# Westwood

# STORMWATER POLLUTION PREVENTION PLAN Dakota Range I & II Wind Project

Grant and Codington Counties, South Dakota July 2020



Prepared For:

M. A. Mortenson Company 700 Meadow Lane Minneapolis, MN 55422

# Stormwater Pollution Prevention Plan (SWPPP) Narrative Dakota Range I & II Wind Project

Grant and Codington Counties, South Dakota

South Dakota NPDES Permit Identification #: SDR10J952

US EPA NPDES Permit Identification #: SDR10I01E

Prepared for:

M. A. Mortenson Company 700 Meadow Lane Minneapolis, MN 55422

Prepared by:

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Project Number: 0027042.00

July 2020

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# Stormwater Pollution Prevention Plan Narrative

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#### 1.0 INTRODUCTION AND PURPOSE

This SWPPP is prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) regulations as established by the Clean Water Act and guided by the Environmental Protection Agency (EPA) and the State of South Dakota. The Federal Environmental Protection Agency (EPA) Construction General Permit (CGP) (Expiration date: February 16, 2022) and South Dakota Department of Environment and Natural Resources (DENR) General Permit for Stormwater Discharges Associated with Construction Activity SDR100000 (Expired: March 31, 2023) provides the frame work of requirements for compliance to discharge stormwater from a construction site.

This SWPPP is for implementation by the Owner and Operator, as listed in Section 5.1 of this SWPPP, at the Dakota Range I & II Wind Project, with the project location as defined in Section 4.0 of this SWPPP. The project is split between the former borders of the Lake Traverse Indian Reservation, which is under the jurisdiction of the EPA, and the State of South Dakota, which is under the jurisdiction of the South Dakota DENR. This SWPPP has been prepared to meet requirements for both the EPA CGP and the DENR's General Permit SDR10000. This report shall be on the site at all times during construction.

The following are outlined in this site specific SWPPP:

- Control measures for stormwater pollution prevention during each phase of construction,
- Control measures for stormwater pollution prevention after construction,
- Sources of stormwater and non-stormwater pollution, and
- Inspection and maintenance procedures.

#### 2.0 SWPPP CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly 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."

Project Owner:			
Signature	<u>Manager Environmental</u> Title		ate
Patrick Flowers Printed Name	612-330-6278 Contact Number	Northern Sta	ates Power Company d/b/a Xcel Energy Name
Project Operator:			
Signature	<u>Vice President of</u> Title	f Operations	Date
Chris Norcross Printed Name	<u>763-287-5955</u> Contact Number		M.A. Mortenson Company Company Name

#### 3.0 SWPPP AMENDMENTS

For work occurring under the jurisdiction of the South Dakota DENR, this plan and the attachments must be amended to include additional requirements, or modified requirements, which take place during construction if one or more of the following occur:

- 1. There is a change in design, construction, operation, maintenance, weather, or seasonal conditions that significantly impacts the discharge of pollutants from the site to surface or groundwater.
- Inspections or investigations by the site owner, Environmental Protection Agency, or South Dakota Department of Environment and Natural Resources officials indicate this plan is not effective in eliminating or significantly minimizing the discharge of pollutants.
- This SWPPP is not achieving the general objectives of minimizing pollutants in stormwater discharges or if this plan is not consistent with the SDR100000 General Permit for Stormwater Discharges Associated with Construction Activities.
- 4. If the South Dakota Department of Environment and Natural Resources notifies the Owner (i.e. permittees) that additional requirements are needed, requirements are not being met for TMDL or other water quality standards, or that the SWPPP did not incorporate the necessary requirements.

For work occurring under the jurisdiction of the EPA, this plan and the attachments must be amended within seven (7) 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:

- Whenever new operators become active in construction activities on your site, or you make changes to your construction plans, stormwater control measures, pollution prevention measures, or other activities at your site that are no longer accurately reflected in your SWPPP;
- To reflect areas on your site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;
- 3. If inspections or investigations determine that SWPPP modifications are necessary for compliance with this permit;
- 4. Where NPDES determines it is necessary to impose additional requirements on your discharge;
- To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater control measures implemented at the site; and
- 6. If applicable, if a change in chemical treatment systems or chemically-enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application.

#### 3.1 SWPPP 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 SWPPP.

Table 1: Amendment Log

Amend #	Date	Reason, location and brief description of change or amendment	Requested by:	Prepared by:

#### 3.2 SWPPP Amendment Certification

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

Amendment #:			
Signature	Printed Name and Title	 Date	

Docket No. EL18-003 Pre-Construction Filing - Permit Condition 14 Attachment A - Page 10 of 398

#### Westwood Professional Services

# Stormwater Pollution Prevention Plan

Amendment #:						
Signature	Printed Name and Title	Date				
Amendment #:						
Signature	Printed Name and Title	Date				
Amendment #:						
Signature	Printed Name and Title	Date				
Amendment #:						
Signature	Printed Name and Title	Date				
Amendment #:						
Signature	Printed Name and Title	 Date				

#### 4.0 SITE INFORMATION

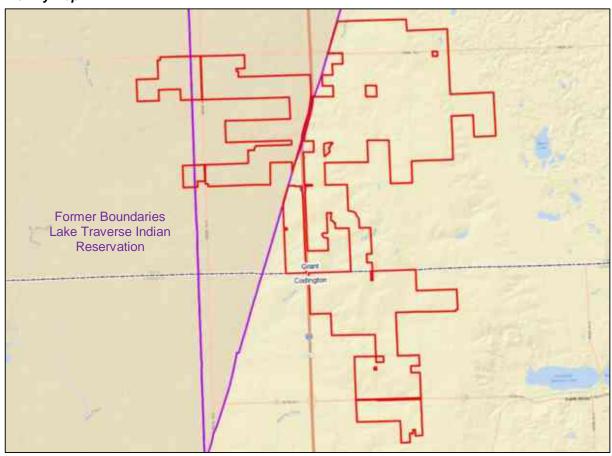
#### 4.1 Site Location and Proximity Map

The Dakota Range I & II Wind Project site is located in Grant and Codington Counties, South Dakota. The northwestern-most portion of the site is located within the former boundaries of the Lake Traverse Indian Reservation. The nearest town, Summit, is located approximately 6 miles north of the site, and the nearest intersection to the project laydown yard is 458th Avenue and 152nd Avenue in Grant County. The site is bordered upon the north by 148th Street, upon the south by 162nd Street, the west by 452nd Street, and the east by 465th Street.

**Table 2: Project Location** 

Section	Township	Range					
28, 31, 32, 33, 35, 36	121N	52W					
1, 2, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36	120N	52W					
4,5, 6, 7, 8, 9, 17, 18, 19	120N	51W					
1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24	119N	52W					
Latitude and Longitude Points (Decimal)							
Latitude 45.22355							
Longitude	-97.0	2520					
Project Applicability to Indian Country Lands							
Is the Project Located on Indian / Tribal Land?							
If Yes, list the name of the Indian tribe, reservation.	Approximately 20% of the project boundary falls within the former boundaries of the Lake Traverse Indian Reservation						

#### Vicinity Map



#### 4.2 Existing Conditions

The slope and terrain of the site generally consists of generally flat plains developed for agriculture. The site has stormwater flowing primarily to the west towards tributaries of the Big Sioux River (located over 5 miles west of the site), including the Indian River, Bergen Church, Soo Creek, and Mahoney Creek. The very eastern edge of the site drains to the Upper South Fork of the Whetstone River.

#### 4.2.1 Non-vegetative Cover

Prior to construction, non-vegetative cover includes existing paved and gravel roadways, as well as private residences and structures used for agricultural operations.

#### 4.2.2 Vegetative Cover

Existing vegetative cover at the site is primarily row crop agriculture, including corn, soybeans, and wheat. Smaller areas are used as open grass and pastureland.

#### 4.2.3 Land Use

Prior to construction the site area was primarily used for agricultural production. Secondary uses include pasture. A Phase I Environmental Site Assessment (ESA) was conducted by TetraTech, Inc. and dated July 25, 2018. In the report there were no recognized environmental conditions found in association with the site. The Phase I ESA is available upon request.

#### 4.3 Soil Names and Types

Soils making up 1% or more of the site area include loams, clay loams, silty clay loams, and complexes belonging to Hydrologic Soil Groups (HSGs) B, C, B/D, and C/D. Soils belonging to HSGs B and C have moderately low and moderately high runoff rates, respectively, when wet. Soils belonging to HSGs B/D and C/D have moderately low and moderately high runoff rates, respectively, when drained, and high runoff rates when saturated. Comprehensive soil maps are provided in Attachment C. (Source: <a href="https://websoilsurvey.nrcs.usda.gov/app/">https://websoilsurvey.nrcs.usda.gov/app/</a>, accessed 06/29/2020).

#### 4.3.1 Soil Erosivity

Table 3: Soil K Factors and Erosivity Hazards

Table 3: Soli K Factors and Erosivity Hazards						
		Erosivity Hazard				Reason(s) for
Soil Name / Type	K Factor	Slight	Moderate	Severe	Very Severe	Erosivity Rating
Hamerly-Tonka complex, coteau, 0 to 2 percent slopes	0.32	Х				Lack of slope
Hamerly-Badger complex, 0 to 2 percent slopes	0.24	Х				Lack of slope
Mckranz-Badger silty clay loams, 0 to 2 percent slopes	0.32	Χ				Lack of slope
Barnes-Svea loams, coteau, 1 to 6 percent slopes	0.24	Х				Lack of slope
Barnes-Buse-Svea loams, coteau, 2 to 9 percent slopes	0.24		Х			Surface kw times slope times R index (0.18)
Barnes-Buse loams, coteau, 6 to 9 percent slopes	0.24		Х			Surface kw times slope times R index (0.18)
Buse-Barnes loams, coteau, 2 to 15 percent slopes, very stony	0.28		Х			Surface kw times slope times R index (0.75)
Lamoure-Rauville silty clay loams, channeled, 0 to 2 percent slopes, frequently flooded	0.24	X				Lack of slope
Renshaw-Fordville loams, coteau, 0 to 2 percent slopes	0.20	Х				Lack of slope
Renshaw-Sioux complex, coteau, 2 to 6 percent slopes	0.20	Х				Lack of slope
Brookings silty clay loam, 0 to 2 percent slopes	0.28	X				Lack of slope
Vienna-Brookings complex, 0 to 2 percent slopes	0.37	Х				Lack of slope
Vienna-Brookings complex, 1 to 6 percent slopes	0.37		х			Surface kw times slope times R index (0.08)
Vienna-Buse complex, coteau, 6 to 9 percent slopes	0.32		Х			Surface kw times slope times R index (0.45)
Barnes clay loam, coteau, 2 to 6 percent slopes	0.20	Х				Lack of slope
McKranz silty clay loam, 0 to 2 percent slopes	0.28	Х				Lack of slope

Vallers-Hamerly loams, coteau, 0 to 2 percent slopes	0.24	х		Lack of slope
Renshaw-Fordville loams, coteau, 2 to 6 percent slopes	0.20	Х		Lack of slope
Vienna-Barnes-Forestville loams, 1 to 6 percent slopes	0.24	Х		Lack of slope

#### 4.3.2 Soil Particle Size

**Table 4: Soil Particle Sizes** 

Soil Type	% Sand	% Clay	% Silt	% Site Area
Hamerly-Tonka complex, coteau, 0 to 2 percent slopes	39.1	36.9	24.0	1.1
Hamerly-Badger complex, 0 to 2 percent slopes	34.0	42.0	24.0	1.5
Mckranz-Badger silty clay loams, 0 to 2 percent slopes	7.0	64.0	29.0	1.7
Barnes-Svea loams, coteau, 1 to 6 percent slopes	41.1	36.9	22.0	7.6
Barnes-Buse-Svea loams, coteau, 2 to 9 percent slopes	41.1	36.9	22.0	4.7
Barnes-Buse loams, coteau, 6 to 9 percent slopes	41.1	36.9	22.0	4.0
Buse-Barnes loams, coteau, 2 to 15 percent slopes, very stony	39.5	37.5	23.0	3.6
Lamoure-Rauville silty clay loams, channeled, 0 to 2 percent slopes, frequently flooded	6.7	62.8	30.5	3.8
Renshaw-Fordville loams, coteau, 0 to 2 percent slopes	42.0	37.0	21.0	3.0
Renshaw-Sioux complex, coteau, 2 to 6 percent slopes	42.0	37.0	21.0	2.6
Brookings silty clay loam, 0 to 2 percent slopes	7.0	64.0	29.0	1.1
Vienna-Brookings complex, 0 to 2 percent slopes	7.0	68.0	25.0	5.6
Vienna-Brookings complex, 1 to 6 percent slopes	7.0	68.0	25.0	23.1
Vienna-Buse complex, coteau, 6 to 9 percent slopes	21.3	54.7	24.0	1.6
Barnes clay loam, coteau, 2 to 6 percent slopes	33.5	36.5	30.0	5.8
McKranz silty clay loam, 0 to 2 percent slopes	7.0	65.0	28.0	1.0
Vallers-Hamerly loams, coteau, 0 to 2 percent slopes	39.5	37.5	23.0	2.1
Renshaw-Fordville loams, coteau, 2 to 6 percent slopes	42.0	37.0	21.0	1.1
Vienna-Barnes-Forestville loams, 1 to 6 percent slopes	39.1	36.9	24.0	15.6

#### 5.0 PROJECT INFORMATION

#### 5.1 Owner and Information

Owner Information	Operator Information
Northern States Power Company d/b/a Xcel Energy	M. A. Mortenson Company
Patrick Flowers	Chris Norcross
414 Nicollet Mall Minneapolis, MN 55401	700 North Meadow Lane Minneapolis, MN 55422
612-330-6278, Patrick.flowers@xcelenergy.com	763-287-5955, chris.norcross@mortenson.com

#### 5.1.1 Owner Responsibilities

The owner responsibilities include:

- Developing a SWPPP prior to submitting the Notice of Intent (NOI);
- Submitting a complete and accurate NOI;
- Receive an authorization from the EPA prior to starting construction activity;
- Post a site notice near the site entrance where it can be safely viewed by the general public prior to construction and maintain the posting until construction is complete. The posting should include the form in Attachment B and contain the following information:
  - o Site specific NPDES authorization number for the site;
  - Name, contact name and phone number of a local contact person;
  - Brief description of the project activity; and
  - Location of this SWPPP if the site is inactive or if the SWPPP is not located on site.
- Information informing the public on how to contact the EPA to obtain a copy of the SWPPP and how to contact the EPA if stormwater pollution is observed in the discharge; and
- Ensure the project specifications allow or provide development of adequate Best Management Practices (BMPs) to meet requirements of permit;
- Provide indications within this SWPPP 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; and
- Ensure the SWPPP indicates the name and site specific NPDES authorization number for operators where applicable.
- Complying with all terms and conditions of the General Permit for Stormwater Discharges Associated with Construction Activities;
- Keeping the permit up to date (partial, whole, contractor, builders, etc.);
- Submitting the Notice of Termination (NOT) within thirty days of meeting requirement of final stabilization;
- Identifying who has long term operation and maintenance responsibility of the permanent stormwater controls;
- Developing a chain of responsibility with the operators to ensure NPDES and SWPPP compliance;
- Identifying trained personnel to oversee the SWPPP and conduct inspections;

- Identifying trained personnel to develop a SWPPP; and
- Identifying trained personnel to install and maintain best management practices.

#### 5.1.2 Operator Responsibilities (with day to day operational control)

The operator responsibilities (with day to day operational control) include ensuring the SWPPP accomplishes:

- Meeting requirements of the CGP for the portions of the project where they are operators;
- Identify the parties responsibility for implementation of the BMPs described within the SWPPP;
- Calling out areas of the project where they have operational control over day to day activities; and
- Identification of areas where they have operations control over day to day activities with the name and site
  specific NPDES authorization number associated with the operator company with control over project
  specifications, and ability to make modification in specifications.

#### 5.2 Project Type and Proposed Conditions

#### 5.2.1 Non-vegetative Cover

Following construction, non-vegetative cover will include a substation, an operations & maintenance (O&M) facility, new gravel access roads, and turbine foundations.

#### 5.2.2 Vegetative Cover

Following construction, temporarily disturbed areas will be revegetated with an approved low-maintenance vegetative mix, subject to landowner approval. Please see Section 9.3 for additional information on vegetative stabilization.

#### 5.2.3 Land Use

Following construction, the site will operate as a wind energy generation facility. Areas not developed as part of the project will maintain their pre-construction uses as agriculture/pasture.

#### 5.3 Pre and Post Project Estimates

Table 5: Project Area Estimates

Project Jurisdiction	Project Area	Disturbed Area	Existing Impervious Area	Post Construction Impervious Area
South Dakota DENR	28,659 Acres	987 Acres	480 Acres	497 Acres
USEPA (Within former boundaries of Lake Traverse Indian Reservation)	13,861 Acres	122 Acres	202 Acres	234 Acres
TOTAL	42,520 Acres	1,109 Acres	682 Acres	731 Acres

#### **5.4 Construction Activity Description**

Construction activity should include installation of up to 72 wind turbines. Construction of the wind turbines requires, but is not limited to, the installation of a substation, an operations and maintenance (O&M) building, a temporary laydown yard and temporary concrete batch plant, underground electrical collection, and 16-foot wide gravel access roads with temporary thirty-six 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 36 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 SWPPP shall be

amended to show locations and disturbance areas as necessary should locations change during construction.

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 Landowner.

