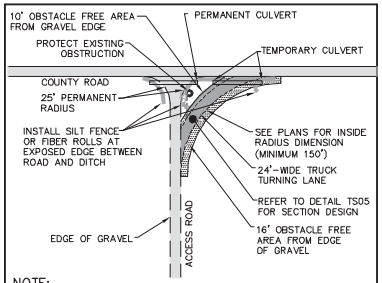
NOTES:
1. CONTRACTOR SHALL CONSTRUCT CROSS-SLOPE WHERE CRANE PATHS ARE CONSTRUCTED ON A SIDE SLOPE (PARALLEL TO CONTOUR) TO ENSURE THAT CRANE PATH REMAINS WELL DRAINED AT ALL TIMES.
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%.

Westwood	TYPICAL CRANE PATH	LAST REVISED: 2/4/15
		RD01-C



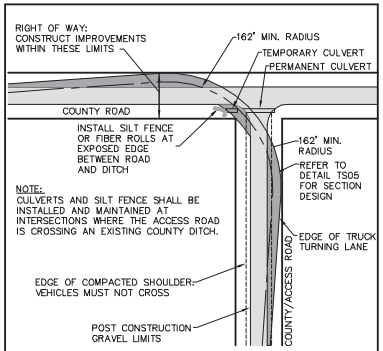
NOTE:
1. UPON DELIVERY VEHICLE COMPLETION, TEMPORARY INTERSECTION WIDENING AND TEMPORARY CULVERT TO BE REMOVED AND ALL DISTURBED AREA RESTORED TO NATIVE CONDITIONS.
2. CULVERTS AND PERIMETER SEDIMENT CONTROL SHALL BE INSTALLED AND MAINTAINED AT INTERSECTIONS WHERE THE ACCESS ROAD IS CROSSING AN EXISTING COUNTY DITCH.

Westwood	TRUCK TRAFFIC TURNING LANE A	LAST REVISED: 11/18/14
		RD08-A



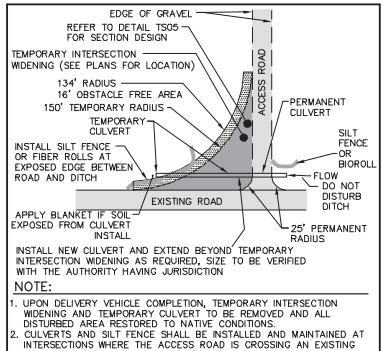
NOTE:
1. UPON DELIVERY VEHICLE COMPLETION, TEMPORARY INTERSECTION WIDENING AND TEMPORARY CULVERT TO BE REMOVED AND ALL DISTURBED AREA RESTORED TO NATIVE CONDITIONS.
2. CULVERTS AND SILT FENCE SHALL BE INSTALLED AND MAINTAINED AT INTERSECTIONS WHERE THE ACCESS ROAD IS CROSSING AN EXISTING COUNTY DITCH.

Westwood	TRUCK TRAFFIC TURNING LANE B	LAST REVISED: 3/19/12
		RD08-B



NOTE:
CULVERTS AND SILT FENCE SHALL BE INSTALLED AND MAINTAINED AT INTERSECTIONS WHERE THE ACCESS ROAD IS CROSSING AN EXISTING COUNTY DITCH.

Westwood	TRUCK TRAFFIC TURNING LANE C	LAST REVISED: 01/02/08
		RD08-C



NOTE:
1. UPON DELIVERY VEHICLE COMPLETION, TEMPORARY INTERSECTION WIDENING AND TEMPORARY CULVERT TO BE REMOVED AND ALL DISTURBED AREA RESTORED TO NATIVE CONDITIONS.
2. CULVERTS AND SILT FENCE SHALL BE INSTALLED AND MAINTAINED AT INTERSECTIONS WHERE THE ACCESS ROAD IS CROSSING AN EXISTING COUNTY DITCH.

Westwood	TURBINE ACCESS ROAD TYPICAL INTERSECTION WIDENING	LAST REVISED: 3/19/12
		RD05

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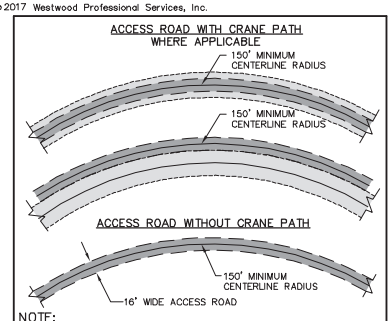
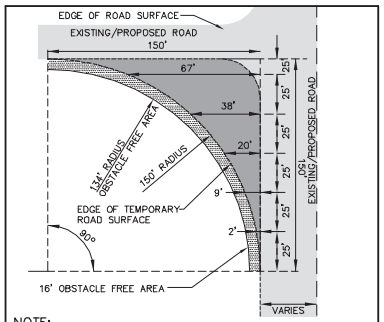


NOTE:

1. SOME RADII MAY REQUIRE ADDITIONAL SOIL COMPACTION OR GRAVEL OUTSIDE OF THE WIDTH SHOWN ABOVE TO ACCOMMODATE TRACTORS OR TRAILERS TRACKING OFF THE ACCESS ROAD.

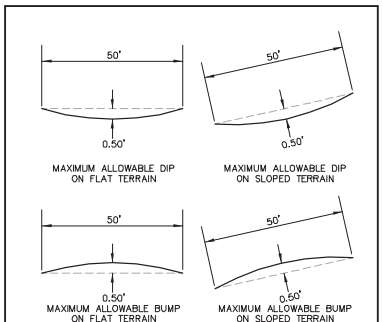
Westwood	MINIMUM RADIUS FOR TURBINE ACCESS ROAD	LAST REVISED: 01/02/08
		RD02



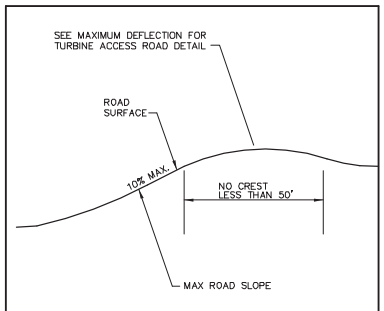
NOTE:

1. UPON DELIVERY VEHICLE COMPLETION, TEMPORARY INTERSECTION WIDENING TO BE REMOVED AND ALL DISTURBED AREA RESTORED.

Westwood	INTERSECTION WIDENING DIMENSIONS	LAST REVISED: 3/19/12
		RD06



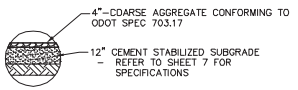
Westwood	MAXIMUM DEFLECTION FOR TURBINE ACCESS ROAD	LAST REVISED: 11/4/13
		RD04



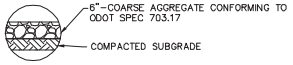
NOTES:

1. ROAD SLOPE SHALL NOT EXCEED 10% WITHOUT OWNER APPROVAL

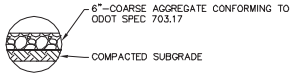
Westwood	MAXIMUM VERT. SLOPE FOR TURBINE ACCESS ROAD/CRANE TRAVEL PATH	LAST REVISED: 11/4/13
		RD03



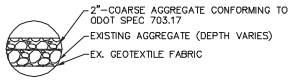
CEMENT STABILIZED ACCESS ROAD CROSS SECTION



MET TOWER ROAD CROSS SECTION



LAYDOWN YARD AND TEMPORARY INTERSECTION CROSS SECTION



EXISTING PTC ROAD CROSS SECTION

NOTE:
STRUCTURAL SECTIONS SHOWN ARE THE MINIMUM THICKNESS REQUIREMENTS DURING NORMAL FIELD CONDITIONS. THE SECTIONS MAY NEED TO BE INCREASED BASED ON ACTUAL FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. CONDITIONS INCLUDE BUT ARE NOT LIMITED TO CONSTRUCTION DURING THE FREEZE/THAW CYCLE, UNUSUALLY WET PERIODS, OR IN LOW/WET AREAS. 6" FINAL ROAD SECTION TO BE IN PLACE FOR MAINTENANCE CONDITIONS PER BARR GEOTECHNICAL REPORT, DATED DECEMBER 10, 2014.

Westwood	TYPICAL STRUCTURAL CROSS SECTIONS	LAST REVISED: 08/31/17
		TS05

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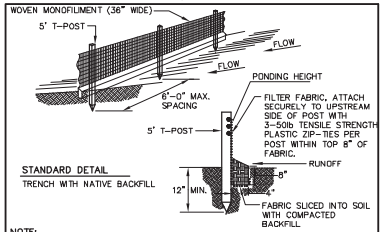
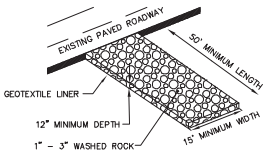


NOTE:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN ACCUMULATED TO 1/3 THE HEIGHT OF THE FABRIC OR MORE.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
4. ALL ENDS OF THE SILT FENCE SHALL BE WRAPPED UPSLOPE SO THE ELEVATION OF THE BOTTOM OF FABRIC IS HIGHER THAN "PONDING HEIGHT".

Westwood	SILT FENCE	LAST REVISED: 11/4/13
		GD03

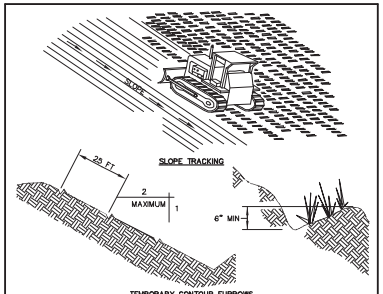
"ACCESS ROADS SHALL BE CONSTRUCTED FROM PUBLIC ROADS WHERE THE CONSTRUCTION DELIVERY TRAFFIC WILL TRAVEL ON THE CONSTRUCTED ACCESS ROAD. SEDIMENT TRACKING ONTO PUBLIC PAVED ROADS IS NOT ANTICIPATED. IF SEDIMENT TRACKING DOES OCCUR, THE SEDIMENT SHALL BE REMOVED AND A ROCK CONSTRUCTION ENTRANCE CONSTRUCTED"



NOTE:

ROCK CONSTRUCTION ENTRANCE SHOULD BE A MINIMUM THICKNESS OF 1.0' AND CONTAIN MAXIMUM SIDE SLOPES OF 4:1. ROCK ENTRANCE SHOULD BE INSPECTED AND MAINTAINED REGULARLY. ROCK ENTRANCE LENGTH MAY NEED TO BE EXTENDED IN CLAY SOILS.

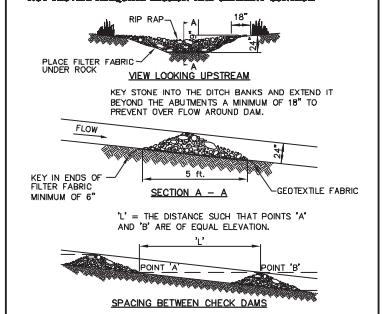
Westwood	ROCK CONSTRUCTION ENTRANCE	LAST REVISED: 11/4/13
		GD05



NOTE:
1. GROOVES WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE RUNOFF RATE.
2. USE SLOPE TRACKING FOR SLOPES 4:1 AND 50 FEET LONG OR STEEPER/LONGER.
3. USE TEMPORARY CONTOUR FURROWS FOR SLOPES 3:1 AND 75 FEET LONG OR STEEPER/LONGER.

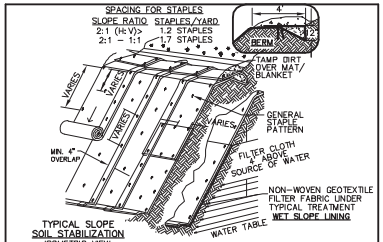
Westwood	SURFACE ROUGHENING FOR ALL SLOPES GREATER THAN 4:1	LAST REVISED: 11/4/13
		GD09

ROCK CHECK SHALL BE USED WHERE NEEDED AS A FILTER MEDIA, OR WHERE EROSION CONTROL BLANKETS AND/OR MULCH BERMS DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL.



Westwood	TEMPORARY ROCK CHECK DAM	LAST REVISED: 11/4/13
		GD18

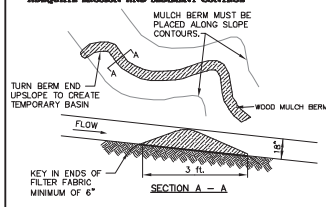
NOTE - PERIMETER SEDIMENT CONTROL OPTIONS SHALL CONSIST OF SILT FENCE, FIBER LOGS (BIOROLLS), WOOD MULCH BERMS, OR TOPSOIL BERMS TO BE UTILIZED AND INSTALLED PER THE CONTRACTOR'S DISCRETION.



NOTE:
1. REFER TO THE NORTHWEST OHIO WIND PROJECT SWPPP FOR IMPLEMENTATION REQUIREMENTS.
2. MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICK AND GRASS.
4. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
5. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL.
6. DO NOT STRETCH.
7. BLANKET TYPE AND WEIGHT MUST BE CHOOSEN BASED ON SITE CONDITIONS, ODOT PERFORMANCE FACTORS AND MANUFACTURERS RECOMMENDATIONS.
8. STAPLE LENGTHS SHALL CONFORM TO MANUFACTURERS RECOMMENDATIONS.

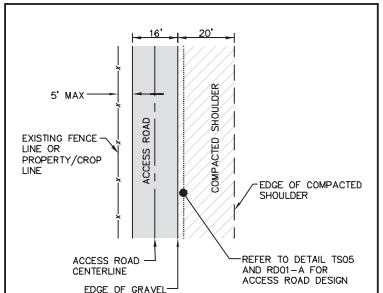
Westwood	TYPICAL SLOPE STABILIZATION - TEMPORARY EROSION BLANKETS TURF REINFORCEMENT MATS FOR SLOPES	LAST REVISED: 11/4/13
		GD21

"WOOD MULCH BERM SHALL BE USED WHERE NEEDED AS A FILTER MEDIA, OR WHERE EROSION CONTROL BLANKETS DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL"



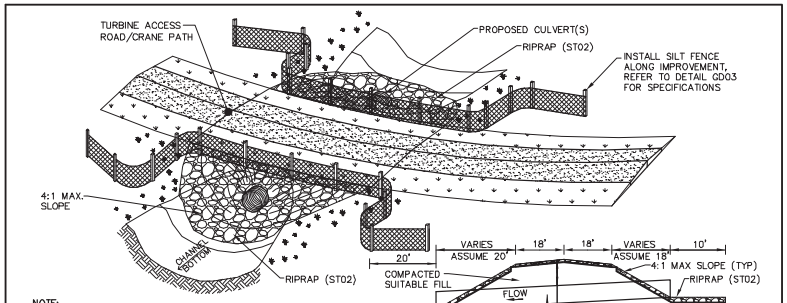
NOTE:
1. REFER TO THE NORTHWEST OHIO WIND PROJECT SWPPP FOR IMPLEMENTATION AND INSTALLATION REQUIREMENTS.
2. WOOD MULCH SHALL BE SHREDDED AND NOT CHIPPED.
3. MULCH SHALL BE COMPOSED OF CLEARED VEGETATION FROM THE PROJECT SITE.
4. THE WOOD MULCH BERM SHALL REMAIN IN PLACE THROUGHOUT CONSTRUCTION ACTIVITIES. THE BERM MAY REMAIN IN PLACE FOLLOWING FINAL STABILIZATION.
5. ROUTINELY INSPECT AND MAINTAIN BERM IN A FUNCTIONAL CONDITION AT ALL TIMES. INSTALL ADDITIONAL BERM MATERIAL AS DIRECTED. REMOVE SEDIMENT AFTER IT HAS REACHED 1/3 THE HEIGHT OF THE BERM.

Westwood	WOOD MULCH BERM	LAST REVISED: 11/4/13
		GD24



NOTE:
1. COMPACTED SHOULDER SHALL BE RETURNED TO NATIVE CONDITION FOLLOWING TURBINE GENERATOR CONSTRUCTION.
2. THE ACCESS ROAD MAY NEED TO BE CONSTRUCTED FARTHER FROM THE PROPERTY LINE IF OBSTRUCTIONS SUCH AS TREES FOLLOW THE PROPERTY LINE.

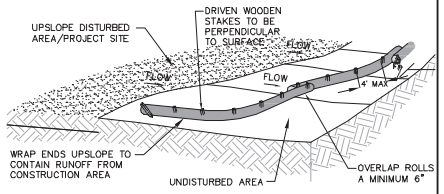
Westwood	TURBINE ACCESS ROAD ALONG FENCE/PROPERTY/CROP LINE	LAST REVISED: 04/08/08
		RD07

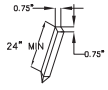


NOTE:
1. CULVERT INSTALLATION SHALL CONFORM WITH MANUFACTURERS RECOMMENDATION FOR INSTALLATION.
2. MINIMIZE DISTURBANCE TO THE STREAM/DITCH DURING CULVERT INSTALLATION/REMOVAL.
3. IF STREAM CROSSING IS TEMPORARY (IE. CRANE PATH) CONTRACTOR MAY INSTALL GEOTEXTILE FABRIC INSTEAD OF EROSION CONTROL BLANKET ALONG CHANNEL SLOPES

Westwood	TYPICAL TURBINE ACCESS ROAD/CRANE PATH STREAM CROSSING	LAST REVISED: 04/08/08
		RD12

NOTES:
1. FIBER ROLLS SHALL BE INSTALLED PRIOR TO UPSLOPE DISTURBANCE ACTIVITIES COMMENCE.
2. FIBER ROLLS SHALL BE PREFABRICATED AND MADE FROM WEED FREE RICE STRAW, FLAX, OR A SIMILAR AGRICULTURAL MATERIAL BOUND INTO A TIGHT TUBULAR ROLL BY NETTING. USE A 6" OR 12" DIA. ROLL.
3. TRENCHES SHALL BE CREATED ALONG THE SLOPE OF THE PERIMETER. THE TRENCH DEPTH SHOULD BE 1/4 TO 1/3 OF THE THICKNESS OF THE ROLL, AND THE WIDTH SHOULD EQUAL THE ROLL DIAMETER, IN ORDER TO PROVIDE AREA TO BACKFILL THE TRENCH.
4. STAKE FIBER ROLLS INTO THE TRENCH. DRIVE STAKES AT THE END OF EACH FIBER ROLL AND SPACED 4 FEET MAXIMUM ON CENTER. USE WOOD STAKES WITH NOMINAL CLASSIFICATION OF 0.75 IN BY 0.75 IN. AND A MINIMUM LENGTH OF 24 IN.
5. ROLLS SHALL BE INSTALLED PERPENDICULAR TO WATER MOVEMENT, AND PARALLEL TO THE SLOPE CONTOUR.
6. TURN THE ENDS OF THE FIBER ROLLS UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL. THE UPSLOPE POINT SHOULD BE A MINIMUM 6" HIGHER IN ELEVATION THAN THE LOW POINT.
7. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED A MINIMUM OF 6 INCHES, NOT ABUTTED.
8. FIBER ROLLS ENCASED WITH PLASTIC NETTING ARE USED FOR A TEMPORARY APPLICATION ONLY AND SHOULD BE REMOVED FOLLOWING STABILIZATION. FIBER ROLLS USED IN A PERMANENT APPLICATION SHALL BE ENCASED WITH A BIODEGRADABLE MATERIAL AND MAY BE LEFT IN.
9. TEMPORARY INSTALLATIONS SHOULD ONLY BE REMOVED WHEN UP GRADIENT AREAS ARE STABILIZED PER GENERAL PERMIT REQUIREMENTS, AND/OR POLLUTANT SOURCES NO LONGER PRESENT A HAZARD, BUT, THEY SHOULD ALSO BE REMOVED BEFORE VEGETATION BECOMES TOO MATURE SO THAT THE REMOVAL PROCESS DOES NOT DISTURB MORE SOIL AND VEGETATION THAN IS NECESSARY.
10. FIBER ROLLS MUST BE INSPECTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS FOR THE ASSOCIATED PROJECT TYPE AND RISK LEVEL. IT IS RECOMMENDED THAT AT A MINIMUM, THE BMPS BE INSPECTED WEEKLY, PRIOR TO FORECASTED RAIN EVENTS, DAILY DURING EXTENDED RAIN EVENTS, AND AFTER THE CONCLUSION OF RAIN EVENTS.





SLOPE (H:V)	MAX SPACING FT.
< 4:1	20
4:1 - 2:1	15
> 2:1	10

* A CLOSER SPACING IS MORE EFFECTIVE

12. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING, OR SLUMPING FIBER ROLLS.
13. SEDIMENT THAT ACCUMULATES UPSLOPE OF THE BMP SHOULD BE PERIODICALLY REMOVED IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-THIRD THE DESIGNATED SEDIMENT STORAGE DEPTH.
14. RILLS OR GULLIES MAY BEGIN TO FORM FOLLOWING MAJOR STORM EVENTS WHERE RUNOFF HAS OVERTOPPED THE FIBER ROLLS. THESE RILLS OR GULLIES SHOULD BE PROMPTLY REPAIRED.

Westwood	TYPICAL FIBER ROLLS FOR PERIMETER CONTROL OF CONSTRUCTION AREA LIMIT	LAST REVISED: 06/09/13
		GD42

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Designed:	KLG
Checked:	SJS
Drawn:	KLG
As-Built Drawing:	

Revisions

#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

Prepared for:

WHITE an EEA company

3900 E. White Ave
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Trishe Wind Ohio, LLC
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Greenwich, CT 06831

Northwest Ohio Wind Project

Paulding, Ohio

Construction Details

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 5 OF 38

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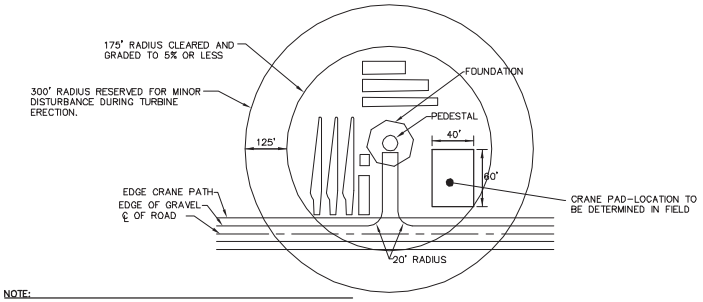
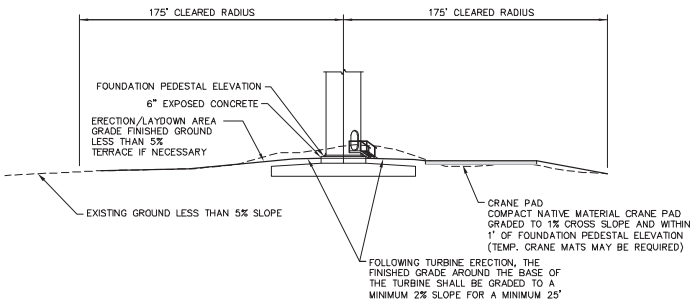
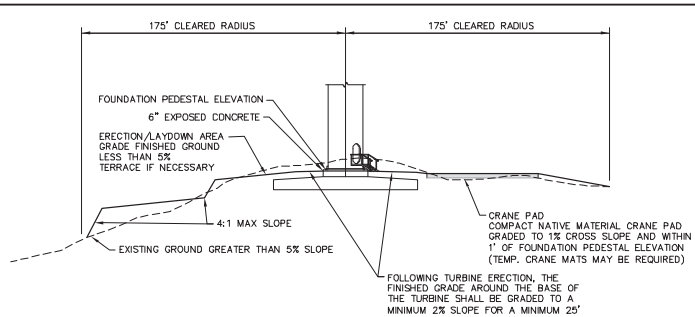


NOTE:
1. ACTUAL CRANE PAD SIZE AND ORIENTATION TO BE DETERMINED BY CONTRACTOR.
2. DISTANCE BETWEEN CENTER OF TURBINE AND EGDE OF GRAVEL ROAD VARIES BY TURBINE SITE
3. CONTRACTOR TO DETERMINE ORIENTATION OF COMPONENT LAYDOWN/STAGING AREA TO GRAVEL ROAD PRIOR TO DELIVERIES

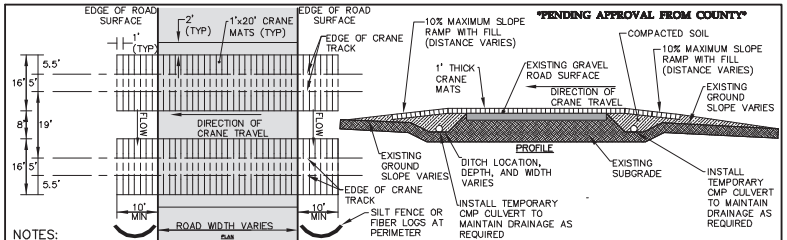
Westwood | TYPICAL WTG SITE – PLAN VIEW | LAST REVISED: 04/08/09 | TS01



Westwood | TYPICAL WTG SITE – PROFILE VIEW | LAST REVISED: 04/08/09 | TS03

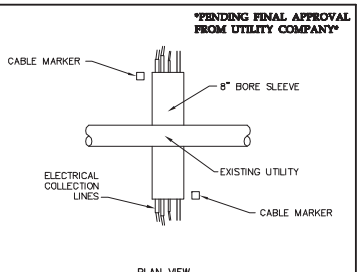


Westwood | TYPICAL WTG SITE, EXISTING GROUND GREATER THAN 5% – PROFILE VIEW | LAST REVISED: 04/08/09 | TS04

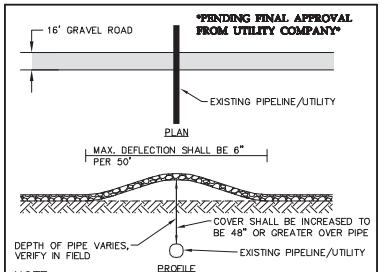


NOTES:
1. CRANE MATS MUST EXTEND A MINIMUM OF 10' FROM THE EDGE OF THE EXISTING ROAD SURFACE.
2. ALL DISTURBED AREA WITHIN THE COUNTY ROW TO BE RETURNED TO EXISTING CONDITIONS.
3. ALL DISTURBED AREA TO BE RESTORED ACCORDING TO THE PROJECT SWPPP AND NARRATIVE.
4. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY REPAIRS TO THE ROAD BASED ON DAMAGE CAUSED BY THE CRANE CROSSING.
5. PROVIDE TRAFFIC CONTROL PER THE MUTCD FOR TEMPORARY ROAD CLOSURES.
6. DIMENSIONS SHOWN ARE APPROXIMATE AND MAY CHANGE BASED ON ACTUAL CRANE UTILIZED BY CONTRACTOR.
7. ALTERNATIVE METHODS MAY BE USED FOLLOWING APPROVAL FROM OWNER AND COUNTY.
8. CROSSING SHALL BE APPROVED BY THE LOCAL ROAD AUTHORITY PRIOR TO USE.
9. UPON REMOVAL OF CROSSING APPLY SEED AND EROSION CONTROL BLANKET TO FINAL GRADE TO RESTORE DITCHES AND SLOPES TO PRECONSTRUCTION CONDITION.

Westwood | TEMPORARY CRANE CROSSING FOR EXISTING ROADS | LAST REVISED: 06/29/01 | EP01

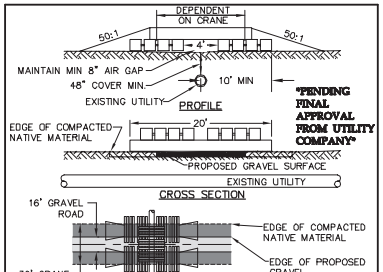


Westwood | ELECTRICAL COLLECTION/PIPELINE CROSSING | LAST REVISED: 01/05/08 | UT04



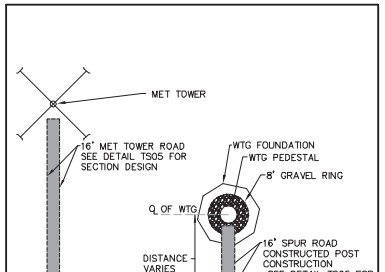
NOTE:
1. CROSSING DETAIL FOR INFORMATION ONLY. CROSSING MUST BE APPROVED BY UTILITY COMPANY PRIOR TO CROSSING.
2. LOCATION AND DEPTH OF EXISTING UTILITY SHALL BE FIELD VERIFIED BY EXISTING UTILITY OWNER/OPERATOR.
3. EARTH COVER PROTECTION FOR EXISTING UTILITIES SHALL BE USED WHERE THE COVER OVER THE EXISTING UTILITY IS LESS THAN 48".
4. A PIPELINE REPRESENTATIVE SHALL BE PRESENT AT ALL TIMES WHEN EXCAVATION WORK IS BEING PERFORMED WITHIN 25 FEET OF THE PIPELINE.
5. ALL CONSTRUCTION EQUIPMENT AND VEHICLES WITH OVER 80,000 GVWR CROSSING A PIPELINE WILL REQUIRE A REVIEW BY THE UTILITY OWNER ON A CASE BY CASE SENARIO BEFORE CROSSING PIPELINE.
6. ALL EXCAVATION WITHIN 24 INCHES OF THE PIPELINE MUST BE BY MANUAL MEANS.

Westwood | EARTH COVER PROTECTION FOR UTILITY CROSSING – ACCESS ROAD ONLY | LAST REVISED: 11/24/08 | UT01



NOTE:
1. CROSSING DETAIL FOR INFORMATION ONLY. CROSSING MUST BE APPROVED BY UTILITY COMPANY PRIOR TO CROSSING.
2. DEPTH AND LENGTH OF FILL VARIES PER PIPELINE/UTILITY COMPANIES RECOMMENDATION
3. CRANE MAT PROTECTION FOR UTILITY CROSSING SHALL BE USED WHERE THE COVER OVER THE EXISTING UTILITY IS 48" OR GREATER.
4. A PIPELINE REPRESENTATIVE SHALL BE PRESENT AT ALL TIMES WHEN EXCAVATION WORK IS BEING PERFORMED WITHIN 25' OF THE PIPELINE.
5. ALL CONSTRUCTION EQUIPMENT AND VEHICLES WITH OVER 80,000 GVWR CROSSING A PIPELINE WILL REQUIRE A REVIEW BY THE UTILITY OWNER ON A CASE BY CASE SENARIO BEFORE CROSSING PIPELINE.
6. ALL EXCAVATION WITHIN 24 INCHES OF THE PIPELINE MUST BE BY MANUAL MEANS.