- 1. Access road construction activity and phasing should include:
  - a. Redistributing topsoil along one or both sides of the road in a linear fashion;
  - b. Temporarily stabilizing ditches (such as erosion control blanket) and applying perimeter sediment controls within the timeframes of the Construction General Permit (CGP);
  - c. Compacting subgrade;
  - d. Applying gravel base;
  - e. Decompacting soils following turbine erection;
  - Applying topsoil for non-aggregate areas during final grade;
  - g. Applying final gravel cap to road;
  - h. Maintaining pre-construction drainage patterns and runoff;
  - i. Restoring any subsurface and/or surface drainage features to pre-construction conditions and drainage patterns if altered during construction; and
  - j. Returning disturbed areas not part of the final road to pre-construction conditions.
- 2. Turning radius and temporary intersections construction activity and phasing should include:
  - a. Stripping and stockpiling topsoil;
  - b. Applying seed and erosion control blanket, turf reinforcement mat, mulch cover or similar methods for restoration to pre-construction conditions;
  - c. Installing culverts as necessary and according to the plan for the accesses;
  - d. Filling with native material to grade;
  - e. Applying gravel base;
  - f. Removing turning radius (removing gravel and fill soils) following turbine component delivery or turbine erection;
  - g. Removing any extra culvert lengths; and
  - h. Reapplying topsoil and final grade.
- 3. Turbine area construction activity and phasing should include:
  - a. Stripping and segregating topsoil and applying topsoil in a soil berm along with tracking and seeding around the downgrade perimeter of the turbine pad area;
  - b. Installing silt fence at the perimeter as necessary and as shown on the plans;
  - c. Excavating areas required for the foundation and stockpiling the subsoils;
  - d. Dewatering accumulated groundwater or stormwater via pump as necessary and ensuring discharged water does not contribute sedimentation to receiving waters;
  - e. Providing temporary stabilization measures (such as mulch, erosion control blanket, and turf reinforcement mat);
  - f. Temporarily covering the stockpiles with hydromulch or other temporary cover BMP for water and wind erosion protection;
  - g. Constructing concrete washout area or using a common concrete washout during concrete work for mud mat and foundation construction;
  - h. Grading crane pad for turbine erection;
  - i. Erecting the turbine;

- j. Backfilling subsoils and topsoil with a rough grade; and
- k. Returning disturbed areas not part of the final road to pre-construction conditions.
- 4. Temporary crane path construction activity and phasing should include:
  - a. Planning crane walks according to unique area conditions where crane walks will occur;
  - b. Installing downgrade perimeter controls, such as fiber logs or silt fence, to protect conveyances as field conditions dictate:
  - c. Walking cranes across waterways/conveyances during dry conditions when possible;
  - d. Providing timber mat crossings for grass waterway crossings, swale crossings, and other gradual conveyance crossings;
  - e. Providing temporary creek/waterway crossing BMPs according to details shown on plans and explained in this SWPPP narrative; and
  - f. Restoring all disturbed areas to pre-construction conditions 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 construction activity and phasing should include:
  - a. Open trenching or plowing collection line across fields, repairing or restoring any drain tile encountered;
  - b. Segregating topsoil from subsoils unless otherwise agreed upon by the landowner;
  - Dewatering accumulated groundwater or stormwater via pump (if necessary) and dewatering bag, ensuring discharged water does not contribute sedimentation to receiving waters;
  - d. Using perimeter control, such as logs, silt fence, or rock checks, if open trenching or plowing through a waterway or conveyance; and
  - e. Applying seed with erosion control blanket or mulch to restore grass waterway to pre-construction conditions.
- 6. Laydown yard construction activity and phasing should include:
  - a. Providing stable accesses to area and installing culverts according to the plans;
  - b. Installing silt fence and other sediment controls as necessary and as detailed in the plans;
  - c. Stripping and stockpiling topsoil around the up-gradient perimeter of the laydown yard for a diversion of water or downgrade perimeter of the yard for runoff control. No more than 10 acres shall be disturbed at one time:
  - d. Applying rock base to designed thickness as construction progresses to prevent more than 10 acres being disturbed at one time;
  - e. Temporarily covering the stockpiles with hydromulch or weed-free straw/hay after seeding with temporary seed mix;
  - f. Providing necessary secondary containment, secure storage, and maintenance activities during operation;
  - g. Removing rock and decompacting and reapplying topsoil to the area after the laydown yard is no longer needed; and
  - Returning disturbed areas to pre-construction conditions, which may include applying seed and mulch cover for restoration.
- 7. Batch plant construction activity and phasing information:
  - a. Providing stable accesses to area and installing culverts according to the plans;
  - b. Installing silt fence and other sediment controls as necessary and as detailed in the plans;

- c. Stripping and stockpiling topsoil around the up-gradient perimeter of the batch plant for a diversion of water or downgrade perimeter of the plant for runoff control;
- d. Applying rock base to designed thickness;
- e. Temporarily covering the stockpiles with hydromulch or weed-free straw/hay after seeding with temporary seed mix;
- f. Providing necessary secondary containment, secure storage, and maintenance activities during operation;
- g. Providing a designated and contained concrete washout area as per detail and SWPPP specifications. Properly dispose of washout water or recycle as needed;
- h. Sampling all discharges from concrete batch plant area;
- i. Providing dust control and material control as required;
- j. Removing rock and decompacting and reapplying topsoil to the area after the batch plant is no longer needed; and
- k. Returning disturbed areas to pre-construction conditions, which may include applying seed and mulch cover for restoration.
- 8. Collector substation construction activity and phasing should include:
  - a. Providing stable accesses to area and installing culverts according to the plans;
  - b. Installing silt fence and other sediment controls as necessary and as detailed in the plans;
  - c. Stripping and stockpiling topsoil around the up-gradient perimeter for a diversion of water or downgrade perimeter of the substation for runoff control;
  - d. Applying rock base to designed thickness;
  - e. Temporarily covering the stockpiles with hydromulch or weed-free straw/hay after seeding with temporary seed mix;
  - f. Constructing a concrete washout area prior to starting concrete work;
  - g. Constructing electrical components and fencing; and
  - h. Returning disturbed areas not part of the final gravel pad to agricultural conditions or applying seed and mulch cover for restoration to pre-construction conditions.
- 9. Operation and maintenance facility construction activity and phasing should include:
  - a. Providing stable accesses to area and installing culverts according to the plans;
  - b. Installing silt fence and other sediment controls as necessary and as detailed in the plans;
  - c. Stripping and stockpiling topsoil around the up-gradient perimeter for a diversion of water or downgrade perimeter of the area for runoff control;
  - d. Temporarily covering the stockpiles with hydromulch or weed-free straw/hay after seeding with temporary seed mix;
  - e. Constructing a concrete washout area prior to starting concrete work;
  - f. Completing concrete work and building construction;
  - g. Applying rock base to designed thickness;
  - h. Applying rock base for parking areas as designed; and
  - i. Providing seed with mulch or erosion control blanket following final grade.
- 10. Met Tower construction activity and phasing:
  - a. Strip and stockpile topsoil 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.

#### 5.5 Project Activity Schedule

Table 6: Project Schedule

Activity	Start Date	End Date
Overall Project	07/20/2020	01/20/2022
Access Roads	08/01/2020	11/01/2020
Crane Paths / Turbine Erection	06/07/2021	09/16/2021
Excavations / Foundations	08/24/2020	11/19/2020
O&M Facility	07/20/2020	05/04/2021
Substation	10/09/2020	08/02/2021
Underground Collection	08/25/2020	10/11/2021
Laydown Yard / Batch Plant	07/20/2020	11/01/2020

#### 5.6 Project Phasing

The project will be completed in one phase. Construction activities will take place along with erosion/sediment control BMP installation. BMPs will be installed prior to ground disturbing activities and will be maintained throughout the entirety of the project and site cleanup and restoration of disturbances will be ensured once construction is complete.

#### 5.7 Project Contacts and Chain of Responsibility

**Table 7: Project Contacts** 

Company*	Name or Position	Responsibility	Contact Number
Mortenson		Site Development	
Mortenson		Dirt Work / Grading / Turbine / Cranes / Excavation	
Mortenson		Underground Electrical	
Mortenson		Substation	
Mortenson		O&M Building	
Mortenson		Laydown / Batch Plant	
Mortenson		Project Environmental Contact	

# Stormwater Pollution Prevention Plan

Mortenson	Ryan Long	Routine SWPPP Inspections	763-287-5867
Mortenson	Tyler Yesth Alejandro Almada	Alternates for SWPPP Inspections	763-287-5574 915-706-3007
Westwood Professional Services	Aaron Mlynek, CPESC	SWPPP development	952-697-5710
Mortenson		Restoration	
Don Borneke Construction, Inc.	Mark Sikel	BMP installation	507-234-2221, ext. 2
Mortenson		BMP Maintenance	

## 6.0 ADDITIONAL SITE OR PROJECT CONSIDERATIONS

#### **6.1 Chemical Treatments**

At the time of SWPPP completion the use of chemical additives or polymers for purposes of sediment flocculation are not anticipated for this project. Should chemical treatment become necessary based upon inspection results, weather conditions or construction means and methods the table below must be updated to reflect the chemical used. **IMPORTANT: Prior approval from the SDDENR is necessary for any chemical additive for discharging stormwater.** 

**Table 8: Flocculation Plan Summary** 

Flocculation Chemical	Application Location	Primary Soil Types	Settling BMPs Used	Application Method	Receiving Water	Mfr Dosing Rate

#### 6.2 Endangered or Threatened Species

Eligibility Criteri	ion				
The site eligibility	criterion as a	pplicable accord	ling to Appendix	D of the CGP inclu	udes:
	$\square$ A	□в	⊠ C	$\square$ D	□ E

To assess the potential for threatened or endangered species at the site, Westwood reviewed a report entitled, "Threatened and Endangered Species Habitat Assessment," prepared by TetraTech and dated October 2018. Please refer to Attachment H for a copy of the report.

According to the report, the following federally-listed species are known to occur in the counties in which the project is taking place:

- Whooping crane
- Rufa red knot
- Northern long-eared bat
- Topeka shiner
- Dakota skipper
- Poweshiek skipperling

Based on the habitat assessment presented in the report, Rufa red knot and Northern long-eared bats are not likely to occur within the project area due to lack of quality habitat for each species. Similarly, the project area located outside the Whooping crane migration corridor, though some stopover habitat may be present within the project boundary.

Critical habitat for the Dakota skipper and Poweshiek skipperling is present near the project boundary. Both species are small butterflies that live in tallgrass prairies. The critical habitat was identified on the east side of Myers Lake, approximately 1.4 miles east of the nearest project disturbance (proposed turbine T-44). Due to the distance between the disturbance area and the critical habitat, it is unlikely that project activities will impact these species.

#### **6.3 Historical Property Preservation**

The following BMPs are anticipated with the construction of this site:
<ul> <li>□ Dike</li> <li>□ Berm</li> <li>□ Catch Basin</li> <li>□ Pond</li> <li>□ Stormwater Conveyance Channel (e.g., ditch, trench, perimeter drain, swale, etc.)</li> <li>□ Culvert</li> <li>□ Other type of ground-disturbing stormwater control:</li> </ul>
The BMPs anticipated as described above had prior surveys or evaluations conducted on the site which have determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties? $\square$ YES $\square$ NO
If the answer is "no" above is there a determined that the installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? $\boxtimes$ YES $\square$ NO
A traditional cultural properties inventory was completed by Quality Services, Inc. with a report dated January 7, 2019. The report indicated that 163 traditional cultural properties were identified during the inventory, all of which were determined by the Sisseton-Wahpeton Oyate Tribal Historic Preservation Office (THPO) to be eligible for listing on the National Register for Historic Places (NHRP). The inventory is available for review upon request.

Using this information, the project (including stormwater BMPs) was subsequently designed to avoid impacts to the traditional cultural properties. Cultural avoidance areas are show in the civil plan set in Attachment E.

#### 6.4 Safe Drinking Water Act Underground Injection Control Requirements

No infiltration trenches, commercially manufactured pre-cast or pre-built detention vaults, or drywells, seepage pits, or improved sinkhole will be used in conjunction with the project.

#### 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 site has stormwater flowing primarily to the west towards tributaries of the Big Sioux River (located over 5 miles west of the site), including the Indian River, Bergen Church, Soo Creek, and Mahoney Creek. The very eastern edge of the site drains to the Upper South Fork of the Whetstone River, which is located approximately 1.75 miles east of the site boundary. Refer to Attachment D for drainage maps.

**Table 9: Receiving Waters** 

Name of Waterbody	Immediate (I) or Ultimate (U)	Type (wetland, lake, stream, ditch)	Impaired? Y/N	Approved TMDL?	MS4? Y/N
Unnamed tributaries to Indian River	I	Stream	N	N	N
Indian River	I	Stream	N	N	Ν
Unnamed Tributaries to Soo Creek	I	Stream	N	N	N
Soo Creek	1	Stream	N	N	N
Unnamed Tributaries to Upper South Fork Whetstone River	I	Stream	N	N	N

#### 7.1 Impaired Waters

There are no impaired waterbodies which receiving stormwater discharge within one mile of the site disturbed area according to the Construction Stormwater Impaired Water Search, South Dakota Department of Environment and Natural Resources website: <a href="http://denr.sd.gov/dfta/wp/tmdl.aspx">http://denr.sd.gov/dfta/wp/tmdl.aspx</a> (accessed 06/29/2020), the 2018 South Dakota Integrated Report for Surface Water Quality Assessment website: <a href="https://denr.sd.gov/documents/18irfinal.pdf">https://denr.sd.gov/documents/18irfinal.pdf</a>, or the USEPA List of Tier 3, Tier 2, and Tier 2.5 waters.

#### 8.0 STORMWATER MANAGEMENT

## **8.1 Temporary Practices**

There are no anticipated temporary stormwater management practices at the time of SWPPP completion due to no contiguous 10 acre drainage areas discharging to a common point. Construction of the Laydown Yard will be phased so that less than 10 acres is disturbed at any given time. Exposed areas will be stabilized with aggregate base.

#### 8.1.1 Calculations

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

**Table 10: Temporary Sediment Basin Calculations** 

Basin #	Storm Frequency	Rainfall Amount	Runoff Area	Runoff Volume	Capacity Needed
1	2 yr. / 24 hr.	2.46"	Acres	ac ft.	ac ft.
2	2 yr. / 24 hr.	2.46"	Acres	ac ft.	ac ft.
3	2 yr. / 24 hr.	2.46"	Acres	ac ft.	ac ft.

#### **8.2 Permanent Practices**

There are no permanent stormwater practices anticipated for this project activity.

#### 8.2.1 Calculations

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

#### 9.0 TEMPORARY BEST MANAGEMENT PRACTICES

#### 9.1 Soil Management

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 topsoil should be completed by a wide-pad dozer and other equipment to minimize compaction of the topsoil 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 Stockpile Management

The following guidance and requirements relate to stockpiles of soil material or clearing debris piles composed, in whole or in part, of sediment and/or soil.

- Stockpiles shall be located outside of any natural buffers (see Section 9.3) and away from stormwater conveyances, drain inlets and areas where stormwater flows are concentrated.
- Downgradient perimeters of the stockpiles shall have sediment control barriers installed along the
  perimeters or the stockpiles may be placed within areas where perimeter sediment barriers are established
  and there are no receiving waters between the stockpiles and the existing sediment barriers.
- Stockpiles which are idle for fourteen or more days are subject to temporary stabilization requirements as described in Section 9.4.

#### 9.3 Natural Buffers and No-disturbance Areas

#### **Natural Buffers**

An undisturbed fifty foot buffer zone will be preserved for all surface water bodies and wetlands. The use of linear sediment controls will be installed upgradient to provide sediment control and delineate the fifty foot buffer. Refer to the site erosion and sediment control plans for the location of the buffer. The following activities are prohibited to take place within the buffer area:

- Placing stockpiles;
- Disturbing vegetation;
- · Placing construction material; and
- Storing gas, oils, or other potentially polluting material.

If construction areas must enter the fifty-foot buffer area, redundant sediment controls will be implemented.

#### No-disturbance Areas

Please refer to the civil plan in Attachment E for no disturbance areas.

#### 9.4 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.

#### Timing for disturbed areas and slopes

Temporary erosion prevention practices should be initiated immediately after construction activity disturbing soil in an area is temporarily or permanently ceased for a period of fourteen days. The application of temporary erosion control management practices should be completed prior to the fourteenth day of temporarily or permanently ceasing construction activity in an area of the project.

#### Soil Stabilization Timing (arid, semi-arid or drought stricken)

Permanent erosion prevention practices should be initiated as soon as practicable; temporary non-vegetative stabilization or erosion control measure installation should be initiated immediately (end of the same working day) after construction activity disturbing soil in an area is temporarily or permanently ceased for a period of fourteen days. The application of temporary erosion control management practices should be completed prior to the fourteenth day of temporarily or permanently ceasing construction activity in an area of the project.

#### **Dust Control / Wind Erosion Controls**

Generation of dust should be minimized by use of BMPs. The application of the BMPs should be performed at a frequency to minimize dust. The frequency will be subject to moisture levels from rain events. Dust control BMPs include, but are not limited to:

- Keeping traffic and equipment at low speeds;
- Application of water;
- · Application of soil stabilizers; and
- Application of hydromulch.

#### 9.5 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 11: 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 12: Dates When Construction Activity Ceases**

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

Table 13: 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

**Table 14: Erosion Controls** 

		Con	structio	n Phase	e or Act				
Potential BMPs	Access Roads	Laydown Yard / Batch Plant	Crane Paths / Turbine Erection	Excavations / Foundations	O&M Building	Substation	UG Collection	Applicati	on Notes
Construction Phasing	Х	Х	Х	Х	Х	Х	Х	Minimize soil disturber per phase. Stake/flabe left undisturbed.	
Buffer Strips	X	х	Х	x	Х	х	Х	See Section 9.3 for r	nore information.
Surface Roughening	Х	х	Х	х	Х	х	Х	Use tracked equipme contour on steep slo term erosion control.	pes for temp/short
Straw / Hay Mulch	Х	х	Х	Х	X	Х	Х	Apply at two tons/act soil. Weed free muld	
Dust Control	Х	х	Х	Х	X	х	Х	Contractor to apply v palliatives.	vater or dust
Erosion Control Blanket	Х	х	х	х	Х	Х	Х	Straw or wood fiber, netting blanket shoul manufacturer's recor	d be installed per
Hydroseed	Х	х	х	х	Х	х	Х	Apply at a minimum acre from two directions shadowing. Could u	ons to prevent
Timber Matting	х		x					Channel slopes to be temporarily during co for crane crossing. R conditions	onstruction to allow
Temporary Seed Mix	Х	x	x	x	X	x	X	Application Rate = See mix.	Prepare soil prior to seeding. Broadcast and
Permanent Seed Mix	x	x	x	x	x	x	x	Application Rate = See mix.	rake seed into soil prior to mulch or blanket.

#### Potential Seed Mix

#### South Dakota Department of Transportation Type B Permanent Seed Mixture:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Switchgrass	Dacotah, Forestburg, Nebraska 28, Pathfinder, Summer, Sunburst, Trailblazer	3
Indiangrass	Holt, Tomahawk, Chief, Nebraska 54	3
Big Bluestem	Bison, Bonilla, Champ, Sunnyview, Rountree, Bonanza	3
Canada Wildrye	Mandan	2
	Total:	18

#### 9.6 Sediment Control Practices

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

**Table 15: Sediment Controls** 

		Const	ruction	Phase	or Ac	tivity		
Potential BMPs	Access Roads	Laydown Yard / Batch Plant	Crane Paths / Turbine Erection	Excavations / Foundations	O&M Building	Substation	UG Collection	Application Notes
Silt fence	X	х	Х	х	X	х	х	Machine sliced install with wood posts at six foot spacing. Install perimeter silt fence prior to grading
Fiber rolls	х	х	х	Х	Х	Х	Х	Install on contour, minimum of six inch roll, wood or straw fiber. Trench in approximately 2 inches and secure with two inch posts every two feet on center.
Soil berm	Х	х	Х	х	Х	х		Side slopes of 3:1 with at least one foot height. Use temporary erosion control to stabilize berm.

#### 9.7 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 16: Run-on and Runoff Controls

		Const	truction	Phase	or Ac	tivity		
Potential BMPs	Access Roads	Laydown Yard / Batch Plant	Crane Paths / Turbine Erection	Excavations / Foundations	O&M Building	Substation	UG Collection	Application Notes
Riprap Apron / Energy Dissipation	Х	Х	Х	х	Х	х	Х	See detail in plans. Install within twenty-four hours of connection to surface waters.
Culvert Protection	Х	х	Х		X	х		See details in plan set. Install within twenty-four hours of installation of culverts.
Gravel Bag Berm	х	х	х	х	Х	х	х	See detail in plans.
Low Water Crossing	х		х					See detail in plans.
Riprap Channel	Х	Х	х		х	х		See detail and notes in plans, install within twenty-four hours of connection to surface waters

#### 9.8 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 stormwater inlets.

**Table 17: Tracking Controls** 

		Cons	truction	Phase	or Act	ivity		
Potential BMPs	Access Roads	Laydown Yard / Batch Plant	Crane Paths / Turbine Erection	Excavations / Foundations	O&M Building	Substation	UG Collection	Application Notes
Rock Pad	X	Х			Х	Х		See detail in plans. Install at all site exits prior to grading. Maintain for duration of project.
Gravel or Aggregate Road Base	Х	х			х	х		See detail and notes in plans.
Street Scraping	Х	х			х	х		Scrape large clumps/amounts of material with soft tracked or wheeled equipment prior to sweeping.
Street Sweeping	Х	х			х	х	х	Sweep paved surfaces within twenty-four hours of discovery.

#### 9.9 Dewatering and Basin Draining Practices

Dewatering Accumulated Water (via pump, trench, temporary ditch or grade cuts)

Dewatering of turbid water (water that is visibly cloudy or brown in color) should be discharged via pump and hose or overland flow 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 may be considered for overland flow. 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;
- Adversely impact adjacent properties with water or sediment;
- · Adversely impact waters of the state;
- Cause erosion of slopes and channels;
- Cause nuisance conditions; or
- Contribute to inundation of wetlands which negatively impact the wetlands.

NOTE: the permittee may be required to obtain a Temporary Water Right. Contact the SDDENR at 605-773-3351 for more information. It is the operator and permittee responsibility to obtain necessary water rights.

#### 9.10 Sampling Requirements

If the discharge observed contains suspended solids the following must be implemented:

- Installation of additional best management practices and update this SWPPP.
- Sample the dewatering discharge for total suspended solids on a daily basis until there is no longer a discharge of visible solids.
- Samples must be analyzed in accordance with 40 CFR, Part 136 which may require sending the samples to an off-site laboratory for analysis.
- If the sample results exceed 53 mg/L in any sample or measurement you must cease the dewatering discharge to surface waters of the state until the operator can demonstrate additional best management practices are sufficient to eliminate visible pollutants.
- Document sampling and results or any updates in this SWPPP.

#### 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 BMPs potential pollutant sources are not reasonably expected to affect the stormwater 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 18: 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
Building Materials and Products	Various	Under cover (such as plastic sheeting or tarps)
Trash And Construction Debris	Various	Dumpster with covers or tarps, plastic sheeting or temporary roof.
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

<sup>\*</sup>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.
- Storage of all diesel fuel, oil, hydraulic fluids, other petroleum products and other chemical and products must be within water-tight containers.
- Hazardous materials shall be returned to the hazardous material storage area at the end of each day and be contained within sealed containers and provide secondary containment as applicable.
- 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 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 twenty-four 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 Potential Non-stormwater Pollutant Sources and BMPs

Non-stormwater 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 19: Non-stormwater Discharges and Potential BMPs

Type of Allowable Non-Stormwater Discharge	Likely to be Present at Site?
Discharges from emergency fire-fighting activities	☐ YES ☒ NO
Fire hydrant flushing (uncontaminated and not hyperchlorinated)	☐ YES ☒ NO
Waters used to wash vehicles, buildings, structures and pavement (Detergents and soaps are not allowed; external building wash down cannot contain hazardous substances such as paint or caulk containing PCBs) to remove mud, dirt or dust.	⊠ YES □ NO
Water used to control dust	⊠ yes □ no
Potable water including uncontaminated waterline flushing (not hyperchlorinated)	☐ YES ☒ NO
Uncontaminated air conditioning or compressor condensate	☐ YES ☒ NO
Uncontaminated, non-turbid discharges of ground water, spring water, or foundation or footing drains	☐ YES ⊠ NO
Landscape irrigation	☐ YES ☒ NO
Pavement wash waters(no spills or leaks or detergent use)	⊠ YES □ NO
Uncontaminated flows from excavation dewatering activities if operational and structural controls are used.	⊠ YES □ NO

These authorized non-stormwater discharges should be conducted in accordance with the requirements of the Construction General Permit (CGP), and every effort should be made to minimize non-stormwater 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 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. NOTE: no hazardous substances such as paint or caulk containing PCB should be present on buildings or structures during the wash down process.

<u>Water used for Dust Control</u>: 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.

<u>Uncontaminated Excavation Dewatering</u>: 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.

#### Pavement wash waters (no spills or leaks or detergent use):

The use of pavement wash waters should not contribute to sediment discharge, transport or contain runoff contaminated by leaks or spills of hazardous materials. Wash water should be used sparingly and minimize amount used which would result in runoff occurring. Should runoff occur, the typical sediment and erosion control BMPs should be employed to prevent the water from leaving the site, as feasible.

#### 10.3 Fueling and Maintenance of Equipment and Vehicles; Spill Response

- Routine maintenance of vehicles may occur in staging areas only if necessary.
- Avoid maintaining equipment and vehicles on site, and perform maintenance off site where feasible.
- If fueling is done by mobile tank and dispenser, provide close supervision for the transfer of fuel, use drip pans, and make spill containment and cleanup materials readily available.
- If fueling is done via temporary tank, store the tank within a bermed, area and away from surface waters.
- Make Spill Kits with absorbent materials 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 South Dakota Notification Center (605-773-3296), the South Dakota After Hours Center (605-773-3231), 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 twenty-four hours a day. For more information reference the following website: <a href="https://www.epa.gov/emergency-response/when-are-you-required-report-oil-spill-and-hazardous-substance-release">https://www.epa.gov/emergency-response/when-are-you-required-report-oil-spill-and-hazardous-substance-release</a>.

Table 20:	Reportable	Spill Quantities
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Material	Reportable Spill Quantities to Land	Reportable Spill Quantities to Land
Petroleum Material	Any amount that causes a sheen on surface waters	25 Gallons
PCB Oil	Any amount that causes a sheen on surface waters	1 Pound
Other Material	Any amount that causes a sheen on surface waters	Quantity that causes odor, color, sheen, foam, or other obvious indicator of pollutants.

#### 10.4 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 identified on the site plan. Contain the water, and pump from the site into a truck for proper disposal at a waste water facility. No engine degreasing may be done on site.

#### 10.5 Concrete Washout and Other Washout

#### Mobile Concrete or Mortar Mixers

Implement the following BMPs with the use of mortar or concrete mixers.

- Store bags of concrete and mortar in dry storage.
- Position mixers a minimum of 100 feet from the nearest watercourse or conveyance.
- If mixers must be positioned closer than 100 feet from a conveyance, install a temporary berm to prevent runoff from the mixer from flowing into the conveyance.
- Use Tarpaulins 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

Implement the following BMPs implemented for concrete washout areas.

- Contain washout water from the tools, equipment, and the chutes of concrete trucks, mobile mixers, or other
  containers with concrete material, and do not allow it to be discharged into waters of the state or drain onto
  adjacent properties.
- Define the washout 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. Additionally: the washout area shall have a sign demarking the area as a washout.
- Multiple washout areas may be needed. Locations of the washouts should be shown on the construction plans by the contractor.
- When identifying the location of the concrete washout areas, include the date of install, date of last maintenance, and date of removal.
- Use thick poly sheeting 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 liquid or not hardened, vacuum the material up, haul it off site to properly disposed of or recycle at an approved 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. Position the truck in a flat area, away from inlets and surface waters where feasible.

#### 10.6 Portable Sanitary Facilities

- Locate facilities away from watercourses, streams, creeks, and other surface waters or conveyances.
- Place facilities upgradient of 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.
- Schedule routine and regular cleanout and maintenance of facility from a reliable company.

#### 11.0 TEMPORARY CONCRETE BATCH PLANT

The site has a temporary, dedicated concrete batch plant to supply concrete material for use during development. The following information relates to the operation of the temporary concrete batch plant.

#### 11.1 Management of Runoff

See Attachment E for the batch plant map with location, layout and controls. The batch plant should be located on higher ground where feasible with a gravel or aggregate base. Where necessary, the base should have a geotextile liner to minimize potential for infiltration of washout waters or material into the subsoils. Where the batch plant cannot be located on higher ground topsoil or earthen diversions should be constructed to divert any run-on water from adjacent areas around the batch plant operation. As necessary in areas where potential contamination is a low risk, the use of a temporary sediment trap, temporary containment berm from the internal water may be used. Industry standard erosion and sediment control practices should be used to minimize runoff into adjacent surface waters or neighboring property.

#### 11.2 Material List

The operator of the batch plant should have a list of materials which are on site and exposed to the elements. A copy of this list should be inserted into Attachment B.

#### 11.3 Routine Inspections

A qualified person should inspect the batch plant area at least once per month during the batch plant operation. The inspector shall inspect the following:

- Material handling areas;
- Above ground storage tanks;
- · Hoppers or silos;

- Dust collection and containment systems; and
- Truck wash down and equipment cleaning areas.

The inspector should identify where action items, maintenance, and installation of controls are needed with follow-up documentation on when the action items were addressed, and what was done to correct the items identified. A description of spills and leaks should be included in the reports or as an incident statement with the next inspection report. Insert completed inspections in Attachment G of this binder.

#### 11.4 Training

An employee training program must be developed to educate personnel responsible for implementing any component of the SWPPP at the temporary batch plant. The frequency of the training must be at a minimum one training prior to the initiation of the operation of the concrete batch plant. Documentation of the training shall be inserted into Attachment F of this SWPPP. Insert a copy of the documentation of the training / meeting with a list of attendees, topics discussed, duration of the training and signatures of those in attendance.

#### 11.5 Spill Prevention and Response Procedures

Refer to Section 10.2 of this SWPPP.

#### 11.6 Comprehensive Inspection

At least once during the project batch plant activity (an alternative person from the routine inspector) should provide an additional inspection (which may be used for one of the monthly routine inspections) including the following:

A visual examination of areas draining stormwater associated with the batch plant. Observe the following areas for effectiveness:

- · Cleaning areas;
- Material handling areas;
- Above ground storage tanks;
- Hoppers and silos;
- Dust collection/containment systems;

- Run-on, runoff, and erosion/sediment controls in place;
- Spill response equipment and management; and
- Material on site and the list of expected materials.

#### 12.0 INSPECTION AND MAINTENANCE

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 schedule below. The inspector shall be a person trained and familiar with the requirements of this SWPPP and the SDR100000 Permit as well as the EPA Construction General Permit requirements. Separate inspection and documentation is needed for each permit. This person is delegated by the owner.

Scope of inspections\* should include:

- Date and time of inspections;
- Inspector name;
- Findings of the inspection;
- All cleared and grubbed and active exposed soil areas;
- All areas where stormwater flows within the site and all points of discharge;
- Locations of corrective actions needed and where BMPs need maintenance;
- Locations where BMPs have failed or proved inadequate for their location;
- Locations where additional BMPs are needed;

- Locations where vehicles are exiting the site for evidence of off-site tracking;
- 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; and
- Signature of the inspector

Amendments from inspections need to be completed within seven days (see SWPPP Section 3.1).

\*All inspections should be documented within twenty-four hours after completing the field inspection, and available in paper or electronic form on site.

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

https://forecast.weather.gov/MapClick.php?lat=45.30540000000008&lon=97.03635999999999#.XvpqUihKhPY

#### 12.1 Inspection Schedule

Table 21: Inspection Schedule

If the site is:	Then an inspection is needed:	Notes and Information
Active	<ul> <li>Once every fourteen calendar days and within twenty-four hours of a rainfall ≥ 0.25", OR</li> <li>Once every seven calendar days</li> </ul>	A rain gauge should be used or rain data should be taken from the link listed above.
Temporary or permanent stabilization	Once every month	Allowed in areas where work is completed and vegetation is established. Other/active areas must follow above.
Subject to Winter/Frozen Conditions	Once every month	Disturbed areas of the site have been temporarily or permanently stabilized. Resuming "active" inspection frequency is required no later than March 1st of each year.

#### 12.2 Maintenance Schedule

**Table 22: Maintenance Schedule** 

ВМР	Observed Condition for Maintenance	Maintenance Interval
All non-functional BMPs	Sediment overtopping, under water, scoured ends, undermined, destroyed, non-functional as designed, etc.	Maintenance must be done by the end of the next work day or if the BMP requires replacement: it should be done within seven calendar days or prior to forecast rainfall, whichever is sooner. If sediment escapes the construction site: begin removing the offsite accumulations by the end of the same work day.
Vegetative Buffer	Silt covered, rill erosion observed or otherwise ineffective	Repair by the end of the next working day.
Stabilized Areas (temporary or permanently)	Rill erosion, gulley erosion is observed. Mulch washed away or erosion control blanket is undermined.	Repair and stabilize eroded areas and non-functional stabilization BMPs by the end of the same work day.
Perimeter Sediment Control (silt fence, fiber logs, berms, etc.)	½ full of sediment, flattened to ½ height, driven over, undermined, scoured, moved for access etc.	Maintenance of the BMP: by the end of the next work day or if replacement is required: complete replacement within seven days of discovery or notice or prior to forecast 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 removed within seven days. Stabilize as needed if soils are exposed during removal/cleanout.
Temp sed basins and traps; permanent sediment basins	Sediment deposition and accumulation to ½ of the storage volume.	Cleanout, remove accumulated sediment material within seven calendar days or prior to forecast rainfall, whichever is sooner.
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, scrap paved surfaces, sweep paved surfaces by the end of the same work day.
Paved surfaces; adjacent streets	Tracked sediment and soil material from the site hauling or access	Sweep within the same work day of discovery; additional and/or more frequent sweeping may be needed to maintain public safety or prevent washing from forecast rains.

#### 12.3 Corrective Actions

A corrective action report is needed if: a repair; modification; or replacement of any stormwater control is necessary; or if cleanup and disposal of spills, releases, or other deposits are needed; or if a permit violation is remedied. For each corrective action taken a report with the following information must be documented and maintained with the SWPPP within twenty-four hours:

- 1. Which condition requiring correction was identified at the site;
- 2. The nature of the condition identified; and
- 3. The date and time of the condition identified and how it was identified.

Within seven calendar days after the inspection resulting in a corrective action report being necessary, the following is needed:

- 1. Any follow-up actions taken to review the design, installation, and maintenance of stormwater controls, including the dates such actions occurred;
- A summary of stormwater control modifications taken or to be taken, including a schedule of activities necessary to implement changes, and the date the modifications are completed or expected to be completed; and
- 3. Notice of whether SWPPP modifications are required as a result of the condition identified or corrective action.

#### 13.0 TRAINING REQUIREMENTS AND DOCUMENTATION

The following table summarizes the personnel who are trained and their responsibilities. Personnel training will take place at least once prior to commencing earth-disturbing activities or pollutant-generating activities. If personnel changes take place training for the new personnel or changed responsibilities will take place as soon as feasible during the personnel transition.

The following topics must be covered in training and the training should be related to the scope of job duties for each personnel. At a minimum training should include:

- Location of stormwater controls;
- Maintenance requirements and maintenance needs for BMPs;
- Procedures and permit requirements for pollution prevention;
- When and how to conduct inspections;
- Record keeping; and
- Corrective Actions.

A more inclusive list can be found in Attachment F; the site inspector should keep the training documentation up-to-date.

**Table 23: Training Role and Summary** 

Project Role / Task	Name	Company	Training Course/Entity
SWPPP Preparer	Aaron Mlynek	Westwood Professional Services	CPESC
SWPPP Amendments			
Site Inspector			
Alternate Inspector			
BMP Installer and Maintenance and Repair			
Corrective Actions			

Westwood Professional Services, Inc.

#### 14.0 FINAL STABLIZATION

Final stabilization is achieved for the project when permanent erosion control BMPs are applied to the site. The permanent erosion control BMPs may be a combination of vegetative and no vegetative cover types. Additional requirements to achieving final stabilization include:

- All soil disturbing activity is complete;
- Permanent stormwater treatment system (if required) is constructed and accumulated sediment from construction activity has been removed;
- All temporary, synthetic BMPs have been removed from the site;
- In agricultural areas (as applicable), the construction activity area has been restored to the pre-construction agricultural use; and
- The vegetative cover for the site is at a density, with a uniform perennial cover of 70 percent of the expected final growth density.

#### 14.1 **Vegetative Cover / Permanent Erosion Control**

The planned permanent erosion control vegetative cover BMPs for this site include native seedings, as suggested in Section 9.3 or equivalent mix approved by the landowner. Minimization of the presence of invasive species is required. The following seven weeds are declared to be noxious in South Dakota: Canada thistle, hoary cress, leafy spurge, perennial sow thistle, purple loosestrife, Russian knapweed, and salt cedar.

#### 14.2 Non-vegetative Cover / Permanent Erosion Control

The planned permanent erosion control non-vegetative cover BMPs for this site include the O&M site building, aggregate and asphalt access roads, aggregate surfaces at the O&M facility and substation, substation equipment, and concrete turbine foundations.

#### 15.0 NOTICE OF TERMINATION

The South Dakota DENR permit may be terminated in one of the following scenarios:

- All construction activity is complete, 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 South Dakota Department of Environment and Natural Resources should be completed within thirty days of meeting the conditions above. Upon midnight of the post marked date, the permit coverage is terminated unless otherwise notified by the SDDENR.
- Within thirty days of selling or otherwise legally transferring ownership of the site in its entirety (including street sweeping and stormwater infrastructure) from the original owner to another party taking responsibility of ownership.
- Where the project obtained permit coverage but never started construction activity due to cancellation or other reasons. Documentation should be sent to the SDDENR with the NOT form and is subject to SDDENR approval.

4.

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

- 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;
- Removal of all construction materials, waste, waste handling devices and equipment and vehicles not intended for long-term use have been completed;
- All stormwater controls that were installed and maintained during construction which are not biodegradable or intended for long term use have been removed; and
- 8. All potential pollutants and pollutant generating activities associated with construction activities have been removed.

The Notice of Termination form from the EPA should be completed within thirty days of meeting the conditions above.

#### **16.0 RECORD RETENTION**

**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 owner or operator listed on the permit application. The records should be in a mailbox, in a vehicle or in an on-site office trailer or model home.

**Post Construction/Notice of Termination (NOT):** the site owner must retain all the following records for a period of at least three years after the submittal of the NOT:

- The final SWPPP with all field notes/amendments;
- Other stormwater related permits in addition to the NPDES permit from SDDENR;
- Inspection and maintenance records;
- · All permanent operation and maintenance agreements; and
- All required calculations for design of the temporary and permanent stormwater management systems.

## **Attachment A**

# South Dakota General Permit for Stormwater Discharges Associated with Construction Activities SDR100000 / EPA Construction General Permit

Permit Number: SDR100000

### SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

# General Permit Authorizing Stormwater Discharges Associated with Construction Activities Under the South Dakota Surface Water Discharge System

In compliance with the provisions of the South Dakota Water Pollution Control Act and the Administrative Rules of South Dakota (ARSD), Article 74:52, owners and operators of stormwater discharges from **construction activities**, located in the state of South Dakota are authorized to discharge in accordance with the conditions and requirements set forth herein.

This General Permit shall become effective on April 1, 2018.

General permit coverage for the [PERMITTEE] shall become effective [EFFECTIVE DATE].

This General Permit and the authorization to discharge shall expire at midnight, March 31, 2023.

Signed this 23rd day of March, 2018,

**Authorized Permitting Official** 

Steven M. Pirner

Secretary

Department of Environment and Natural Resources

Note: This page will be replaced with a copy containing the assigned permit number once coverage has been authorized.

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Appendix A – Notice of Intent (NOI) Form

Appendix B – Notice of Termination (NOT) Form

**Appendix C – Contractor Authorization Form** 

Appendix D – Transfer of Permit Coverage Form

Appendix E – Noitce of Intent for Reauthorization Form

Appendix F – Two-year, Twenty-four Hour Precipitation Event Map

#### 1.0 **DEFINITIONS**

**ARSD** – Administrative Rules of South Dakota.

**Best Management Practices** (**BMPs**) – the schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants from the construction site. BMPs also include treatment requirements, operating procedures, and practices to control construction site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**Borrow Areas** – the areas where materials are dug for use as fill, either onsite or offsite.

Commencement of Construction Activities – the initial disturbance of soils (or 'breaking ground') associated with clearing, grading, or excavating activities or other construction-related activities (e.g., stockpiling of fill material).