Westwood | CRANE MAT PROTECTION FOR UTILITY CROSSING – ACCESS ROAD AND CRANE CROSSING | LAST REVISED: 01/05/08 | UT02-1



Westwood | TYPICAL SPUR AND MET TOWER ROAD | LAST REVISED: 01/05/08 | TS06

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Designed:	KLG
Checked:	SJS
Drawn:	KLG
As-Built Drawing:	

Revisions		
#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

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Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 6 OF 38

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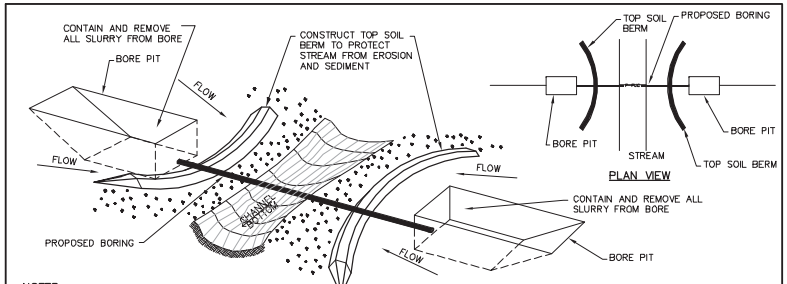
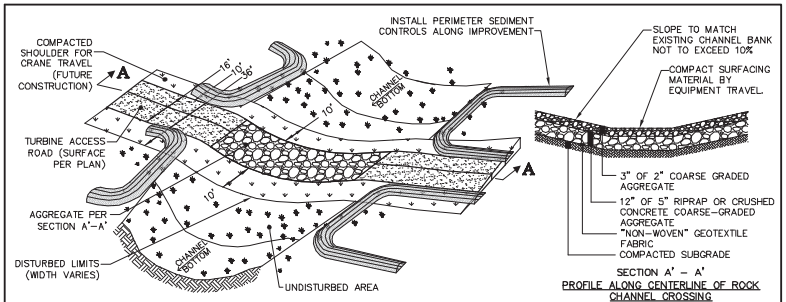


NOTES:
1. CONSTRUCT TOPSOIL BERM TO PROTECT EXISTING CHANNELS WHERE BORING WILL OCCUR FOR UNDERGROUND COLLECTION SYSTEM INSTALLATION.
2. MINIMIZE DISTURBANCE TO THE STREAM DURING CONSTRUCTION.
3. SILT FENCE OR FIBER ROLLS MAY BE SUBSTITUTED FOR THE TOPSOIL BERM.
4. UPON REMOVAL OF THE BORE PITS, THE DISTURBED AREAS SHALL BE RESTORED TO NATIVE CONDITIONS. REFER TO THE HIGHLAND SWPPP DATED OCTOBER, 2013.

Westwood	TYPICAL UNDERGROUND COLLECTION SYSTEM STREAM CROSSING	LAST REVISED: 09/23/08
		UT06

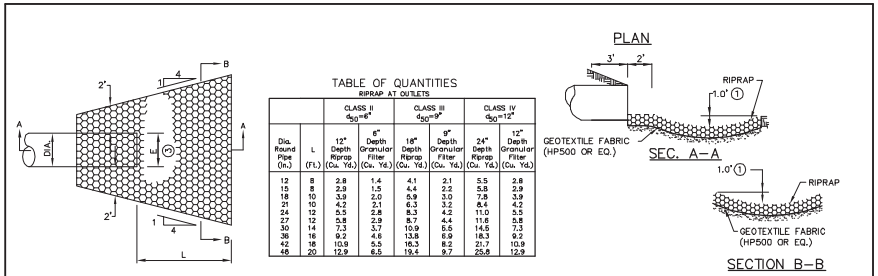


NOTE:
1. CHANNEL SLOPES TO BE MODIFIED TEMPORARILY DURING CONSTRUCTION TO ALLOW FOR ADEQUATE TURBINE COMPONENT DELIVERY AND RESTORE TO FINAL CONDITIONS UPON SITE RESTORATION.
2. CROSSINGS SHALL HAVE THE TOP–MOST SURFACE LAYER A MINIMUM OF 2.5 INCHES BELOW THE STREAM CHANNEL BOTTOM.
3. THE ACCESS ROAD SHALL CROSS THE DITCH AT 90° ANGLE.
4. THE TOP BED OF THE ROCK CHANNEL CROSSING SHALL CONFORM TO THE EXISTING DITCH CROSS SECTIONAL SLOPES.
5. MATERIAL THICKNESSES MAY BE FIELD ADJUSTED TO ACHIEVE SUFFICIENT BEARING CAPACITIES AS ARE NECESSARY FOR ANTICIPATED ROAD USE.

Westwood	TYPICAL TURBINE ACCESS ROAD LOW WATER CROSSING	LAST REVISED: 10/01/13
		RD12B

TURB_NUM	NORTHING	EASTING	TURB_NUM	NORTHING	EASTING
T-01	516779.99	1373133.70	T-26	509644.09	1393482.58
T-02	514638.90	1373513.70	T-28	506162.17	1393529.86
T-03	512788.06	1373833.48	T-31	511151.51	1401472.89
T-04	511147.56	1374516.73	T-32	507858.68	1398595.32
T-05	509179.48	1374818.93	T-33	506780.21	1399346.33
T-06	508918.10	1379532.21	T-34	505852.96	1400740.25
T-07	507702.14	1380202.15	T-36	506715.06	1403938.29
T-08	506885.88	1376190.57	T-37	505617.10	1404636.14
T-09	503908.07	1377589.54	T-39	502832.93	1405543.41
T-10	503006.39	1379553.18	T-40	501814.28	1406507.33
T-13	512438.29	1382804.20	T-41	513133.24	1410018.00
T-14	511990.53	1384253.76	T-42	512346.88	1411135.15
T-15	508508.89	1382840.40	T-43	511289.04	1412005.43
T-16	506040.37	1382593.18	T-44	508839.49	1410911.21
T-17	504627.52	1385099.80	T-45	506100.19	1410018.49
T-20	511132.16	1389423.77	T-46	502646.83	1408950.18
T-21	508189.95	1389363.01	T-48	518385.39	1413527.31
T-22	506851.45	1389828.80	T-49	517441.01	1414961.38
T-23	505843.11	1390681.84	T-50	516834.32	1416508.03
T-24	503031.96	1387571.50	ALT-35	510690.21	1404428.78
T-25	501657.09	1388454.13	ALT-51	515877.37	1417574.09

WIND TURBINE GENERATOR COORDINATES	DATE 08/15/2017



		CLASS II d_{50}=6"		CLASS III d_{50}=9"		CLASS IV d_{50}=12"	
Dia. Round Pipe (in.)	L (Ft.)	12" Depth Riprap (Cu. Yds.)	6" Depth Granular Filter (Cu. Yds.)	18" Depth Riprap (Cu. Yds.)	9" Depth Granular Filter (Cu. Yds.)	24" Depth Riprap (Cu. Yds.)	12" Depth Granular Filter (Cu. Yds.)
12	8	2.8	1.4	4.1	2.1	5.5	2.8
15	8	2.9	1.5	4.4	2.2	5.8	2.9
18	10	3.9	2.0	5.9	3.0	7.8	3.9
21	10	4.2	2.1	6.3	3.2	8.4	4.2
24	12	5.5	2.8	8.3	4.2	11.0	5.5
27	12	5.8	2.9	8.7	4.4	11.6	5.8
30	14	7.3	3.7	10.9	5.5	14.5	7.3
36	16	9.2	4.6	13.8	6.9	18.3	9.2
42	18	10.9	5.5	16.3	8.2	21.7	10.9
48	20	12.9	6.5	19.4	9.7	25.8	12.9

NOTE:
① FOR PIPES GREATER OR EQUAL TO 30", USE 1.5'.
2. THE CONTRACTOR SHALL PLACE RIP RAP, PULVERIZED TOPSOIL, SEED AND WOODFIBER BLANKET IMMEDIATELY AFTER PIPE IS INSTALLED, EXTEND AREA TO MATCH UNDISTURBED SOIL.
③ DIMENSION "L" EQUALS INSIDE WIDTH OF PIPE.
4. RIP RAP SHALL BE CLASS 3 SIZE UNLESS OTHERWISE NOTED ON PLANS.
5. RIP RAP SHALL BE INSTALLED AT ALL CULVERTS INSTALLED DURING CONSTRUCTION.

Westwood	RIP RAP OUTLETS	LAST REVISED: 05/14/09
		ST02

SPECIFICATIONS FOR CEMENT STABILIZED ACCESS ROADS

SPECIFICATIONS BELOW ARE GENERAL RECOMMENDATIONS/GUIDELINES FOR CEMENT STABILIZATION OF ALL PROPOSED TURBINE ACCESS ROADS WITHIN THE PROJECT. ACTUAL FIELD CONDITIONS MAY ALTER APPLICATION RATE, CONSULT PROJECT GEOTECHNICAL ENGINEER FOR FURTHER RECOMMENDATIONS.

1. STRIP THE TOPSOIL TO A DEPTH OF ±4 INCHES TO MATCH ACCESS ROAD GRAVEL SECTION.
2. DETERMINE THE MOISTURE CONTENT OF THE IN–SITU SOILS USING A SPEEDY MOISTURE METER OR OTHER SUITABLE DEVICE. EXISTING SOILS SHALL BE MOISTURE CONDITIONED TO WITHIN ±3% OF OPTIMUM MOISTURE CONTENT. IF MOISTURE CONTENTS WITHIN ±3% OF OPTIMUM CANNOT BE ACHIEVED THE CONTRACTOR SHALL CONSULT WITH THE GEOTECHNICAL AND CIVIL ENGINEER PRIOR TO PROCEEDING.
3. A 12 INCH THICKNESS OF IN–SITU SOILS SHALL BE STRENGTHENED BY ADDING A PORTLAND CEMENT ADMIXTURE. THE PORTLAND CEMENT SHALL BE EVENLY DISTRIBUTED THROUGHOUT THE SOIL COLUMN.
4. EQUIPMENT AND PROCEDURES USED FOR SUBGRADE SCARIFICATION, CEMENT APPLICATION, MOISTURE CONTROL, SOIL/CEMENT BLENDING, AND FINAL MIXTURE COMPACTION SHALL BE SELECTED BY THE CONTRACTOR SUCH THAT THE SPECIFIED FINAL SUBGRADE CONDITION IS ACHIEVED. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A LIST OF EQUIPMENT AND CONSTRUCTION PROCEDURE TO THE GEOTECHNICAL ENGINEER FOR REVIEW. DISCING IS NOT CONSIDERED AN ADEQUATE BLENDING METHOD. A RECLAIMER, WHEN UTILIZED PROPERLY, IS CONSIDERED AN ADEQUATE BLENDING METHOD.
5. CEMENT SHALL BE INTRODUCED INTO THE IN–SITU SOILS AT THE AGREED UPON PERCENTAGE RATE BY WEIGHT. TEST STRIPS SHALL BE CONSTRUCTED TO DETERMINE IF THE INITIAL AGREED UPON RATE OF CEMENT IS ADEQUATE. DEPENDING ON RESULTS OF THE FIELD STRENGTH TESTS FOR THE INITIAL CONSTRUCTION, THE CEMENT CONTENT MAY BE MODIFIED, AS DETERMINED BY THE GEOTECHNICAL ENGINEER. DO NOT CONTINUE TO STABILIZE THE SUBGRADE IF THE PERFORMANCE REQUIREMENTS ARE NOT BEING MET. CONSULT THE ENGINEER FOR MODIFIED CEMENT RATE RECOMMENDATIONS.
6. COMPACTION SHOULD BE BY "ORDINARY COMPACTION METHOD". ORDINARY COMPACTION IS DEFINED AS THE LEVEL OF COMPACTION AT WHICH NO NOTICEABLE INCREASE IN DENSITY CAN BE SEEN VISUALLY OR MEASURED BY A NUCLEAR DENSITY GAUGE. A ROLLING PATTERN SHOULD BE ESTABLISHED USING A NUCLEAR DENSITY GAUGE. THE ROLLING PATTERN SHOULD ESTABLISH THE "BREAK POINT" AFTER WHICH ADDITIONAL PASSES WITH A PAD FOOT OR SHEEPS FOOT ROLLER RESULTS IN A LOSS OF DENSITY OF THE STABILIZED SOILS. THIS NUMBER OF PASSES SHOULD BE THE NUMBER USED FOR ALL COMPACTION AT A GIVEN MOISTURE CONTENT, SOIL TYPE AND CEMENT RATE. A NEW ROLLING PATTERN SHALL BE ESTABLISHED EACH TIME THE APPARENT MOISTURE CONTENT CHANGES BY MORE THAN 2%, OR THE SOIL TYPE CHANGES, OR THE CEMENT RATE IS MODIFIED.
7. SUBGRADE STRENGTH TESTING OF THE STABILIZED SUBGRADE SHALL BE DONE USING DCP OR OTHER SUITABLE TEST METHOD THROUGHOUT THE FULL DEPTH OF THE STABILIZED SECTION. TEST RESULTS SHALL BE PROVIDED IN MAXIMUM 3" INCREMENTS. THE TEST METHOD SHALL BE ABLE TO CONFIRM A FIELD CBR VALUE, USING ESTABLISHED CORRELATIONS BETWEEN THE TEST METHOD AND CBR. THE TEST PROCEDURE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. DCP RESULTS ARE NOT AN ACCEPTANCE TEST. DCP RESULTS ARE A MEANS OF MONITORING CEMENT HYDRATION IN THE STABILIZE SECTION. FINAL ACCEPTANCE OF THE CEMENT STABILIZED ROAD SHALL BE BY PROOF ROLL.
8. SUBGRADE STRENGTH TESTING SHALL BE DONE AT 24 HOURS (+/– 4 HOURS) FROM THE TIME OF FINAL COMPACTION OF THE SOIL/CEMENT BLEND. A MINIMUM CBR OF 20 IS REQUIRED PRIOR TO PROOF ROLLING. IF A CBR OF 20 IS NOT ACHIEVED, THEN ADDITIONAL TESTING SHOULD BE DONE EVERY 24 HOURS UNTIL A MINIMUM CBR OF 20 IS CONFIRMED. IF THE SUBGRADE STRENGTH DOES NOT ACHIEVE A CBR OF 20 WITHIN 72 HOURS AFTER COMPACTION, THEN THE CONTRACTOR SHALL TAKE CORRECTIVE ACTION. CORRECTIVE ACTION PROCEDURES OF AREAS NOT ACHIEVING A CBR OF 20 SHALL BE APPROVED BY THE CIVIL AND GEOTECHNICAL ENGINEER PRIOR TO PROCEEDING.
9. SUBGRADE STRENGTH TESTING SHALL BE DONE EVERY 100 LINEAL FEET OF PRODUCTION (RANDOM HORIZONTAL & LONGITUDINAL LOCATIONS) FOR THE FIRST TWO DAYS OF PRODUCTION. ONCE THE PROCEDURE IS DEEMED SATISFACTORY BY THE GEOTECHNICAL ENGINEER, THE TEST SPACING MAY BE INCREASED TO 500 LINEAL FEET RANDOM SPACING THEREAFTER.
10. ADDITIONAL SUBGRADE STRENGTH TESTING SHALL BE DONE AT 7 DAYS FROM TIME OF FINAL COMPACTION ON A 500 LINEAL FEET RANDOM SPACING. THE TESTS MUST CONFIRM THAT A CBR OF 25 IS ACHIEVED THROUGHOUT THE DEPTH OF THE STABILIZED SECTION. IF A CBR OF 25 IS NOT CONFIRMED, THEN THE CONTRACTOR SHALL REVIEW THE STABILIZATION PROCEDURE WITH THE GEOTECHNICAL ENGINEER TO MONITOR AND MODIFY THE PROCEDURE PRIOR TO PROCEEDING.
11. A 4 INCH MINIMUM THICKNESS OF AGGREGATE SURFACING SHALL BE PLACED OVER THE STABILIZED SUBGRADE BEFORE ANY TRAFFIC IS ALLOWED. PRIOR TO PLACING THE AGGREGATE, THE SUBGRADE SHALL BE PROOF–ROLLED. PROOF–ROLLING SHALL BE DONE IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER. ANY AREAS THAT FAIL THE PROOF ROLL SHALL BE RE–STABILIZED WITH A METHOD APPROVED BY THE GEOTECHNICAL ENGINEER.
12. FINAL ACCEPTANCE OF THE STABILIZED ROADWAY SHALL BE BASED ON A PROOF ROLL.
13. PROOF ROLLING SHALL BE DONE WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK OR WATER TRUCK WITH A MINIMUM GROSS WEIGHT OF 25 TONS OR A FULLY LOADED BELLY DUMP WITH AN EQUIVALENT AXLE LOADING. PROOF ROLLING ACCEPTANCE STANDARD INCLUDES NO RUTTING GREATER THAN 1.5 INCHES AND NO "PUMPING" OF THE SOIL BEHIND THE LOADED TRUCK. PUMPING IS DEFINED AS THE MIXING OF UNSTABILIZED SUBGRADE SOILS WITH STABILIZED SUBGRADE SOILS.
14. CEMENT STABILIZATION SHALL ONLY BE PERFORMED WHEN THE AVERAGE AIR TEMPERATURE REMAINS ABOVE 40° F. CONSULT ENGINEER PRIOR TO PLACEMENT OF CEMENT IF THIS CANNOT BE ACHIEVED.

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Designed: KLG
Checked: SJS
Drawn: KLG
As-Built Drawing:

Revisions

#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

Prepared for:

WHITE an IEA company
3900 E. White Ave
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Northwest Ohio Wind Project

Paulding, Ohio

Construction Details

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Array Date: 08/14/2017
Date: 09/07/2017
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Material	Diameter	Location	Length	Perm_Temp	Sizing Method
CMP	48"	Entrance to ALT-51	40	Permanent	Upstream Culvert
CMP	12"	Entrance to T-04	40	Permanent	Installed
CMP	24"	Entrance to T-05	40	Permanent	2-year 24 hour storm event
CMP	36"	Entrance to T-06	40	Permanent	Match Downstream Culvert
CMP	36"	Entrance to T-07	40	Permanent	Match Downstream Culvert
CMP	18"	Entrance to T-09	40	Permanent	2-year 24 hour storm event
CMP	15"	Entrance to T-10	40	Permanent	2-year 24 hour storm event
CMP	24"	Entrance to T-14	60	Permanent	2-year 24 hour storm event
CMP	15"	Entrance to T-20	40	Permanent	2-year 24 hour storm event
CMP	15"	Entrance to T-39	40	Permanent	Match Downstream Culvert
CMP	15"	Entrance to T-40	40	Permanent	Minimum Size
CMP	18"	Entrance to T-42	40	Permanent	Match Existing
CMP	18"	Entrance to T-43	40	Permanent	Match Existing
CMP	15"	Entrance to T-46	50	Permanent	Match Existing
CMP	18"	Entrance to T-49	40	Permanent	Match Existing
CMP	48"	Entrance to T-50	40	Permanent	Upstream Culvert
TBD	Match Existing	T-17 Access Road	20	Permanent (Extend Existing)	Match Existing
TBD	Match Existing	T-22 Access Road	30	Permanent (Extend Existing)	Match Existing
CMP	Match Existing	T-49 Access Road	20	Permanent (Extend Existing)	Match Existing
CMP	60"	Crane walk between T-02 and T-03	70	Temporary	Match Downstream Culvert
CMP	54"	Crane walk between T-04 and T-05	75	Temporary	Match Downstream Culvert
CMP	66"	Crane walk between T-15 and T-16	75	Temporary	1-year 24 hour storm event
CMP	42"	Crane walk between T-22 and T-24 (Southwest of T-22)	65	Temporary	Match Upstream Culvert
CMP	54"	Crane walk between T-23 and T-28	60	Temporary	Match Downstream Culvert
CMP	36"	Crane walk between T-28 and T-33 (East of T28)	65	Temporary	Match Downstream Culvert
CMP	42"	Crane walk between T-28 and T-33 (West of T33)	65	Temporary	Match Downstream Culvert
CMP	15"	Crane walk between T-31 and ALT-35	55	Temporary	Minimum Size
CMP	54"	Crane Walk between T-31 and T-32	70	Temporary	Match Downstream Size
CMP	48"	Crane walk between T-34 and T-39	60	Temporary	Match Upstream Size
CMP	54"	Crane walk between T-37 and T-39	85	Temporary	Upsize from Upstream Culvert
CMP	15"	Crane walk between T-43 and T-44	50	Temporary	Minimum Size
CMP	114"	Crane walk between T-44 and T-45	100	Temporary	1-year 24 hour storm event
CMP	15"	Crane walk east of T-10 at Cty Rd 87	70	Temporary	1-year 24 hour storm event
CMP	15"	Crane walk east of T-46 entrance	60	Temporary	Match Upstream Culvert
CMP	15"	Crane walk north of T-24	60	Temporary	Minimum Size
CMP	114"	Crane walk northwest of T-39	100	Temporary	1-year 24 hour storm event
CMP	30"	Crane walk south of T-16	65	Temporary	1-year 24 hour storm event
CMP	24"	Crane walk west of T-14 entrance	60	Temporary	Match Downstream Culvert
CMP	42"	Crane walk west of T-31	60	Temporary	Match Downstream Culvert
CMP	48"	Entrance to ALT-51	75	Temporary	Upstream Culvert
CMP	12"	Entrance to T-04	75	Temporary	Match Installed Culvert
CMP	24"	Entrance to T-05	80	Temporary	2-year 24 hour storm event
CMP	36"	Entrance to T-06	40	Temporary	Match Downstream Culvert
CMP	36"	Entrance to T-07	80	Temporary	Match Downstream Culvert
CMP	18"	Entrance to T-09	75	Temporary	2-year 24 hour storm event
CMP	15"	Entrance to T-10	90	Temporary	2-year 24 hour storm event
CMP	24"	Entrance to T-14	85	Temporary	2-year 24 hour storm event
CMP	15"	Entrance to T-20	85	Temporary	2-year 24 hour storm event
CMP	42"	Entrance to T-31	55	Temporary	Match Upstream Culvert
CMP	15"	Entrance to T-39	85	Temporary	Match Downstream Culvert
CMP	15"	Entrance to T-40	75	Temporary	Minimum Size
CMP	18"	Entrance to T-42	75	Temporary	Match Existing
CMP	18"	Entrance to T-43	75	Temporary	Match Existing
HDPE	15"	Entrance to T-44-Cty Rd 60 Extension	10	Temporary	Match Existing
CMP	15"	Entrance to T-46	75	Temporary	Match Existing
CMP	18"	Entrance to T-49	80	Temporary	Match Existing
CMP	48"	Entrance to T-50	75	Temporary	Upstream Culvert
CMP	48"	Entrance to T-02	85	Temporary (Extend Existing)	Match Existing
CMP	30"	Entrance to T-15 (east west ditch)	85	Temporary (Extend Existing)	Match Existing
HDPE	12"	Entrance to T-15	10	Temporary (Extend Existing)	Match Existing
CMP	60"	Entrance to T-17 (south)	90	Temporary (Extend Existing)	Match Existing
CMP	Match Existing	Entrance to T-28	75	Temporary (Extend Existing)	Match Existing
CMP	12"	Entrance to T-33	85	Temporary (Extend Existing)	Match Existing
HDPE	18"	Entrance to T-49	10	Temporary (Extend Existing)	Match Existing

CULVERT TABLE

DATE 09/06/2017

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ROAD DESIGN PARAMETERS

1. ACCESS ROADS HAVE BEEN DESIGNED TO ACCOMMODATE LIGHT DUTY TRUCKS FOR LOW VOLUME USE IN NORMAL OPERATING CONDITIONS. THE ROAD DESIGN IS NOT INTENDED FOR ALL WEATHER USE FOR HEAVY DUTY, HIGH VOLUME, CONSTRUCTION LOADS.
2. ROAD MAINTENANCE CAN BE EXPECTED OVER THE LIFE OF THE PERMANENT FACILITY AND MAY INCLUDE BLADING AND REPLACEMENT OF AGGREGATE MATERIAL.
3. PLANS ARE INTENDED FOR PRIVATE ACCESS ROAD DESIGN AND NOT INTENDED FOR PUBLIC ROAD IMPROVEMENTS.
4. CONTRACTOR SHALL CONFIRM ROAD SECTIONS REQUIRED FOR TURBINE COMPONENT DELIVERY WITH THE FINAL GEOTECHNICAL REPORT.

EXECUTION

1. CLEARING AND GRUBBING
   A. THE CONTRACTOR SHALL BE REQUIRED TO GRUB/MULCH ALL TREES, STUMPS, BRUSH, AND DEBRIS WITHIN THE GRADING AREAS SHOWN ON THE PLANS. THE CONTRACTOR IS TO REMOVE ONLY THOSE TREES WHICH ARE DESIGNATED BY THE OWNER'S REPRESENTATIVE FOR REMOVAL, AND SHALL EXERCISE EXTREME CARE AROUND EXISTING TREES TO BE SAVED.
2. TOPSOIL STRIPPING
   A. TOPSOIL SHALL BE STRIPPED FROM ALL ROADWAY AREAS THROUGH THE ROOT ZONE (TYPICAL 6" TO 12"). TOPSOIL SHALL NOT BE STRIPPED OUTSIDE OF THE DESIGNATED DISTURBANCE AREAS.
   B. ANY TOPSOIL, THAT HAS BEEN STRIPPED, SHALL BE RE-SPREAD OR STOCKPILED WITHIN GRADING AREAS AND/OR USED AS FILL OUTSIDE OF THE DISTURBANCE AREAS, AS DIRECTED BY THE ENGINEER. ALL TOPSOIL SHALL BE REDISTRIBUTED TO THE LAND OWNER'S PROPERTY OF WHERE IT ORIGINATED FROM.
3. EMBANKMENT CONSTRUCTION.
   A. EMBANKMENT CONSTRUCTION SHALL CONSIST OF THE PLACING OF SUITABLE FILL MATERIAL, AFTER TOPSOIL STRIPPING, ABOVE THE EXISTING GRADE. GENERALLY, EMBANKMENTS SHALL HAVE COMPACTED SUPPORT SLOPES OF FOUR FOOT HORIZONTAL TO ONE FOOT VERTICAL, WITH SOME LOCATIONS THROUGHOUT THE PROJECT WITH SLOPES OF TWO FEET HORIZONTAL TO ONE FOOT VERTICAL. THE MATERIAL FOR EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE ACCESS ROAD/TURBINE EXCAVATION (SEE GEOTECHNICAL REPORT FOR RESTRICTIONS), OR ANY SUITABLE, APPROVED SOIL OBTAINED ONSITE/OFFSITE BY CONTRACTOR, AS DIRECTED OR APPROVED BY THE ENGINEER. THIS MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8".
   B. SIDE SLOPES GREATER THAN 3:1 WILL NOT BE PERMITTED, UNLESS OTHERWISE NOTED ON THE PLAN.

STORM WATER DESIGN PARAMETERS

1. CULVERTS WITHIN THE COUNTY RIGHT OF WAY WERE NOT SIZED BASED ON SPECIFIC STORM INTERVALS. EXISTING DITCHES PROVED TO BE TOO SMALL IN MANY INSTANCES TO PRACTICALLY ALLOW INSTALLATION OF LARGER CULVERTS. IT IS EXPECTED THAT CULVERTS WILL BE OVERTOPPED DURING SOME STORMS AND MAINTENANCE WILL BE REQUIRED THROUGH THE LIFE OF THE PROJECT. INSTALLED CULVERTS SHALL BE SIZED TO MATCH THE DOWNSTREAM SIZE (E.G. IF THE DOWNSTREAM CULVERT IS A 24" THE INSTALLED CULVERT SHALL BE A 24", UNLESS IN CIRCUMSTANCES WHERE THERE MAY BE CONSTRUCTABILITY CONCERNS) OR SIZED BASED ON COUNTY REQUEST. IN INSTANCES WHERE EXISTING DOWNSTREAM CULVERT SIZES COULD NOT BE DETERMINED, PROPOSED PERMANENT CULVERTS WERE DESIGNED TO ACCOMMODATE BETWEEN THE 1-YEAR AND 5-YEAR, 24-HOUR STORM EVENT. ALL CULVERTS SHALL BE INSTALLED PER OHIO DEPARTMENT OF TRANSPORTATION AND/OR PAULDING COUNTY STANDARD SPECIFICATIONS AND SHALL BE MANUFACTURED OF CORRUGATED METAL PIPE. ALL CULVERTS SHALL BE PLACED AT A MINIMUM 0.5% GRADE. ALL TEMPORARY PORTIONS OF THE INSTALLED CULVERTS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
2. LOW WATER CROSSINGS HAVE BEEN DESIGNED TO ALLOW NATURAL DRAINAGE TO OCCUR POST CONSTRUCTION OF THE ACCESS ROADS. IT IS ANTICIPATED THAT DURING "HEAVY" RAIN STORM EVENTS AND DURING THE FREEZE/THAW CYCLE, SOME ACCESS ROADS WILL BE IMPASSABLE DUE TO THE SEASONAL ENVIRONMENTAL CONDITIONS. MAINTENANCE OF THE ACCESS ROADS MAY BE REQUIRED DUE TO THE NATURAL DRAINAGE.
3. WHEN INSTALLING DRAINAGE CULVERTS, THE CONTRACTOR SHALL SET THE FLOW LINE ELEVATIONS AND CULVERT LONGITUDINAL SLOPE WITH THE EXISTING GRADE OF THE DITCH. FURTHER, A MINIMUM COVER OF 12" SHALL BE PROVIDED OVER ALL CULVERTS.
4. ALL PERMANENT PIPE CULVERTS SHALL BE INSTALLED PER OHIO DEPARTMENT OF TRANSPORTATION AND/OR PAULDING COUNTY STANDARD SPECIFICATIONS AND SHALL BE MANUFACTURED OF CORRUGATED METAL PIPE.
5. ANTICIPATED CULVERTS HAVE BEEN SHOWN ON THE CONSTRUCTION PLAN, ADDITIONAL CULVERTS MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOW IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES.
6. ALL TEMPORARY CRANE CROSSING CULVERTS HAVE BEEN DESIGNED TO ACCOMMODATE THE 1-YEAR 24 HOUR STORM EVENT. IT IS ANTICIPATED THAT DURING LARGER RAINFALL EVENTS THE STORMWATER WILL OVERTOP THE CONSTRUCTED CRANE CROSSING.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

1. THE CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS PLANNED AND SPECIFIED FOLLOWING BEST MANAGEMENT PRACTICES AS OUTLINED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) AND BEING IN CONFORMANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL STORMWATER PERMIT.
2. REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE NORTHWEST OHIO WIND PROJECT, PREPARED BY WESTWOOD PROFESSIONAL SERVICES, FOR EROSION CONTROL AND RESTORATION SPECIFICATIONS, SEDIMENT AND EROSION CONTROL PROCEDURES, LOCATIONS OF BMPs, DETAILS, AND INSPECTION INFORMATION.
3. ALL PASTURES AND DRAINAGE SWALES DISTURBED DURING CONSTRUCTION ACTIVITIES AND NOT COVERED BY ROAD SURFACING MATERIALS, SHALL BE SEEDED IN ACCORDANCE WITH THE SWPP PLAN.