Construction Site – the land or water area where construction activities will occur and where control measures will be installed and maintained. The construction site includes construction support activities, which may be located at a different part of the property from where the primary construction activity will take place, or on a different piece of property altogether. The construction site is often a smaller subset of the lot or parcel within which the project is taking place.

**Construction Site Washout** – as used in this general permit, refers to any wash waters derived from the cleaning of construction trucks and/or equipment including, but not limited to, concrete, mortar, grout, stucco, form release oils, paints, curing compounds, and other construction materials.

**Construction Support Activity** – a construction-related activity that specifically supports the construction activity and can include activities associated with concrete or asphalt batch plants, equipment staging yards, materials storage areas, excavated material disposal areas, and borrow areas.

**Construction Waste** – discarded material including, but not limited to, packaging materials, scrap construction materials, masonry products, timber, steel, pipe, electrical cuttings, plastics, and Styrofoam.

**Control Measures** – as used in this general permit, refer to any best management practice or other method, including narrative effluent limits, used to minimize erosion and sedimentation, and thereby prevent or reduce the discharge of pollutants to surface waters of the state.

**Corrective Action** – as used in this general permit, refers to any action taken to (1) repair, modify, or replace any control measure used at the site; (2) clean up and dispose of spills, releases, or other deposits found on the site; or (3) remedy a permit violation.

**Dewatering** – the act of draining or pumping rain water, ground water, or surface waters from building foundations, vaults, trenches, and other areas of the construction site.

**Discharge** – the addition of any pollutant or combination of pollutants to surface waters of the state from any point source.

**Earth-Disturbing Activities** – as used in this general permit, means actions taken to alter the existing vegetation and/or underlying soil of a site.

**Effective Operating Condition** – as used in this general permit, means a control measure is kept in effective operating condition if it has been implemented and maintained in such a manner that it is working as designed to minimize pollutant discharges.

**Final Stabilization** – on areas not covered by permanent structures, means either (1) vegetation has been established that provides a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the natural background vegetative cover, (2) permanent non-vegetative stabilization methods have been implemented to provide effective cover for exposed portions of the site, or (3) disturbed portions of a construction site on land used for agricultural purposes must be returned to pre-construction agricultural use.

**Historic Property** – any building, structure, object, district, area, or site that is significant in the history, architecture, archaeology, paleontology, or culture of the state, its communities or the nation as stated in SDCL 1-19A-2.

**Infeasible** – as used in this general permit, means not technologically possible or not economically practicable and achievable in light of best industry practices.

**Larger Common Plan of Development or Sale** – a contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. "One plan" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.

**Minimize** – to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically achievable and practicable in light of best industry practices.

**Municipal Separate Storm Sewer System** – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that is owned or operated by the state or a municipality and is designed or used for collecting or conveying stormwater. This definition does not include combined sewers or conveyances that are part of a publicly-owned treatment works, as defined by ARSD 74:52:01:01(36).

**Municipality** – a city, town, county, district, sanitary district, or other public body created by or under state law with jurisdiction over the disposal of sewage, industrial wastes, or other wastes.

**Natural Buffer** – as used in this general permit, means an area of undisturbed natural cover surrounding surface waters within which construction activities are restricted. Natural cover

includes the vegetation, exposed rock, or barren ground that exists prior to commencement of construction activities.

**Nonpoint Source** – a source of pollution that is not defined as a point source.

**Non-Stormwater Discharges** – discharges that do not originate from runoff events. They can include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, construction washout water, paint wash water, irrigation water, or pipe testing water.

**Notice of Intent** or **NOI** – the form (electronic or paper) provided by the Secretary required for authorization of coverage under this general permit (Appendix A).

**Notice of Termination** or **NOT** – the form (electronic or paper) provided by the Secretary required for terminating coverage under this general permit (Appendix B).

**Operator** – as used in this general permit and in the context of stormwater discharges associated with construction activity 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 that are necessary to ensure compliance with the general permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the general permit).

The operator, along with the owner, is responsible for ensuring compliance with all conditions of this general permit and with development and implementation of the stormwater pollution prevention plan.

**Pesticide** – any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pests, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

Note: drugs used to control diseases of humans or animals (such as livestock and pets) are not considered pesticides; such drugs are regulated by the Food and Drug Administration. Fertilizers, nutrients, and other substances used to promote plant survival and health are not considered plant growth regulators and thus are not pesticides. Biological control agents, except for certain microorganisms, are exempted from regulation as pesticides under FIFRA. (Biological control agents include beneficial predators such as birds or ladybugs that eat insect pests, parasitic wasps, fish, etc.)

**Point Source** – any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharge. Construction sites disturbing one (1) or more acres are point sources. Therefore, any

water flowing off the construction site constitutes a discharge and must be covered by a Surface Water Discharge permit.

**Pollutant-Generating Activities** – at construction sites, as used in this general permit, means those activities that lead to or could lead to the generation of pollutants, either as a result of earth-disturbance or a related construction support activity. Some of the types of pollutants that are typically found at construction sites are:

- 1. Sediment;
- 2. Nutrients;
- 3. Heavy metals;
- 4. Pesticides and herbicides;
- 5. Oil and grease;
- 6. Bacteria and viruses;
- 7. Trash, debris, and solids;
- 8. Treatment polymers; and
- 9. Any other toxic chemicals.

**Prohibited Discharges** – as used in this general permit, means discharges that are not allowed under this general permit, see Section 2.3.

Qualified Local Program – a municipal program for stormwater discharges associated with construction sites that has been formally approved by SDDENR to act in lieu of the state program.

Regulated Substance - the compounds designated by the department under South Dakota Codified Law §§ 23A-27-25, 34A-1-39, 34A-6-1.3(17), 34A-11-9, 34A-12-1 to 34A-12-15, inclusive, 45-6B-70, 45-6C-45, 45-6D-60, and 45-9-68, including pesticides and fertilizers regulated by the Department of Agriculture; the hazardous substances designated by the federal Environmental Protection Agency pursuant to section 311 of the Federal Water Pollution Control Act and Clean Water Act (33 United States Code sections 1251 to 1387, inclusive), as amended to January 1, 2011; the toxic pollutants designated by Congress or the Federal Environmental Protection Agency pursuant to section 307 of the Toxic Substances Control Act (15 United States Code sections 2601 to 2671, inclusive), as amended to January 1, 2011; the hazardous substances designated by the Federal Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (42 United States code sections 9601 to 9675, inclusive), as amended to January 1, 2011; and petroleum, petroleum substances, oil, gasoline, kerosene, fuel oil, oil sludge, oil refuse, oil mixed with other wastes, crude oils, substances, or additives to be utilized in the refining or blending of crude petroleum or petroleum stock, and any other oil or petroleum substance. This term does not include sewage and sewage sludge.

**Runoff Event** – a precipitation event or snowmelt that results in a measurable amount of surface runoff.

**SDDENR** – the South Dakota Department of Environment and Natural Resources.

**Secretary** – the Secretary of the South Dakota Department of Environment and Natural Resources, or an authorized representative.

**Section 303(d) List or 303(d) List** – a list of South Dakota's water quality-limited surface waters requiring the development of Total Maximum Daily Loads (TMDLs) to comply with Section 303(d) Report is available on the SDDENR website. A link to a map of 303(d) listed waters, waters with approved TMDLs is available on the SDDENR stormwater webpage.

**Stormwater** – means, for the purpose of this general permit, stormwater runoff, snowmelt runoff, or surface runoff.

**Stormwater Associated with Construction Activity** – means a discharge of pollutants in stormwater to surface waters of the state from areas where construction site or construction support activities occur.

**Stormwater Associated with Industrial Activity** – means stormwater runoff, snow melt runoff, or surface runoff and drainage from industrial activities as defined in 40 C.F.R. Section 122.26(b)(14) (July 1, 2016).

**Stormwater Pollution Prevention Plan** or **SWPPP** – means a site-specific, written document that, among other things: 1) identifies potential sources of stormwater pollution at the construction site; 2) describes control measures to reduce or eliminate pollutants in stormwater discharges from the construction site; and 3) identifies procedures the owner or operator will implement to comply with the terms and conditions of this general permit. See Section 5.0 for details on the requirements for a SWPPP.

**Surface Waters of the State** – lakes, ponds, streams, rivers, wetlands, and any other body or accumulation of water on the land surface that is considered to be waters of the state, but not waste treatment systems, including treatment ponds, lagoons, leachate collection ponds, or stormwater retention ponds designed to meet the requirements of the federal Clean Water Act.

Surface Water Quality Standards – water quality standards adopted pursuant to South Dakota Codified Law §§ 34A-2-10 and 34A-2-11 or actual existing beneficial uses, whichever is higher, and effluent standards adopted pursuant to SDCL § 34A-2-13 or pursuant to the best professional judgment of the Secretary, whichever is applicable. If waters have more than one designated beneficial use and criteria are established for a parameter that is common to two or more uses, such as pH, the more restrictive criterion for the common parameter applies.

**Temporary Stabilization** — means a condition where exposed soils or disturbed areas are provided a temporary vegetative and/or non-vegetative protective cover to prevent erosion and sediment loss. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb the area.

**Total Maximum Daily Load** or **TMDL** – means the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, and natural background. TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measures.

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**Upset** – an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits 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.

**U.S. EPA** – the United States Environmental Protection Agency.

Waters of the State – all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.

**Work Day** – means, for the purpose of this general permit, a calendar day on which construction activities will take place.

#### 2.0 COVERAGE UNDER THIS GENERAL PERMIT

#### 2.1 Eligibility Requirements

This general permit shall apply to stormwater discharges from construction sites located within the state of South Dakota. Only those projects that meet all of the following eligibility requirements may be covered under this general permit:

1. You are the owner or operator of the construction project for which discharge will be covered under this general permit. The owner must obtain coverage under this general permit and all operators at the site must comply with the permit conditions.

#### 2. Your project:

- a. Will disturb one (1) or more acres of land; or
- b. Will disturb less than one (1) acre of land but is part of a larger common plan of development or sale that will ultimately disturb one (1) or more acres of land; or
- c. Is less than one (1) acre, but has construction support activities required to be covered and the total area exceeds one (1) or more acres of land; or
- d. Has been designated by the Secretary or the United States Environmental Protection Agency (U.S. EPA) as needing a permit.
- 3. You have complied with all applicable requirements imposed by the applicable county, city, or other local government entities.
- 4. If your project will encroach, damage, or destroy a historic property included in the national register of historic places or the state register of historic places located in South Dakota, you must have approval from the South Dakota State Historic Preservation Office prior to submitting the Notice of Intent (NOI). You must attach an approval letter from the State Historic Preservation Office with the NOI.

#### 2.2 Discharges Authorized

The following discharges shall be authorized under this general permit:

- 1. Stormwater discharges from projects detailed in Section 2.1.2.
- 2. Stormwater discharges from construction support activities provided:
  - a. The support activity is directly related to the construction site required to have permit coverage;
  - b. The support activity does not continue to operate beyond the completion of the construction activity at the project it supports. If the support activity continues past the initial permitted project, you must obtain a separate permit for those activities;

- c. The support activity is included in the SWPPP as required by Section 5.0; and
- d. Control measures are implemented for discharges from the support activity area.
- 3. Stormwater construction discharges combined with discharges from an industrial source, as long as:
  - a. The industrial source is located on the same site as your construction activity; and
  - b. You may not combine stormwater discharges from industrial and construction activities unless each source is covered by its own permit, or are not required to obtain permit coverage.
- 4. Discharges to waters for which there is a total maximum daily load (TMDL) allocation for sediment, suspended solids, and turbidity are covered only if you develop a SWPPP that is consistent with the assumptions, allocations, and requirements in the approved TMDL. If a specific numeric wasteload allocation has been established that would apply to discharges from construction activity, the permittee must incorporate that allocation into the SWPPP and implement necessary steps to meet that allocation.

#### 2.3 Discharges Not Authorized

The following discharges are not authorized by this general permit:

- 1. **Post-Construction Discharges**. This general permit is not designed to address post-construction discharges after you have completed construction activities and achieved final stabilization at the site. Stormwater discharges associated with industrial activities must obtain coverage under a separate stormwater permit.
- 2. **Discharges Mixed with Non-Stormwater**. This general permit does not authorize discharges of non-stormwater.
- 3. **Discharges of Fill Material**. This general permit does not authorize you to discharge fill material into surface waters of the state. You are required to obtain a Section 404 federal Clean Water Act permit from the U.S. Army Corps of Engineers.
- 4. **Discharges Threatening Water Quality**. This general permit does not authorize your discharge from a construction site if the discharge will cause, or have the reasonable potential to cause or contribute to, violations of Surface Water Quality Standards. In such cases, the Secretary may deny you coverage under the general permit or require you to obtain an individual Surface Water Discharge permit.
- 5. **Discharges Threatening Endangered Species**. This general permit does not authorize your discharge from a construction site if the discharge will not ensure the protection of species that are federally-listed as endangered under the federal Endangered Species Act.

6. **Discharges of Regulated Substances**. This general permit does not authorize you to discharge regulated substances, hazardous substances, or oil resulting from onsite spills. You are subject to the federal reporting requirements of 40 CFR Part 110, Part 117, and Part 302 relating to spills or other releases of oils or hazardous substances. You must report spills in excess of the reportable quantities as required in Section 7.1.

#### 2.4 Requesting Permit Coverage

To request coverage under this general permit, you must submit a complete and accurate Notice of Intent (NOI) (Appendix A) to SDDENR at least **15 calendar days** prior to the commencement of construction activities at the site. <u>The NOI must be signed by the owner of the property where construction activities will occur.</u>

- 1. You must identify the person(s) responsible for day-to-day operations at the construction site, if different from the owner. A Contractor Authorization Form, included in Appendix C, must be submitted to SDDENR as soon as a contractor is identified if the contractor was not identified on the NOI.
- 2. You are not prohibited from submitting a late NOI. When you submit a late NOI, your authorization to discharge is only for discharges that occur after SDDENR grants coverage. SDDENR reserves the right to take appropriate enforcement action for any unpermitted discharges that may have occurred between the commencement of construction activities and the time authorization for your discharge is granted.
- 3. SDDENR will not process incomplete NOIs.
- 4. You must submit a completed and signed NOI to SDDENR by emailing the NOI to stormwater@state.sd.us, or mailing the NOI to SDDENR at the address in Section 7.3.
- 5. SDDENR will review each complete NOI and make a decision to grant or deny coverage or request additional information. You will receive an authorization letter from SDDENR if permit coverage is granted for your project.
- 6. Upon the effective date of this general permit, the Secretary will terminate the existing general permit.
  - a. If you are authorized under the existing general permit and you have submitted the Notice of Intent for Reauthorization Form (found in Appendix E) prior to permit expiration date, your coverage will automatically continue under the new general permit. Once the new general permit is issued, you will receive an authorization letter from SDDENR notifying you of the continued coverage.

b. Projects covered under the existing general permit must be in compliance with the conditions in the new general permit by **October 1, 2018.** You must still maintain compliance with all requirements in the existing general permit during the grace period. SDDENR may grant additional time on a case by case basis if necessary. To obtain such an extension, you must request it from SDDENR in writing.

#### 2.5 Transferring Permit Coverage

If a new owner purchases a construction site or a portion of the site covered under this general permit, you are responsible for notifying the new owner(s) of the general permit requirements and communicating the importance of achieving final stabilization on the site. You must transfer permit coverage to the new owner. Appendix D includes a form for transferring permit coverage for all or a portion of a project or development to a new owner.

#### **2.6** Terminating Permit Coverage

Until the Secretary terminates your coverage under this general permit, you are required to comply with all conditions and effluent limits in this general permit. To terminate coverage, you are required to submit a complete and accurate Notice of Termination (NOT), found in Appendix B, and signed in accordance with Section 7.4. You must submit the NOT within **30 calendar days** of meeting any one of the following conditions.

- 1. You have completed all earth-disturbing activities at your site and, if applicable, all construction support activities covered by this general permit, and you have met all the following requirements:
  - a. You have met the stabilization requirements listed in Section 3.19 and have reached final stabilization for any areas disturbed during construction and over which you had control during the construction activities;
  - b. You have removed and properly disposed of all temporary construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use on the site following termination of your general permit coverage;
  - c. You have removed and properly disposed of all temporary control measures, including silt fence, and of which you installed and maintained during construction, except those that are intended for long-term use following termination of your general permit coverage; and
  - d. You have removed all potential pollutants and pollutant-generating activities associated with construction.
- 2. You have obtained coverage under an individual or alternative general permit that addresses the discharges from the construction site.

#### 2.7 Reporting Requirements

On October 22, 2015, the U.S. EPA published in the federal register a rule that has made electronic reporting of permit and compliance monitoring information mandatory for all National Pollution Discharge Elimination System (NPDES) permits. These are referred to as Surface Water Discharge (SWD) permits in South Dakota. The final rule became effective December 21, 2015.

Phase II of the final rule requires that authorized state NPDES programs begin electronically collecting, managing, and sharing construction stormwater permitting information by December 21, 2020. This includes general permit reports such as Notices of Intent (NOI), Notices of Termination (NOT), and all other remaining NPDES program reports. SDDENR is currently developing programs to meet this requirement and will notify facilities as they become available.

Electronic reporting will be required once SDDENR has fully developed an electronic reporting system. In the interim, all general permit reports must be submitted by email (stormwater@state.sd.us), or to the address listed in Section 7.3.

A hybrid approach will be available for owners/operators that do not expect to submit NOIs for multiple projects. This approach will provide users the ability to electronically submit the data for construction stormwater general permit reports without using the electronic signature verification process. Following electronic submittal of the reports, a hard copy of the Certification of Applicant with an original signature must be mailed to SDDENR.

#### 2.8 Requiring an Individual Permit or an Alternative General Permit

SDDENR may either deny coverage or require you to apply for an individual Surface Water Discharge permit or an alternative general permit. In considering whether we deny coverage or require an alternative permit, the following will be taken into consideration:

- 1. You cannot comply with the conditions of this general permit;
- 2. There has been a change in the availability of demonstrated technologies or practices for the control or abatement of pollutants applicable to construction sites;
- 3. Effluent limitation guidelines are promulgated or revised for point sources covered by this general permit;
- 4. A water quality management plan is approved containing requirements applicable to your construction site;
- 5. Your discharge is a significant contributor of pollution to surface waters of the state or it presents a health hazard; or

6. You are discharging to an impaired water body and the best management practices are not sufficient to implement the assigned wasteload allocations in a Total Maximum Daily Load (TMDL) approved by the U.S. EPA.

#### 2.9 Continuation of Coverage for Expired General Permit

If you wish to continue to be covered by this general permit after its expiration date, you must submit a Notice of Intent for Reauthorization (Appendix E). An expired general permit continues in full force and effect until a new general permit is issued. You will continue to have coverage under the current general permit until a new general permit is issued.

#### 2.10 Requirement to Post Notice of Your General Permit Coverage

You must post a sign or other notice at a safe, publicly accessible location near the project site.

- 1. At a minimum, your notice must include the general permit tracking number (found on the cover page of your general permit and in the authorization letter) and a contact name and phone number for obtaining additional project information.
- 2. The notice must be located so that it is visible from the public road that is nearest to the active part of the construction site and must be readily viewed from a public right-of-way.

#### 2.11 Property Rights

- 1. The Secretary's issuance of this general permit, adoption of design criteria, and approval of plans and specifications, does not convey any property rights of any sort, any exclusive privileges, any authorization to damage, injure or use any private property, any authority to invade personal rights, any authority to violate federal, state or local laws or regulations, or any taking, condemnation or use of eminent domain against any property owned by third parties.
- 2. The State does not warrant that your compliance with this general permit, design criteria, approved plans and specifications, and operation under this general permit, will not cause damage, injury or use of private property, an invasion of personal rights, or violation of federal, state or local laws or regulations. You are solely and severally liable for all damage, injury or use of private property, invasion of personal rights, infringement of federal, state or local laws and regulations, or taking or condemnation of property owned by third parties, that may result from actions taken under this general permit.

#### 2.12 Reopener Provisions

SDDENR may reopen and modify this general permit to include appropriate conditions (following proper administrative procedures) if state or federal statutes or regulations change.

#### 2.13 Severability

If any portion of the general permit is found to be void or is challenged, the remaining permit requirements shall remain valid and enforceable.

#### 2.14 Permit Actions

This general permit may be modified, revoked and reissued, or terminated by the Secretary for cause. Any request for such changes does not stay any permit condition.

#### 3.0 EFFLUENT LIMITS

You are required to comply with the following effluent limits for discharges from your construction site and/or from construction support activities representing the degree of effluent reduction attainable through the best practicable control technology currently available to minimize the pollutants present in the discharges. In order to achieve compliance with the conditions of this permit, you are required to address the following effluent limits by developing a Stormwater Pollution Prevention Plan (SWPPP) as required in Section 5.0. If you determine any of the following limits are infeasible, you must document your rationale in your SWPPP.

Stormwater discharges regulated under this general permit that may discharge to a surface water with an approved TMDL for sediment, total suspended solids, or turbidity must be consistent with the TMDL and any associated wasteload allocation (WLA) for construction or stormwater related discharges. In most cases compliance with this permit will be considered adequate, unless otherwise notified by the Secretary. The Secretary may require an individual permit, as referenced in Section 2.8, should compliance with this general permit be deemed insufficient to meet relevant WLAs.

#### 3.1 Proper Operation and Maintenance

You must properly operate and maintain all sediment and erosion controls, best management practices, treatment systems, and any other control(s) used to achieve compliance with the conditions of this general permit in accordance with manufacturer's specifications, good engineering practices, and design specifications of the SWPPP.

#### 3.2 Erosion and Sediment Control Requirements

- 1. You must design, install, and maintain effective erosion and sediment controls to minimize soil erosion and the discharge of pollutants during earth-disturbing activities. The stormwater controls must be designed to function properly and withstand a 2-year, 24-hour precipitation event. See Appendix F for instructions to determine your construction site's precipitation for a 2-year, 24-hour event.
- 2. You must account for the following factors when designing your erosion and sediment controls:
  - a. The nature of resulting stormwater runoff and run-on at the construction site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. Controls must be able to control stormwater volume, velocity, and flow rates from a 2-year, 24-hour precipitation event across the construction site.
  - b. Anticipated soil characteristics at the construction site, including soil type and range of particle sizes.

#### 3.3 Installation Requirements

- 1. You must complete installation of down gradient erosion and sediment controls before any land disturbing activity takes place in order to control discharges.
- 2. You must install all other control measures planned for each phase of the project as described in your SWPPP as soon as conditions on the site allow.
- 3. You must install all control measures using good engineering practices and follow the manufacturer's specifications. Any departures from the manufacturer's specifications must reflect good engineering practices and must be explained in your SWPPP.

#### 3.4 Perimeter Controls

You must have effective down gradient sediment controls, and controls for any side slope boundaries deemed appropriate for individual site conditions, to minimize pollutant discharges from the construction site.

#### 3.5 Sediment Basins

If you use a sediment basin to control the discharge of sediment from the site, you must meet the requirements listed below.

- 1. Sediment basins must be designed, constructed, and operated in accordance with the requirements found in your local city or county drainage board.
- 2. Outlet structures must withdraw water from the surface of the sediment basin or impoundment to allow for proper sediment removal in the pond.
- 3. Erosion controls and velocity dissipation devices must be used to prevent erosion within the sediment basin as well as at inlets and outlets from the basin.
- 4. Sediment basins must be situated outside of surface waters and any natural buffers established under Section 3.10. The basins must be designed to avoid collecting water from wetlands and other water bodies.

#### 3.6 Minimize Sediment Track-Out

You must minimize the track-out of sediment from the construction site where vehicles leave the site. To comply with this requirement, you must:

- 1. Restrict vehicle use to properly designated access points;
- 2. Use appropriate stabilization techniques at all construction site access point(s) so sediment removal occurs prior to vehicle exit.
- 3. Where sediment has been tracked out from your site onto offsite streets, other paved areas, and/or sidewalks, remove the deposited sediment by the end of the same work

day in which the track-out occurs. You must remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked-out sediment into storm drain inlet, surface waters of the state, or any stormwater conveyance unless the conveyance is connected to a sediment basin, sediment trap, or similar effective control. You must obtain approval from the owner of the sediment traps before hosing or sweeping sediment into those controls.

#### 3.7 Remove Offsite Accumulation

If sediment escapes the construction site, you must initiate removal of the offsite accumulations to minimize impacts by the end of the same work day. You must revise your SWPPP and implement controls to minimize further offsite accumulation.

#### 3.8 Minimize Dust

You must minimize the generation of dust at the construction site to avoid pollutants from being deposited into surface waters of the state. This can be accomplished through the appropriate application of water or other dust suppression techniques.

#### 3.9 Minimize Run-on

You must minimize run-on to your construction site.

#### 3.10 Provide Natural Buffers

You must comply with the following requirements if disturbed portions of the construction site are within fifty (50) feet of 1) a lake assigned immersion recreation or limited contact recreational beneficial uses in ARSD 74:51:02:02 and listed in ARSD 74:51:02:04; or 2) a river or stream assigned any of the warmwater or coldwater fish life propagation beneficial uses in ARSD 74:51:03:02 and listed in ARSD 74:51:03:04 to 74:51:03:27, inclusive.

- 1. Provide and maintain a 50-foot undisturbed natural buffer.
  - a. When the natural buffer between the disturbed area(s) and surface waters of the state is less than fifty (50) feet, you must provide a combination of undisturbed buffer and supplemental erosion and sediment controls that achieves the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.
  - b. When no undisturbed buffer can be provided between the disturbed area(s) and surface waters of the state, you must provide erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.
  - c. Document in your SWPPP how any undisturbed natural buffer and the supplemented erosion and sediment controls achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

- 2. Direct surface runoff to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges.
- 3. Delineate and clearly mark all natural buffer areas with flags, tape, or other similar marking device. No construction or other activity should occur in the delineated buffer area.
- 4. **Exception.** You are not required to maintain a 50-foot undisturbed natural buffer or install additional controls if there is no discharge of stormwater to surface waters of the state through the area between your site and the surface waters. This includes situations where you have implemented control measures, such as a berm or other barrier, to prevent such discharges.

#### 3.11 Preserve Topsoil

You must preserve native topsoil on your site, unless infeasible. Preserving topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed.

#### 3.12 Minimize Steep Slope Disturbance

You must minimize the disturbance of slopes that are greater than a three horizontal to one vertical (3:1) slope, unless infeasible.

#### 3.13 Protect Storm Drain Inlets

- 1. You must protect all storm drain inlets that receive stormwater flows from the construction site by using appropriate best management practices during construction to minimize the discharge of pollutants from the site.
- 2. You must maintain the inlet protection until you have permanently stabilized all sources that have the potential to discharge pollutants to the inlet. If local officials require you to remove the inlet controls during the winter, you must install alternative controls to prevent sediment from entering the storm drain inlet.

#### 3.14 Erosive Velocity Control

- 1. You must use erosion controls and velocity dissipation devices where necessary along the length of stormwater conveyance channels and outlets to minimize erosion of the channel, adjacent stream bank, slope, and downstream waters.
- 2. You must provide energy dissipation BMPs prior to connecting pipe or culvert outlets to surface water.
- 3. You must control the stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points.

#### 3.15 Minimize Soil Compaction

In areas of your site where final vegetative stabilization or infiltration will occur, you must either:

- 1. Restrict vehicle and equipment use in these locations to avoid soil compaction; or
- 2. Condition areas of compacted soil prior to seeding or planting to support vegetation growth.
- 3. **Exception.** You are not required to minimize soil compaction where the intended function of a specific area of the site dictates that soil be compacted.

#### 3.16 Minimize Exposed Soil

You must schedule and sequence soil disturbing and stabilizing activities to minimize the amount and duration of soil exposure to erosion and sedimentation by wind, rain, surface runoff, and vehicle tracking. Consider factors such as high precipitation seasons when scheduling soil disturbing activities.

#### 3.17 Protect Stockpiles

For any stockpiles or land clearing debris you must:

- 1. Locate the stockpiles and debris outside of any natural buffers established as required in Section 3.10 and away from any stormwater conveyances, drain inlets, and areas where stormwater flow is concentrated:
- 2. Protect the stockpiles debris from contact with stormwater run-on by using temporary sediment controls, berms, or other BMPs;
- 3. Properly maintain and position stockpiles to minimize dust generation and wind transport of sediment; and
- 4. Minimize stormwater runoff from the piles by properly positioning stockpiles and debris or installing effective sediment controls.
- 5. You are prohibited from placing stockpiles in surface waters of the state.

#### 3.18 Stabilization Requirements

You are required to stabilize exposed portions of your site in accordance with the requirements of this section. You are responsible for implementing winter stabilization methods during frozen ground conditions if the site was not stabilized prior to the ground freezing.

1. **Deadline to Initiate Stabilization.** You must begin soil stabilization measures by the following work day whenever earth-disturbing activities have permanently or temporarily ceased on any portion of the site.

- a. Earth-disturbing activities have permanently ceased when you complete clearing, grading, and excavation within any area of your site that will not include permanent structures.
- b. Earth-disturbing activities have temporarily ceased when you cease clearing, grading, and excavation within any area for a period of at least **14 calendar days**, but will resume such activities in the future.
- 2. **Deadline to Complete Temporary Stabilization**. As soon as practicable, but no later than **14 calendar days** after initiating soil stabilization measures, you are required to have completed:
  - a. All activities necessary to initially seed or plant the area to be stabilized for vegetative stabilization practices.
  - b. The installation or application of all non-vegetative measures.
  - c. As soon as practicable after seeding or planting, select, design, and install non-vegetative erosion controls (e.g., mulch or rolled erosion control products) to prevent erosion on the seeded or planted areas while vegetation establishes.
- 3. **Criteria for Final Stabilization**. To be considered as having reached final stabilization, you must meet the criteria below based on the type of cover you are using.
  - a. **Vegetative Stabilization**. If you are seeding or planting vegetation to stabilize the site, you must meet the following requirements:
    - i. Provide 70 percent or more of the density of coverage that was provided by vegetation prior to commencement of construction activities.
    - ii. Provide perennial vegetative cover.
    - iii. Minimize the presence of invasive species.
  - b. **Non-Vegetative Stabilization**. If you are using non-vegetative controls for final stabilization at your site, the controls must provide effective cover to properly stabilize the exposed portions of your site.
  - c. Return to Pre-construction Agricultural Land Use. For construction projects on land used for agricultural purposes, final stabilization may be accomplished by returning the disturbed land to its pre-construction agricultural use. Areas disturbed that were not previously used for agricultural purposes, such as buffer strips immediately next to surface waters and areas not being returned to preagricultural use must meet the final stabilization criteria listed in (a) and (b) above.

- 4. **Site Specific Stabilization Requirements**. If you are constructing in the specific areas listed below, you must complete the following stabilization requirements as soon as practicable, but no later than the deadlines listed below after initiating soil stabilization measures:
  - a. Stream diversions or drainage ditches that divert water around or drain water from your construction site must be stabilized with appropriate controls prior to connection with any surface water.
  - b. For stockpiles that will be unused for 14 or more days, provide cover or appropriate temporary stabilization consistent with Section 3.18.

#### 3.19 Maintenance Requirements

- 1. **Effective operating condition.** You must ensure that all erosion and sediment controls remain in effective operating condition until final stabilization is complete. At a minimum, you must:
  - a. Remove sediment from sedimentation basins when the design capacity has been reduced by 50% or more.
  - b. Remove sediment from sediment controls before the deposit reaches 50% of the above-ground height of the control.
  - c. Repair vegetative buffers if they become silt-covered, contain rills, or are otherwise rendered ineffective.
  - d. You must repair and stabilize eroded areas by the end of the same work day they are identified. If repair is infeasible, you must implement alternative control measures.
  - e. Clean inlet protection devices when sediment accumulates, or when the filter becomes clogged, or performance is compromised.
  - f. Ensure that all controls remain in effective operating condition and are protected from activities that would reduce their effectiveness.
  - g. All nonfunctional BMPs must be repaired, replaced, maintained or supplemented with functional BMPs. If a nonfunctioning BMP is supplemented, the nonfunctional BMP shall be removed.

- 2. **Deadline for maintenance.** If you find a problem or if your inspections identify that control measures are not operating effectively, you must make the necessary repairs or modifications as follows:
  - a. If you discover a problem that does not require repair or replacement, you must initiate work to fix the problem on the same day. If the problem is identified at a time in the work day when it is too late to complete the corrective actions, you must initiate work to fix the problem on the following work day or before the next anticipated runoff event, whichever comes first.
  - b. If you need to install new erosion or sediment controls or need to complete repairs, you must complete the work before the next anticipated runoff event or by no later than seven (7) calendar days from the time the problem is discovered, whichever comes first.
  - c. You must modify your SWPPP within seven (7) calendar days of completing the work. The SWPPP must address any changes to the controls and must detail the necessary steps to prevent similar damage in the future.

#### 3.20 Pollution Prevention Procedures

You must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants from the activities listed below. Spills must be reported as required in Section 7.1 of this general permit.

- 1. **Prohibited Discharges.** You are prohibited from discharging the following from your construction site:
  - a. Wastewater from washout and cleanout of concrete, stucco, paint, form release oils, curing compounds, and other construction materials.
  - b. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
  - c. Detergents, soaps, or solvents used in vehicle and equipment washing.
  - d. Toxic or hazardous substances from a spill or other release.
  - e. Waste, garbage, floatable debris, construction debris, and sanitary waste.
- 2. **Fueling and Maintenance of Equipment or Vehicles**. If you fuel or maintain equipment or vehicles at your site, you must minimize the discharge of spilled or leaked materials from the area where these activities take place.
- 3. Washing of Equipment and Vehicles. You must provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of washing. The washing must be limited to a defined area of the site and must be properly disposed.

- 4. Management of Construction Products, Chemicals, Materials, and Wastes. You must properly store, handle, and dispose of any construction products and materials, chemicals, landscape materials, and wastes in order to minimize the exposure to stormwater. Products or wastes that are either not a source of contamination to stormwater or are designed to be exposed to stormwater are not held to this requirement. Requirements are as follows:
  - a. You must cover or otherwise protect any materials that have the potential to leach pollutants in order to minimize contact with stormwater and prevent the discharge of pollutants.
  - b. Clean up spills by the end of the same work day in which the spill occurred, using dry clean-up methods where possible, and dispose of used materials properly. Do not clean surfaces or spills by hosing the area down. Eliminate the source of the spill to prevent a discharge or continuation of an ongoing discharge.
  - c. For registered pesticides and fertilizers, you must comply with all application and disposal requirements included on the label. Pesticides and fertilizers must be stored under cover or other effective means designed to minimize contact with stormwater. You must document any departures from the manufacturer's specifications for applying fertilizers and pesticides.
  - d. Store all diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals and products in water-tight container.
  - e. Hazardous or toxic wastes that may be present at construction sites include, but are not limited to, paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids, and alkaline materials. For these materials and wastes, you must:
    - i. Separate hazardous or toxic wastes and materials from construction and domestic waste.
    - ii. Store hazardous or toxic wastes and materials in sealed containers and provide secondary containment as applicable. These containers must be constructed of suitable materials to prevent leakage and corrosion. These containers must be labeled in accordance with the applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, or local requirements.
    - iii. Dispose of hazardous or toxic wastes in accordance with the manufacturer's recommended method of disposal and in compliance with federal, state, and local requirements.

- f. You must provide effective containment for all liquid and solid wastes generated by washout operations including, but not limited to, concrete, stucco, paint, form release oils, curing compounds, and other construction materials related to the construction activity. For these materials and wastes, you must comply with the following requirements:
  - i. Designate areas to be used for washout and cleanout activities. The containment must be designed so that it does not result in runoff from washout operations or during runoff events;
  - ii. Install signs adjacent to each washout facility directing site personnel to use the proper facilities for concrete disposal and other washout wastes;
  - iii. Direct all wash water into a leak-proof container or leak-proof pit;
  - iv. Do not dump liquid wastes in the storm sewers; and,
  - v. Clean up and properly dispose of any accumulated wastes in designated waste containers.
- g. You must provide proper waste disposal receptacles of sufficient size and number to handle construction wastes including, but not limited to, packaging materials, scrap construction materials, masonry products, timber, pipe, and electrical cuttings, plastics, Styrofoam®, concrete, and other trash or building materials.
  - i. For sanitary waste, you must position portable toilets so they are secure and will not be tipped or knocked over. You must properly remove and dispose of wastes from the portable toilets.

#### 3.21 Construction Dewatering

You are prohibited from discharging from dewatering activities, including discharges from dewatering of trenches and excavation, unless the discharges are managed by the following controls:

- 1. You shall not discharge toxic pollutants in toxic amounts.
- 2. Your discharge shall not impart a visible film or sheen to the surface of the receiving water or adjoining shoreline.
- 3. Your discharge shall not contain visible pollutants. You must visually monitor the discharge for suspended solids. If you observe suspended solids in the discharge, you must implement the following requirements:
  - a. You must install additional best management practices and update your stormwater pollution prevention plan to reduce the visible solids.

- b. You must sample the dewatering discharge for total suspended solids on a daily basis until there is no longer a discharge of visible solids. The samples must be analyzed in accordance with Title 40 of the Code of Federal Regulations, Part 136. If the total suspended solids value exceeds 53 mg/L in any sample or measurement, you must cease the dewatering discharge to surface waters of the state until you can demonstrate the additional best management practices are sufficient to eliminate the visible pollutants. You must also document this in your stormwater pollution prevention plan (SWPPP).
- 4. You must use best management practices to minimize or prevent stream channel scouring or erosion caused by dewatering discharges.
- 5. You cannot add chemicals to the discharge without prior approval from SDDENR.
- 6. You must obtain a Temporary Water Right. Contact SDDENR Water Rights Program at (605) 773-3352 for more information and to obtain a temporary water right.

#### 4.0 INSPECTION REQUIREMENTS

You are required to conduct site inspections to determine the effectiveness of your control measures and your compliance with the conditions of the general permit.

#### 4.1 Person(s) Responsible for Inspecting the Site

The person(s) inspecting your site may be a member of your staff or a third party you hire to conduct the inspections. You are responsible for ensuring the person who conducts the inspection is knowledgeable in the principles and practice of erosion and sediment controls and pollution, possesses the skills to assess conditions at the site that could impact stormwater quality, and is able to assess the effectiveness of any control measures selected and installed to meet the requirements of the general permit.

#### 4.2 Frequency of Inspections

At a minimum, you must conduct a site inspection at the following frequencies:

- 1. Once every 7 calendar days; or
- 2. Once every 14 calendar days **and** within 24 hours of precipitation that exceeds 0.25 inches or snowmelt that generates runoff. You must keep a properly maintained rain gauge on your site.

#### **4.3** Reduction of Inspection Frequency

You may reduce your inspection frequency from the requirements above under the following circumstances. You must document the beginning and ending dates of these periods in your inspection records.