TABLE 1: OHIO DOT 703.17 SPEC AGGREGATE GRADATION

SIEVE SIZE	PERCENT PASSING
2"	(100)
1"	(70-100)
3/4"	(50-90)
No. 4	(30-60)
No. 30	(9-33)
No. 200	(0-15)
LOS ANGELES TEST = MAX 50% WEAR	
FRACTURED PIECES = MIN 90% BY WEIGHT	

TESTING:

1. TESTING SHALL BE PERFORMED BY A DESIGNATED INDEPENDENT TESTING AGENCY.
2. SUBMIT ONE SET OF TESTING AND INSPECTION RECORDS SPECIFIED TO THE CIVIL ENGINEER OF RECORD.

DEFINITIONS:

1. PROOF ROLLING:
   SHALL BE PERFORMED IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER OR QUALIFIED GEOTECHNICAL REPRESENTATIVE USING A FULLY LOADED TANDEM AXLE DUMP TRUCK OR WATER TRUCK WITH A MINIMUM GROSS WEIGHT OF 25 TONS OR A FULLY LOADED BELLY DUMP WITH AN EQUIVALENT AXLE LOADING. PROOF-ROLLING ACCEPTANCE STANDARDS INCLUDE NO RUTTING GREATER THAN 3 INCHES, AND NO "PUMPING" OF THE SOIL BEHIND THE LOADED TRUCK.
2. SIEVE ANALYSIS:
   SHALL BE CONDUCTED IN ACCORDANCE WITH AASHTO T27
3. PROCTORS:
   SHALL BE DETERMINED IN ACCORDANCE WITH AASHTO T99
4. ATTERBERG LIMITS:
   SHALL BE DETERMINED IN ACCORDANCE WITH AASHTO T89 AND T90
5. MOISTURE DENSITY (NUCLEAR DENSITY):
   SHALL BE DONE IN ACCORDANCE WITH AASHTO T310
6. DYNAMIC CONE PENETROMETER (DCP) TESTING:
   SHALL BE DONE IN ACCORDANCE WITH ASTM D6951-03

SUBGRADE COMPACTION, TEST ROLLING AND AGGREGATE BASE COMPACTION:

1. FILL MATERIAL:
   A. SOILS USED AS FILL MATERIAL SHALL BE TESTED FOR GRAIN SIZE ANALYSIS, MOISTURE CONTENT, ATTERBERG LIMITS ON FINES CONTENT, AND PROCTOR TESTS (STANDARD DRY MAXIMUM DENSITY).
      a. FOR PLACED & COMPACTED FILLS, PROVIDE ONE COMPACTION TEST PER LIFT FOR EVERY 1000 FT OF ROAD LENGTH. INCLUDE THE LOCATION, DRY DENSITY, MOISTURE CONTENT, AND COMPACTION PERCENT BASED ON STANDARD PROCTOR MAXIMUM DRY DENSITY.
   B. IN ROADWAY CUT AREAS, OR WHERE EMBANKMENT CONSTRUCTION REQUIRES LESS THAN 12 INCHES OF FILL PLACEMENT, COMPACT TO A MINIMUM OF 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.
   C. IF STRUCTURAL FILL IS REQUIRED, GEOTECHNICAL ENGINEER SHALL BE CONSULTED BY GENERAL CONTRACTOR FOR DETERMINATION OF SUITABILITY.
2. COMPACTED SUBGRADE (CEMENT STABILIZED):
   A. ALL SUBGRADE SHALL BE CEMENT STABILIZED. REFER TO CEMENT STABILIZATION SPECIFICATIONS ON SHEET 7 FOR CONSTRUCTION METHODS AND TESTING SCHEDULE.
3. COMPACTED SUB-GRADE (NON-CEMENT STABILIZED):
   A. PROVIDE 3 MOISTURE DENSITY COMPACTION TEST PER ACCESS ROAD, OR ONE FOR EVERY 1000 L.F. OF ROAD LENGTH, WHICHEVER IS GREATER. COMPACTED SUBGRADE MUST BE COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY AT ±3% OF OPTIMUM MOISTURE CONTENT FOR GRANULAR SOILS AND AT −2 TO +3% OF OPTIMUM MOISTURE CONTENT FOR COHESIVE SOILS.
   B. TEMPORARY RADIUS IMPROVEMENTS SHALL BE LIMITED TO PROOF ROLLING ON THE AGGREGATE SURFACE. PROOF ROLLING SHALL BE COMPLETED IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR A QUALIFIED GEOTECHNICAL REPRESENTATIVE USING A FULLY LOADED WATER TRUCK WITH AN EQUIVALENT AXLE LOADING. ACCEPTANCE STANDARDS SHALL BE NO RUTTING GREATER THAN 3 INCHES AND NO "PUMPING" OF SOILS BEHIND THE LOADED TRUCK. IF PROOF ROLLING DETERMINES THAT THE ROAD IS UNSTABLE, ADDITIONAL AGGREGATE SHALL BE ADDED UNTIL THE UNSTABLE SECTION IS ABLE TO PASS A PROOF ROLL.
4. AGGREGATE BASE:
   A. AGGREGATE BASE SHALL BE PROOF-ROLLED OVER THE ENTIRE LENGTH. IF PROOF ROLLING DETERMINES THAT THE ROAD IS UNSTABLE, ADDITIONAL AGGREGATE SHALL BE ADDED UNTIL THE UNSTABLE SECTION IS ABLE TO PASS A PROOF ROLL.
   B. PROVIDE 1 DCP TEST FOR EVERY 1,000 L.F. OF ROAD LENGTH. ROAD BASE SHALL BE COMPACTED TO ACHIEVE A PENETRATION INDEX VALUE LESS THEN OR EQUAL TO 10 MM/BLOW.
   C. PROVIDE 1 SIEVE ANALYSIS (PROJECT MAX OF 20) PER 2500 CY OF ROAD BASE PLACED.
5. CRANE TRAVEL SHOULDERS:
   A. CRANE TRAVEL SHOULDER COMPACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL CRANE SHOULDER COMPACTION PROCEDURES AND TESTING PROCEDURES SHALL BE THE CONTRACTOR'S MEANS AND METHODS
6. CRANE PADS:
   A. SCARIFY AND COMPACT EXISTING SOILS TO A DEPTH OF 12-INCHES. MOISTURE DENSITY TESTING SHALL BE PERFORMED AT A MINIMUM OF 2 PER CRANE PAD. CRANE PADS MUST BE COMPACTED TO A MINIMUM OF 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AT OF OPTIMUM MOISTURE CONTENT FOR GRANULAR SOILS AND AT −1 TO +2% OF OPTIMUM MOISTURE CONTENT FOR COHESIVE SOILS.
   B. ALL CRANE PADS MUST BE PROOF ROLLED PRIOR TO UTILIZATION.
   C. IF THE CRANE PAD CANNOT ACHIEVE PROOF-ROLL ACCEPTANCE AS DETERMINED BY THE GEOTECHNICAL ENGINEER, DCP TEST MAY BE USED. WHEN UTILIZED, DCP TESTING SHALL BE USED AT MINIMUM RATE OF 2 PER CRANE PAD AND ACHIEVE A MAXIMUM OF 24 MM/BLOW.
   D. AT THE CONTRACTOR'S DISCRETION, CRANE MATS MAY BE UTILIZED TO PROVIDE ADDITIONAL STABILITY.
   E. CRANE PAD CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE TESTING PROCEDURES IN SECTIONS A, B, C AND D ABOVE ARE RECOMMENDATIONS BASED ON WESTWOOD'S PAST EXPERIENCE ON SIMILAR WIND PROJECTS. ALL FINAL CRANE PAD CONSTRUCTION AND TESTING PROCEDURES SHALL BE THE CONTRACTOR'S MEANS AND METHODS.
7. EXISTING TURBINE ACCESS ROADS:
   A. TURBINE ACCESS ROADS SHALL BE CLEARED OF ALL VEGETATION AND BLADED TO REMOVE RUTTING, WASHBOARDS AND TO CREATE A SMOOTH, UNIFORM DEPTH AGGREGATE SURFACE.
   B. TURBINE ACCESS ROADS SHALL BE PROOF ROLLED PRIOR TO UTILIZATION.
   C. AFTER PASSING PROOF ROLL, A 2" AGGREGATE CAP SHALL BE PLACED ALONG THE ENTIRE LENGTH OF THE ACCESS ROAD AND COMPACTED WITH A SMOOTH DRUM ROLLER.
   D. ADDITIONAL MAINTENANCE MAY BE REQUIRED ON PREVIOUSLY CONSTRUCTED ROADS TO KEEP THEM IN SAFE OPERATING CONDITIONS DURING CONSTRUCTION.

PRODUCTS

1. ROAD BASE SHALL CONSIST OF OHIO DOT 703.17 SPECIFICATION AGGREGATE GRADATION, MEETING THE GRADATION PROVIDED IN TABLE 1.
2. ROAD SUBGRADE AND SHOULDERS SHALL CONSIST OF COMPACTED NATIVE SOILS.
3. GEOTEXTILE FABRIC FOR ROAD BASE MATERIAL SEPARATION SHALL BE MIRAFI HP270 OR APPROVED EQUAL.
4. CULVERTS: SEE PLAN FOR CULVERT LOCATIONS. CULVERTS SHALL MEET THE MINIMUM SPECIFICATIONS SET FORTH BY THE OHIO DEPARTMENT OF TRANSPORTATION AND/OR PAULDING COUNTY. ALL CULVERTS SHALL BE MANUFACTURED OF 16-GAGE CORRUGATED METAL PIPE UNLESS NOTED OTHERWISE.

PROJECT CONTACT INFORMATION:

TITLE	COMPANY	NAME	CONTACT NUMBER
OWNER	TRISHE WIND OHIO, LLC	ALEX DABERKO	203-422-8104
PROJECT MANAGER	WESTWOOD	STEVE BATTAGLIA	952-906-7405
ENGINEER OF RECORD	WESTWOOD	DANIEL BECKMANN	952-906-7424
CONTRACTOR	WHITE CONSTRUCTION	ALAN DOWNES	608-320-2818
PAULDING COUNTY ENGINEER	PAULDING COUNTY	TRAVIS MCGARVEY	419-399-2366
OHIO EPA			800-329-7518

GENERAL NOTES:

1. THE PLANIMETRIC FEATURES SHOWN ON THE PLANS ARE PROVIDED BY WESTWOOD PROFESSIONAL SERVICES SUPPLEMENTED WITH PUBLICLY AVAILABLE DATA. GROUND SURFACE CONTOURS AND ELEVATIONS HAVE BEEN PROJECTED FROM A 3-METER ACCURACY PUBLIC LIDAR DATASET PROVIDED BY THE STATE OF OHIO. THE DATASET WAS FLOWN IN 2006 UNDER THE OHIO STATEWIDE IMAGERY PROGRAM (OSIP).
2. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE OWNER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING DAMAGED PROPERTY MARKERS AND MONUMENTS.
3. EFFORTS SHALL BE MADE TO MINIMIZE SOIL DISTURBANCE TO AREAS OUTSIDE OF THE ROAD GRADING LIMITS, CRANE PATHS, AND TURBINE SITES. TYPICAL DISTURBANCE SHALL BE LIMITED TO 10 LF FROM THE EDGE OF PROPOSED GRADING.
4. FINALIZE GRADING AROUND THE BASE OF TURBINES IN ACCORDANCE WITH DETAIL TS-03 AND TS-04.
5. GRADE ALL PROPOSED ROADS TO A MAXIMUM SLOPE OF 10%. IF 10% SLOPE CANNOT BE ACHIEVED, THE CONTRACTOR MAY UTILIZE ASSIST VEHICLES FOR THE PURPOSE OF DELIVERIES. GRADE ALL PROPOSED CRANE PATHS TO A MAXIMUM OF 10% UNLESS OTHERWISE NOTED IN PLAN SHEETS.
6. IF LOCALIZED LOW POINTS ARE ENCOUNTERED DURING TOPSOIL STRIPPING, MASSAGE SURROUNDING AREA TO MAINTAIN POSITIVE DIRECTION OF DRAINAGE TO MINIMIZE PONDING OF STORMWATER DURING RAINFALL EVENTS.
7. ANY FACILITIES REMOVED TO ALLOW FOR CONSTRUCTION (MAILBOXES, SIGNS, FENCES, ETC.) SHALL BE REPLACED BY THE CONTRACTOR IN A CONDITION AS GOOD AS EXISTING.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. CONSTRUCTION ACTIVITIES SHALL NOT BLOCK THE NATURAL OR MANMADE CREEKS OR DRAINAGE SWALES CAUSING RAINWATER TO POND. DEPENDING ON FIELD CONDITIONS, ADDITIONAL CULVERTS IN EXCESS OF THOSE ON THE PLANS MAY BE REQUIRED.
8. WHILE BUILDING THE ROADS AND EXCAVATING THE TURBINE FOUNDATIONS, EXCESS SOIL WILL RESULT. THE CONTRACTOR SHALL DISPOSE OF THIS EXCESS SOIL IN AN APPROVED MANNER. EXCESS TOPSOIL SHALL BE DISTRIBUTED INTO A THIN LAYER ON LAND IMMEDIATELY ADJACENT TO WHERE THE TOPSOIL ORIGINATED. WHILE DOING SO THE CONTRACTOR SHALL AVOID CAUSING RIDGES OR MOUNDS THAT WOULD MAKE IT DIFFICULT FOR STORM WATER RUNOFF TO DRAIN. THE FINAL SURFACE OF THE DISTURBED TOPSOIL SHALL BE SMOOTH AND FOLLOW THE NATURAL CONTOUR OF THE LAND.
9. THE CONTRACTOR SHALL NOTIFY OHIO 811 AT LEAST 48 HOURS BEFORE EXCAVATION ACTIVITIES COMMENCE.
10. TEMPORARY INTERSECTION WIDENING SHALL, UPON COMPLETION OF ALL PROJECT CONSTRUCTION OR UPON NOTIFICATION OF THE ENGINEER, BE REMOVED AND THE AREA RESTORED TO ITS ORIGINAL LINES AND GRADES WITH THE UPPER FOOT OF THE RESTORED GROUND BEING TOPSOIL, EXCEPT WHERE REQUESTED BY THE TOWNSHIP OR COUNTY TO PERMANENTLY REMAIN. DISTURBED AREAS OUTSIDE OF THE FINAL ROADWAY SHALL BE SEEDED AND MULCHED.
11. TURBINE SETBACKS ARE NOT IDENTIFIED ON THE CONSTRUCTION PLANS. IT SHALL BE THE RESPONSIBILITY OF THE OWNER AND CONTRACTOR TO ENSURE THAT ALL TURBINE SETBACKS MEET PROJECT REQUIREMENTS.
12. GEOTECHNICAL REPORTS WITH RECOMMENDATIONS HAVE BEEN PREPARED BY BARR ENGINEERING, INC. ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL ENGINEERING REPORT AND RECOMMENDATIONS.
13. WETLAND INFORMATION SHOWN ON THE PLAN WAS PROVIDED BY WESTWOOD PROFESSIONAL SERVICES.
14. CULTURAL RESOURCE REPORTS HAVE BEEN PROVIDED BY WESTWOOD PROFESSIONAL SERVICES. THE LOCATIONS OF CULTURAL RESOURCE SITES MAY BE CONFIDENTIAL AND PROTECTED BY STATE OR FEDERAL LAW. PUBLIC RELEASE OF SPECIFIC INFORMATION REGARDING THESE RESOURCES MAY BE RESTRICTED.
15. ELECTRICAL INFORMATION SHOWN ON THE PLANS IS FOR REFERENCE ONLY. REFER TO ELECTRICAL CONSULTANT'S PLANS FOR SPECIFIC LOCATIONS AND CONSTRUCTION DETAILS FOR THE UNDERGROUND POWER COLLECTION SYSTEM AND COMMUNICATION.
16. CRANE PATHS ARE SHOWN ON THE CONSTRUCTION PLANS. FINAL CRANE PATH ALIGNMENTS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON FIELD CONDITIONS WITHIN THE WETLAND AND CULTURAL RESOURCE CORRIDORS, SPECIAL LANDOWNER AGREEMENTS AND THE PROJECT BOUNDARY. ALL PROPOSED CRANE PATH REVISIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO CONSTRUCTION.
17. EFFORTS SHALL BE MADE TO MINIMIZE SOIL DISTURBANCE TO AREAS OUTSIDE OF THE ROAD GRADING LIMITS, CRANE PATHS, AND TURBINE SITES. DISTURBANCE SHALL BE LIMITED TO 50 LF WIDTH FOR PROPOSED ACCESS ROADS AND 50 LF FOR CRANE PATHS, AND SHALL BE LIMITED TO A 175 LF RADIUS FOR PROPOSED WIND TURBINE GENERATORS. THE GRADING LIMITS SHALL BE CENTERED ON THE ROADWAYS AND WIND TURBINES. THE CONTRACTOR SHALL MAKE ALL EFFORTS TO KEEP ACTIVITIES WITHIN THE ERECTION AREAS SHOWN ON THE PLANS BUT IT IS UNDERSTOOD THAT SOME ACTIVITIES THAT WILL NOT REQUIRE GRADING OR SOIL DISTURBANCE MAY EXTEND BEYOND THE DEFINED LIMITS. DURING ERECTION OF THE ROTOR, TRUCKS AND/OR FORKLIFTS MAY EXTEND BEYOND THESE LIMITS. SEE DETAIL TS01 FOR TYPICAL ERECTION AREAS.
18. TRUCK TURNAROUNDS ARE NOT SHOWN ON THE PLANS. GENERAL CONTRACTOR TO COORDINATE AND ASSIST WITH TRUCK TURNAROUNDS WHERE NECESSARY.
19. AN ALTA SURVEY HAS BEEN PROVIDED BY WESTWOOD PROFESSIONAL SERVICES. CONTRACTOR AND OWNER ARE RESPONSIBLE FOR LOCATING ALL UTILITIES AND VERIFYING LOCATION OF CONSTRUCTION ACTIVITIES PRIOR TO COMMENCING WORK.
20. PLANS DO NOT DETAIL VARIOUS COUNTY/TOWNSHIP ROAD SECTION UPGRADES OR WIDENING REQUIRED FOR CONSTRUCTION DELIVERIES PER THE ROAD MAINTENANCE AGREEMENT BETWEEN PROJECT OWNER AND PAULDING COUNTY.
21. THERE IS HIGH LIKELIHOOD THAT EXISTING DRAINTILE WILL BE IMPACTED. WESTWOOD WAS NOT PROVIDED EXISTING DRAINTILE INFORMATION PRIOR TO DESIGN. CONTRACTOR SHALL NOTIFY LANDOWNER AND PROJECT OWNER UPON DISTURBANCE OF EXISTING DRAINTILE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE/RECONSTRUCT IMPACTED DRAINTILE IN ORDER TO MAINTAIN CONVEYANCE OF DRAINTILE FLOW AS IN PRE-CONSTRUCTION CONDITIONS.
22. EXISTING TURBINE ACCESS ROADS CONSTRUCTED PRIOR TO 2017 SHALL BE REVIEWED BY THE CONTRACTOR AND PROJECT OWNER PRIOR TO CONSTRUCTION DELIVERIES AND SHALL MEET THE REQUIREMENTS OF SECTION 7 'EXISTING TURBINE ACCESS ROADS' UNDER 'SUBGRADE COMPACTION, TEST ROLLING AND AGGREGATE BASE COMPACTION'.

TABLE 3: TESTING SCHEDULE SUMMARY

LOCATION	TEST	FREQUENCY
STRUCTURAL FILL	GRAIN SIZE ANALYSIS, MOISTURE CONTENT, ATTERBERG LIMITS ON FINES CONTENT, AND PROCTOR	1 PER MAJOR SOIL TYPE
CEMENT STABILIZED SUBGRADE	REFER TO SHEET 7 FOR TESTING REQUIREMENTS	REFER TO SHEET 7 FOR FREQUENCY
COMPACTED SUBGRADE (NON-CEMENT STABILIZED)	PROOF-ROLL	ENTIRE LENGTH
	MOISTURE DENSITY TEST (NUCLEAR DENSITY)	1 PER 1000 FT OR MIN. 3 PER ROAD
	DCP (NOT REQUIRED UNLESS PROOF ROLL FAILS)	2 PER 1000 FT
AGGREGATE BASE	PROOF-ROLL	ENTIRE AREA
	SIEVE ANALYSIS, LL, PL, AND LA ABRASION	1 PER 2,500 CY
	DCP TEST	1 PER 1,000 LF OF ROAD
CRANE PAD COMPACTED SUBGRADE	PROOF-ROLL	ENTIRE AREA
	MOISTURE DENSITY TEST (NUCLEAR DENSITY)	2 PER PAD
	DCP (NOT REQUIRED UNLESS PROOF ROLL FAILS)	2 PER PAD
CRANE SHOULDERS	PROOF-ROLL	ENTIRE LENGTH

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Clinton, IN 47842

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Greenwich, CT 06831

Northwest Ohio Wind Project
Paulding, Ohio

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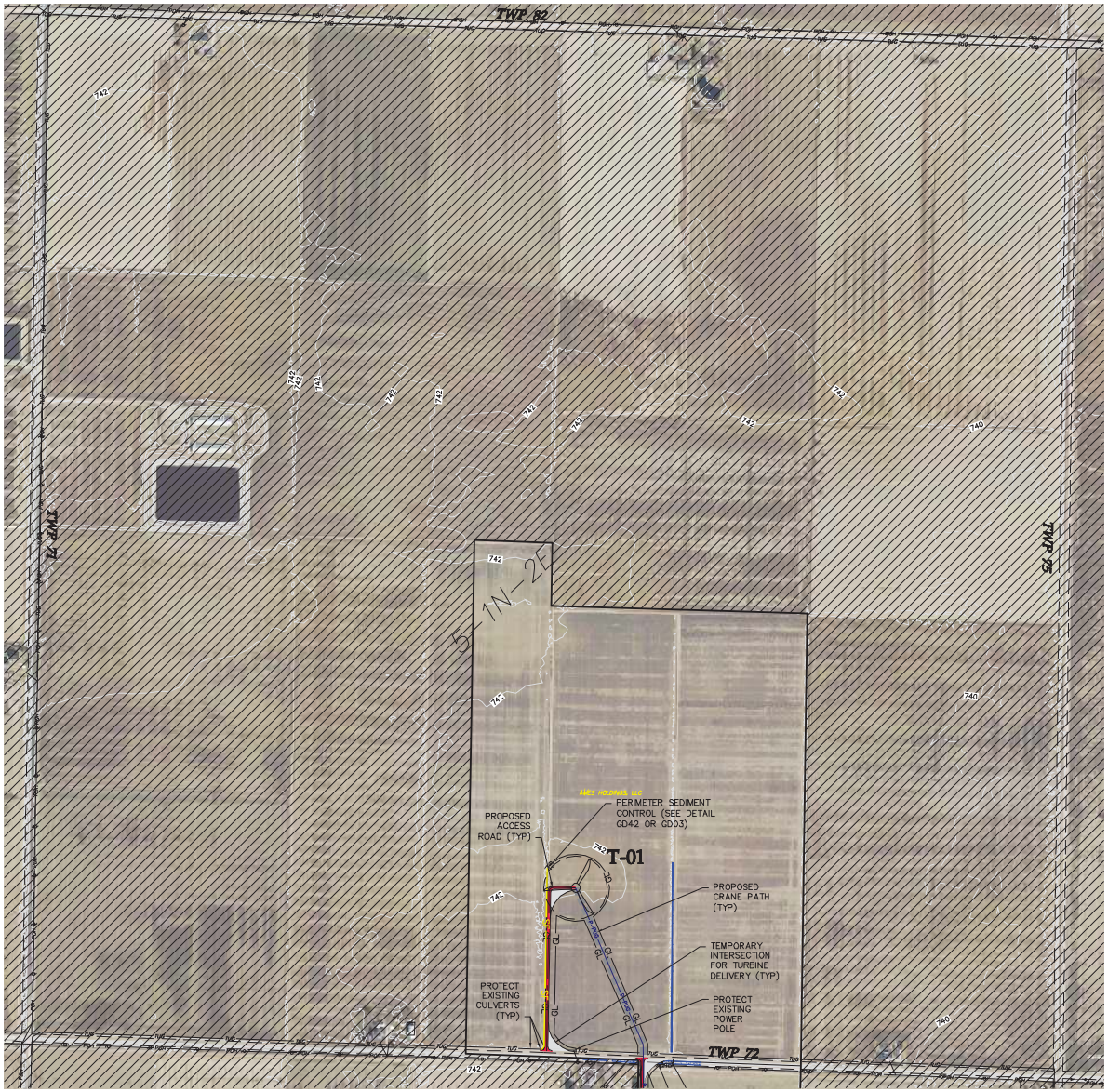

SEE SHEET 12

LEGEND:

- TURBINE LOCATION
- T-XX — TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- P-UG — PROPOSED UNDERGROUND COLLECTION
- GL — PROPOSED DISTURBANCE LIMITS
- PROPOSED EROSION/SEDIMENT CONTROL
- OH / PDN — EXISTING OVERHEAD POWER
- GAS — EXISTING OIL/GAS PIPELINE
- TVC — EXISTING TELEPHONE LINE
- CTV — EXISTING CABLE LINE
- EXISTING RIGHT OF WAY
- 980 — EXISTING 10' CONTOURS / EXISTING 2' CONTOURS
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- OUT OF PROJECT BOUNDARY
- FEMA FLOODPLAIN BOUNDARY
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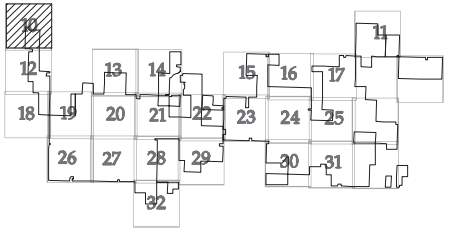

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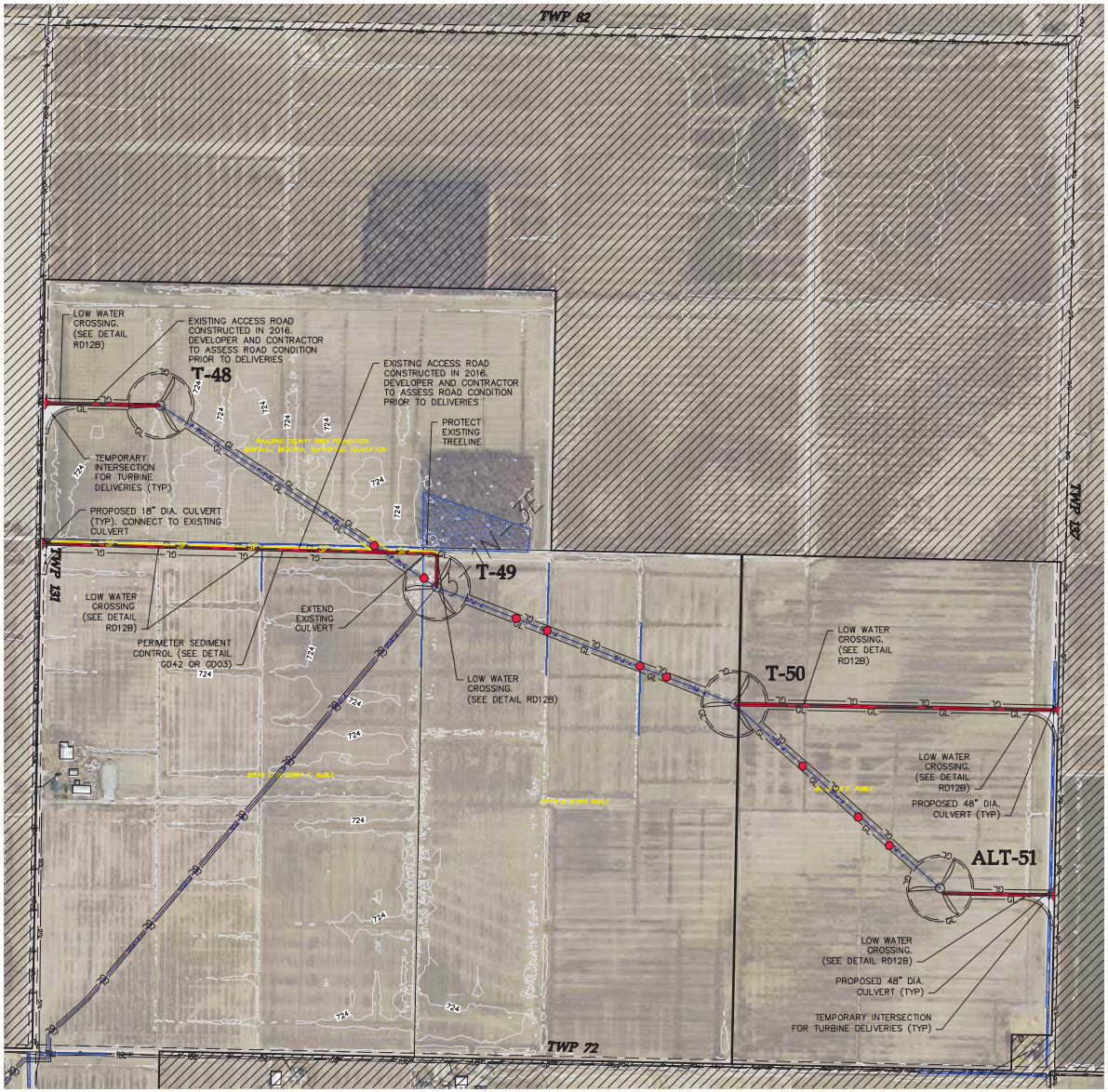

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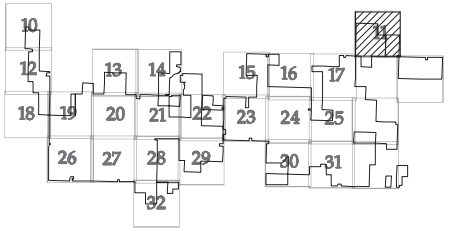

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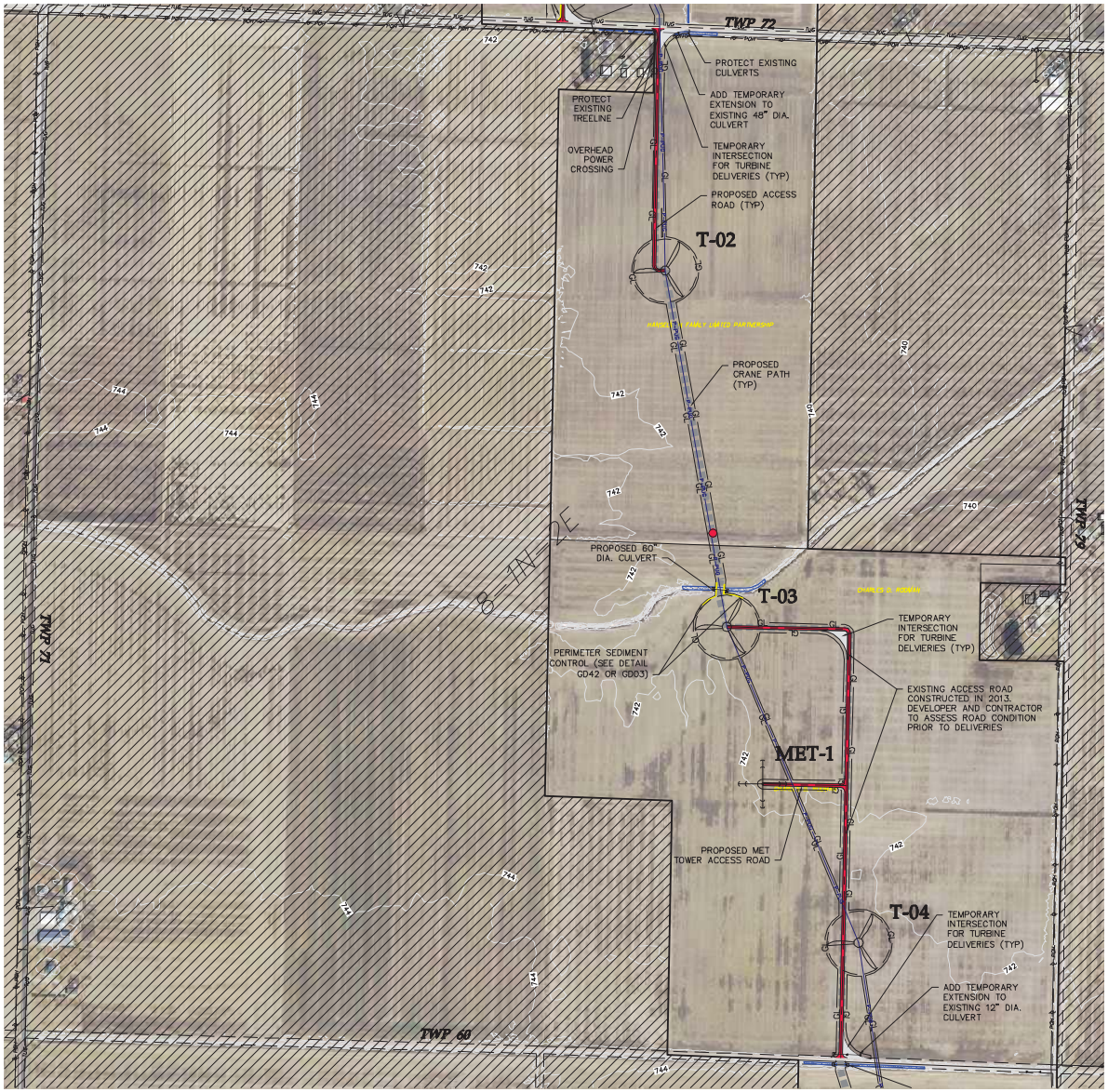
SEE SHEET 10



SEE SHEET 18

LEGEND:

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- T-XX — TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
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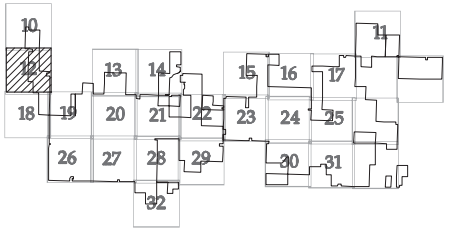

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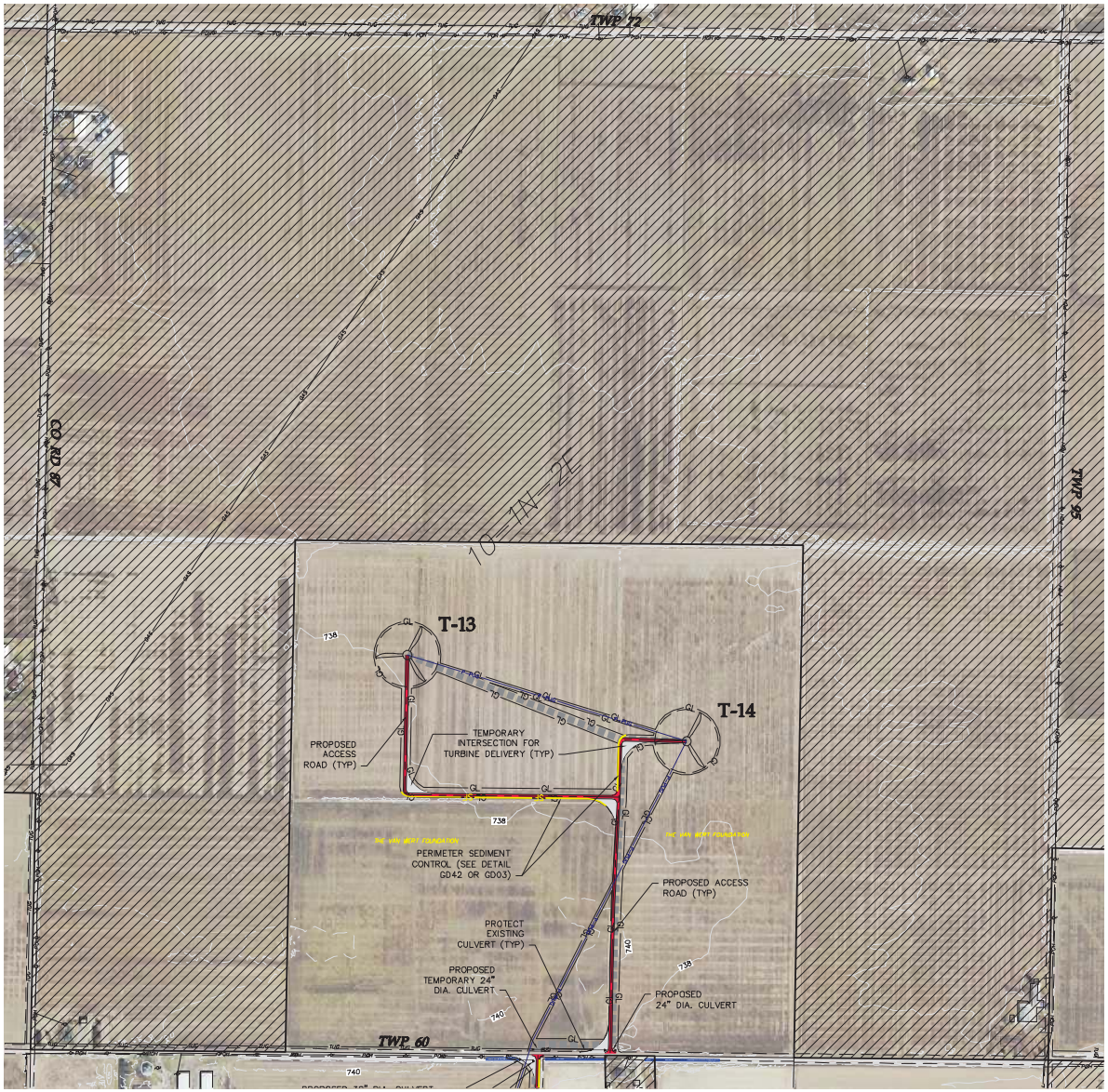

SEE SHEET 14

SEE SHEET 20

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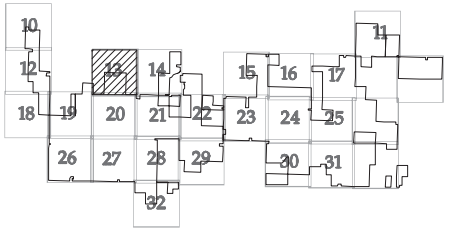

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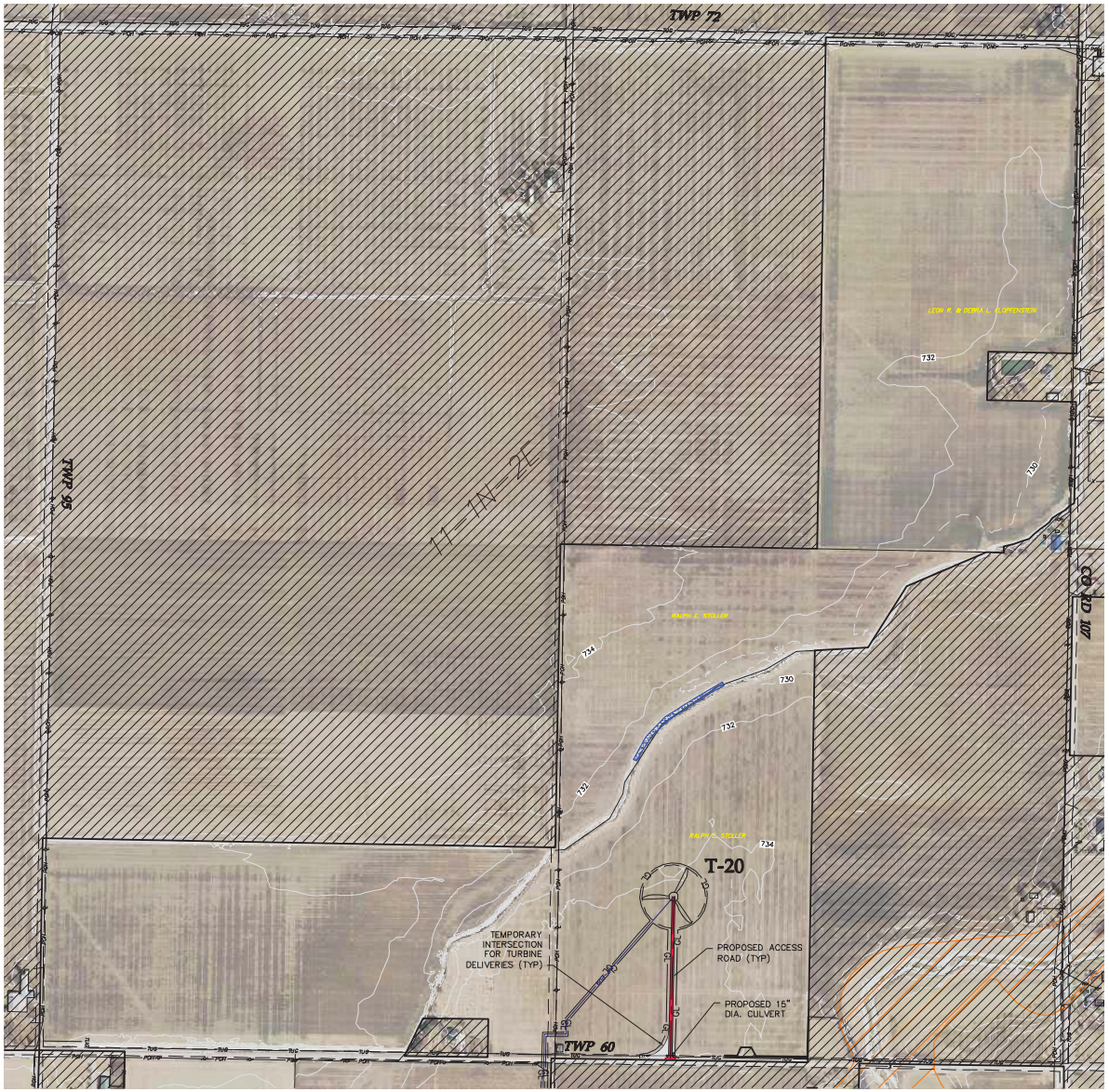

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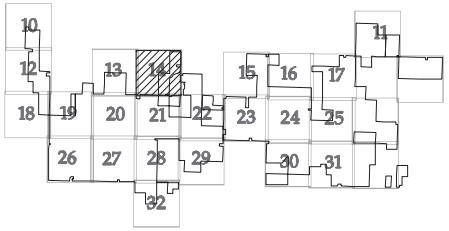

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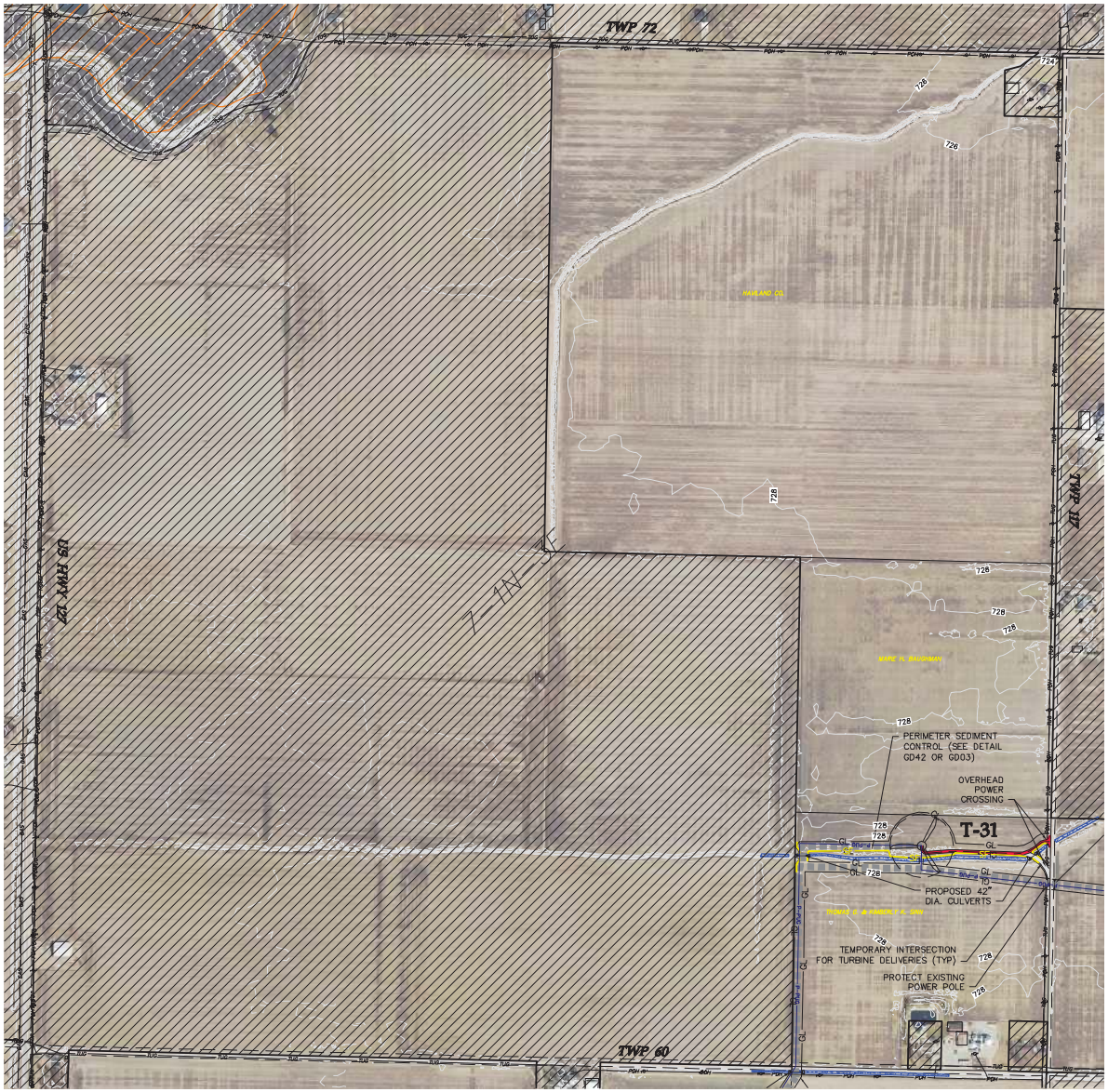

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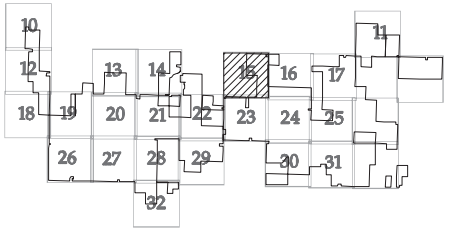

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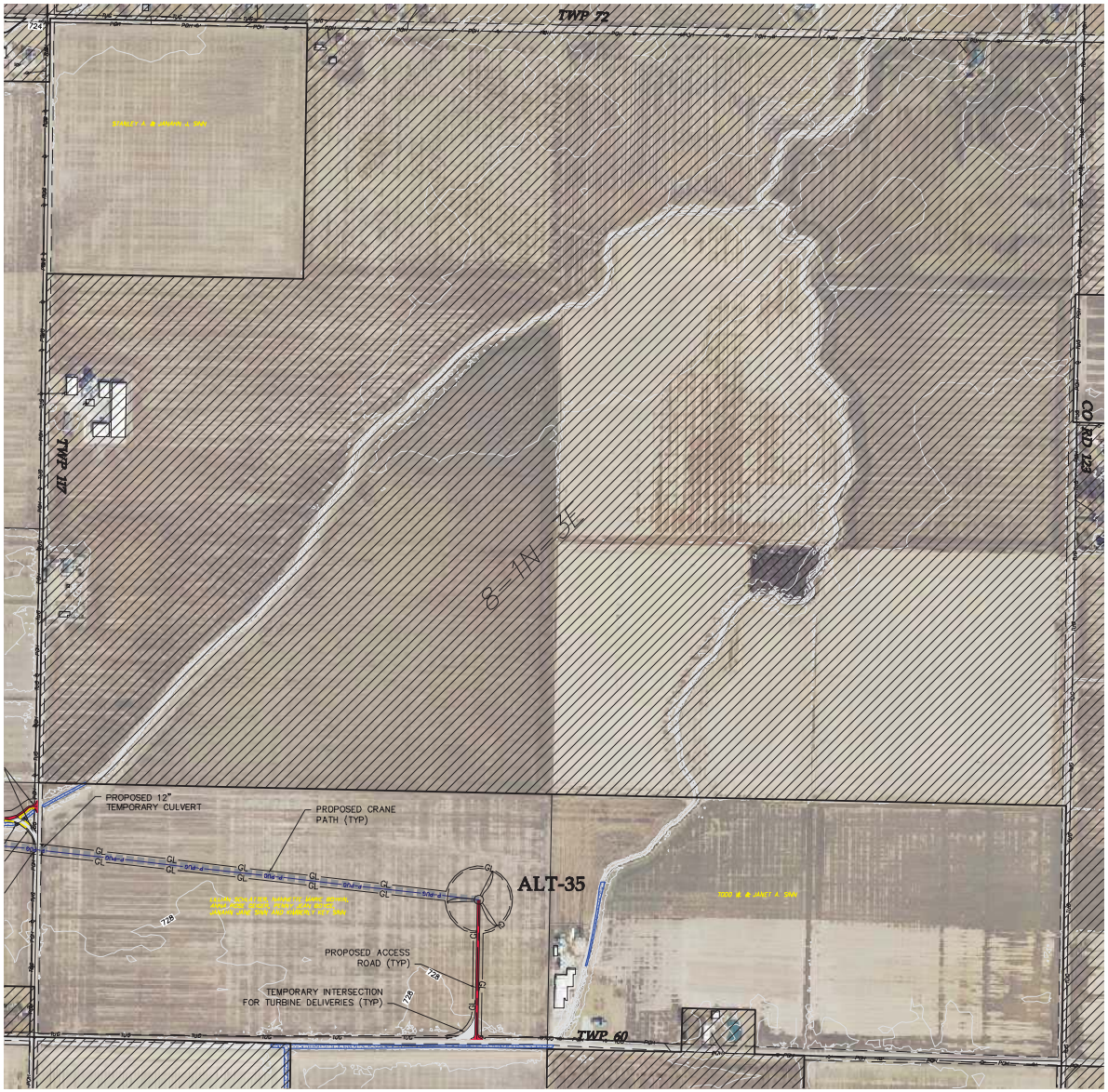

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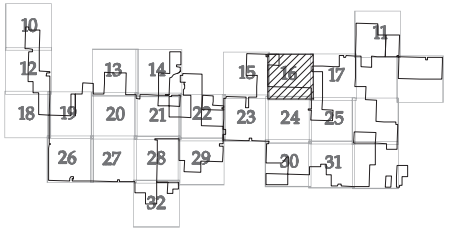

KEY MAP

Westwood

Phone (952) 937-5150 7699 Anagram Drive
Fax (952) 937-5822 Eden Prairie, MN 55344
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

Designed:	RLG
Checked:	SJS
Drawn:	RLG
As-Built Drawing:	

Revisions

#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

Prepared for:

WHITE an EDF company

3900 E. White Ave
Clinton, IN 47842

Trishe Wind Ohio, LLC
c/o Starwood Energy Group, LLC
5 Greenwich Office Park, 2nd Floor
Greenwich, CT 06831

N

0' 300' 600' 900'

Northwest Ohio Wind Project

Paulding, Ohio

Civil Site Plan ALT35

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 16 OF 38

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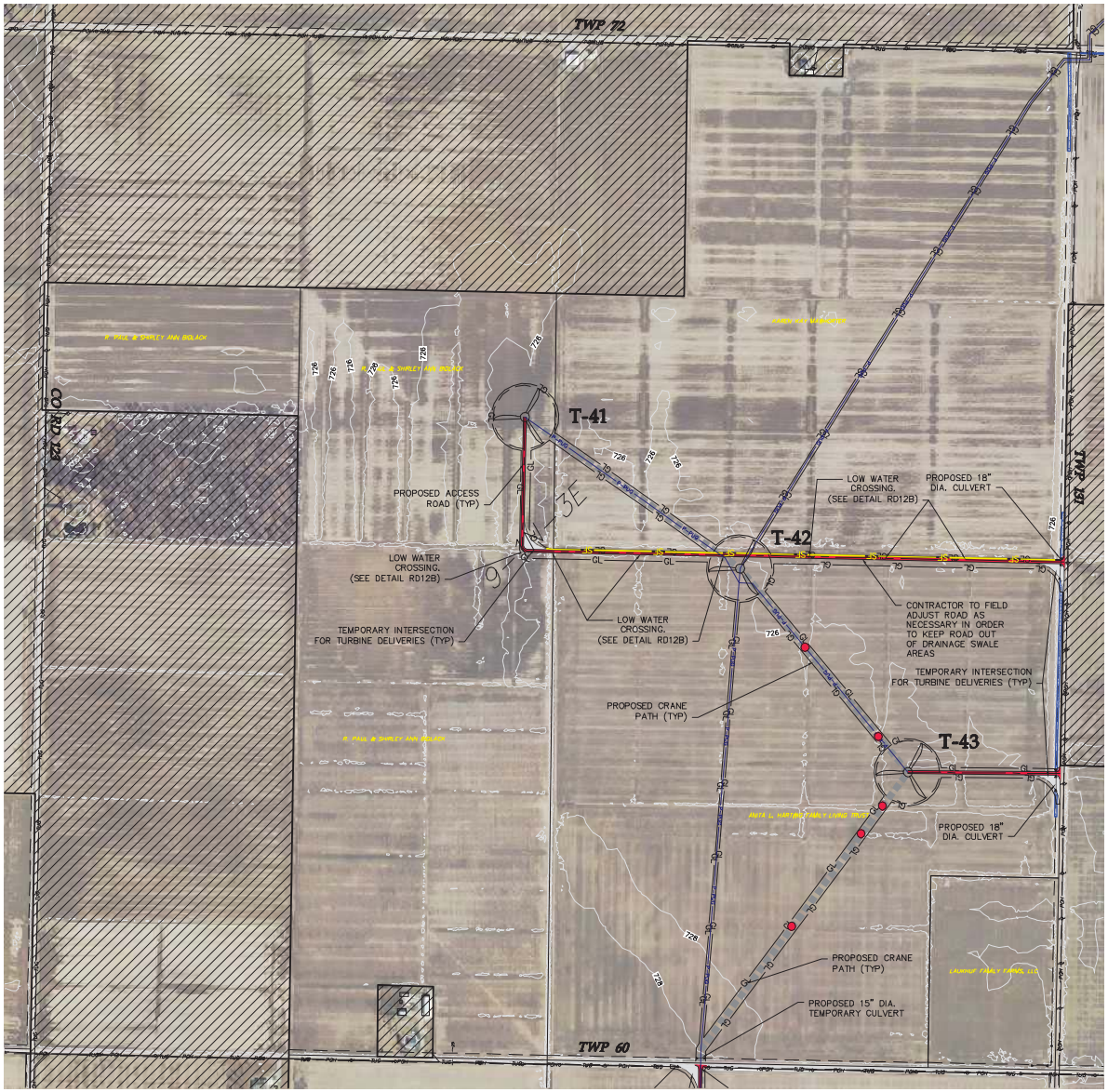

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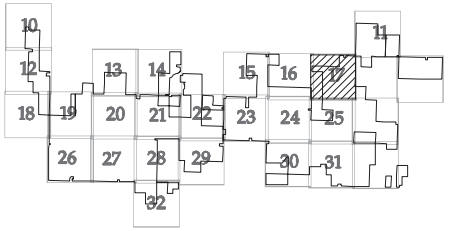

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Northwest Ohio Wind Project

Paulding, Ohio

Civil Site Plan T41 T42 T43

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Array Date: 08/14/2017
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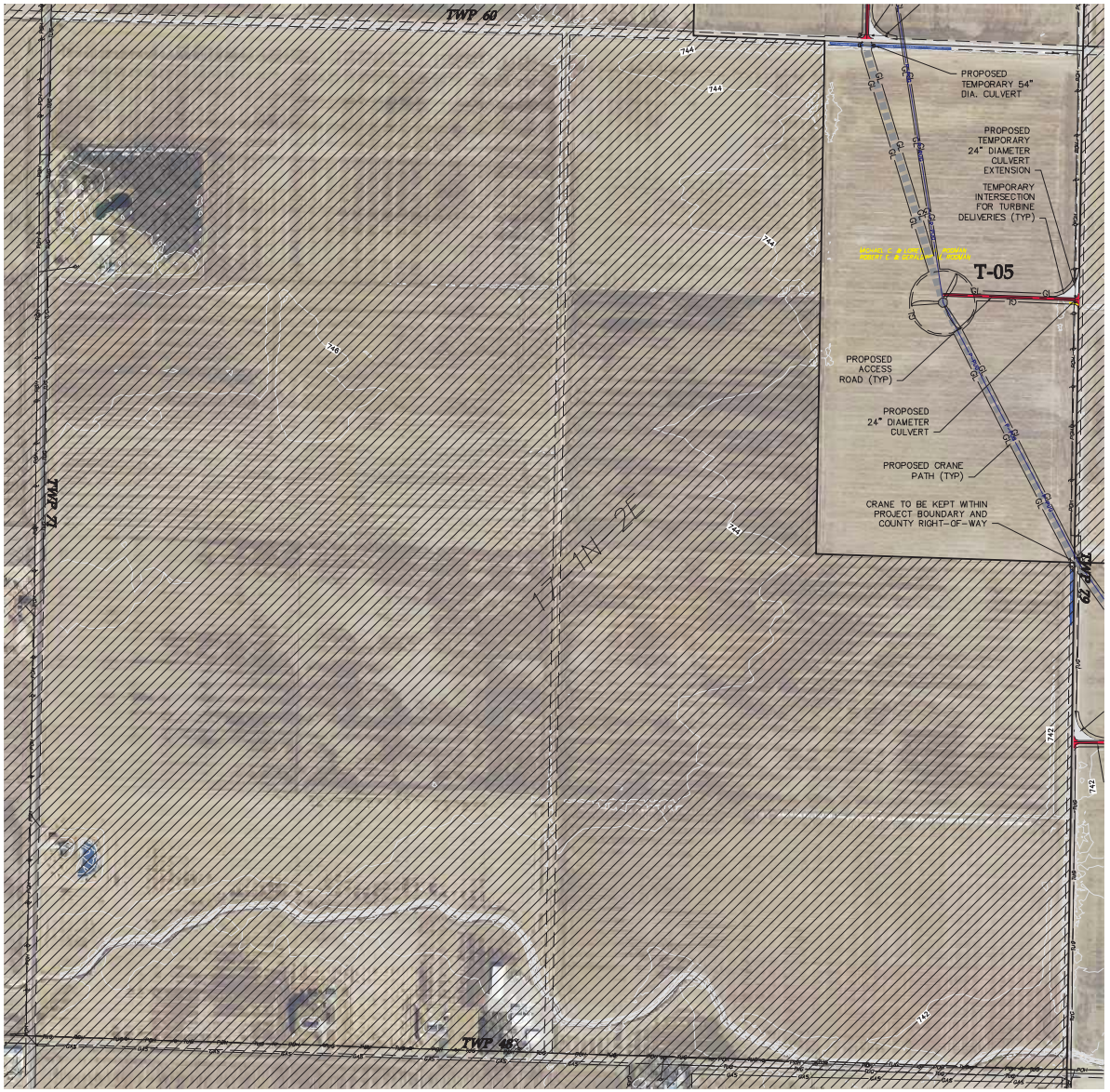