- 1. **Partial final stabilization.** You may reduce the frequency of inspections to once per month on any portion of your site where you have reached final stabilization. If construction activity resumes in this portion at a later date, you must increase the frequency as required in Section 4.2 above.
- 2. **Frozen conditions.** If you are suspending earth-disturbing activities due to frozen conditions and all disturbed areas of the site have been temporarily or permanently stabilized as required in Section 3.19, you shall conduct inspections at least once per month. You must resume weekly inspections by no later than March 1<sup>st</sup> of each year until your site is permanently stabilized and you have submitted a Notice of Termination (NOT) in accordance with Section 2.6.

#### 4.4 Areas that Need to Be Inspected

During your site inspections you must, at a minimum, inspect the following areas:

1. All areas that have been cleared, graded, or excavated and have not yet reached final stabilization:

- 2. All sediment and erosion control measures and best management practices, including inlet protection;
- 3. Vegetated buffers;
- 4. Stockpiles, chemical and fuel storage, fertilizer and pesticide storage and other material, waste, borrow, and/or equipment storage and maintenance areas;
- 5. All areas where stormwater typically flows within the site, including drainage ways designed to divert, convey, and/or treat stormwater;
- 6. All points of discharge from the site including surface waters, drainage ditches, and conveyance systems; and,
- 7. All dewatering activities at the site.
- 8. **Exception.** You are not required to inspect areas that, at the time of the inspection, are unsafe for your inspection personnel. A detailed description of the situation must be documented in your inspection records explaining the reason the site conditions prevented the inspection.

#### 4.5 Requirements for Inspections

During your site inspections you must, at a minimum:

- 1. Check whether all erosion and sediment controls and best management practices are implemented and functioning to minimize pollutant discharges. Determine if you need to replace, repair, or maintain any controls.
- 2. Check for spills, leaks, or other accumulation of pollutants on the site, or for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on site. Determine if you need to install additional controls or take corrective actions to prevent the discharge of these pollutants.
- 3. Determine if site conditions have changed and if current controls are still effective in controlling pollutants from leaving your site. Identify any locations where new or modified control measures are necessary.
- 4. Check for signs of erosion, scour, and sediment deposits that have occurred on or off the construction site:
  - a. Inspect the discharge points and, where applicable, the banks of any surface waters of the state flowing within your property boundaries or immediately adjacent to your property.
  - b. Identify areas where you need to correct erosion and remove sediment.

- c. Determine if you need controls to reduce the velocity of the discharge or prevent further erosion and sedimentation.
- 5. If a discharge is occurring during your inspection, you are required to:
  - a. Identify all points of the property where there is a discharge;
  - b. Observe and document the visual quality of the stormwater discharge and note the characteristics of the discharge, including color, odor, floating, settled, or suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollutants; and
  - c. Document whether your control measures are operating effectively. Describe any controls that are not clearly operating as intended or are in need of maintenance.
- 6. Identify all incidents of noncompliance that you observe.
- 7. Based on the results of your inspection, you must initiate corrective action(s) where needed.

#### 4.6 Inspection Report

You must complete an inspection report in conjunction with each site inspection.

- 1. Each inspection report must be maintained in accordance with the requirements in Section 7.3 and must include the following information;
  - a. Date and time of the inspection.
  - b. Names and titles of the personnel conducting the inspection.
  - c. Date and amount of most recent precipitation event, as well as if runoff was flowing onsite and/or offsite at the time of the inspection.
  - d. A summary of your inspection findings, covering, at a minimum, the observations you made as required in Sections 4.4. and 4.5;
  - e. Specific locations where maintenance, additional best management practices, cleanup, or corrective action is needed;
  - f. The results of the total suspended solids levels in any dewatering discharge, as required by Section 3.21; and
  - g. A summary of any corrective actions taken in response to the inspection findings, including any changes made to the SWPPP.

- 2. If you have determined it is unsafe to inspect a portion of your site, you must describe the reason(s) you found it to be unsafe and specify the locations that were not inspected.
- 3. If an inspection does not identify any incidents of noncompliance, you must include a statement in the report that the site is in compliance with the SWPPP and the general permit.
- 4. You must sign and certify each inspection report in accordance with the signatory requirements found in Section 7.4.

#### 5.0 STORMWATER POLLUTION PREVENTION PLAN

You must develop a stormwater pollution prevention plan, also referred to as a "SWPPP," to be covered under this general permit. Stormwater management documents developed under other regulatory programs may be included or incorporated by reference in the SWPPP, or used in whole as a SWPPP if it meets the requirements of this section.

#### **5.1** SWPPP Deadlines

1. You must develop the SWPPP **prior** to the submittal of the NOI.

Note: If you were covered under the February 1, 2010, general permit and reauthorized under this general permit, you must update your SWPPP to comply with the conditions of this general permit by **October 1, 2018**.

2. You must implement and maintain the SWPPP for any construction activity requiring this general permit until final stabilization is reached.

#### **5.2 TMDL**

For projects that discharge stormwater to a water body listed as impaired under section 303(d) of the Federal Clean Water Act due to sediment, suspended solids, or turbidity, you must identify the water body and impairment in the SWPPP. Your SWPPP must describe and conform to any Wasteload Allocation (WLA) for the water body as required in Section 2.2.4

#### **5.3 SWPPP** Contents

You must develop your SWPPP to ensure compliance with the effluent limits in Section 3.0. Your SWPPP must include the following information, at a minimum.

- 1. **Personnel**. Your SWPPP must identify those person(s), by name or position, who are knowledgeable and experienced in the application of erosion and sediment control BMPs and who are responsible for the development and implementation of any portion of the SWPPP, for any later modifications to the SWPPP, and for compliance with the requirements of this general permit.
- 2. Staff Training. The SWPPP shall outline how employees and responsible parties shall be trained on the implementation of the SWPPP. Training must be provided at least annually, as new employees or responsible parties are hired, or as necessary to ensure compliance with the SWPPP and this general permit. Employees and responsible parties include individuals who are responsible for conducting inspections or for the design, installation, maintenance, or repair of stormwater controls.
- 3. **Description of Construction Activities**. Your SWPPP must include a narrative description of the nature of your construction activities, including the following:

- a. A description of the overall project and type of construction activities to occur on the site and a description of the final completed project;
- b. The total size of the project and total area expected to be disturbed by construction activities;
- c. The maximum area expected to be disturbed at any one time;
- d. Description of the existing vegetation at the site and an estimate of the percent of vegetative ground cover;
- e. A description of the soil within the disturbed areas;
- f. The name of the surface waters or municipal separate storm sewer system at or near the disturbed area that could potentially receive discharges from the project site;
- g. Any construction support activity areas; and,
- h. The intended sequence and estimated dates of construction activity for the following:
  - i. Implementation of BMPs, including when they will be operational and an explanation of how you will ensure the control measures are installed by the time each phase of earth-disturbing activity begins.
  - ii. Commencement and duration of earth-disturbing activities, including clearing and grubbing, mass grading, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization.
  - iii. Cessation, temporary or permanent, of construction activities on the site or in designated portions of the site.
- 4. **Site Map.** You must include a legible site map depicting the following features and boundaries of the project:
  - a. Pre-construction site conditions, including existing vegetative and non-vegetative cover (e.g. forest, pasture, pavement, structures, etc.);
  - b. Locations where earth-disturbing activities will occur, noting any phasing of construction activities;
  - c. Approximate slopes before and after major grading activities. Note areas with a slope greater than three horizontal to one vertical (3:1);
  - d. Topography of the site;

- e. Drainage patterns of stormwater and authorized non-stormwater flows from the site property before and after major grading activities. Mark the flow direction with arrows on the map.
- f. Locations and names, where appropriate, of all surface waters of the state that exist within or in the immediate vicinity of the site and could potentially receive discharges from the project site.
- g. Locations of any surface water crossings, noting areas where work near waterbodies is necessary;
- h. Location of any stormwater conveyances including, but not limited to, sediment ponds, ditches, pipes, swales, stormwater diversions, culverts, and ditch blocks;
- i. Discharge locations, including locations of any storm drain inlets on or in the immediate vicinity of the site that could potentially receive discharges from the project site;
- j. Locations where stormwater or allowable non-stormwater will be discharged to surface waters of the state on or in the immediate vicinity of the site.
- k. Locations where sediment, soil, or other construction materials will be stockpiled;
- 1. Designated site access points;
- m. Locations of structures and other impervious surfaces upon completion of construction;
- n. Natural buffer boundaries and widths;
- Locations of fueling activity, vehicle and equipment maintenance areas, designated wash water collection areas, lubricant and chemical storage, paint storage, material storage, staging areas, and debris collection areas;
- p. Locations of all activities that could potentially generate pollutants at the site, such as dumpsters, chemical storage, construction site washout, portable toilets, or equipment storage.
- q. Location and types of all sediment and erosions controls, velocity dissipation devices, post-construction controls, and all other BMPs used on the site.
- r. Locations of construction support activities covered by this general permit.
- 5. **Description and Maintenance of Control Measures.** Your SWPPP must include a narrative description of the erosion and sediment control measures that will be implemented during construction at your site to meet the conditions of this general permit. For each control measure you must provide a narrative on the following:

- a. A timeframe for the installation, maintenance, and removal (if necessary) of all selected BMPs for each phase of construction activity;
- b. Your rationale for the selection of all BMPs, including calculations as necessary;
- c. Whether selected BMPs are temporary or permanent;
- d. A description of maintenance specifications and procedures;
- e. A description of structural diversion practices intended to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site;
- f. A description of the removal of any temporary stormwater conveyance; and
- g. A description of the temporary and final stabilization of areas of exposed soil where construction activities have been completed or temporarily ceased. Your SWPPP must describe the specific vegetative and/or non-vegetative practices you will use to comply with the stabilization requirements in Section 3.19, along with the reasons for choosing each practice.
- 6. **Procedures for Inspections.** The SWPPP must describe the procedures you will follow for conducting site inspections and, where necessary, taking corrective actions. The following information must also be included in your SWPPP:
  - a. Personnel responsible for conducting inspections;
  - b. Required frequency of inspections;
  - c. Rationale for reduction of inspection frequency; and,
  - d. Any inspection checklists or other forms that you will use.
- 7. **Post Construction Stormwater Management.** You must identify stormwater management practices that will be installed during the construction process to control pollutants in stormwater discharges occurring after construction operations have been completed. Maintenance for onsite stormwater management features is the responsibility of the permittee until the NOT is submitted or the feature is accepted by the party responsible for long term maintenance. The following information must be included in your SWPPP:
  - a. An explanation of the technical basis used to select the practices to control pollution where flows exceed pre-development levels;
  - b. A description of structural stormwater management practices such as stormwater ponds, open vegetated swales, natural depressions to allow

- infiltration of runoff onsite, and sequential systems that combine several practices or other post construction stormwater management features; and
- c. The location of velocity and energy dissipation devices placed at discharge points and appropriate erosion protection for outfall channels and ditches.

#### 8. Pollution Prevention Procedures

- a. **Spill Prevention and Response Procedures**. Your SWPPP must describe the procedures you will follow to prevent and respond to spills and leaks, including:
  - Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. The SWPPP must identify the name or position of the employee(s) responsible for detection and response of spills and leaks;
  - ii. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies as required by Section 7.1; and.
  - iii. Ways to prevent reoccurrence of such releases and steps to prevent any such releases from contaminating stormwater runoff. The SWPPP shall be modified and changes implemented as appropriate.
- b. Waste Management Procedures. The SWPPP must describe procedures for how you will handle and dispose of all wastes generated at your site, including, but not limited to, clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

#### 9. Construction Site Pollutants

- a. You must include information in your SWPPP about all activities that could generate pollutants at your site. Examples of pollutant-generating activities include, but are not limited to: paving operations; concrete, paint, and stucco washout; solid waste storage and disposal; storage of fertilizers, pesticides, solvents, fuels, and soils. You must include in your SWPPP a description of the removal of construction equipment and vehicles and any cessation of any pollutant generating activities.
- b. You must include an inventory of the pollutants and chemicals associated with your construction activity and consider where potential spills and leaks could occur.
- c. If SDDENR approves the use of water treatment chemicals, your SWPPP must include:

- i. A listing of all water treatment chemicals planned for use at the site and why these chemicals were selected;
- ii. The proper dosage and method of application for all water treatment chemicals;
- iii. All applicable Safety Data Sheets (SDS) for chemicals planned to be used;
- iv. Schematic drawings of any controls or treatment system used for the application of the water treatment chemicals;
- v. A description of how the chemicals will be stored;
- vi. Copies of the applicable manufacturer's specifications regarding the use of the water treatment chemicals and chemical treatment systems;
- vii. A description of the training that personnel who handle, apply, or store the chemicals have received or will receive prior to the use of water treatment chemicals and chemical treatment systems;
- viii. A description of safe handling, spill prevention, and spill response procedures; and
- ix. A copy of the approval letter from SDDENR, approving the use of the water treatment chemicals and/or chemical treatment system.
- 10. **Non-Stormwater Discharges.** You must identify in your SWPPP all sources of non-stormwater discharges.
- 11. **Infeasibility Documentation.** If you determine it is infeasible to comply with any of the requirements of this general permit, you must thoroughly document your rationale in your SWPPP.

#### 5.4 SWPPP Certification

You must sign and date your SWPPP as required by Section 7.4.

#### **5.5** Required SWPPP Modifications

- 1. **Conditions Requiring SWPPP Modification**. You must modify your SWPPP, including the site map(s), in response to any of the following conditions:
  - a. When you have a new operator responsible for implementation of any part the SWPPP.
  - b. When you make changes to your construction plans, sediment and erosion control measures, or any best management practices at your site that are no longer accurately reflected in your SWPPP. This includes changes made in response to corrective actions triggered by inspections.

- c. To reflect areas on your site map where operational control has been transferred (including the date of the transfer) or has been covered under a new permit since initiating coverage under this general permit.
- d. If inspections by site staff, local officials, SDDENR, or U.S. EPA determine that SWPPP modifications are necessary for compliance with this general permit.
- e. To reflect any revisions to applicable federal, state, or local requirements that affect the control measures implemented at the site.
- f. If approved by the Secretary, to reflect any changes in chemical water treatment systems or controls, including the use of a different water treatment chemical, different dosage rates, or different areas or methods of application.
- 2. **Deadlines for SWPPP Modification**. You must complete the required revisions to the SWPPP within 7 calendar days following any of the items listed above.
- 3. **Documentation of Modifications to the Plan**. You are required to maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change and a brief summary of all changes.
- 4. **Certification Requirements**. All modifications made to your SWPPP must be signed and certified as required in Section 7.4.
- 5. **Required Notice to Other Operators**. If there are multiple operators at the site, you must notify each operator that may be impacted by the change to the SWPPP within 24 hours.

#### 6.0 SPECIAL CONDITIONS

#### 6.1 Qualified Local Programs

- To receive approval as a qualified local program, SDDENR will review the local requirements to ensure they comply with both state and federal requirements. SDDENR may authorize minor variations and alternative standards in lieu of the specific conditions of the general permit based upon the unique comprehensive control measures established in the qualifying local program. SDDENR will review each qualifying local program for recertification during the renewal of its municipal separate storm sewer system permit.
- 2. If a construction site is within the jurisdiction of a qualifying local program, the operator shall submit a Notice of Intent (NOI) to SDDENR to be covered under the general permit and comply with all requirements of the qualifying local program. Compliance with the qualifying local program requirements is deemed to be compliance with this general permit. A violation of qualifying local program requirements is also a violation of this general permit.
- 3. At this time only the City of Sioux Falls is meeting SDDENR's minimum requirements. If additional municipalities are approved as a Qualifying Local Program in the future, a modification to this general permit will be offered for public comment in the municipality's local newspaper.

#### 7.0 REPORTING AND RECORDKEEPING REQUIREMENTS

#### **7.1** Emergency Spill Notification

- 1. You must report a release or spill of a regulated substance (including petroleum and petroleum products) to SDDENR as soon as you become aware of it if any one of the following conditions exists:
  - a. The release or spill threatens or is in a position to threaten waters of the state (surface water or ground water);
  - b. The release or spill causes an immediate danger to human health or safety;
  - c. The release or spill exceeds 25 gallons;
  - d. The release or spill causes a sheen on surface water;
  - e. The release or spill of any substance that exceeds the ground water quality standards of ARSD Chapter 74:54:01;
  - f. The release or spill of any substance that exceeds the surface water quality standards of ARSD Chapter 74:51:01;
  - g. The release or spill of any substance that harms or threatens to harm wildlife or aquatic life;
  - h. The release or spill of crude oil in field activities under SDCL chapter 45-9 is greater than 1 barrel (42 gallons); or
  - i. The release or spill is required to be reported according to Superfund Amendments and Reauthorization Act (SARA) Title III List of Lists, Consolidated List of Chemicals Subject to Reporting Under the Emergency Planning and Community Right to Know Act, US Environmental Protection Agency.
- 2. To report a release or spill, call SDDENR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central Standard Time). To report the release after hours, on weekends or holidays, call South Dakota Emergency Management at 605-773-3231. Reporting the release to SDDENR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, you must also contact local authorities to determine the local reporting requirements for releases. A written report of the unauthorized release of any regulated substance, including quantity discharged and the location of the discharge shall be sent to SDDENR within 14 days of the discharge.

#### 7.2 Planned Changes

You must notify SDDENR as soon as possible of any planned physical alterations or additions to your site. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutant discharged, or could result in noncompliance with permit conditions. This notification also applies to pollutants that are not addressed by the effluent limits in Section 3.0.

#### 7.3 Records Contents & Retention

- 1. You must maintain onsite, or make readily available to SDDENR, the following documents:
  - a. The SWPPP, including all certificates, reports, records, or other information required by this general permit.
  - b. A copy of the Notice of Intent (NOI) submitted to SDDENR, along with any correspondence related to coverage under this general permit.
  - c. A copy of the authorization letter you receive from SDDENR granting coverage under this general permit.
  - d. A copy of this general permit.
- 2. You must retain copies of the SWPPP, your inspection records, all reports required by this general permit, and records of the date you used to complete the NOI and NOT for a period of at least three (3) years from the date you terminate your coverage under the general permit. SDDENR may extend the time period for retaining your records with a written notification to you.
- 3. You must submit all reports and documents required to be submitted to SDDENR by this general permit by email (<u>stormwater@state.sd.us</u>), or to the address below:

SD Department of Environment and Natural Resources Surface Water Quality Program 523 East Capitol Pierre, SD 57501

#### 7.4 Signatory Requirements

1. All applications submitted to SDDENR under this general permit must be signed by either a principal executive officer or ranking elected official.

- 2. All reports required by the general permit and other information requested by SDDENR shall be signed by the person described in Paragraph 1 above or by a duly authorized representative of that person. A person is a duly authorized representative if:
  - a. The authorization is made in writing by a person described in Paragraph 1 above and submitted to SDDENR; and
  - b. The authorized representative must have responsibility for the overall operation of the site, such as the superintendent, or have overall responsibility for environmental matters. A duly authorized representative may be either a named individual or any individual occupying a named position.
- 3. If the authorization under Paragraph 2 above is no longer accurate, you must submit a new authorization to SDDENR.
- 4. You must include the following certification statement with all documents signed under this section:

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 qualified personal 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 there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

#### 7.5 **Duty to Provide Information**

- 1. You must provide, within a reasonable period of time, any information SDDENR requests to determine whether cause exists for modifying, revoking and reissuing, or terminating this general permit, or to determine compliance with the general permit.
- 2. You must provide to SDDENR, upon request, copies of the records required to be kept by this general permit.
- 3. You must make your SWPPP available to SDDENR, U.S. EPA, or your local storm sewer operator upon request.
- 4. If you become aware that you failed to submit any relevant facts or submitted incorrect information in your NOI, you must promptly submit such facts or information.
- 5. You must provide SDDENR with an updated point of contact including a mailing address.