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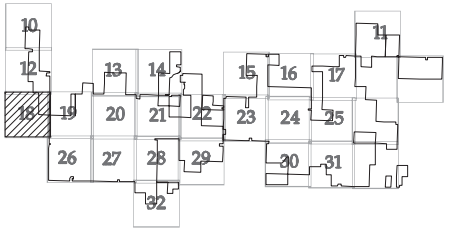

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Paulding, Ohio

Civil Site Plan T05

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Sheet: 18 OF 38

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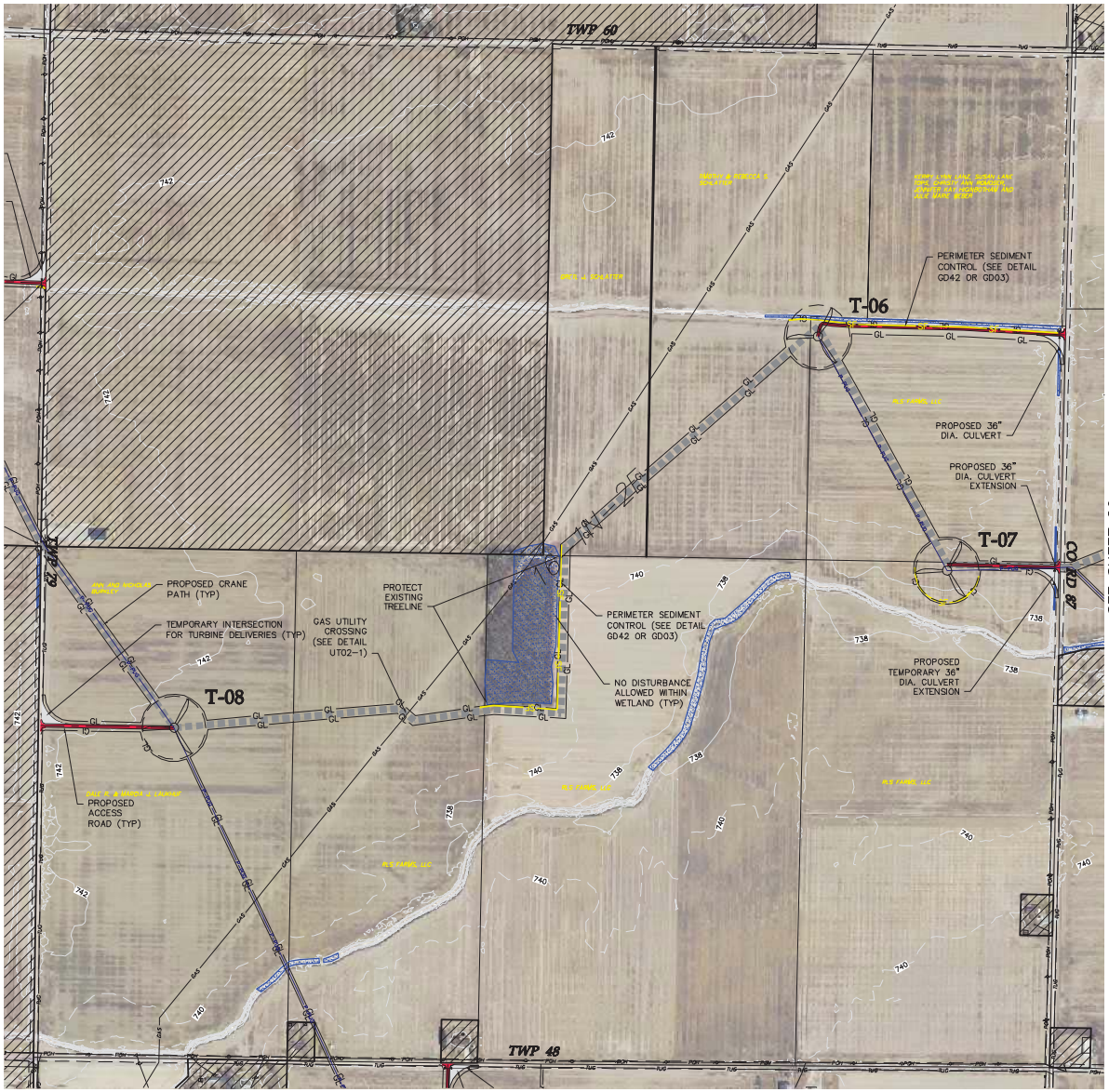

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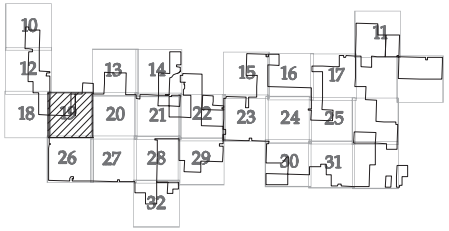

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Civil Site Plan T06 T07 T08

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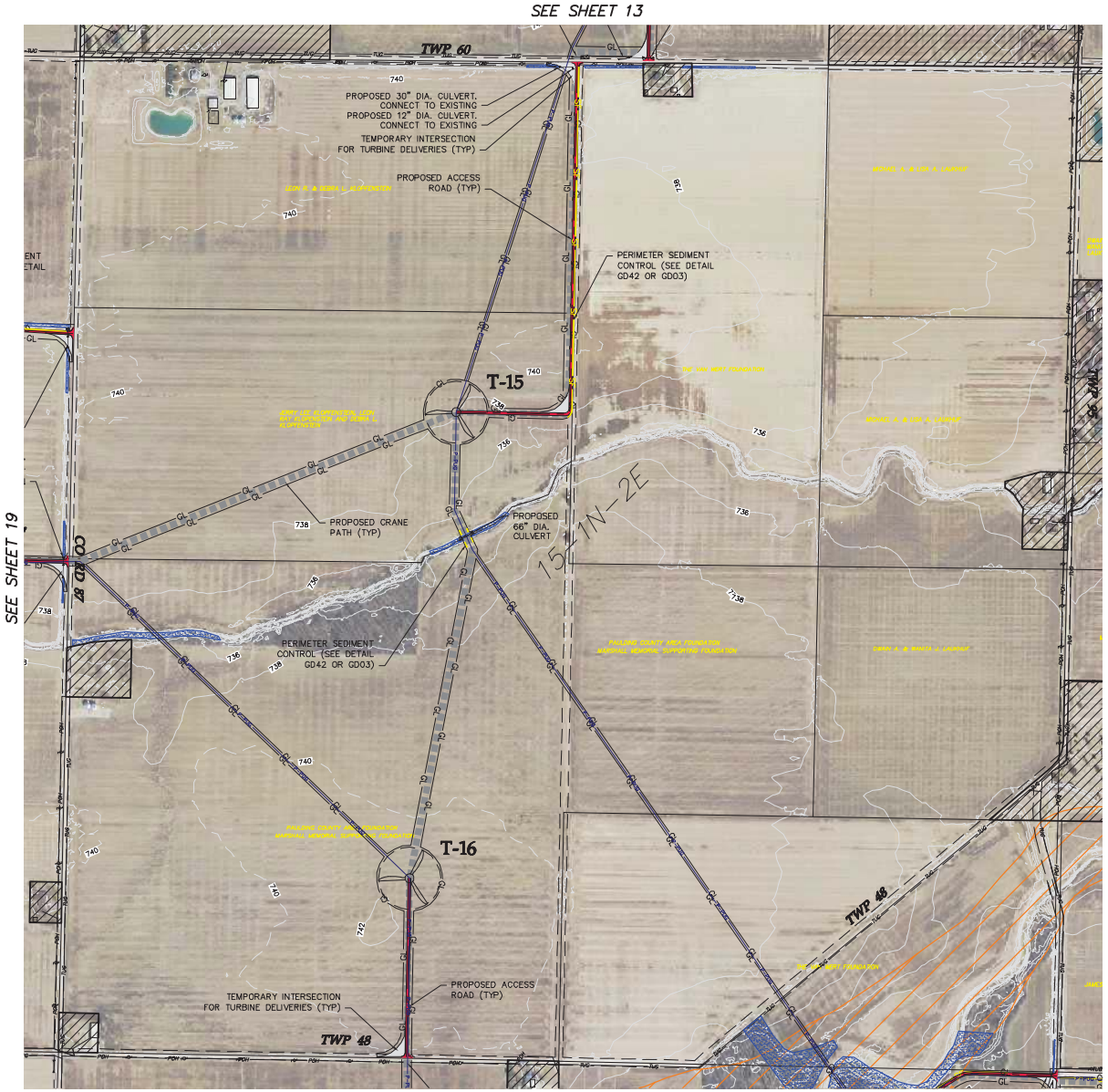

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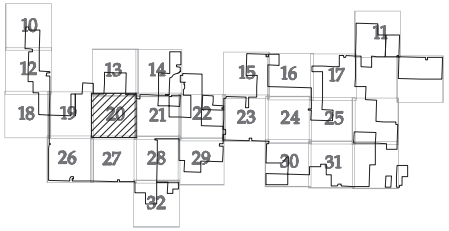

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0' 300' 600' 900'

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Paulding, Ohio

Civil Site Plan T15 T16

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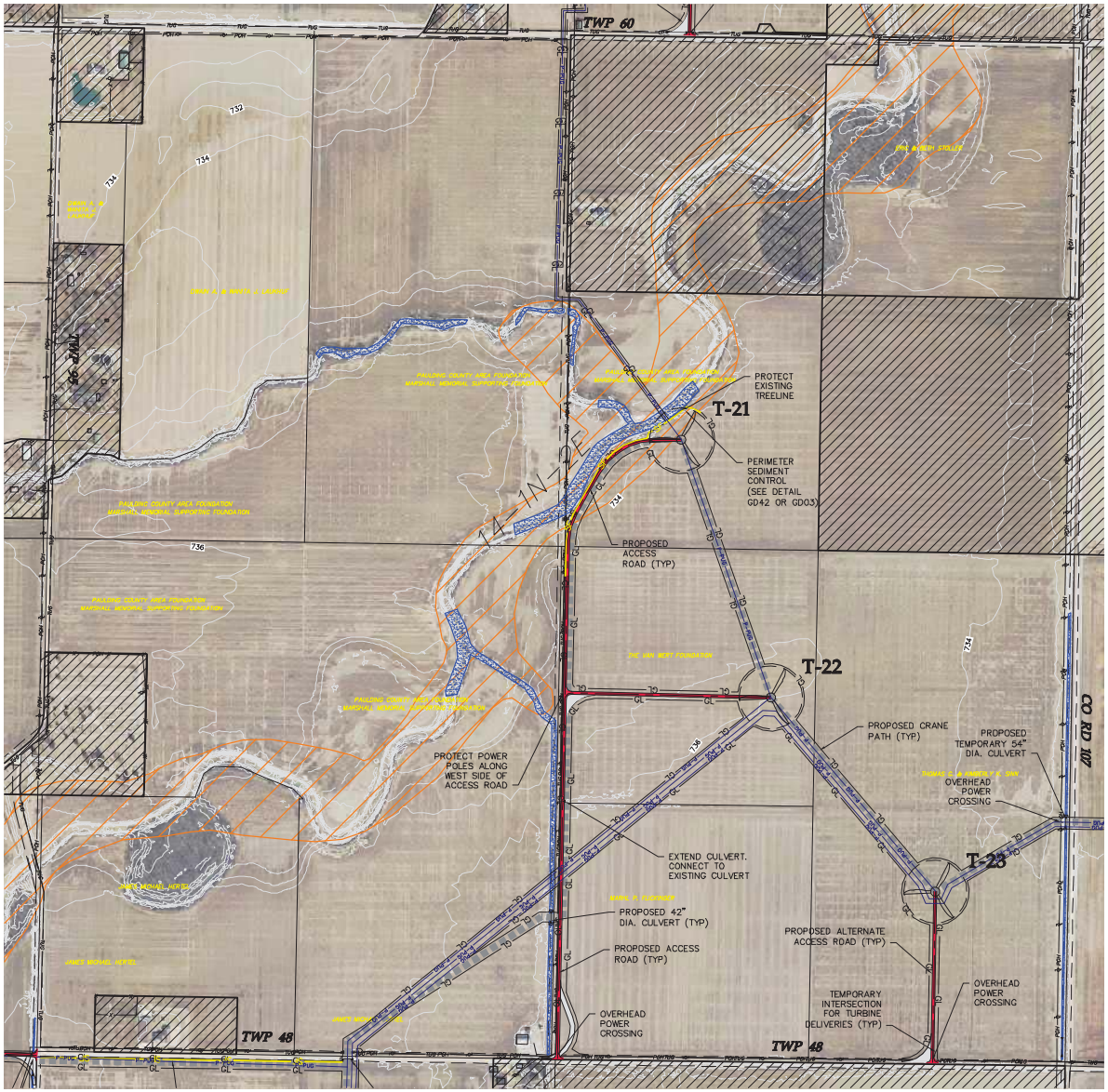

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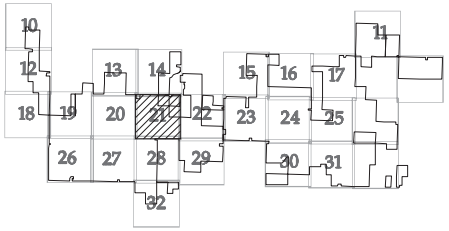

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Northwest Ohio Wind Project

Paulding, Ohio

Civil Site Plan T21 T22 T23

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 21 OF 38

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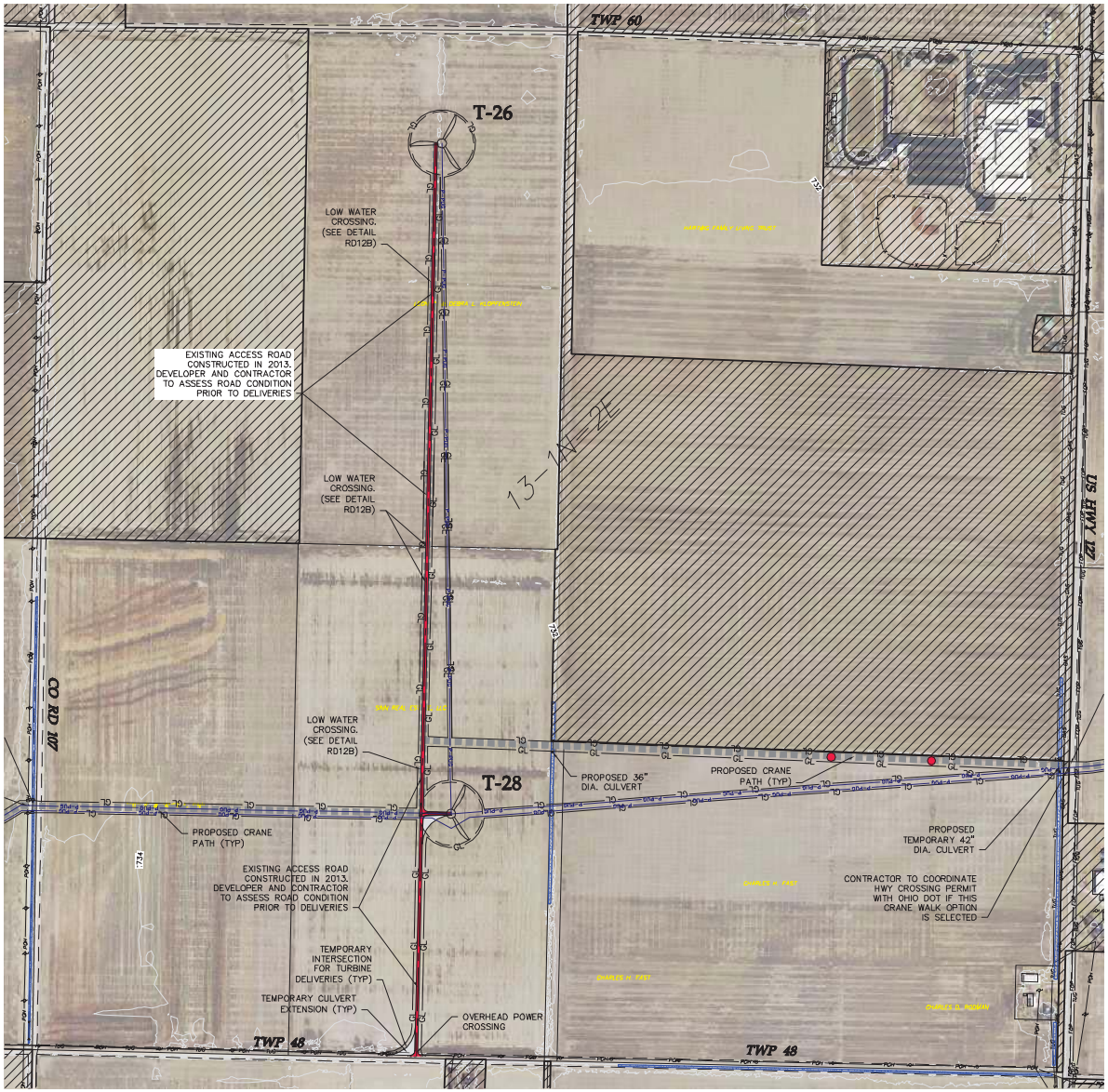

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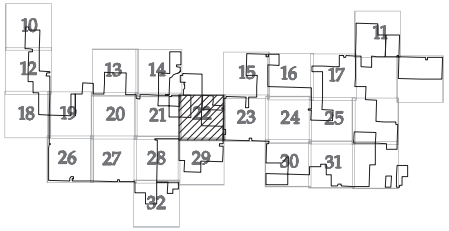

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Northwest Ohio Wind Project

Paulding, Ohio

Civil Site Plan T26 T28

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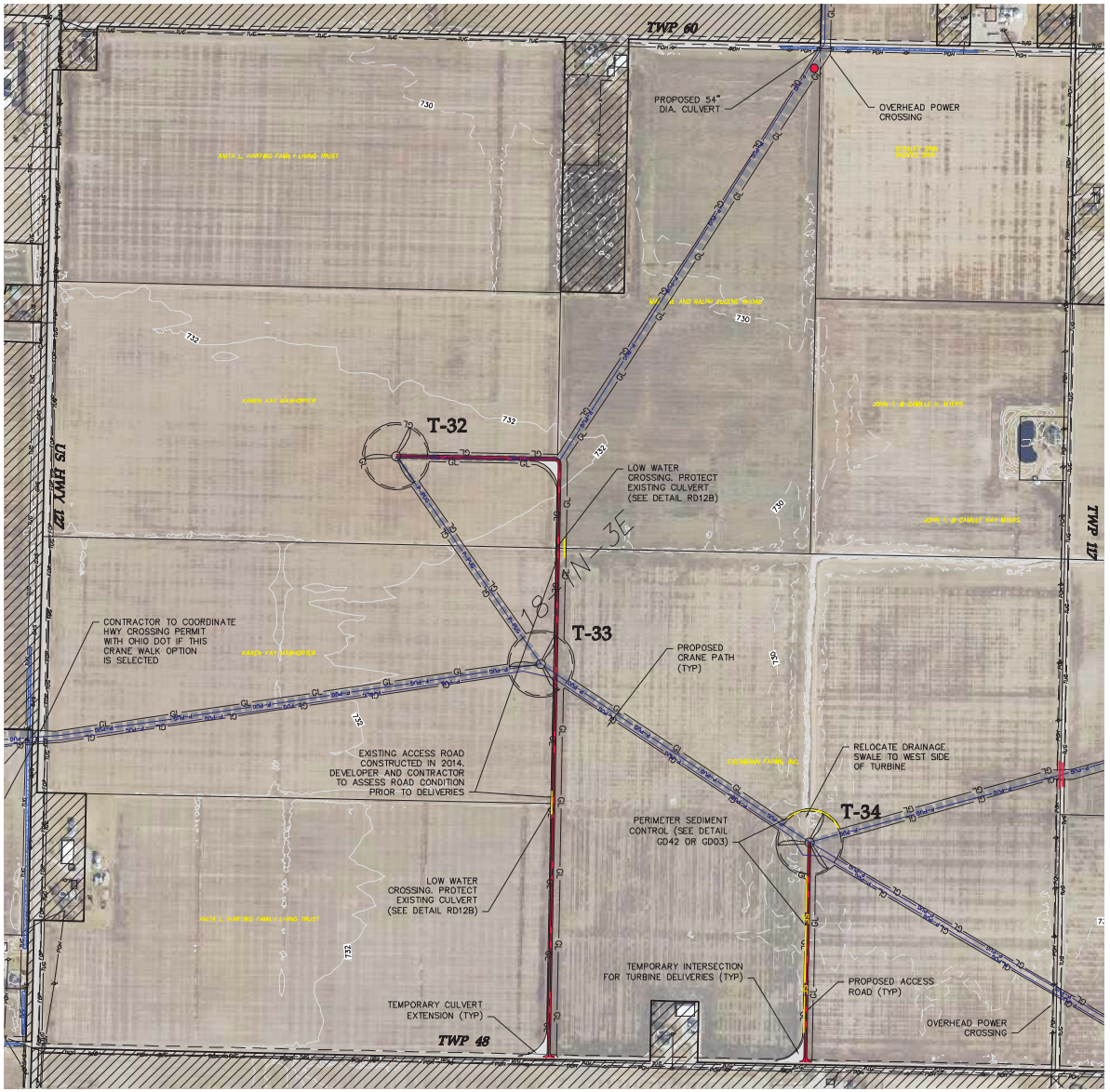

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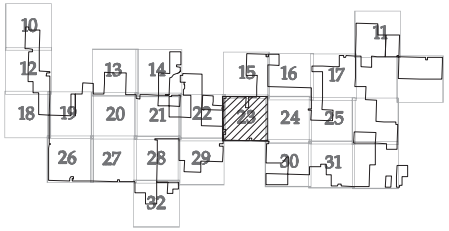

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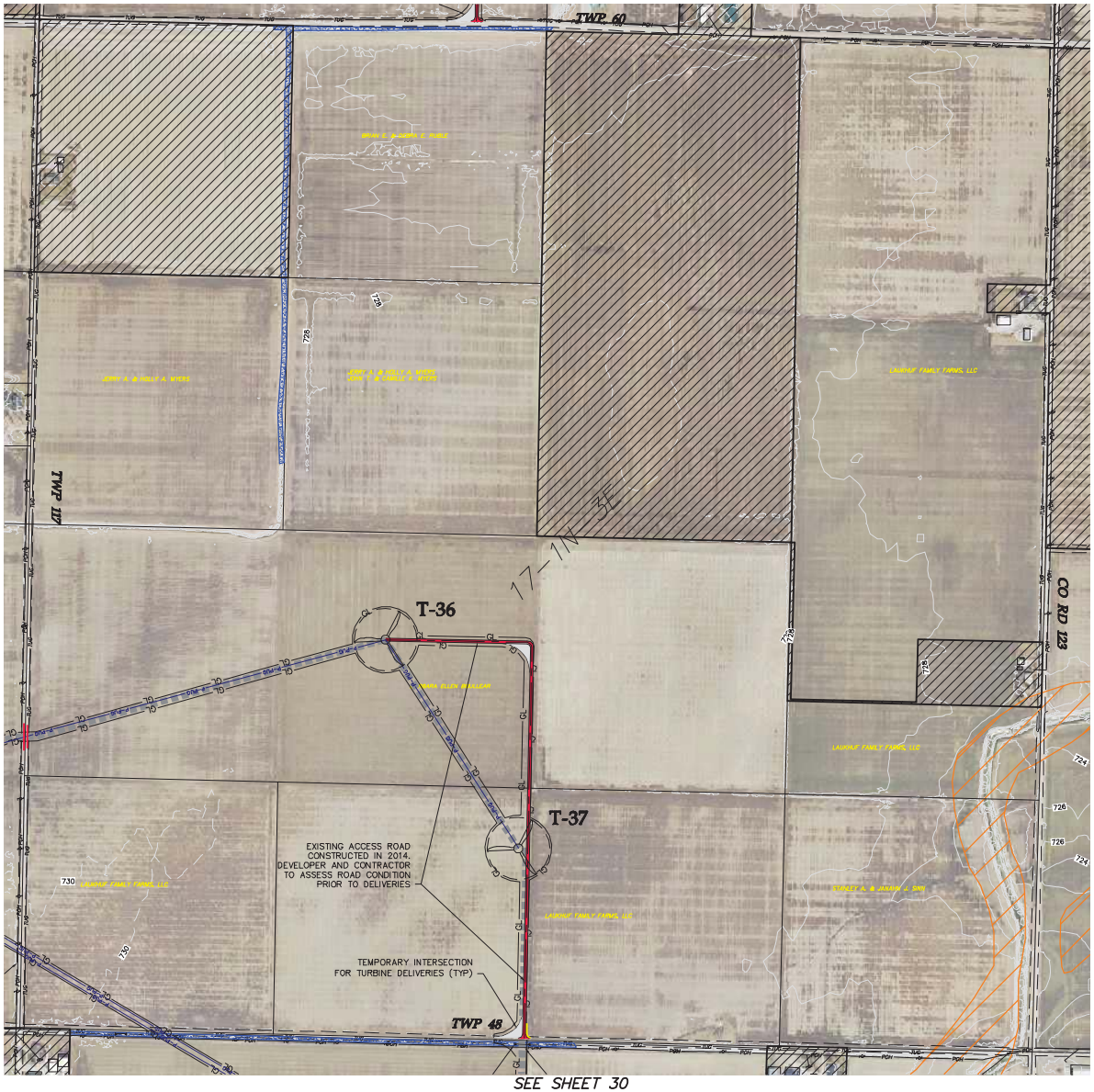

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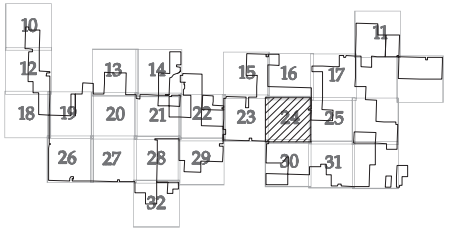

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Paulding, Ohio

Civil Site Plan T36 T37

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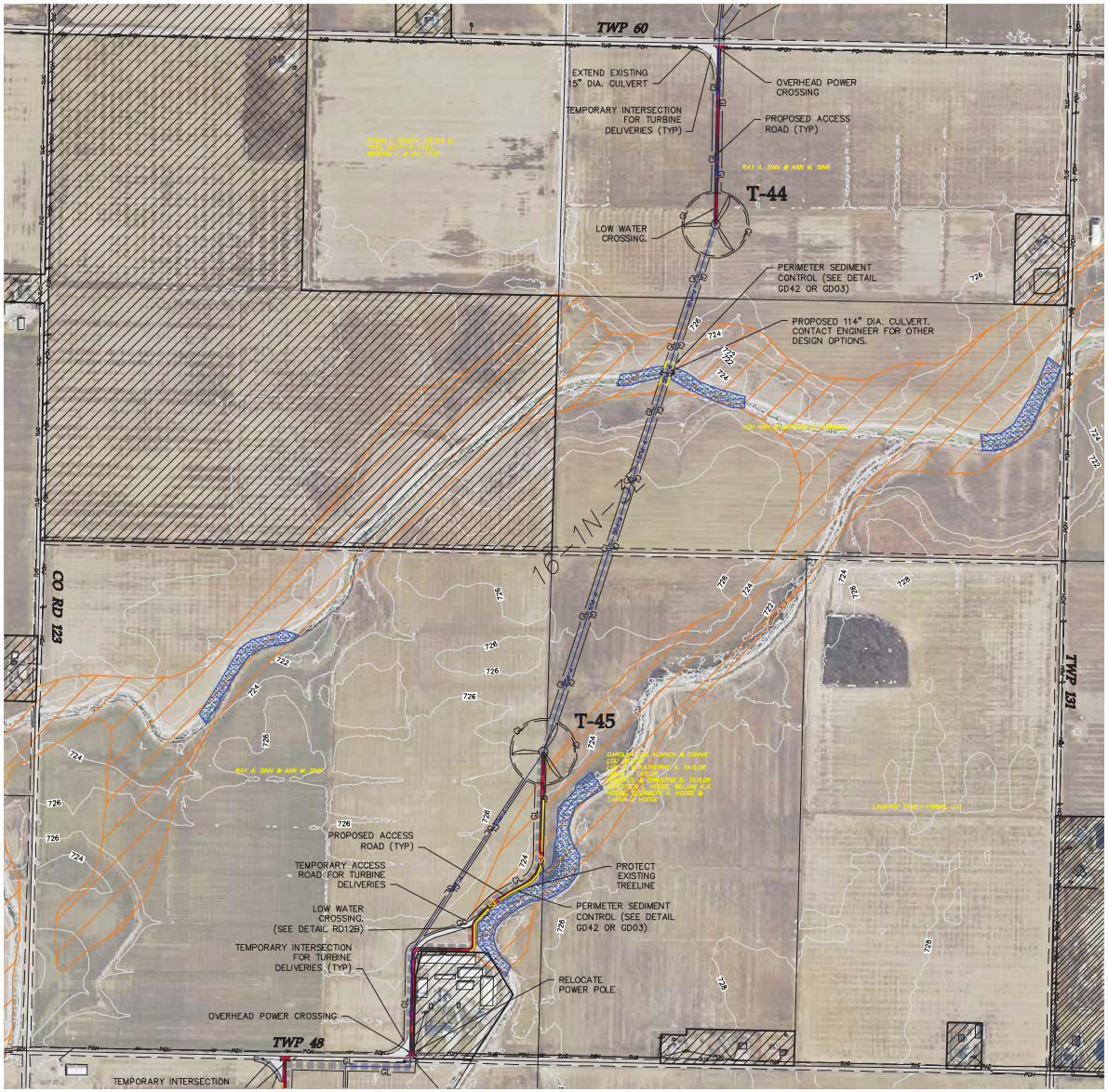

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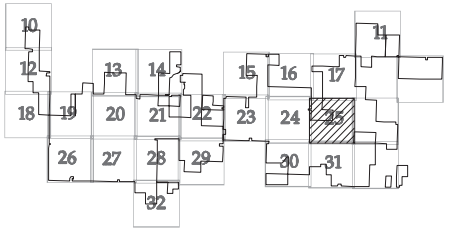

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Northwest Ohio Wind Project

Paulding, Ohio

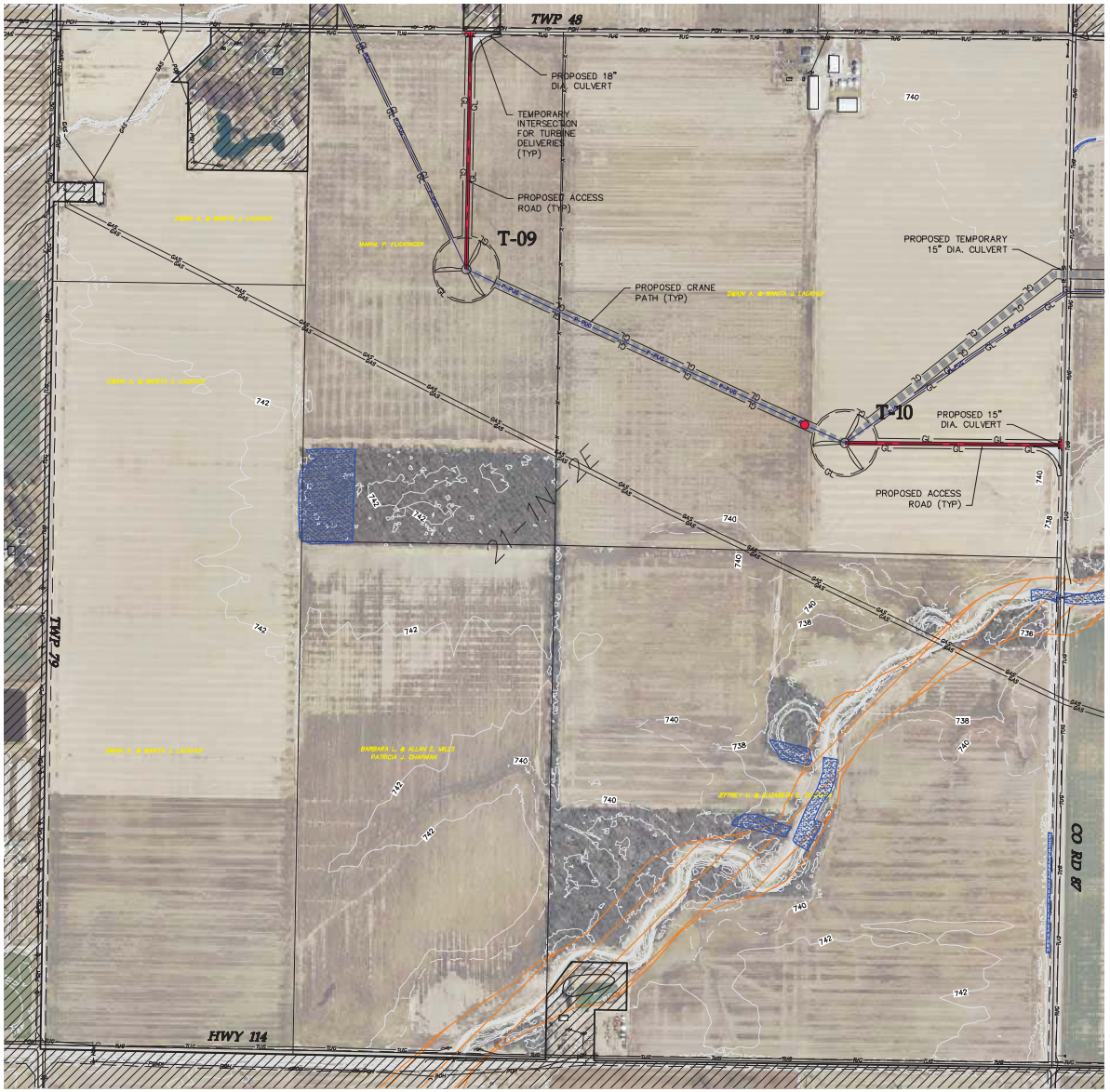
Civil Site Plan T44 T45

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 25 OF 38

0007186-00SPF01.dwg

SEE SHEET 19

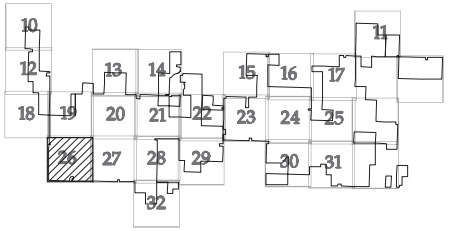


SEE SHEET 27

LEGEND:

- TURBINE LOCATION
- T-XX — TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- P-UG — PROPOSED UNDERGROUND COLLECTION
- GL — PROPOSED DISTURBANCE LIMITS
- SF — PROPOSED EROSION/SEDIMENT CONTROL
- OH PDN OH — EXISTING OVERHEAD POWER
- GAS — EXISTING OIL/GAS PIPELINE
- TLC — EXISTING TELEPHONE LINE
- CTV — EXISTING CABLE LINE
- EXISTING RIGHT OF WAY
- 980 — EXISTING 10' CONTOURS
- EXISTING 2' CONTOURS
- DELINEATED WETLAND
- EXISTING ROAD
- OUT OF PROJECT BOUNDARY
- FEMA FLOODPLAIN BOUNDARY
- PROPOSED CULVERT
- POTENTIAL CRANE MAT LOCATIONS

NOTE: PLANS DO NOT DETAIL VARIOUS COUNTY/TOWNSHIP ROAD SECTION UPGRADES OR WIDENING REQUIRED FOR CONSTRUCTION DELIVERIES PER THE ROAD MAINTENANCE AGREEMENT BETWEEN PROJECT OWNER AND PAULDING COUNTY.



KEY MAP

Westwood

Phone (952) 937-5150 7699 Anagram Drive
Fax (952) 937-5822 Eden Prairie, MN 55344
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

Designed: KLG
Checked: KJS
Drawn: KLG
As-Built Drawing:

Revisions

#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

Prepared for:

WHITE an EEA company

3900 E. White Ave
Clinton, IN 47842

Trishe Wind Ohio, LLC
c/o Starwood Energy Group, LLC
5 Greenwich Office Park, 2nd Floor
Greenwich, CT 06831

N

0' 300' 600' 900'

Northwest Ohio Wind Project

Paulding, Ohio

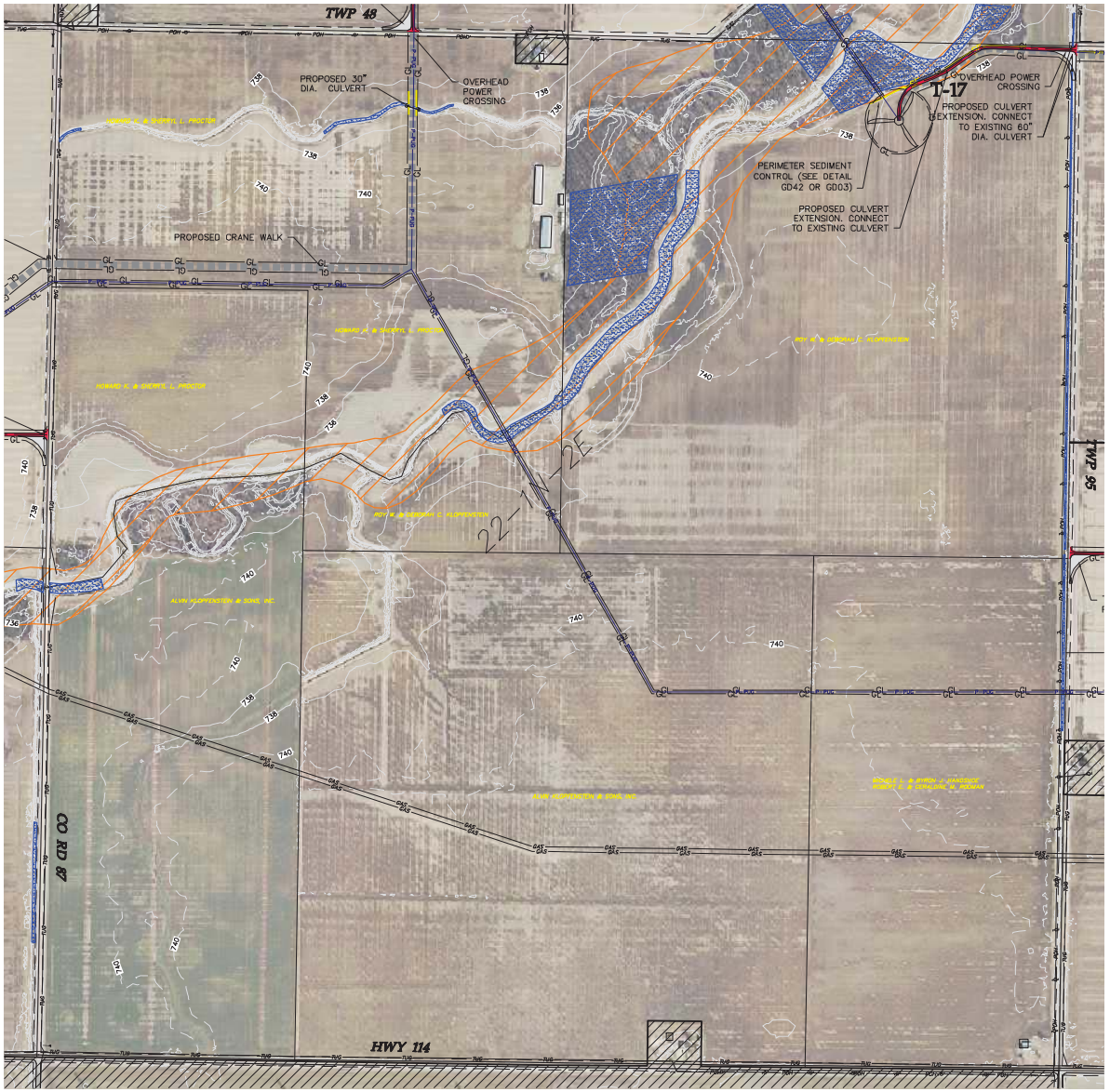
Civil Site Plan T09 T10

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 26 OF 38

0007186-00SPF01.dwg

SEE SHEET 20



SEE SHEET 26

SEE SHEET 28

LEGEND:

- TURBINE LOCATION
- T-XX — TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- PROPOSED UNDERGROUND COLLECTION
- PROPOSED DISTURBANCE LIMITS
- PROPOSED EROSION/SEDIMENT CONTROL
- EXISTING OVERHEAD POWER
- EXISTING OIL/GAS PIPELINE
- EXISTING TELEPHONE LINE
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- 980 — EXISTING 10' CONTOURS / EXISTING 2' CONTOURS
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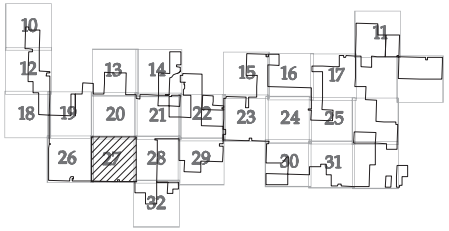

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N

0' 300' 600' 900'

Northwest Ohio Wind Project

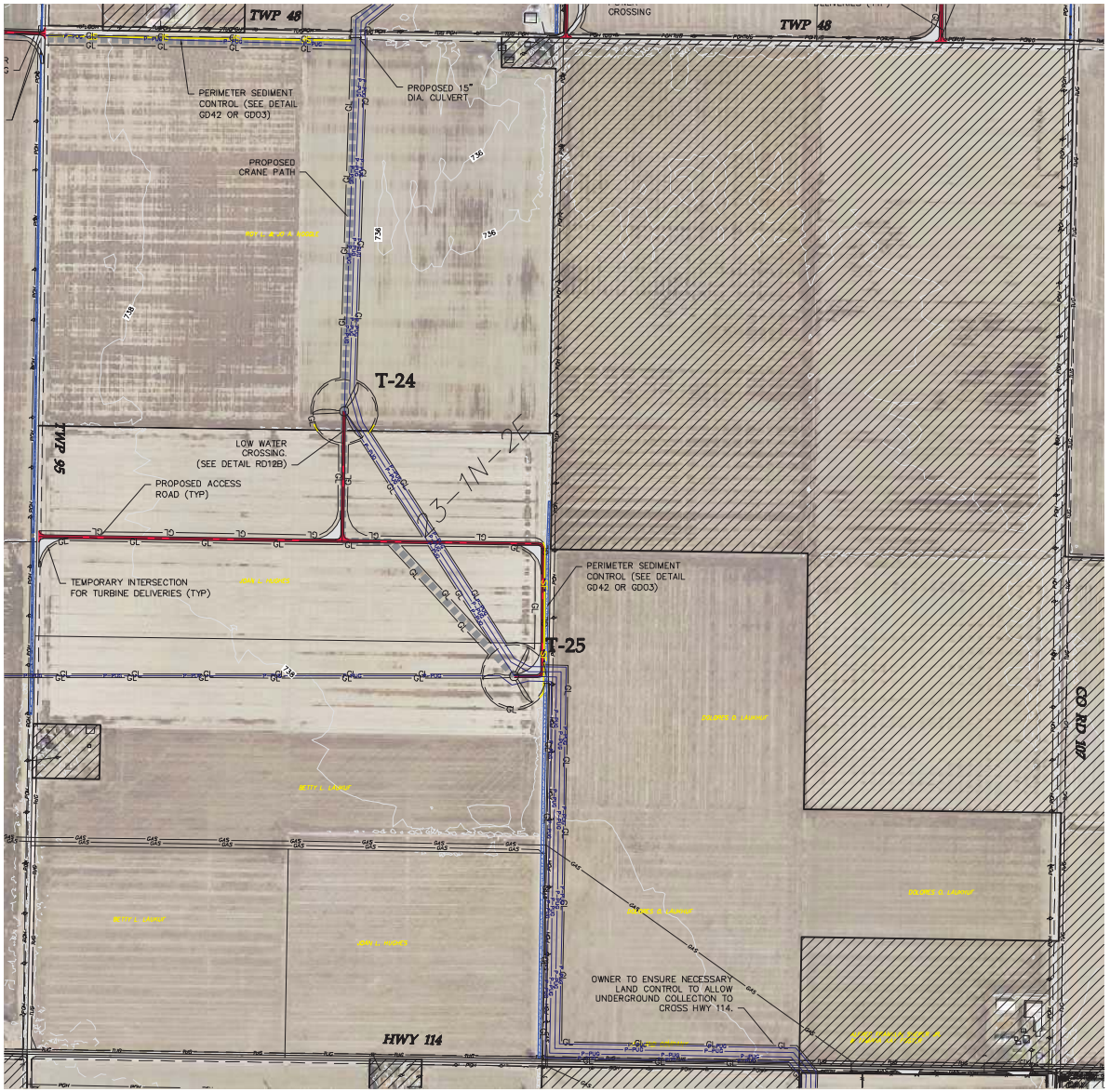
Paulding, Ohio

Civil Site Plan T17

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 27 OF 38

0007186-00SPF01.dwg



LEGEND:

- TURBINE LOCATION
- T-XX — TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- P-PUG — PROPOSED UNDERGROUND COLLECTION
- GL — PROPOSED DISTURBANCE LIMITS
- SC — PROPOSED EROSION/SEDIMENT CONTROL
- POH PDH — EXISTING OVERHEAD POWER
- GAS — EXISTING OIL/GAS PIPELINE
- TVC — EXISTING TELEPHONE LINE
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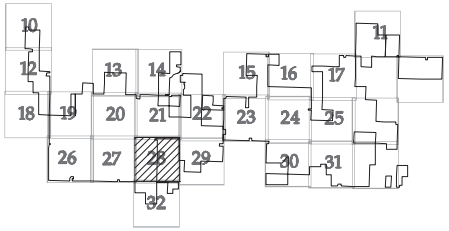

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Greenwich, CT 06831

N

0' 300' 600' 900'

Northwest Ohio Wind Project

Paulding, Ohio

Civil Site Plan T24 T25

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 28 OF 38

0007186-00SPF01.dwg

LEGEND:

- TURBINE LOCATION
- T-XX — TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- P-UG — PROPOSED UNDERGROUND COLLECTION
- CL — PROPOSED DISTURBANCE LIMITS
- SF — PROPOSED EROSION/SEDIMENT CONTROL
- OH PDN — EXISTING OVERHEAD POWER
- GAS — EXISTING OIL/GAS PIPELINE
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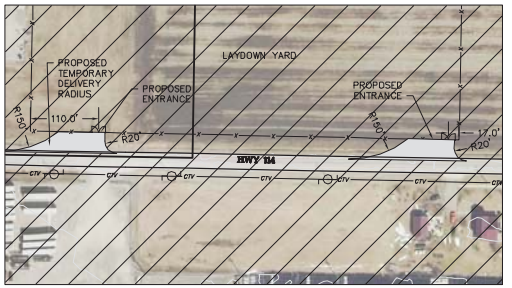

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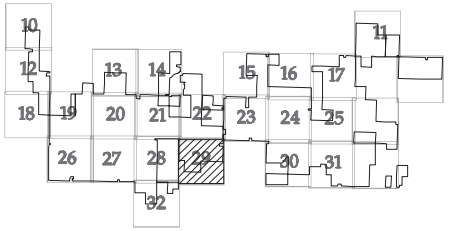

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N

0' 300' 600' 900'

Northwest Ohio Wind Project

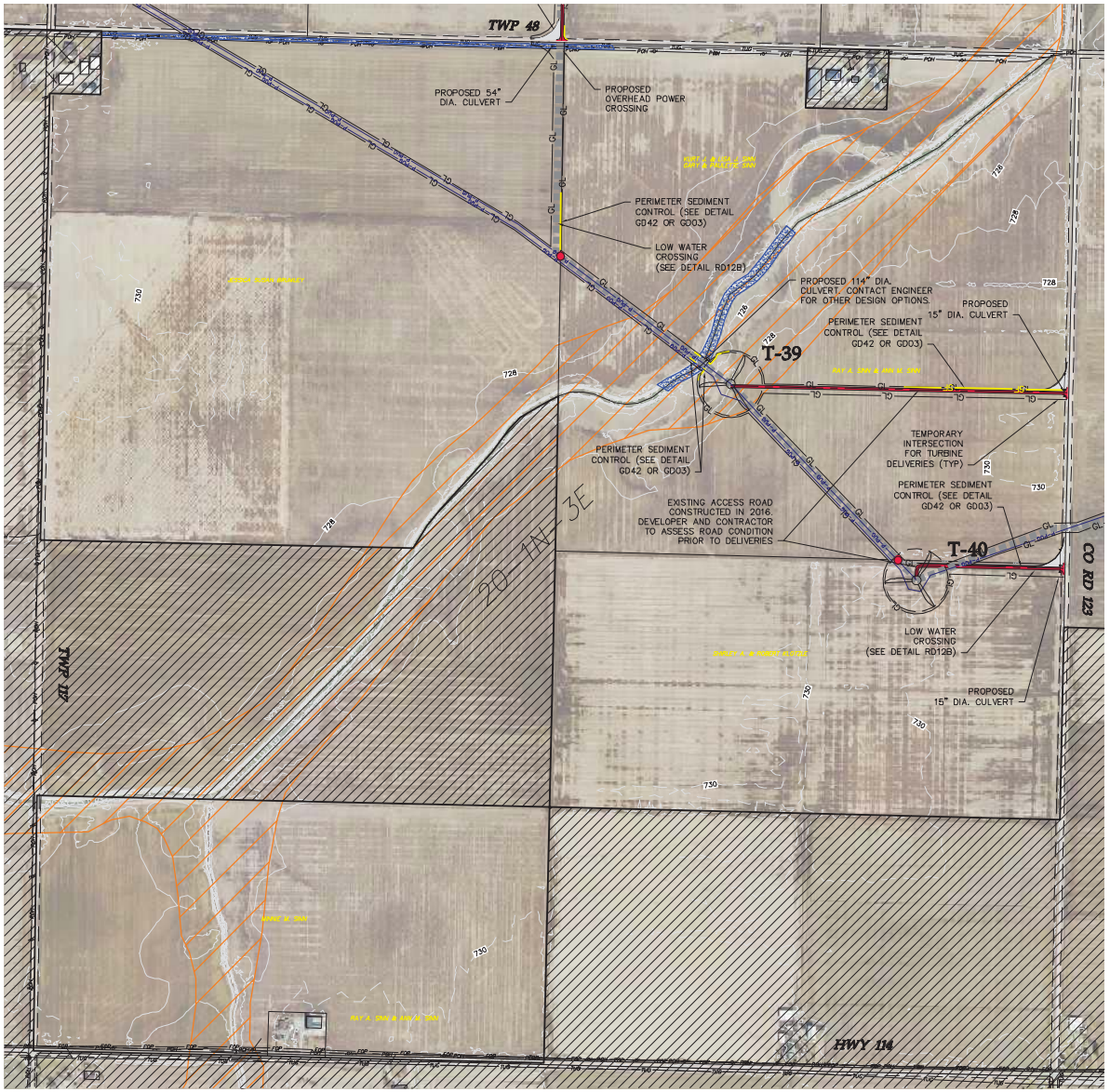
Paulding, Ohio

Civil Site Plan

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 29 OF 38

0007186-00SPF01.dwg



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- PROPOSED CRANE PATH
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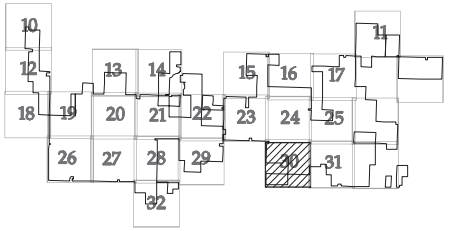

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Westwood Professional Services, Inc.

Designed:	KLG
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Drawn:	KLG
As-Built Drawing:	

Revisions		
#	DATE	DESCRIPTION
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Prepared for:

WHITE an IEA company
3900 E. White Ave
Clinton, IN 47842

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c/o Starwood Energy Group, LLC
5 Greenwich Office Park, 2nd Floor
Greenwich, CT 06831

N

0' 300' 600' 900'

Northwest Ohio Wind Project

Paulding, Ohio

Civil Site Plan T39 T40

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 30 OF 38

0007186-00SPF01.dwg

LEGEND:

- TURBINE LOCATION
- T-XX — TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- P-UG — PROPOSED UNDERGROUND COLLECTION
- GL — PROPOSED DISTURBANCE LIMITS
- SC — PROPOSED EROSION/SEDIMENT CONTROL
- OH PDN TCH — EXISTING OVERHEAD POWER
- GAS — EXISTING OIL/GAS PIPELINE
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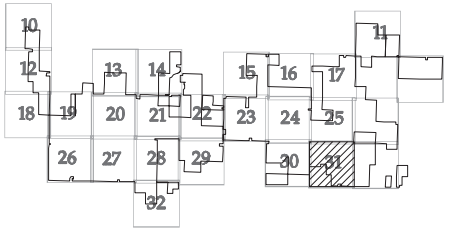

KEY MAP

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As-Built Drawing:	

Revisions

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A	09/01/17	60% plans
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Prepared for:

WHITE an IEA company

3900 E. White Ave
Clinton, IN 47842

Trishe Wind Ohio, LLC
c/o Starwood Energy Group, LLC
5 Greenwich Office Park, 2nd Floor
Greenwich, CT 06831

N

0' 300' 600' 900'

Northwest Ohio Wind Project

Paulding, Ohio

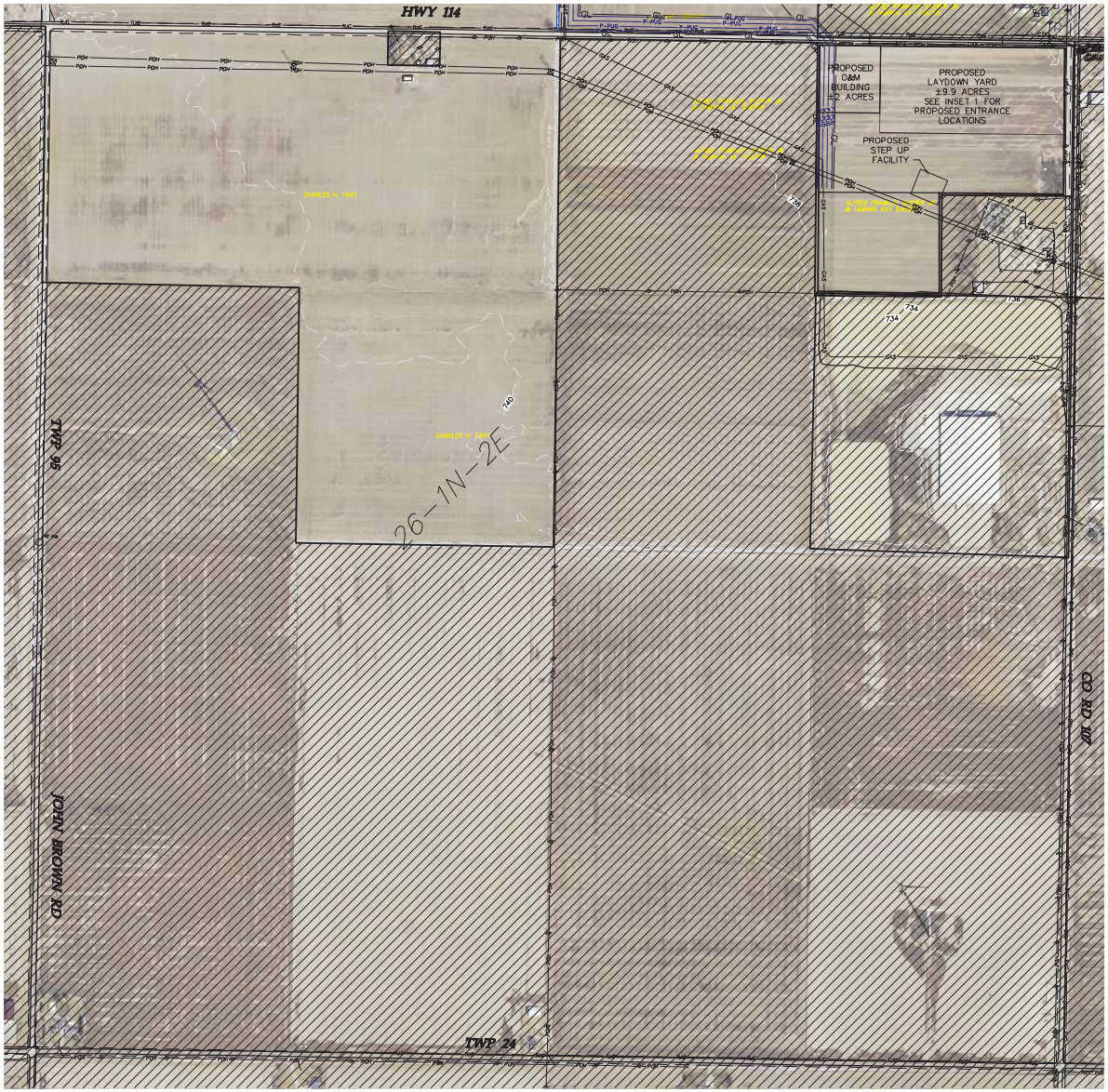
Civil Site Plan T46

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 31 OF 38

0007186-00SPF01.dwg

SEE SHEET 28



LEGEND:

- TURBINE LOCATION
- T-XX — TURBINE NUMBER
- PROPOSED ACCESS ROAD
- PROPOSED CRANE PATH
- P-UG — PROPOSED UNDERGROUND COLLECTION
- GL — PROPOSED DISTURBANCE LIMITS
- SF — PROPOSED EROSION/SEDIMENT CONTROL
- OH PDH — EXISTING OVERHEAD POWER
- GAS — EXISTING OIL/GAS PIPELINE
- T/C — EXISTING TELEPHONE LINE
- CTV — EXISTING CABLE LINE
- EXISTING RIGHT OF WAY
- 980 — EXISTING 10' CONTOURS / EXISTING 2' CONTOURS
- DELINEATED WETLAND
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- OUT OF PROJECT BOUNDARY
- FEMA FLOODPLAIN BOUNDARY
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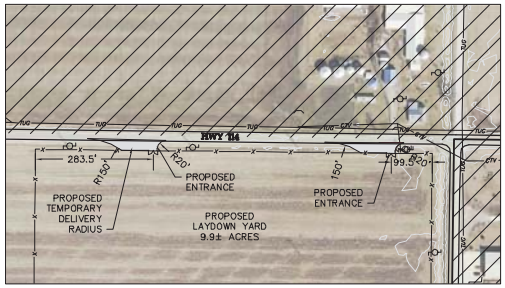

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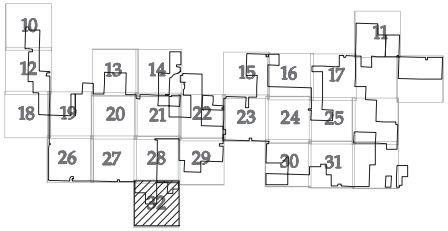

KEY MAP

Westwood

Phone (952) 937-5150 7699 Anagram Drive
Fax (952) 937-5822 Eden Prairie, MN 55344
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

Designed:	KLG
Checked:	SJS
Drawn:	KLG
As-Built Drawing:	