#### 7.6 Availability of Information

- 1. Except for data determined to be confidential under ARSD Section 74:52:02:17, all reports you prepare and submit in accordance with the terms of this general permit must be available for public inspection at the offices of SDDENR.
- 2. Your name and address, the NOI and NOT, your SWPPP, and your inspection records will not be considered confidential.

#### 8.0 COMPLIANCE REQUIREMENTS

#### 8.1 Duty to Comply

- 1. You must comply with all conditions of this general permit. Any permit noncompliance is a violation of the South Dakota Water Pollution Control Act and the federal Clean Water Act. A violation is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- 2. If you violate a condition of the general permit or make any false statement, representation, or certification, you may be subject to enforcement action under South Dakota Codified Law, Chapter 34A-2.
- 3. You are responsible for complying with all local ordinance and requirements. Local governments may have additional or more stringent requirements than those included in this general permit.

#### 8.2 Duty to Mitigate

You must take all reasonable steps to minimize or prevent any discharge of pollutants in violation of this general permit if it has a reasonable likelihood of adversely affecting human health or the environment.

#### 8.3 Need to Halt or Reduce Activity Not a Defense

It is not a defense for you in an enforcement action that it would have been necessary to halt or reduce your construction activity to maintain compliance with the conditions of the general permit.

#### **8.4** Upset Conditions

- 1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limits if the requirements of Paragraph 2 of this section are met. You will have an opportunity for a judicial determination on any claim of an upset only if SDDENR or U.S EPA bring an enforcement action for noncompliance with technology-based effluent limits.
- 2. If you wish to establish an affirmative defense of any upset, you must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An upset occurred and you can identify the cause of the upset;
  - b. You were properly operating the pollution controls at your site;

- c. You notified SDDENR within 24 hours of becoming aware of the upset. To report a release or spill, call SDDENR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central Standard Time). To report the release after hours, on weekends or holidays, call South Dakota Emergency Management at 605-773-3231.
- d. You complied with the mitigation measures required under Section 8.2.
- 3. In any enforcement proceeding, you have the burden of proof to establish and document that an upset occurred.

#### **8.5** Removed Substances

Collected solids, sludge, grit, or other pollutants removed in the course of treatment shall be properly disposed of in a manner to prevent any pollutant from entering surface waters of the state or creating a health hazard.

#### 8.6 Inspections and Entry

You must allow SDDENR, U.S. EPA, or the operator of a municipal separate storm sewer system receiving your discharges to:

- 1. Enter your construction site and enter areas where you keep the records required by the general permit;
- 2. Have access to and copy, at reasonable times, any records that you must keep under the conditions of the general permit;
- 3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated under this general permit; and
- 4. At reasonable times, sample or monitor any substances or parameters at any location for the purpose of ensuring permit compliance or as otherwise authorized by the South Dakota Water Pollution Control Act (SDCL 34A-2).

#### 8.7 Oil and Hazardous Substance Liability

Nothing in this general permit shall relieve you from any responsibilities, liabilities, or penalties you may be subject to under Section 311 of the federal Clean Water Act.

#### 8.8 Penalties for Violations of general permit Conditions

1. If you violate a condition of the general permit, you are in violation of the provisions of SDCL 34A-2-36 and subject to penalties under SDCL 34A-2-75. In addition to a jail sentence authorized by SDCL 22-6-2, you can be subject to a criminal fine not to exceed \$10,000 per day per violation. You can also be subject to a civil penalty not to exceed \$10,000 per day per violation, or for damages to the environment of this state.

2. Except as provided above in the Upset Conditions in Section 8.4, nothing in this general permit relieves you of the civil or criminal penalties for noncompliance.

#### 8.9 Penalties for Falsification of Reports

- 1. If you knowingly make any false statement, representation, or certification in any record or other document submitted or required to be maintained under this general permit, you are in violation of the provisions of SDCL 34A-2-77 and subject to penalties under SDCL 34A-2-75.
- 2. If you falsify, tamper with, or knowingly render inaccurate any monitoring device or method required to be maintained under this general permit, you are in violation of the provisions of SDCL 34A-2-77 and is subject to penalties under SDCL 34A-2-75.
- 3. In addition to a jail sentence authorized by SDCL 22-6-2, you can be subject to a criminal fine not to exceed \$10,000 per day per violation. You are also subject to a civil penalty not to exceed \$10,000 per day per violation, or for damages to the environment of this state.

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## Appendix A

NOTICE OF INTENT (NOI) FORM



## DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES NOTICE OF INTENT (NOI)

to Obtain Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 stormwater@state.sd.us Telephone: 1-800-SDSTORM

#### ALL QUESTIONS MUST BE ANSWERED COMPLETELY FOR THIS FORM TO BE VALID

	Site Owner Contact Information:						
	Company Name:						
	Primary Contact Person:						
	Mailing Address:						
	City:			State:	Zip Code:		
Phone Number: Email Address:							
	Type of Ownership:	Private	Federal	State	Other (Municipal, County, etc.)		
	~				(any type not listed previously)		
	Contractor Informa						
	•	-		_	ces: Yes No		
	(A contractor certificat	tion form must be s	submitted for each	h contractor that	will have day to day responsibility for erosion		
	sediment control practices. If these contractors have not been identified at the time this NOI is submitted, the contracotr						
	certification form may be submitted after they have been identified, but before they being construction work.)						
	Engineering Firm (	Contact Informa	tion (if applica	ble):			
	Contact Person:						
	Contact's Email Addre	ess:					
	Construction Proje	ct Information:					
	Project Name:						
	Physical Project Address or Description of Construction Site Location:						
	Thysical Project Paddress of Description of Communication Die Decidion.						
	City:		State:		_Zip Code:		
	On-Site Contact Person	n:					
	Contact's Email Address:						
	Contact's Mailing Add	lress:					
					Zip Code:		
	Phone Number: County of Construction Site:						
	Latitude:	Longitud	le:	Source	e (GPS, Google, etc.):		
					Range(s):		

Permit Number:

\_ Approved by: \_

Date Approved: \_

	Construction Project Information (Continued):					
	Is this project on Tribal Lands? Yes No					
	Total area disturbed by the project (in acres):					
	Will this project encroach, damage, or destroy one of the historic sites identified at the following wesites:					
	http://history.sd.gov/Preservation/nationalregisterofhistoricplaces.aspx					
	http://www.nps.gov/nhl/find/statelists/sd/SD.pdf					
	Stormwater Pollution Prevent Plan (SWPPP):					
	Has the SWPPP been developed as required?					
	(The plan must be developed <u>before</u> the NOI is submitted. DENR will not issue coverage before this has been developed.)					
	Receiving Waters:					
	Please list all possible waters that may receive a discharge from this site. If discharging to a Municipal Storm Sewer System indicate which municipality and the ultimate receiving water.					
	Nature of Discharge:					
	Please include a brief description of the construction project:					
	Will construction dewatering be required?					
	Construction Dates:					
Project Start Date (MM/DD/YYYY):						
	Estimated Completion Date (MM/DD/YYYY):					
	Dewatering Activities (Complete this section if you answered yes in VII):					
Date dewatering will commence (MM/DD/YYYY):						
	Date dewatering will end (MM/DD/YYYY):					
	Total volume of dewatering (gallons): Average flow rate (gallons per minute):					
	Total volume of dewatering (gallons): Average flow rate (gallons per minute): Source of water to be discharged:					
	Source of water to be discharged:					
	Source of water to be discharged:					
	Source of water to be discharged:					
	Source of water to be discharged:					
	Source of water to be discharged:					
	Source of water to be discharged:					
	Source of water to be discharged:					
	Source of water to be discharged:					
	Source of water to be discharged:					

#### STATE OF SOUTH DAKOTA

#### BEFORE THE SECRETARY OF

#### THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATION OF	)
	) CERTIFICATION OF
STATE OF	APPLICANT
COUNTY OF	) _)
I,, the applica sworn upon oath hereby certify the following information i	ant in the above matter after being duly n regard to this application:

I have read and understand South Dakota Codified Law Section 1-40-27 which provides:

"The secretary may reject an application for any permit filed pursuant to Titles 34A or 45, including any application by any concentrated swine feeding operation for authorization to operate under a general permit, upon making a specific finding that:

- (1) The applicant is unsuited or unqualified to perform the obligations of a permit holder based upon a finding that the applicant, any officer, director, partner, or resident general manager of the facility for which application has been made:
  - (a) Has intentionally misrepresented a material fact in applying for a permit;
  - (b) Has been convicted of a felony or other crime involving moral turpitude;
  - (c) Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;
  - (d) Has had any permit revoked under the environmental laws of any state or the United States; or
  - (e) Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or
- (2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review, recommendation or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification,

consideration of the application may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26."

I certify pursuant to 1-40-27, that as an applicant, officer, director, partner, or resident general manager of the activity or facility for which the application has been made that I; a) have not intentionally misrepresented a material fact in applying for a permit; b) have not been convicted of a felony or other crime of moral turpitude; c) have not habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage; (d) have not had any permit revoked under the environmental laws of any state or the United States; or e) have not otherwise demonstrated through clear and convincing evidence of previous actions that I lack the necessary good character and competency to reliably carry out the obligations imposed by law upon me. I also certify that this application does not substantially duplicate an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Further;

"I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct."

Dated this day of		, 20	
Applicant (print)			
Applicant (signature)			
Subscribed and sworn before me this	day of		, 20
Notary Public (signature)			
My commission expires:			

PLEASE ATTACH ANY ADDITIONAL INFORMATION NECESSARY TO DISCLOSE
ALL FACTS AND DOCUMENTS PERTAINING TO
SDCL 1-40-27 (1) (a) THROUGH (e).
ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT
AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION

(SEAL)

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## Appendix B

## NOTICE OF TERMINATION (NOT) FORM



## DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES NOTICE OF TERMINATION (NOT)

of Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

This form is required to be submitted when a discharge permit is no longer required or necessary. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the following address:

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 <a href="mailto:stormwater@state.sd.us">stormwater@state.sd.us</a> Telephone: 1-800-SDSTORM

Primary Contact Information:			
Company Name:			
Primary Contact Pers	on:		
Mailing Address:			
City:	State:	Zip Code:	
Phone Number:	Email Address:		
Mailing Address fo	or Facility/Site Location:		
Project Name:			
Primary Contact Pers	on:		
Contact's Email Adda	ress:		
Contact's Mailing Ad	ldress:		
City:	State:	Zip Code:	
are authorized by a S longer authorized to a	WD general permit have been eliminated. I under discharge stormwater associated with construction	d with construction activity from the identified facility stand that by submitting the Notice of Termination, an activity under this general permit, and that discharge of the state is unlawful under the fodosal Clean Wes	
are authorized by a S longer authorized to a pollutants in stormwa and the South Dakota submittal of this Notic Dakota Water Polluti possibility of fine and NOTE: Notice of Terapplicant, if an individual	WD general permit have been eliminated. I under discharge stormwater associated with construction activity to water associated with construction activity to water a Water Pollution Control Act if the discharge is a ce of Termination does not release an operator from Control Act. I am aware that there are significal imprisonment for knowing violations.  Termination shall be signed by the authorized chief edual.	estand that by submitting the Notice of Termination, in activity under this general permit, and that dischass of the state is unlawful under the federal Clean Was not authorized by a SWD permit. I also understand the formaliability for any violations of this permit or the Second penalties for submitting false information, included elective or executive officer of the applicant, or by the	
are authorized by a S longer authorized to a pollutants in stormwa and the South Dakota submittal of this Notic Dakota Water Polluti possibility of fine and NOTE: Notice of Terapplicant, if an individual	WD general permit have been eliminated. I under discharge stormwater associated with construction activity to water associated with construction activity to water a Water Pollution Control Act if the discharge is a ce of Termination does not release an operator from Control Act. I am aware that there are significal imprisonment for knowing violations.  Termination shall be signed by the authorized chief edual.	estand that by submitting the Notice of Termination, in activity under this general permit, and that dischass of the state is unlawful under the federal Clean Water the state by a SWD permit. I also understand the some liability for any violations of this permit or the Stant penalties for submitting false information, included	
are authorized by a S longer authorized to a pollutants in stormwa and the South Dakota submittal of this Notice Dakota Water Polluti possibility of fine and NOTE: Notice of Terapplicant, if an individual.	WD general permit have been eliminated. I under discharge stormwater associated with construction activity to water associated with construction activity to water a Water Pollution Control Act if the discharge is a ce of Termination does not release an operator from Control Act. I am aware that there are significal imprisonment for knowing violations.  I mination shall be signed by the authorized chief a dual.  Ti	estand that by submitting the Notice of Termination, in activity under this general permit, and that dischass of the state is unlawful under the federal Clean Was not authorized by a SWD permit. I also understand the formaliability for any violations of this permit or the Second penalties for submitting false information, included elective or executive officer of the applicant, or by the	
are authorized by a S longer authorized to a pollutants in stormwa and the South Dakota submittal of this Notice Dakota Water Polluti possibility of fine and NOTE: Notice of Terapplicant, if an individual.	WD general permit have been eliminated. I under discharge stormwater associated with construction activity to water associated with construction activity to water a Water Pollution Control Act if the discharge is a ce of Termination does not release an operator from Control Act. I am aware that there are significal imprisonment for knowing violations.  I mination shall be signed by the authorized chief a dual.  Ti	estand that by submitting the Notice of Termination, in activity under this general permit, and that dischass of the state is unlawful under the federal Clean Was not authorized by a SWD permit. I also understand the formal liability for any violations of this permit or the Secant penalties for submitting false information, included elective or executive officer of the applicant, or by the lie:  Date:	

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## Appendix C

## CONTRACTOR AUTHORIZATION FORM



## DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONTRACTOR AUTHORIZATION FORM

for Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

This form is required to be submitted when a contractor will act as an operator and have day to day responsibility for erosion and sediment control measures. Submission of this form shall in no way relieve the permittee of permit obligations. Please submit this form to the following address:

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 stormwater@state.sd.us Telephone: 1-800-SDSTORM

ALL QUESTIONS MUST BE ANSWERED COMPLETELY FOR THIS FORM TO BE VALID

Project Name:		Permit Number (if available):			
Project Site Legal Location:					
Contractor Company Name:					
Responsible Contact Person:					
Contact's Email Address:					
Contractor Mailing Address:					
City:	State: Zip Code:	Phone Number:			
The contractor(s) responsible for	the day to day operation of the cons	struction site shall certify the following:			
	neral Permit for Stormwater Discha	with the terms and conditions of the rges Associated with Construction			
South Dakota Codified Laws Sec	etion 1-40-27 provides:				
	ated swine feeding operation for aut	rsuant to Titles 34A or 45, including any horization to operate under a general permit, upon			
	officer, director, partner or residen	ligations of a permit holder based upon a finding t general manager of the facility for which			
(a) Has intentionally misrepresented a material fact in applying for a permit;					
(b) Has been convicte	<ul> <li>(b) Has been convicted of a felony or other crime involving moral turpitude;</li> <li>(c) Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;</li> </ul>				
(d) Has had any perm	it revoked under the environmental	laws of any state or the United States; or			
	FOR DENR USE O	NLY			
Permit Number:	Date Approved:	Approved by:			

- (e) Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or
- (2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review, recommendation or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification, consideration of the application may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26."

I certify pursuant to SDCL 1-40-27, that as an applicant, officer, partner, or resident general manager of the activity or facility for which the application has been made that I; a) have not intentionally misrepresented a material fact in applying for a permit; b) have not been convicted of a felony or other crime of moral turpitude; c) have not habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage; d) have not had any permit revoked under the environmental laws of any state or the United States; or e) have not otherwise demonstrated through clear and convincing evidence of previous actions that I lack the necessary good character and competency to reliably carry out the obligations imposed by law upon me. I also certify that this application does not substantially duplicate an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Further;

"I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct."

Dated this day of	, 20	
Applicant (print)		
Applicant (signature)		
Subscribed and sworn before me this	day of	, 20
Notary Public (signature)		
My commission expires:		(SEAL)

PLEASE ATTACH A SHEET DISCLOSING ALL FACTS PERTAINING TO SDCL 1-40-27 (1) (a) THROUGH (e). ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION.

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## Appendix D

## TRANSFER OF PERMIT COVERAGE FORM



## DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TRANSFER OF PERMIT COVERAGE FORM

for Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

This form is required to be submitted when ownership of a construction project or an individual lot in a larger common plan of development has been transferred to a different owner. Please submit this form to the following address:

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 stormwater@state.sd.us
Telephone: 1-800-SDSTORM

Project Name:	Permit Number:
Site (Lot) Legal Location:	
Site (Lot) Description:	-
Previous Owner's Name:	
New Owner's Name:	
New Owner's Mailing Information:	
City:	State: Zip Code:
Phone Number:	Email:
•	o transfer:
Date transfer of property responsibility and	liability becomes effective:tion, and/or coverage area requires that the Stormwater Pollution Prevention
Construction Activity. Temporary or pe transferred ownership/responsibility as	under the General Permit for Stormwater Discharges Associated with rmanent stabilization has been established on the site, which has now indicated above. The new owners, or operators, have been made aware of the ort to control pollutant runoff and/or sedimentation.
of pollutants to waters of the state. The 1	or implementing best management practices to reduce or eliminate a discharge new owner is aware that permit coverage for the site is required until all soil-completed and one of the following conditions have been met:
<ul> <li>all portions of the site not cover cover over at least 70% of the si</li> </ul>	ed by pavement or permanent structures have a uniform perennial vegetative te; or
<ul> <li>equivalent permanent stabilizat geotextiles.</li> </ul>	ion measure have been employed, such as the use of riprap, gabions, or
New Owner/Operator Signature:	
Date:	
Previous Owner/Operator Signature:	
Date:	
	FOR DENR USE ONLY

Transfer of Ownership – General Stormwater Permit

\_ Date Approved: \_\_

Revised January 31, 2018

Approved by: \_\_\_

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### Appendix E

### NOTICE OF INTENT FOR REAUTHORIZATION FORM



## DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES NOTICE OF INTENT (NOI) for REAUTHORIZATION

of Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

The following facility currently has coverage under the General Permit for Stormwater Discharges Associated with Construction Activities. *This form must be submitted if you wish to continue coverage under the General Permit.* Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the following address:

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 stormwater@state.sd.us
Telephone: 1-800-SDSTORM

#### Update information below as needed. Please print or type information.

I.	Permit Number:			
II.	Owner Information:			
	Company Name:			
	Primary Contact Person:			
	Mailing Address:			
	City:	:	State: Z	ip Code:
	Phone Number:	Email Ade	dress:	
III.	<b>Construction Project Infor</b>	mation:		
	Project Name:			
	Project Description:			
	On-Site Contact Person:			
	Mailing Address:			
	City:	County:	State:	Zip Code:
	Phone Number:	Total area	disturbed by the pr	roject (in acres):
	Project Start Date:	Estimated	Completion Date:	
IV.	Signature of Applicant			
		General Permit and update yo		reissued General Permit. You are certifying ution Prevention Plan if necessary to meet
	in accordance with a system de submitted. Based on my inqui gathering the information, the complete. I am aware that ther	esigned to assure that qualif iry of the person or persons e information submitted is, t re are significant penalties fo ine and imprisonment for k	ied personnel prop who manage the to the best of my k or submitting false nowing violations.	epared under my direction or supervision erly gather and evaluate the information system, or those directly responsible for nowledge and belief, true, accurate, and information, including revocation of the In addition, I certify that I am aware of nply with those requirements.
	<b>NOTE:</b> The NOI for Reauthori or by the applicant, if an individual		authorized chief ele	ective or executive offier of the applicant,
Name (	print):		Title:	
Signatu	re:		Date:	
-		FOR DENR U		