Revisions

#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

Prepared for:

WHITE an IEA company

3900 E. White Ave
Clinton, IN 47842

Trishe Wind Ohio, LLC
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5 Greenwich Office Park, 2nd Floor
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N

0' 300' 600' 900'

Northwest Ohio Wind Project

Paulding, Ohio

Civil Site Plan

Not For Construction

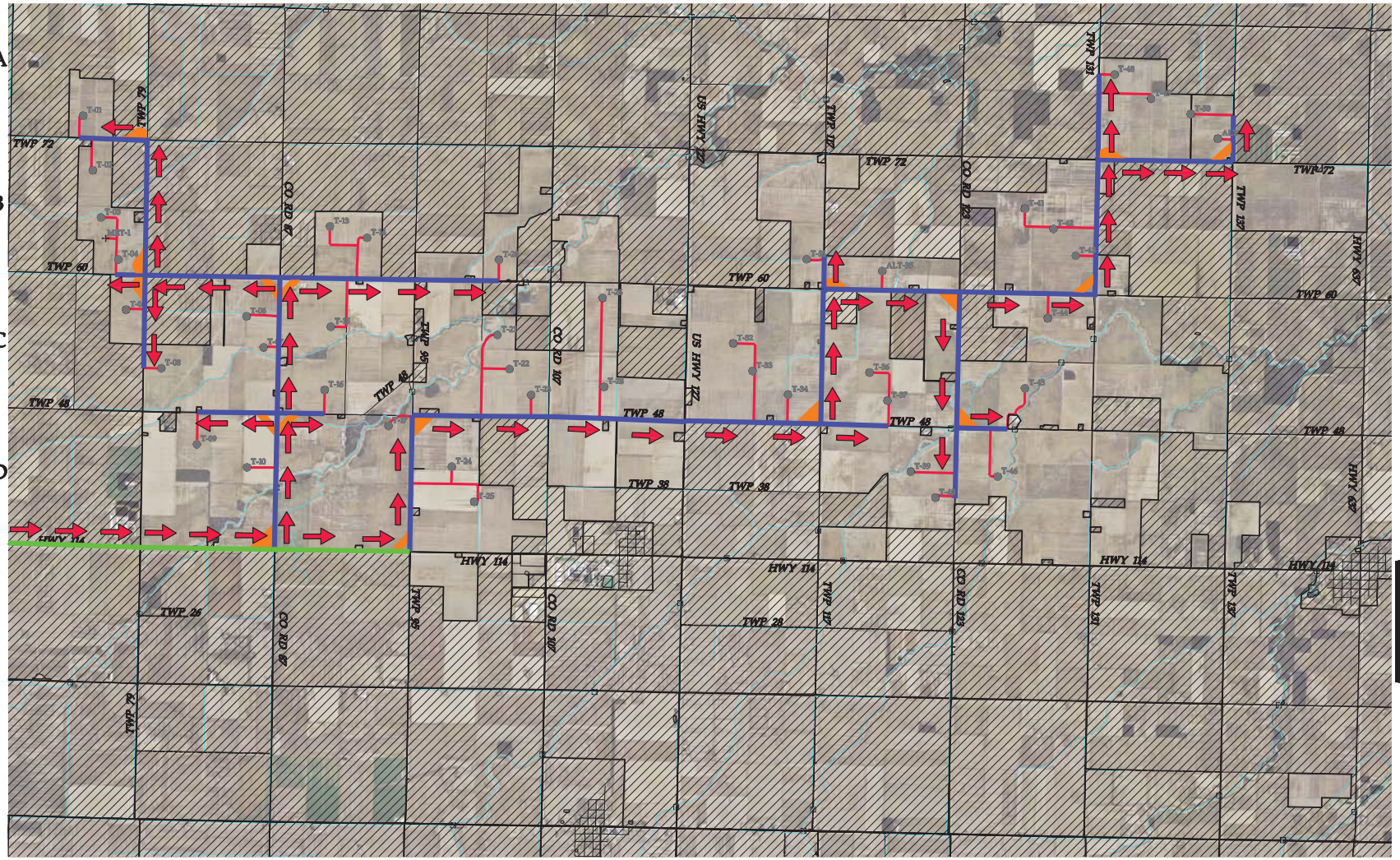
Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 32 OF 38

0007186-00SPF01.dwg

INTERSECTION TYPE	QUANTITY
TYPE A	5
TYPE B	5
TYPE C	7

LEGEND:

- T-XX — PROPOSED TURBINE LOCATION / PROPOSED TURBINE NUMBER
- PROPOSED ACCESS ROADS
- POTENTIAL HAUL ROAD (COUNTY/TOWNSHIP ROAD)
- POTENTIAL HAUL ROAD (US/STATE HIGHWAY)
- EXISTING DRAINAGE WAY
- OUTSIDE PROJECT BOUNDARY
- DELIVERY DIRECTION



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As-Built Drawing:

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N

0' 2000' 4000' 6000'

Northwest Ohio Wind Project

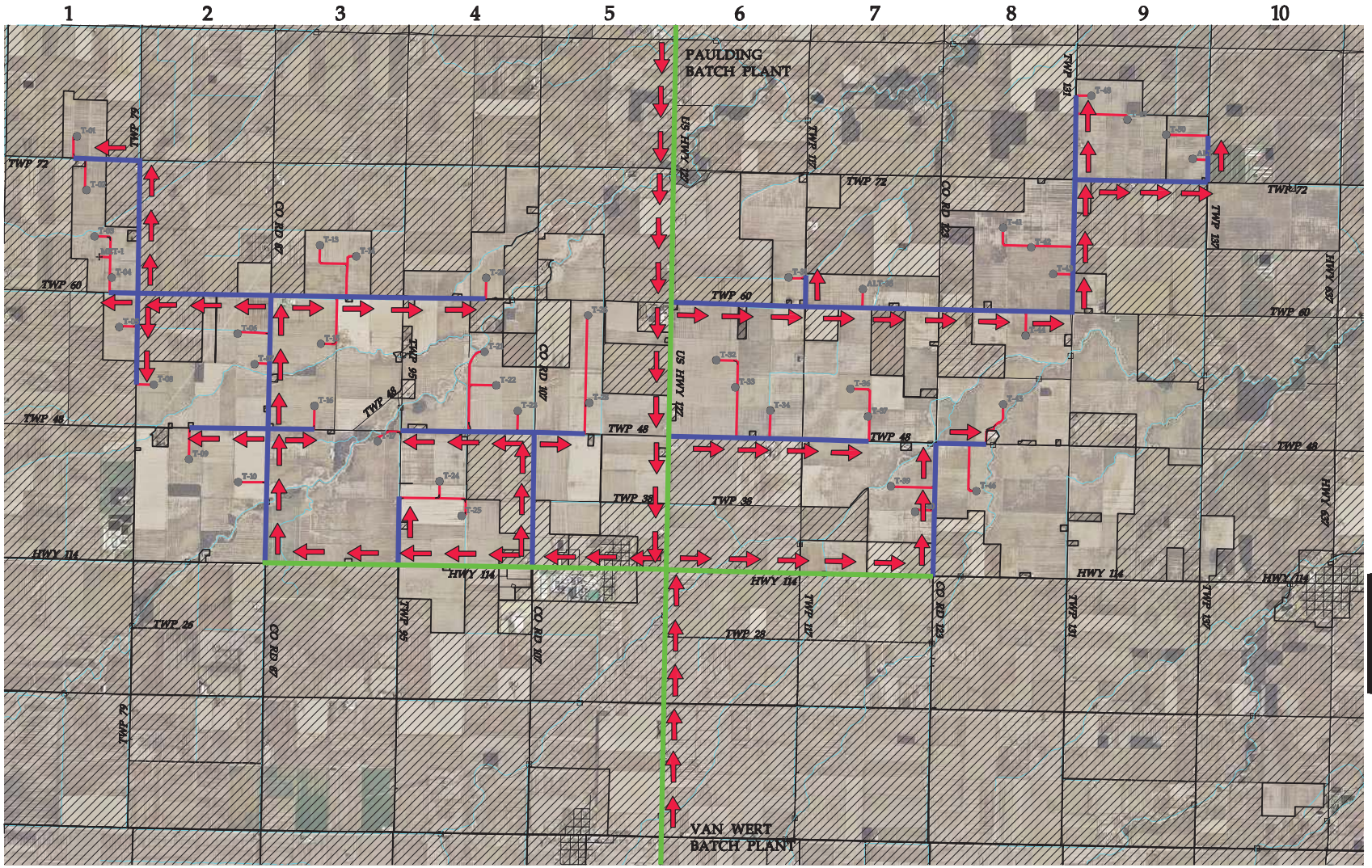
Paulding, Ohio

Turbine Delivery and Public Intersection Plan

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 33 OF 38

0007186-000AF-INT01.dwg



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N

0' 2000' 4000' 6000'

Northwest Ohio Wind Project

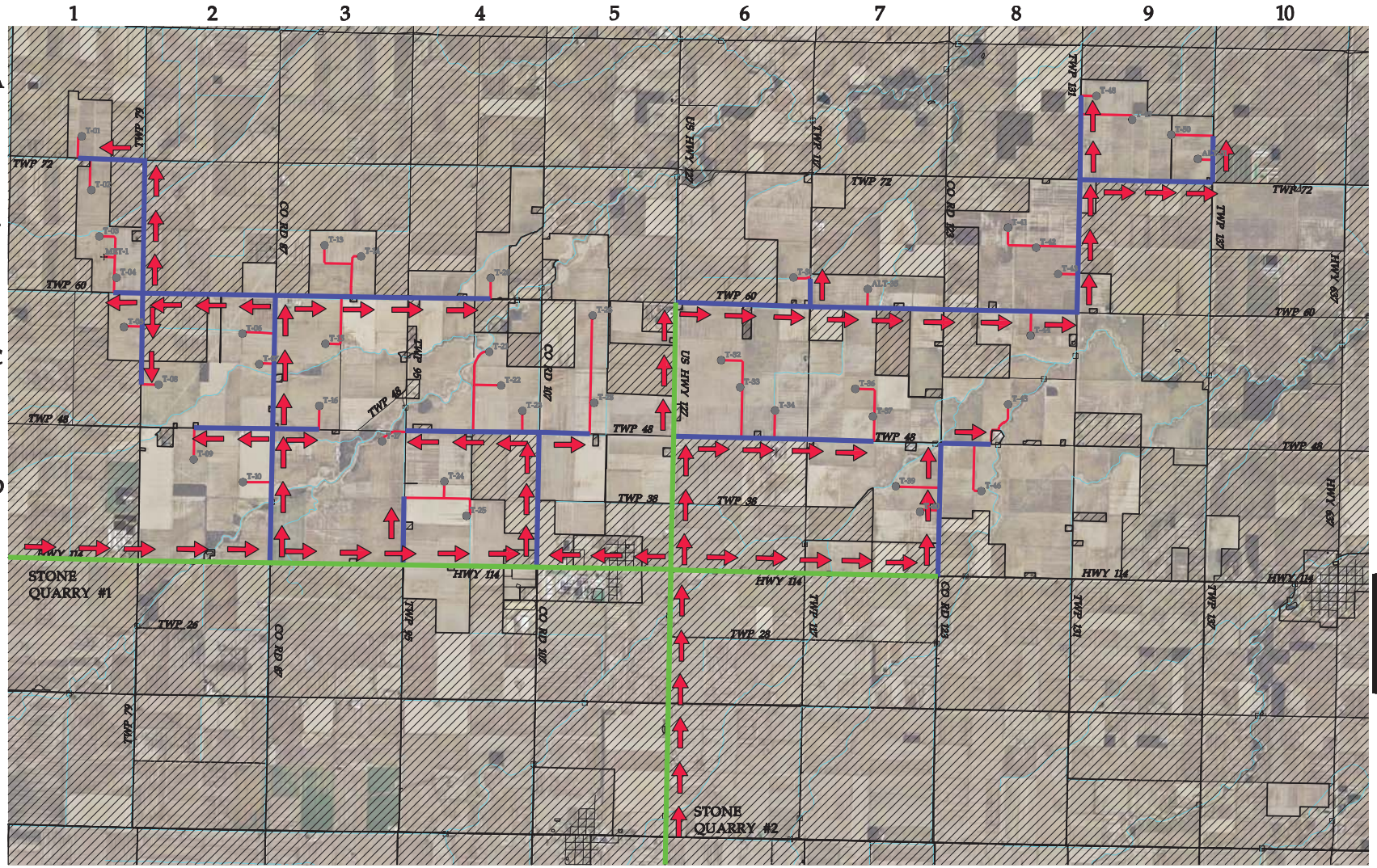
Paulding, Ohio

Concrete Haul Route Plan

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 34 OF 38

0007186-000FF01-Conc.dwg



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Greenwich, CT 06831

N

0' 2000' 4000' 6000'

Northwest Ohio Wind Project

Paulding, Ohio

Aggregate Haul Route Plan

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 35 OF 38

0007186-000FF02-Turb.dwg

LEGEND:

- PUBLIC TEMPORARY INTERSECTION DRIVE SURFACE
- INTERSECTION CLEAR ZONE
- OUT OF PROJECT BOUNDARY
- PROPOSED CRANE PATH
- GL — PROPOSED DISTURBANCE LIMITS
- SF — PROPOSED EROSION/SEDIMENT CONTROL
- OHP — EXISTING OVERHEAD POWER
- EXISTING CULVERT
- 980 — EXISTING 10' CONTOURS
- EXISTING 2' CONTOURS
- PROPOSED CULVERT
- DELIVERY DIRECTION

NOTE: 150' RADII IS A ASSUMED VALUE. DESIGN RADII MAY CHANGE BASED ON MANUFACTURER'S TURBINE DELIVERY SPECIFICATIONS.

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N

0' 40' 80' 120'

Northwest Ohio Wind Project

Paulding, Ohio

Intersection Type A

Not For Construction

Array Date: 08/14/2017

Date: 09/07/2017

Sheet: 36 OF 38

0007186-00INT01.dwg

LEGEND:

- PUBLIC TEMPORARY INTERSECTION DRIVE SURFACE
- INTERSECTION CLEAR ZONE
- OUT OF PROJECT BOUNDARY
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- PROPOSED DISTURBANCE LIMITS
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Westwood

Phone (952) 937-5150 7699 Anagram Drive
Fax (952) 937-5822 Eden Prairie, MN 55344
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

Designed:	RLG
Checked:	SJS
Drawn:	RLG
As-Built Drawing:	

Revisions

#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

Prepared for:

WHITE an EEA company

3900 E. White Ave
Clinton, IN 47842

Trishe Wind Ohio, LLC
c/o Starwood Energy Group, LLC
5 Greenwich Office Park, 2nd Floor
Greenwich, CT 06831

N

0' 40' 80' 120'

Northwest Ohio Wind Project

Paulding, Ohio

Intersection Type B

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 37 OF 38

0007186-00INT01.dwg

LEGEND:

- PUBLIC TEMPORARY INTERSECTION DRIVE SURFACE
- INTERSECTION CLEAR ZONE
- OUT OF PROJECT BOUNDARY
- PROPOSED CRANE PATH
- PROPOSED DISTURBANCE LIMITS
- PROPOSED EROSION/SEDIMENT CONTROL
- EXISTING OVERHEAD POWER
- EXISTING CULVERT
- EXISTING 10' CONTOURS
- EXISTING 2' CONTOURS
- PROPOSED CULVERT
- DELIVERY DIRECTION

NOTE: 150' RADII IS A ASSUMED VALUE. DESIGN RADII MAY CHANGE BASED ON MANUFACTURER'S TURBINE DELIVERY SPECIFICATIONS.

Westwood

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Fax (952) 937-5822 Eden Prairie, MN 55344
Toll Free (888) 937-5150 www.westwoodps.com
Westwood Professional Services, Inc.

Designed: KLG
Checked: KJS
Drawn: KLG
As-Built Drawing:

Revisions

#	DATE	DESCRIPTION
A	09/01/17	60% plans
B	09/07/17	90% plans

Prepared for:

WHITE an IEA company

3900 E White Ave
Clinton, IN 47842

Trishe Wind Ohio, LLC
c/o Starwood Energy Group, LLC
5 Greenwich Office Park, 2nd Floor
Greenwich, CT 06831

N

0' 40' 80' 120'

Northwest Ohio Wind Project

Paulding, Ohio

Intersection Type C

Not For Construction

Array Date: 08/14/2017
Date: 09/07/2017
Sheet: 38 OF 38

0007186-00INT01.dwg

Attachment F

Training Documentation

Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location:

Date of Course:

Course Length(hours):

Stormwater Training Topic: ***(check as appropriate)***

- ❑ **Sediment and Erosion Controls**
- ❑ **Stabilization Controls**
- ❑ **Pollution Prevention Measures**
- ❑ **Emergency Procedures**
- ❑ **Inspections/Corrective Actions**
- ❑ **Stormwater Runoff Sampling**

Specific Training Objective(s):

_____

_____

_____

_____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attachment G

Inspection and Maintenance Forms

Construction Site Inspection Checklist for OHC000004

By making use of some simple Best Management Practices (BMPs) a construction site operator can do his or her share to protect Ohio's water resources from the harmful effects of sediment. The topography of the site and the extent of the construction activities will determine which of these practices are applicable to any given site, but the BMPs listed here are applicable to most construction sites. For details on the installation and maintenance of these BMPs, please refer to the current ***Rainwater and Land Development****, Ohio's Standards for Storm Water Management Land Development and Urban Stream Protection* by the Ohio Department of Natural Resources (ODNR) Division of Soil and Water Conservation. The manual is available at http://ohiodnr.com/soilandwater/water/rainwater/default/tabid/9186/Default.aspx or by contacting your county Soil and Water Conservation District.

Temporary Stabilization

This is the most effective BMP. All disturbed areas that will lie dormant for over 14 days must be stabilized within 7 days of the date the area becomes inactive. The goal of temporary stabilization is to provide cover, quickly. Areas within 50 feet of a stream must be stabilized within 2 days of inactivity. This is accomplished by seeding with fast-growing grasses then covering with straw mulch. Apply only mulch between November 1 and March 31. To minimize your costs of temporary stabilization, leave natural cover in place for as long as possible. Only disturb areas you intend to work within the next 14 days.

Construction Entrances

Construction entrances are installed to minimize off-site tracking of sediments. A stone access drive should be installed at every point where vehicles enter or exit the site. Every individual lot should also have its own drive once construction on the lot begins.

Sediment Ponds

Sediment ponds are required for construction areas with concentrated runoff, when the design capacity of silt fence or inlet protection is exceeded, or for drainage areas with 10 or more disturbed areas. There are two types of sediment ponds: sediment basins and sediment traps. A sediment trap is appropriate where the contributing drainage area is 10 acres or less. The outlet is an earthen embankment with a simple stone spillway. A sediment basin is appropriate for drainage areas larger than 10 acres. The outlet is an engineered riser pipe with a skimmer or similar device used to dewater the pond at the surface. Often a permanent storm water management pond, such as a retention or detention basin, can be modified to act as a sediment basin during construction. All sediment ponds must be installed within 7 days of first grubbing the area they control, provide a minimum dewatering zone of 67 cubic yards per acre of total contributing drainage area and a sediment settling zone of 34 cubic yards per disturbed acre below the level of the outlet. Sediment basins must be designed to drain the dewatering zone over a 48-hour period.

Silt Fence

This is typically used at the perimeter of a disturbed area. It's only for small drainage areas on relatively flat slopes or around small soil storage piles. Not suitable where runoff is concentrated in a ditch, pipe or through streams. For large drainage areas where flow is concentrated, collect runoff in diversion berms or channels and pass it through a sediment pond prior to discharging it from the site. Combination barriers constructed of silt fence supported by straw bales or silt fence embedded within rock check dams may be effective within small channels. As with all sediment controls, silt fence must be capable of pooling runoff so that sediment can settle out of suspension. Silt fence must be installed within 7 days of first grubbing the area it controls.

Inlet Protection

This must be installed on all yard drains and curb drains when these inlets do not drain to a sediment trap or basin. Even if there is a sediment trap or basin, inlet protection is still recommended, as it will increase the overall sediment removal efficiency. These are best used on roads with little or no traffic. If working properly, inlet protection will cause water to pond. If used on curb inlets, streets will flood temporarily during heavy storms. Check with your municipality before installing curb inlet protection. They may prefer an alternate means of sediment control such as silt fence or ponds.

Permanent Stabilization

All areas at final grade must be permanently stabilized within 7 days of reaching final grade. This is usually accomplished by using seed and mulch, but special measures are sometimes required. This is particularly true in drainage ditches or on steep slopes. These measures include the addition of topsoil, erosion control matting, rock rip-rap or retaining walls. Permanent seeding should be done March 1 to May 31 and August 1 to September 30. Dormant seeding can be done from November 20 to March 15. At all other times of the year, the area should be temporarily stabilized until a permanent seeding can be applied.

Non-Sediment Pollution Control

Although sediment is the pollutant of greatest concern on most construction sites, there are other sources of pollution. Most of these BMPs are easy to implement with a little bit of planning and go a long way toward keeping your site clean and organized. Please be sure to inform all contractors how these BMPs affect their operations on the site, particularly those that will be working near a stream.

Inspection Sheet

INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING

GENERAL INSPECTION INFORMATION

Construction Site Inspection Date: _____ Inspector Name: _____

Inspector Title: _____ Qualifications/Certifications: _____

Storm Events of the Last 7 Days

Storm Event Date	Storm Event Time	Storm Event Duration	Total Rainfall Amount	Discharge Occur? (Y/N)
_____	_____	_____	_____ (inches)	_____
_____	_____	_____	_____ (inches)	_____
_____	_____	_____	_____ (inches)	_____
_____	_____	_____	_____ (inches)	_____

Weather Information at the Time of Inspection

Temperature _____ Climate (Sunny, Cloudy, Rain)? _____ Is Storm Water Being Discharged? _____

Sketch or Small Site Map

Along with a narrative inspection log, Ohio EPA recommends the inspector use a sketch or a reduced photocopy of the site plan showing the location of storm water outfalls and storm drain inlets as well as the location and types of control measures. Problems observed at these locations, or at other locations on the construction site, should be highlighted and any corrective measures undertaken should be drawn in and noted in detail on the front side of the sketch. This method will also be helpful as the permittee is required to update the SWP3 to reflect current site conditions.

CONSTRUCTION ENTRANCES

Key things to look for ...

	Yes	No
1. Has the drive been constructed by placing geotextile fabric under the stone?	☐	☐
2. Is the stone 2-inch diameter?	☐	☐
3. Has the stone been placed to a depth of 6 inches, with a width of 10 feet and a length of at least 50 feet (30 feet for entrances onto individual sublots)?	☐	☐
4. If the drive is placed on a slope, has a diversion berm been constructed across the drive to divert runoff away from the street or water resource?	☐	☐
5. If drive is placed across a ditch, was a culvert pipe used to allow runoff to flow across the drive?	☐	☐

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

SEDIMENT PONDS

Key things to look for ...

	Yes	No
1. Are concentrated flows of runoff directed to a sediment pond?	☐	☐
2. Is sheet-flow runoff from drainage areas that exceed the design capacity of silt fence (generally 0.25 acre or larger) directed to a sediment pond?	☐	☐
3. Is runoff being collected and directed to the sediment pond via the storm sewer system or via a network of diversion berms and channels?	☐	☐
4. Is the sediment pond dewatering zone appropriately sized (67 cubic yards per acre of total drainage area)?	☐	☐
5. Is the sediment pond sediment settling zone appropriately sized (34 cubic yards per acre of disturbed area)?	☐	☐
6. Is the sediment basin designed to be dewatered at the surface through the use of a skimmer or another similar surface water dewatering device?	☐	☐
7. Is the sediment basin designed so that the dewatering zone will drain in no less time than 48 hours?	☐	☐
8. Have the embankments of the sediment pond and the areas that lie downstream of the pond been stabilized?	☐	☐
9. For sediment basins that dewater 100% between storms, is the riser pipe wrapped with chicken wire and double wrapped with geotextile fabric?	☐	☐
10. Does the riser have 1-inch diameter holes spaced 4 inches apart, both horizontally and vertically?	☐	☐
11. For sediment basins, which dewater 60% between storms, is the diameter of the dewatering hole per plan (see Chapter 6 of ***Rainwater*** manual)?	☐	☐
12. For sediment traps, is there geotextile under the stone spillway and is the spillway saddle-shaped?	☐	☐
13. For sediment traps, which dewater 100% between storms, is the dewatering pipe end-capped, no larger than 6 inches in diameter, perforated and double-wrapped in geotextile?	☐	☐
14. Is the length-to-width ratio between inlet(s) and outlet at least 2:1? **NOTE**: If not, a baffle should be added to lengthen the distance.	☐	☐
15. Is the depth from the bottom of the basin to the top of the primary spillway no more than 3 to 5 feet?	☐	☐
16. For a modified storm water pond being used as a sediment pond, is the connection between the riser pipe and the permanent outlet water-tight?	☐	☐
17. Was the basin installed prior to grading the site?	☐	☐
18. Is it time to clean-out the sediment pond to restore its original capacity? Generally, sediment should be removed from the sediment settling zone once it's half-full. Stabilize the dredged sediments with seed and mulch.	☐	☐

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

SILT FENCE

Key things to look for ...

	Yes	No
1. Is the fence at least 4" to 6" into the ground?	☐	☐
2. Is the trench backfilled to prevent runoff from cutting underneath the fence?	☐	☐
3. Is the fence pulled tight so it won't sag when water builds up behind it?	☐	☐
4. Are the ends brought upslope of the rest of the fence so as to prevent runoff from going around the ends?	☐	☐
5. Is the fence placed on a level contour? If not, the fence will only act as a diversion.	☐	☐
6. Have all the gaps and tears in the fence been eliminated.	☐	☐
7. Is the fence controlling an appropriate drainage area? Refer to Chapter 6 of ***Rainwater*** manual. **RULE OF THUMB**: Design capacity for 100 linear feet of silt fence is 0.5 acres for slopes < 2%, 0.25 acres for slopes 2% to 20%, & 0.125 acres for slopes 20% or more. Generally, no more than 0.25 acres should lie behind 100 feet of fence at 2% to 10% slope, i.e., the distance between the fence and the top of the slope behind it should be no more than 125 feet. The allowable distance increases on flatter slopes and decreases for steeper slopes.	☐	☐

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

INLET PROTECTION

Key things to look for ...

	Yes	No
1. Does water pond around the inlet when it rains?	☐	☐
2. Has the fabric been replaced when it develops tears or sags?	☐	☐
3. For curb inlet protection, does the fabric cover the entire grate, including the curb window?	☐	☐
4. For yard inlet protection, does the structure encircle the entire grate?	☐	☐
5. Is the fabric properly entrenched or anchored so that water passes through it and not under it?	☐	☐
6. For yard inlet protection, is the fabric properly supported to withstand the weight of water and prevent sagging? The fabric should be supported by a wood frame with cross braces, or straw bales.	☐	☐
7. Is sediment that has accumulated around the inlet removed on a regular basis?	☐	☐

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

TEMPORARY STABILIZATION

Key things to look for ...

	Yes	No
1. Are there any areas of the site that are disturbed, but will likely lie dormant for over 14 days?	☐	☐
2. Have all dormant, disturbed areas been temporarily stabilized in their entireties?	☐	☐
3. Have disturbed areas outside the silt fence been seeded or mulched?	☐	☐
4. Have soil stockpiles that will sit for over 14 days been stabilized?	☐	☐
5. Has seed and mulch been applied at the proper rate? In general, seed is applied at 3 to 5 lbs per 1000 sq ft and straw mulch is applied at 2-3 bales per 1000 sq ft.	☐	☐
6. Has seed or mulch blown away? If so, repair.	☐	☐

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

PERMANENT STABILIZATION

Key things to look for ...

	Yes	No
1. Are any areas at final grade?	☐	☐
2. Has the soil been properly prepared to accept permanent seeding?	☐	☐
3. Has seed and mulch been applied at the appropriate rate (see Chapter 7 of the ***Rainwater*** manual)?	☐	☐
4. If rainfall has been inadequate, are seeded areas being watered?	☐	☐
5. For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom?	☐	☐
6. If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap? **NOTE**: Rock check dams may be needed to slow the flow of runoff.	☐	☐
7. Has rock rip-rap been placed under all storm water outfall pipes to prevent scouring in the receiving stream or erosion of the receiving channel?	☐	☐
8. For sites with steep slopes or fill areas, is runoff from the top of the site conveyed to the bottom of the slope or fill area in a controlled manner so as not to cause erosion?	☐	☐

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

NON-SEDIMENT POLLUTION CONTROL

Key things to look for ...

	Yes	No
1. Has an area been designated for washing out concrete trucks? Washings must be contained on site within a bermed area until they harden. The washings should never be directed toward a watercourse, ditch or storm drain.	☐	☐
2. Is waste and packaging disposed of in a dumpster? Do not burn them on site.	☐	☐
3. Are fuel tanks and drums of toxic and hazardous materials stored within a diked area or trailer and away from any watercourse, ditch or storm drain?	☐	☐
4. Are streets swept as often as necessary to keep them clean and free from sediment? NOTE: Sediment should be swept back onto the lot - not down the storm sewers.	☐	☐
5. Are stockpiles of soil or other materials stored away from any watercourse, ditch or storm drain?	☐	☐
6. Have stream crossings been constructed entirely of non-erodible material?	☐	☐
7. If an area of the site is being dewatered, is it being pumped from a sump pit or is the discharge directed to a sediment pond? **NOTE**: if you must lower ground water, the water may be discharged to the receiving stream as long as the water remains clean. Be sure not to co-mingle the clean ground water with sediment-laden water or to discharge it off-site by passing it over disturbed ground.	☐	☐

Note areas where repairs or maintenance is needed or where this practice needs to be applied:

Attachment H

Endangered Species and Cultural Resource Documentation

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

REPLY TO
ATTENTION OF:

October 2, 2015

Regulatory Branch

SUBJECT: Department of the Army Permit No. 2013-00394, Nationwide Permit No. 12 as Published in the Federal Register, Volume 77, No. 34, on Tuesday, February 21, 2012.

Mr. Himanshu Saxena
Trishe Wind Ohio, LLC
591 West Putnam Avenue
Greenwich, Connecticut 06830

Dear Mr. Saxena:

This pertains to the Trishe Wind Ohio, LLC application for a Department of the Army permit to construct the 48 turbine, *Northwest Ohio Wind Project (Trishe Wind Ohio)*, on an approximately 21,000 acre project site. The proposed project will result in 0.085 acre of permanent drainage-way impacts, associated with permanent access road crossings, and 1.029 acres of temporary drainage-way impacts, associated with temporary access road crossings. The 34 discrete crossing locations (11 locations with permanent impacts and 33 locations with temporary impacts) are enumerated on Table 1 of the attached permit drawings (see sheets 1 through 3 of 40). The project will cross multiple unnamed drainage-ways and unnamed and named tributaries of Blue and Prairie Creeks; is generally bound by Road 71 to the west, Road 82 to the north, State Route 637 to the east, and Road 12 to the south; crosses through Blue Creek and Latty Townships; and bisects the Towns of Haviland and Grover Hill; all in Paulding County, Ohio.

I have evaluated the impacts associated with your proposal, and have concluded that they are authorized by the enclosed Nationwide Permit (NWP) 12 provided that the attached conditions are satisfied.

Verification of the applicability of this NWP is valid until March 18, 2017 unless the NWP is modified, suspended, revoked, or the activity complies with any subsequent permit modification. Please note in accordance with 33 CFR part 330.6(b), that if you commence or are under contract to commence an activity in reliance of the permit prior to the date this Nationwide permit expires, is suspended or revoked, or is modified such that the activity no longer complies with the terms and conditions, you have twelve months from the date of permit modification, expiration, or revocation to complete the activity under the present terms and conditions of the permit, unless the permit has been subject to the provisions of discretionary authority.

It is your responsibility to remain informed of changes to the NWP program. A public notice announcing any changes will be issued when they occur and will be available for viewing at our website: http://www.lrb.usace.army.mil/Missions/Regulatory.aspx. Finally, note that if your activity is not undertaken within the defined period or the project specifications have changed,

Regulatory Branch

SUBJECT: Department of the Army Permit No. 2013-00394, Nationwide Permit No. 12 as Published in the Federal Register, Volume 77, No. 34, on Tuesday, February 21, 2012.

you must immediately notify this office to determine the need for further approval or reverification.

This affirmation is limited to the attached NWP 12 and associated Water Quality Certification, and does not obviate the need to obtain any other project specific Federal, state, or local authorization.

A copy of this letter has been sent to the Ohio Environmental Protection Agency, and a copy of this letter has been forwarded to Mr. Ronald Peterson of Trishe Resources, Incorporated.

Questions pertaining to this matter should be directed to me at (716) 879 4186, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, or by e-mail at: joseph.w.krawczyk@usace.army.mil

Sincerely,

Joseph W. Krawczyk
Biologist

Enclosures

COMPLETION FORM / COMPLIANCE CERTIFICATION

Each permittee who receives a Nationwide Permit (NWP) verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any compensatory mitigation.

APPLICANT:
Mr. Himanshu Saxena
Trishe Wind Ohio, LLC
591 West Putnam Avenue
Greenwich, Connecticut 06830

POINT OF CONTACT:
Mr. Ronald P. Peterson
Permitting Manager
Trishe Resources, Inc.
5775 Wayzata Boulevard
Suite 700
St. Louis Park, Minnesota 55416

File No.: 2013-00394
File Closed: 09/30/2015
NWP No.: 12

Upon completion of the activity authorized by this permit and any required compensatory mitigation sign this certification and return it to the address listed below within 30 days of project completion.

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, revocation, and/or assessment of administrative penalties.

The permittee shall certify the completion of the authorized work and mitigation:

a. The authorized work was done in accordance with the NWP authorization, including any general, regional, or activity specific conditions.

b. The implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, this certification must include the documentation required by 33 CFR 332.3(1)(3) to confirm that the permittee secured the appropriate number and resource type of credits.

_____ _____

APPLICANTS NAME Date

Permittee Telephone Number: _____

Project location: Road 71 to the west, Road 82 to the north, State Route 637 to the east, and Road 12 to the south; crosses through Blue Creek and Latty Townships; and bisects the Towns of Haviland and Grover Hill; all in Paulding County, Ohio.

Project Description: Construction of the 48 turbine, *Northwest Ohio Wind Project (Trishe Wind Ohio)*

Authorized Impacts (Waters of the U.S. Impacted by Project): 0.085 acre of permanent drainage-way impacts, associated with permanent access road crossings, and 1.029 acres of temporary drainage-way impacts associated with temporary access road crossings

Waterway and/or Project Setting: Multiple unnamed drainage-ways and unnamed and named tributaries of Blue and Prairie Creeks

Return completed form to:
Mr. David Leput
Regulatory Branch
U.S. Army Corps of Engineers
1776 Niagara Street
Buffalo, NY 14207

ACTIVITIES AUTHORIZED BY 2012 NATIONWIDE PERMIT

12. **Utility Line Activities**. Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for the utility lines, in all waters of the United States, provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width

necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR Part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP also authorizes temporary structures, fills, and work necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 31.) (Sections 10 and 404)

Note 1: Where the proposed utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, copies of the pre-construction notification and NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 3: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility

lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 4: For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Nationwide Permit 12 Specific Regional Conditions:
a. Notification in accordance with Nationwide Permit General Condition 31 and Regional General Condition 6 is required for the following activities and the notification must include a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions:

- All work in waters of the U.S., including special aquatic sites, associated with utility line substations;
- All stream work (perennial, intermittent, and ephemeral) associated with foundations for overhead utility line towers, poles, and anchors;
- Impacts greater than 1/10 acre in waters of the U.S., including wetlands, associated with access roads;
- All temporary structures, work, and discharges (including cofferdams) necessary for access fills or dewatering of construction sites occurring in wetlands, perennial streams, or Section 10 waters when the primary activity is otherwise authorized by the Corps of Engineers; and
- All impacts to shrub/scrub and forested wetlands.

b. Notifications for aerial transmission lines over Section 10 waters must include the nominal system voltage and the additional clearance above low steel for bridges, if available, or above maximum high water elevation.

Note: All aerial crossings will have the following minimum clearances above the clearance required for bridges, or the clearances which would be required by the U.S. Coast Guard for new fixed bridges, in the vicinity of the proposed crossing. These clearances are based on the low point of the line under conditions which produce the greatest sag, taking into consideration temperature, load, wind, length or span, and type of supports as outlined in the National Electrical Safety Code. For any non-electrical cable, the crossing must have a minimum clearance of 20 feet above the clearance required for bridges.

NOMINAL SYSTEM VOLTAGE, KV	ADDITIONAL CLEARANCE, FEET
115 and below	20
138	22
161	24

230	26
350	30
500	35
700	42
750 – 765	45

c. Where certain functions and services of waters of the U.S. are permanently adversely affected, such as the conversion of a forested wetland or shrub/scrub wetland to an herbaceous wetland in the permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

d. Anti-seep collars or clay plugs must be utilized for trenching activities conducted in a wetland.

e. This nationwide permit does not authorize the placement of manholes in wetlands.

f. Excess material must be removed to upland areas immediately upon completion of construction.

g. The loss of waters of the U.S. is limited to 300 feet of stream bed, unless for intermittent and ephemeral stream beds the District Engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in minimal adverse effects.

Water Quality Certification Special Limitations And Conditions

Nationwide Permit 12 (Utility activities)

1. Ohio state certification general limitations and conditions apply to this nationwide permit.

2. Temporary or permanent impacts to category 3 wetlands are limited to less than 0.1 acres for activities involving the repair, maintenance, replacement, or safety upgrades to existing infrastructure that meets the definition of public need.

3. Except for maintenance activities authorized under this nationwide permit, individual state water quality certification is required for use of this nationwide permit when temporary or permanent impacts are proposed on or in the following waters:

    a. streams with the aquatic life use designation of exceptional warmwater habitat, cold water habitat, seasonal salmonid or any equivalent designation and/or performance;

    b. streams with an antidegradation category of superior high quality water, outstanding national resource water or outstanding state water;

    c. state wild and scenic rivers;

    d. national wild and scenic rivers;

e. general high quality water bodies which harbor federally listed threatened and/or endangered mussel species, such as Killbuck Creek in Coshocton County and Pymatuning Creek in Ashtabula County; and

4. Temporary or permanent impacts to category 1 and category 2 wetlands are limited to one-half acre.

5. Temporary or permanent impacts that result in the physical disturbance of more than 500 linear feet of forested wetland (containing woody vegetation six meters or taller) are not authorized under this certification.

6. Temporary or permanent impacts as a result of stream crossings shall not exceed a total of three per stream mile per stream.

7. Temporary or permanent impacts from new buried utility lines that cross more than 1,500 linear feet (cumulative for the entire project) of surface waters, including wetlands, require individual state water quality certification.

8. For an individual stream, the combined length of an existing culvert and culvert extension shall not exceed 500 linear feet of which no more than 300 linear may be new culvert.

9. Projects with temporary or permanent impacts (cumulative for the entire project) to surface waters, including wetlands, located in three or more 8-digit hydrologic units require individual state water quality certification.

10. All hydric soils up to 12 inches in depth within wetlands shall be stockpiled and replaced as the topmost backfill layer. Best management practices, such as silt fencing and soil stabilization, shall be implemented to reduce erosion and sediment run-off into adjacent wetlands.

11. The stockpiling of side cast dredged material in wetlands in excess of three months requires individual state water quality certification.

12. Buried utility lines shall be installed at a 90 degree angle to the stream bank to the maximum extent practicable. When a 90 degree angle is not possible, the length of any buried utility line within any single water body shall not exceed twice the width of that water body at the location of the crossing.

13. The total width of any excavation, grading or mechanized clearing of vegetation and soil shall not exceed 25 feet on either side of a utility line or a total width of 50 feet on both sides of a utility line.

C. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is

currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR §§ 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR § 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the

district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once.

However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. For a linear project, this determination will include an evaluation of the individual crossings to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to intermittent or ephemeral streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51 or 52, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in minimal adverse effects. When making minimal effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

3. If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (a) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (c) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period, with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

E. Regional General Conditions

1. Nationwide Permits shall not authorize any activity which impacts bogs and/or fens.

2. No Nationwide permit may be used in Lake Erie for purposes of diverting water from the Great Lakes.

3. Nationwide Permits shall not authorize any activity which will trap littoral material and interrupt littoral transport within Lake Erie, Sandusky Bay, and Maumee Bay.

4. ***ODNR In-Water Work Exclusion Dates***: Any work associated with a Nationwide permit cannot take place during the restricted period of the following ODNR, Division of Wildlife Statewide In-Water Work Restrictions unless the applicant notifies the District Engineer in accordance Nationwide Permit General Condition 31 and receives written approval from the Corps:

Location	Restricted Period
Salmonid streams[1]	9/15 – 6/30
Percid streams[2]	3/15 – 6/30
Other streams[3]	4/15 – 6/30

1. **Arcola Creek** (entire reach), **Ashtabula River** (Hadlock Rd. to mouth), **Ashtabula Harbor**, **Aurora** Branch of the Chagrin River (RM 0.38 to mouth), **Big Creek** ((Grand River drainage basin) Girdled Road to mouth), **Chagrin River** (Chagrin Falls to mouth), **Cold Creek** (entire reach), **Conneaut Creek** (entire reach), **Conneaut Harbor**, **Corporation Creek** ((Chagrin River RM 0.27) entire reach), **Cowles Creek** (entire reach), **Ellison** Creek ((Grand River drainage basis) entire reach), **Euclid Creek** (entire reach), **Grand River** (to dam at Harpersfield Covered Bridge Park just upstream of the S.R. 534 bridge to mouth)/**Fairport Harbor**, **Gulley Brook** ((Chagrin River RM 5.54) entire reach), **Indian Creek** (entire reach), **Kellogg Creek** (Grand River drainage basin) entire reach), **Mill Creek** ((Grand River drainage basin) entire reach), **Paine Creek** ((Grand River drainage basin) from Paine Falls to mouth), **Rocky River** (Cedar Point Rd. (East Branch/West Branch confluence) to mouth), **Smokey Run** ((Conneaut Creek RM 3.5) entire reach), **Turkey Creek** (entire reach), **Vermilion River** (dam at Wakeman upstream of the S.R. 20/60 bridge to mouth), **Ward Creek** ((Chagrin River RM 1.0) entire reach), **Wheeler Creek** (entire reach), **Whitman Creek** (entire reach).

2. **Cuyahoga River** (dam below the S.R. 82 bridge east of Brecksville (Chippewa Rd.) to mouth), **Great Miami River** (dam south of New Baltimore to mouth), **Hocking River** (lower section), **Huron River** (from the East Branch/West Branch confluence to Lake Erie), **Little Miami River** (lower section), **Maumee River** (split dam at Mary Jane Thurston State Park and Providence Park in Grand Rapids to mouth), **Maumee Bay**, **Muskingum River** (to Devola Dam No. 2 off S.R. 60 north of Marietta to mouth), **Ohio River** (entire reach), **Portage River** (entire reach), **Sandusky River** (to Ballville Dam off River Road in Fremont to mouth), **Sandusky Bay**, **Scioto River** (lower section), **Toussaint River** (entire reach).

3. **Class 3 primary headwater streams** (watershed ≤ 1 mi^2), **EWH, CWH, WWH**, or streams **with T&E species**. Includes **Lake Erie & bays** not listed above. Special conditions (such as occurrence of T&E species) may mandate local variation of restrictions.

Note: This condition does not apply to Ohio Department of Transportation projects that are covered under the "Memorandum of Agreement between Ohio Department of Transportation, Federal Highway Administration, Ohio Department of Natural Resources, and United States Fish and Wildlife Service For Interagency Coordination For Highway Projects Which Involve Stream Crossings, Bank Stabilization, and/or Minor Wetland Fills.

5. ***Waters of Special Concern***: The applicant must notify the District Engineer in accordance with Nationwide Permit General Condition 31 and Regional General Condition 6 for activities in the following resources:

a. ***Category 3 Wetlands***: Notification is required for all temporary or permanent impacts to Category 3 wetlands as determined through use of the latest approved version of Ohio EPA's Ohio Rapid Assessment Method (ORAM) for wetland evaluation **long form.**

b. ***Ohio Stream Designations***:

Notification is required for all temporary or permanent impacts to Exceptional Warmwater Habitat, Cold Water Habitat, Seasonal Salmonid, or any equivalent designation; or water bodies with an antidegradation category of Superior High Quality Water, Outstanding National Resource Water, or Outstanding State Waters as determined by Ohio EPA except for NWP 1, 2, 3, 9, 10, 11, 27, 28, 32, and 35 or maintenance activities covered under NWPs 7 and 12. The current list of these streams can be found on the Ohio EPA web-site at: http://www.epa.ohio.gov/dsw/rules/3745_1.aspx. You should look for these designations under the aquatic life use of the stream within its basin and under the "Anti-deg Rule #05."

c. ***State Wild and Scenic Rivers***: Notification is required for all activities in State Wild and Scenic Rivers. The following are **State Wild and Scenic Rivers:**

The Ashtabula River

- The Ashtabula River from the confluence of the East Branch and West Branch of the Ashtabula River at river mile 27.54, downstream to the East 24th Street bridge crossing at river mile 2.3.
- The East Branch of the Ashtabula River from Pennline Fen at river mile 12.0, downstream to the mouth of the East Branch at river mile 0.0.
- The West Branch of the Ashtabula River from the North Richmond Road (Co. Rd. 302) bridge crossing at river mile 9.05, downstream to the mouth of the West Branch at river mile 0.0.
- Miles designated (approximate): Scenic 46

Big and Little Darby Creeks

- Big Darby Creek from the Champaign/Union County line downstream to the U.S. Rt. 40 bridge, from the northern boundary of Battelle-Darby Creek Metro Park to the confluence with the Little Darby Creek downstream to the Scioto River.
- Little Darby Creek from the Lafayette-Plain City Road bridge downstream to the confluence with Big Darby Creek.
- Miles designated (approximate): 84

Chagrin River

- Aurora Branch from St. Rt. 82 bridge downstream to confluence with the Chagrin River.
- Chagrin River from confluence with Aurora Branch downstream to U.S. Rt. 6 bridge.
- Chagrin River from Woodiebrook Road bridge crossing downstream to the confluence with Aurora Branch of the Chagrin River in Bentleyville.
- East Branch from Heath Road bridge downstream to confluence with the Chagrin River.
- Miles designated (approximate): Scenic 71

Conneaut Creek

- *Scenic Segment:* Creek Road bridge crossing to the Penn Central Railroad bridge crossing at river mile 2.0 in Conneaut.
- *Wild Segment:* Ohio/Pennsylvania border at river mile 23.83 to the Creek Road bridge crossing at river mile 7.39.
- Miles designated (approximate): Scenic 5.39, Wild 16.44, Total 21.83

Grand River

- *Wild segment* - from Harpersfield covered bridge downstream to Norfolk and Western Railroad trestle south of Painesville.
- *Scenic segment* - from U.S. Rt. 322 bridge in Ashtabula County downstream to Harpersfield covered bridge.
- Miles designated (approximate): Scenic 33, Wild 23, Total 56

Kokosing River

- Kokosing River from Knox/Morrow County line to confluence with Mohican River.
- North Branch of Kokosing from confluence with East Branch downstream to confluence with main stem.
- Miles designated (approximate): 48

Little Beaver Creek

- *Wild segments* - **West Fork** from 1/4 mile downstream from Twp. Rd. 914 to confluence with Middle Fork. **North Fork** from Twp. Rd. 952 to confluence with Little Beaver Creek. **Little Beaver** Creek from confluence of West and Middle Forks downstream to 3/4 mile north of Grimm's Bridge.
- *Scenic segments* - **North Fork** from Ohio-Pennsylvania line downstream to Jackman Road. **Middle Fork** from Elkton Road. (Twp. Rd. 901) downstream to confluence with West Fork. **Little Beaver Creek** from 3/4 mile north of Grimm's Bridge downstream to the Ohio-Pennsylvania line.
- Miles designated (approximate): Wild 20, Scenic 16, Total 36

Little Miami River

- Clermont County line at Loveland to headwaters, including North Fork, Clermont County line at Loveland to confluence with East Fork and from the confluence with East Fork to Ohio River.
- Miles designated (approximate): 105

Maumee River

- *Scenic segment* - Ohio-Indiana line to St. Rt. 24 bridge west of Defiance.
- *Recreational segment* - St. Rt. 24 bridge west of Defiance to U.S. Rt. 25 bridge near Perrysburg.
- Miles designated (approximate): Scenic 43, Recreational 53

Mohican River

- The entire main stem of the Mohican River from the confluence of the Clear Fork to the confluence with the Kokosing State Scenic River.
- The Clear Fork of the Mohican River from the base of the Pleasant Hill Dam to the confluence with the Black Fork of the Mohican River.
- Miles designated (approximate): 32.3

Olentangy River

- Delaware Dam to Old Wilson Bridge Road in Worthington.
- Miles designated (approximate): 22

Sandusky River

- U.S. Rt. 30 in Upper Sandusky to Roger Young Memorial Park in Fremont.
- Miles designated (approximate): 65

Stillwater River System

- *Recreational segment* - Englewood dam to confluence with Great Miami River.
- *Scenic segments* - Stillwater River from Riffle Road bridge in Darke County to Englewood dam.
- Greenville Creek from the Ohio-Indiana state line to the confluence with the Stillwater.
- Miles designated (approximate): Scenic 83, Recreational 10

Upper Cuyahoga River

- Troy-Burton Township line in Geauga County to St. Rt. 14.
- Miles designated (approximate): Scenic 25

d. ***National Wild and Scenic Rivers***: Notification is required for all work in components of the National Wild and Scenic River System. The following are components of the **National Wild and Scenic River System:**

Big and Little Darby Creeks (National Wild and Scenic River System):

- Big Darby Creek from Champaign-Union County line downstream to the Conrail railroad trestle and from the confluence with the Little Darby Creek downstream to the Scioto River.
- Little Darby Creek from the Lafayette-Plain City Road bridge downstream to within 0.8 mile from the confluence with Big Darby Creek.
- Total designation is approximately 82 miles.

Little Beaver Creek (National Wild and Scenic River System):

- Little Beaver Creek main stem, from the confluence of West Fork with Middle Fork near Williamsport to mouth.
- North Fork from confluence of Brush Run and North Fork to confluence of North Fork with main stem at Fredericktown.
- Middle Fork from vicinity of Co. Rd. 901 (Elkton Road) bridge crossing to confluence of Middle Fork with West Fork near Williamsport.
- West Fork from vicinity of Co. Rd. 914 (Y-Camp Road) bridge crossing east to confluence of West Fork with Middle Fork near Williamsport.
- Total designation is 33 miles.

Little Miami (National Wild and Scenic River System)

- Little Miami River - St. Rt. 72 at Clifton to the Ohio River
- Caesar Creek: lower two miles of Caesars Creek.
- Total designation is 94 miles.

e. ***Endangered Species***: Due to the potential presence of Federally threatened or endangered species or their habitats, Notification is required for all work in the following waterway or township of the corresponding county:

County	Waterway	Township
Adams	Ohio Brush Creek, Ohio River, Scioto Brush Creek, South Fork Scioto Brush Creek, West Fork Ohio Brush Creek	
Allen	Auglaize River, Cranberry Creek, Ottawa River, Riley Creek, Sugar Creek	
Ashtabula	Grand River, Pymatuning Creek	
Athens	Ohio River	
Auglaize	Auglaize River, Pusheta Creek, St. Marys River	
Belmont	Ohio River	
Brown	Eagle Creek, East Fork Eagle Creek, East Fork Little Miami River, East Fork Whiteoak Creek, Ohio River, Straight Creek, West Fork Eagle Creek, Whiteoak Creek	
Butler	Dicks Creek, Dry Fork Whitewater River, Elk Creek, Four Mile Creek, Great Miami River, Indian Creek, Sevenmile Creek	
Champaign	Chapman Creek, Kings Creek, Mad River, Nettle Creek	
Clark	Beaver Creek, Chapman Creek, Honey Creek, Little Miami River, Mad River, Mud Run	Bethel
Clermont	East Fork Little Miami River, Indian Creek, Little Miami River, O'Bannon Creek, Ohio River, Stonelick Creek	
Clinton	Anderson Fork, Cowan Creek, Little East Fork, Rattlesnake Creek, Todd Fork Little Miami River	
Columbiana	Ohio River	
Coshocton	Doughty Creek, Killbuck Creek, Kokosing River, Mill Creek, Mohican River, Muskingum River, Tuscarawas River, Wakatomika Creek, Walhonding River, White Eyes Creek, Wills Creek	
Crawford	Broken Sword Creek, Olentangy River, Sandusky River, Sycamore Creek	
Darke	Greenmile Creek, Painter Creek, Stillwater River, Swamp Creek, West Branch Greenmile Creek	

Defiance	Auglaize River, Gordon Creek, Lick Creek, Lost Creek, Maumee River, Mud Creek, North Powell Creek, South Powell Creek, St. Joseph River, Tiffin River	Milford
Delaware	Alum Creek, Big Walnut Creek, Bokes Creek, Mill Creek, Olentangy River, Scioto River, Whetstone Creek	
Fairfield	Clear Creek, Hocking River, Rush Creek, Salt Creek, Walnut Creek	
Fayette	Compton Creek, Deer Creek, East Fork Paint Creek, North Fork Compton Creek, Paint Creek, Rattlesnake Creek, Sugar Creek	
Franklin	Alum Creek, Big Darby Creek, Big Walnut Creek, Blacklick Creek, Hellbranch Run, Little Darby Creek, Olentangy River, Scioto River, Walnut Creek	
Fulton	Bad Creek, Brush Creek, Mill Creek, Swan Creek, Tenmile Creek, Tiffin River	
Gallia	Ohio River	
Greene	Caesar Creek, Little Miami River, Mad River, Massies Creek, Mud Run	
Hamilton	Dry Fork Whitewater River, Great Miami River, Mill Creek, Ohio River, West Fork Mill Creek, Whitewater River	
Hancock	Blanchard River, Eagle Creek, Ottawa Creek, Riley Creek	
Hardin	Blanchard River, Ottawa River, Panther Creek, Scioto River, Taylor Creek	Blanchard, Jackson
Henry	Bad Creek, Beaver Creek, Brush Creek, Lost Creek, Maumee River, South Turkeyfoot Creek, Turkeyfoot Creek	
Highland	Baker Fork, East Fork Little Miami River, East Fork Whiteoak Creek, Lees Creek, Paint Creek, Rattlesnake Creek, Rocky Fork, Whiteoak Creek	
Holmes		Prairie
Jefferson	Ohio River	
Lake	Grand River	
Lawrence	Ohio River	
Logan	Cherokee Mans Run, Great Miami River, Mad River,, Mill Creek, Muchinippi Creek, Rush Creek, Stoney Creek	
Lucas	Maumee River, Swan Creek, Tenmile Creek	Jerusalem
Madison	Big Darby Creek, Bradford Creek, Deer Creek, Little Darby Creek, Paint Creek, Spring Fork, Walnut Run	
Marion	Little Scioto River, Mud Run, Olentangy River, Rush Creek, Scioto River, Tymochtee Creek	
Meigs	Ohio River	
Mercer	Beaver Creek, Black Creek, Burntwood Creek, Chickasaw Creek, Goldwater, Little Beaver Creek, Little Black Creek, Mile Creek, St. Marys River, Twelvemile Creek, Wabash River	
Miami	Great Miami River, Greenville Creek, Honey Creek, Lost Creek, Ludlow Creek, Painter Creek, Spring Creek, Stillwater River	
Monroe	Ohio River	
Montgomery	Great Miami River, Little Bear Creek, Mad River, Stillwater River, Twin Creek, Wolf Creek	
Morgan	Muskingum River	
Morrow	Alum Creek, Big Walnut Creek, Kokosing River, Olentangy River, Shaw Creek, Whetstone Creek	
Muskingum	Muskingum River	
Ottawa	Cedar Creek, Crane Creek, Muddy Creek, Nine Mile Creek, Packer Creek, Portage River, Sugar Creek, Terwilegars Pond, Toussaint Creek, Turtle Creek, Wolf Creek	

Paulding	Auglaize River, Blue Creek, Dog Creek, Flatrock Creek, Gordon Creek, Hagerman Creek, Hoaglin Creek, Little Auglaize River, Maddox Creek, Maumee River, Prairie Creek, Town Creek	
Pickaway	Big Darby Creek, Big Walnut Creek, Deer Creek, Scioto River, Scippo Creek, Walnut Creek	
Pike	Beaver Creek, Crooked Creek, Peepee Creek, Scioto River, Sunfish Creek	
Portage		Aurora
Preble	Bantas Fork, Four Mile Creek, Price Creek, Sevenmile Creek, Twin Creek	
Putnam	Auglaize River, Blanchard River, Cranberry Creek, Little Auglaize River, North Powell Creek, Ottawa River, Plum Creek, Riley Creek, South Powell Creek, Sugar Creek	
Ross	Buckskin Creek, Deer Creek, Kinnikinnick Creek, Little Salt Creek, North Fork Paint Creek, Paint Creek, Pigeon Creek, Salt Creek, Scioto River, Walnut Creek	
Sandusky	East Branch Sandusky River, Green Creek, Little Muddy Creek, Muddy Creek, Muskellunge Creek, Nine Mile Creek, Pickerel Creek, Portage River, Sandusky River, South Creek, Sugar Creek, Toussaint Creek, Wolf Creek (Portage River), Wolf Creek (Sandusky River)	Riley
Scioto	Little Scioto River, Ohio River, Pine Creek, Rocky Fork, Scioto Brush Creek, Scioto River, South Fork Scioto Brush Creek, Turkey Creek	Rush, Union
Seneca	East Branch Sandusky River, Green Creek, Honey Creek, Rock Creek, Sandusky River, Wolf Creek	
Shelby	Great Miami River, Leatherwood Creek, Loramie Creek, Mile Creek, Mosquito Creek	
Trumbull	Grand River, Pymatuning Creek	
Union	Big Darby Creek, Bokes Creek, Little Darby Creek, Mill Creek, Rush Creek	
Van Wert	Black Creek, Blue Creek, Dog Creek, Hagerman Creek, Hoaglin Creek, Little Auglaize River, Maddox Creek, St. Marys River, Town Creek	
Warren	Clear Creek, Great Miami River, Little Miami River, Todd Fork	
Washington	Muskingum River, Ohio River	
Wayne		Clinton, Wooster
Williams	Bear Creek, Brush Creek, Clear Fork, Eagle Creek, East Branch St. Joseph River, Fish Creek, Lick Creek, Mill Creek, Nettle Creek, St. Joseph River, Tiffin River, West Branch St. Joseph River	Bridgewater, Center, Florence, Jefferson, Madison, Northwest, St. Joseph, Superior
Wood	Beaver Creek, Brush Creek, Bull Creek, Cedar Creek, Crane Creek, Cutoff Ditch, East Branch Portage River, Maumee River, Middle Branch Portage River, Portage River, Rocky Ford, South Branch Portage River, Toussaint Creek	
Wyandot	Broken Sword Creek, Sandusky River, Sycamore Creek, Tymochtee Creek	

Note: As mentioned in General Condition 18-*Endangered Species*, Federal Agencies should follow their own procedures for complying with the requirements of the ESA. Federal applicants must provide the District Engineer with the appropriate documentation to demonstrate compliance with those requirements.

f. ***Critical Resource Waters*****:** Notification is required for all work in Critical Resource Waters. The following are designated as **Critical Resource Waters**:

- Special habitat waters of Lake Erie including the shoreline, off shore islands, rock outcrops, and adjacent waters within the

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Case No(s). 13-0197-EL-BGN, 16-1687-EL-BGA, 17-1099-EL-BGA

Summary: Notice of Update to September 18, 2017 Filing Regarding Notification of Compliance with
Condition 27 – NPDES Permits (Part 1 of 2)
electronically filed by Mr. William V Vorys on behalf of Trishe Wind Ohio, LLC