Date Reauthorized:

NOI for Reauthorization - General Stormwater Permit

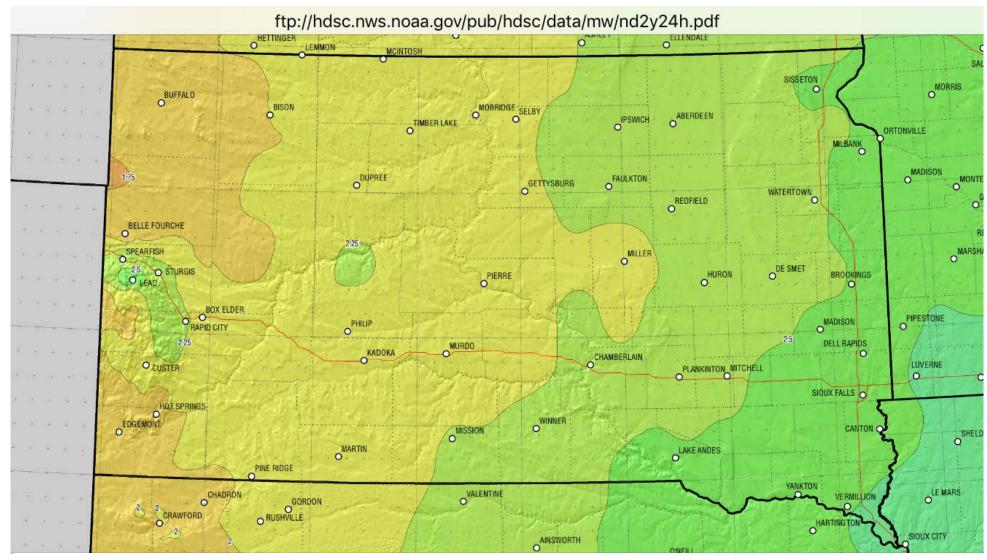
Approved by: \_\_\_\_

Revised January 31, 2018

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### Appendix F

# TWO YEAR, TWENTY-FOUR HOUR PRECIPITATION EVENT MAP



NOAA Atlas 14, Volume 8, Version 2 Midwestern States

### **SOUTH DAKOTA**



2-year 24-hour precipitation in inches

■ 0.88 - 1.00 ■ 2.01 - 2.25 ■ 3.26 - 3.50 ■ 4.51 - 4.75 ■ 1.01 - 1.25 ■ 2.26 - 2.50 ■ 3.51 - 3.75 ■ 4.76 - 5.00 ■ 1.26 - 1.50 ■ 2.51 - 2.75 ■ 3.76 - 4.00 ■ 5.01 - 5.19 ■ 1.51 - 1.75 ■ 2.76 - 3.00 ■ 4.01 - 4.25 ■ 1.76 - 2.00 ■ 3.01 - 3.25 ■ 4.26 - 4.50 

Lagrent lawsed for softine librarie & project areas

Signed and issued this 14th day of May 2019

# National Pollutant Discharge Elimination System General Permit for Discharges from Construction Activities (as modified)

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et. seq., (hereafter CWA), as amended by the Water Quality Act of 1987, P.L. 100-4, "operators" of construction activities (defined in Appendix A) that meet the requirements of Part 1.1 of this National Pollutant Discharge Elimination System (NPDES) general permit, are authorized to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "commencement of construction activities" (see Appendix A) until one of the conditions for terminating CGP coverage has been met (see Part 8.2).

This permit becomes effective on June 27, 2019.

Signed and issued this 14th day of May 2019

This permit and the authorization to discharge expire at 11:59pm, February 16, 2022.

Signed and issued this 14th day of May 2019

Deborah Szaro,

Acting Regional Administrator, EPA Region 1.

Signed and issued this 14th day of May 2019

Charles W. Maguire,

Director, Water Division, EPA Region 6.

Jeff Gratz, Jeffery Robichaud,

Deputy Director, Water Division, EPA Region 2. Director, Water Division, EPA Region 7.

Signed and issued this 14th day of May 2019

Signed and issued this 14th day of May 2019

Darcy O'Connor,

Acting Director, Caribbean Environmental Director, Water Division, EPA Region 8. Protection Division, EPA Region 2.

Signed and issued this 14th day of May 2019 Signed and issued this 14th day of May 2019

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### 1 HOW TO OBTAIN COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT (CGP)

To be covered under this permit, you must meet the eligibility conditions and follow the requirements for obtaining permit coverage in this Part.

### 1.1 ELIGIBILITY CONDITIONS

- 1.1.1 You are an "operator" of a construction site for which discharges will be covered under this permit. For the purposes of this permit and in the context of stormwater discharges associated with construction activity, an "operator" is any party associated with a construction project that meets either of the following two criteria:
  - a. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
  - b. The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Where there are multiple operators associated with the same project, all operators must obtain permit coverage.¹ Subcontractors generally are not considered operators for the purposes of this permit.

- **1.1.2** Your site's construction activities:
  - a. Will disturb one or more acres of land, or will disturb less than one acre of land but are part of a common plan of development or sale that will ultimately disturb one or more acres of land; or
  - b. Have been designated by EPA as needing permit coverage under 40 CFR 122.26(a)(1)(v) or 40 CFR 122.26(b)(15)(ii);
- 1.1.3 Your site is located in an area where EPA is the permitting authority (see Appendix B);
- **1.1.4** Discharges from your site are not:
  - a. Already covered by a different NPDES permit for the same discharge; or
  - b. In the process of having coverage under a different NPDES permit for the same discharge denied, terminated, or revoked.<sup>2, 3</sup>
- 1.1.5 You are able to demonstrate that you meet one of the criteria listed in Appendix D with respect to the protection of species that are federally listed as endangered or threatened under the Endangered Species Act (ESA) and federally designated critical habitat;
- **1.1.6** You have completed the screening process in Appendix E relating to the protection of historic properties; and

<sup>&</sup>lt;sup>1</sup> If the operator of a "construction support activity" (see Part 1.2.1c) is different than the operator of the main site, that operator must also obtain permit coverage. See Part 7.1 for clarification on the sharing of permit-related functions between and among operators on the same site and for conditions that apply to developing a SWPPP for multiple operators associated with the same site.

<sup>&</sup>lt;sup>2</sup> Parts 1.1.4a and 1.1.4b do not include sites currently covered under the 2012 CGP that are in the process of obtaining coverage under this permit, nor sites covered under this permit that are transferring coverage to a different operator.

<sup>&</sup>lt;sup>3</sup> Notwithstanding a site being made ineligible for coverage under this permit because it falls under the description of Parts 1.1.4a or 1.1.4b, above, EPA may waive the applicable eligibility requirement after specific review if it determines that coverage under this permit is appropriate.

- 1.1.7 You have complied with all requirements in Part 9 imposed by the applicable state, Indian tribe, or territory in which your construction activities and/or discharge will occur.
- **1.1.8** For "new sources" (as defined in Appendix A) only:
  - a. EPA has not, prior to authorization under this permit, determined that discharges from your site will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures designed to bring your discharge into compliance with this permit, specifically the requirement to meet water quality standards. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3, will result in discharges that will not cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard.
  - b. Discharges from your site to a Tier 2, Tier 2.5, or Tier 3 water<sup>4</sup> will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not lower the water quality of such waters.
- 1.1.9 If you plan to add "cationic treatment chemicals" (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, you may not submit your Notice of Intent (NOI) unless and until you notify your applicable EPA Regional Office (see Appendix L) in advance and the EPA Regional Office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to discharges that cause an exceedance of water quality standards.

### 1.2 TYPES OF DISCHARGES AUTHORIZED5

- 1.2.1 The following stormwater discharges are authorized under this permit provided that appropriate stormwater controls are designed, installed, and maintained (see Parts 2 and 3):
  - a. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity under 40 CFR 122.26(b)(14) or 122.26(b)(15)(i);
  - b. Stormwater discharges designated by EPA as needing a permit under 40 CFR 122.26(a)(1)(v) or 122.26(b)(15)(ii);

<sup>&</sup>lt;sup>4</sup> Note: Your site will be considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water to which you discharge is identified by a state, tribe, or EPA as a Tier 2, Tier 2.5, or Tier 3 water. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

<sup>&</sup>lt;sup>5</sup> See "Discharge" as defined in Appendix A. Note: Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the SWPPP, or during an inspection.

- c. Stormwater discharges from construction support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided that:
  - i. The support activity is directly related to the construction site required to have permit coverage for stormwater discharges;
  - ii. The support activity is not a commercial operation, nor does it serve multiple unrelated construction sites;
  - iii. The support activity does not continue to operate beyond the completion of the construction activity at the site it supports; and
  - iv. Stormwater controls are implemented in accordance with Part 2 and Part 3 for discharges from the support activity areas.
- d. Stormwater discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining.
- 1.2.2 The following non-stormwater discharges associated with your construction activity are authorized under this permit provided that, with the exception of water used to control dust and to irrigate vegetation in stabilized areas, these discharges are not routed to areas of exposed soil on your site and you comply with any applicable requirements for these discharges in Parts 2 and 3:
  - a. Discharges from emergency fire-fighting activities;
  - b. Fire hydrant flushings;
  - c. Landscape irrigation;
  - d. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
  - e. Water used to control dust;
  - f. Potable water including uncontaminated water line flushings;
  - g. External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in Appendix A) (e.g., paint or caulk containing polychlorinated biphenyls (PCBs));
  - h. Pavement wash waters, provided spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used. You are prohibited from directing pavement wash waters directly into any water of the U.S., storm drain inlet, or stormwater conveyance, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control;
  - i. Uncontaminated air conditioning or compressor condensate;
  - j. Uncontaminated, non-turbid discharges of ground water or spring water;
  - k. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and
  - I. Construction dewatering water discharged in accordance with Part 2.4.
- **1.2.3** Also authorized under this permit are discharges of stormwater listed above in Part 1.2.1, or authorized non-stormwater discharges listed above in Part 1.2.2, commingled with a

discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

### 1.3 PROHIBITED DISCHARGES<sup>6</sup>

- **1.3.1** Wastewater from washout of concrete, unless managed by an appropriate control as described in Part 2.3.4:
- **1.3.2** Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;
- **1.3.3** Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
- **1.3.4** Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and
- **1.3.5** Toxic or hazardous substances from a spill or other release.

To prevent the above-listed prohibited non-stormwater discharges, operators must comply with the applicable pollution prevention requirements in Part 2.3.

### 1.4 SUBMITTING YOUR NOTICE OF INTENT (NOI)

All "operators" (as defined in Appendix A) associated with your construction site, who meet the Part 1.1 eligibility requirements, and who seek coverage under this permit, must submit to EPA a complete and accurate NOI in accordance with the deadlines in **Table 1** prior to commencing construction activities.

**Exception:** If you are conducting construction activities in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services), and the related work requires immediate authorization to avoid imminent endangerment to human health, public safety, or the environment, or to reestablish essential public services, you may discharge on the condition that a complete and accurate NOI is submitted within 30 calendar days after commencing construction activities (see Table 1) establishing that you are eligible for coverage under this permit. You must also provide documentation in your Stormwater Pollution Prevention Plan (SWPPP) to substantiate the occurrence of the public emergency.

### 1.4.1 Prerequisite for Submitting Your NOI

You must develop a SWPPP consistent with Part 7 before submitting your NOI for coverage under this permit.

### 1.4.2 How to Submit Your NOI

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOI for coverage under the 2017 CGP, unless you received a waiver from your EPA Regional Office.

To access NeT, go to <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting</a>.

Waivers from electronic reporting may be granted based on one of the following conditions:

<sup>&</sup>lt;sup>6</sup> EPA includes these prohibited non-stormwater discharges here as a reminder to the operator that the only non-stormwater discharges authorized by this permit are at Part 1.2.2. Any unauthorized non-stormwater discharges must be covered under an individual permit or alternative general permit.

- a. If your operational headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or
- b. If you have limitations regarding available computer access or computer capability.

If the EPA Regional Office grants you approval to use a paper NOI, and you elect to use it, you must complete the form in Appendix J.

### 1.4.3 Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage

Table 1 provides the deadlines for submitting your NOI and the official start date of your permit coverage, which differ depending on when you commence construction activities.

Table 1 NOI Submittal Deadlines and Official Start Date for Permit Coverage.

Type of Operator	NOI Submittal Deadline <sup>7</sup>	Permit Authorization Date <sup>8</sup>
Operator of a new site (i.e., a site where construction activities commence on or after February 16, 2017)	At least 14 calendar days before commencing construction activities.	14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.
Operator of an existing site (i.e., a site with 2012 CGP coverage where construction activities commenced prior to February 16, 2017)	No later than <b>May 17, 2017</b> .	
New operator of a permitted site (i.e., an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a "new site" or an "existing site")	At least 14 calendar days before the date the transfer to the new operator will take place.	
Operator of an "emergency-related project" (i.e., a project initiated in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services)	No later than 30 calendar days after commencing construction activities.	You are considered provisionally covered under the terms and conditions of this permit immediately, and fully covered 14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.

### 1.4.4 Modifying your NOI

<sup>&</sup>lt;sup>7</sup> If you miss the deadline to submit your NOI, any and all discharges from your construction activities will continue to be unauthorized under the CWA until they are covered by this or a different NPDES permit. EPA may take enforcement action for any unpermitted discharges that occur between the commencement of construction activities and discharge authorization.

<sup>&</sup>lt;sup>8</sup> Discharges are not authorized if your NOI is incomplete or inaccurate or if you are not eligible for permit coverage.

If after submitting your NOI you need to correct or update any fields, you may do so by submitting a "Change NOI" form using NeT. Waivers from electronic reporting may be granted as specified in Part 1.4.1. If the EPA Regional Office has granted you approval to submit a paper NOI modification, you may indicate any NOI changes on the same NOI form in Appendix J.

When there is a change to the site's operator, the new operator must submit a new NOI, and the previous operator must submit a Notice of Termination (NOT) form as specified in Part 8.3.

### 1.4.5 Your Official End Date of Permit Coverage

Once covered under this permit, your coverage will last until the date that:

- a. You terminate permit coverage consistent with Part 8; or
- b. You receive permit coverage under a different NPDES permit or a reissued or replacement version of this permit after expiring on February 16, 2022; or
- c. You fail to submit an NOI for coverage under a revised or replacement version of this permit before the deadline for existing construction sites where construction activities continue after this permit has expired.

### 1.5 REQUIREMENT TO POST A NOTICE OF YOUR PERMIT COVERAGE

You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way.<sup>9</sup> At a minimum, the notice must include:

- a. The NPDES ID (i.e., permit tracking number assigned to your NOI);
- b. A contact name and phone number for obtaining additional construction site information:
- c. The Uniform Resource Locator (URL) for the SWPPP (if available), or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional Office at [include the appropriate CGP Regional Office contact information found at <a href="https://www.epa.gov/npdes/contact-us-stormwater#regional">https://www.epa.gov/npdes/contact-us-stormwater#regional</a>];" and
- d. The following statement "If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: <a href="https://www.epa.gov/enforcement/report-environmental-violations">https://www.epa.gov/enforcement/report-environmental-violations</a>."

### 2 TECHNOLOGY-BASED EFFLUENT LIMITATIONS

You must comply with the following technology-based effluent limitations in this Part for all authorized discharges.<sup>10</sup>

<sup>&</sup>lt;sup>9</sup> If the active part of the construction site is not visible from a public road, then place the notice of permit coverage in a position that is visible from the nearest public road and as close as possible to the construction site.

<sup>&</sup>lt;sup>10</sup> For each of the effluent limits in Part 2, as applicable to your site, you must include in your SWPPP (1) a description of the specific control(s) to be implemented to meet the effluent limit; (2) any applicable design specifications; (3) routine maintenance specifications; and (4) the projected schedule for its (their)

### 2.1 GENERAL STORMWATER CONTROL DESIGN, INSTALLATION, AND MAINTENANCE REQUIREMENTS

You must design, install, and maintain stormwater controls required in Parts 2.2 and 2.3 to minimize the discharge of pollutants in stormwater from construction activities. To meet this requirement, you must:

### 2.1.1 Account for the following factors in designing your stormwater controls:

- a. The expected amount, frequency, intensity, and duration of precipitation;
- b. The nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. You must design stormwater controls to control stormwater volume, velocity, and peak flow rates to minimize discharges of pollutants in stormwater and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and
- c. The soil type and range of soil particle sizes expected to be present on the site.

### 2.1.2 Design and install all stormwater controls in accordance with good engineering practices, including applicable design specifications.<sup>11</sup>

### 2.1.3 Complete installation of stormwater controls by the time each phase of construction activities has begun.

- a. By the time construction activity in any given portion of the site begins, install and make operational any downgradient sediment controls (e.g., buffers, perimeter controls, exit point controls, storm drain inlet protection) that control discharges from the initial site clearing, grading, excavating, and other earth-disturbing activities.<sup>12</sup>
- b. Following the installation of these initial controls, install and make operational all stormwater controls needed to control discharges prior to subsequent earth-disturbing activities.

## 2.1.4 Ensure that all stormwater controls are maintained and remain in effective operating condition during permit coverage and are protected from activities that would reduce their effectiveness.

- a. Comply with any specific maintenance requirements for the stormwater controls listed in this permit, as well as any recommended by the manufacturer. 13
- b. If at any time you find that a stormwater control needs routine maintenance, you must immediately initiate the needed maintenance work, and complete such work by the close of the next business day.

installation/implementation. See Part 7.2.6.

<sup>&</sup>lt;sup>11</sup> Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practices and must be explained in your SWPPP. You must also comply with any additional design and installation requirements specified for the effluent limits in Parts 2.2 and 2.3.

<sup>&</sup>lt;sup>12</sup> Note that the requirement to install stormwater controls prior to each phase of construction activities for the site does not apply to the earth disturbance associated with the actual installation of these controls. Operators should take all reasonable actions to minimize the discharges of pollutants during the installation of stormwater controls.

<sup>&</sup>lt;sup>13</sup> Any departures from such maintenance recommendations made by the manufacturer must reflect good engineering practices and must be explained in your SWPPP.

c. If at any time you find that a stormwater control needs repair or replacement, you must comply with the corrective action requirements in Part 5.

### 2.2 EROSION AND SEDIMENT CONTROL REQUIREMENTS

You must implement erosion and sediment controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater from construction activities.

- 2.2.1 Provide and maintain natural buffers and/or equivalent erosion and sediment controls when a water of the U.S. is located within 50 feet of the site's earth disturbances.
  - a. Compliance Alternatives. For any discharges to waters of the U.S. located within 50 feet of your site's earth disturbances, you must comply with one of the following alternatives:
    - i. Provide and maintain a 50-foot undisturbed natural buffer; or
    - ii. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or
    - iii. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

See Appendix G, Part G.2 for additional conditions applicable to each compliance alternative.

- b. **Exceptions.** See Appendix G, Part G.2 for exceptions to the compliance alternatives.
- 2.2.2 Direct stormwater to vegetated areas and maximize stormwater infiltration and filtering to reduce pollutant discharges, unless infeasible.
- 2.2.3 Install sediment controls along any perimeter areas of the site that will receive pollutant discharges.<sup>14</sup>
  - a. Remove sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
  - b. **Exception**. For areas at "linear construction sites" (as defined in Appendix A) where perimeter controls are infeasible (e.g., due to a limited or restricted right-of-way), implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site.

### 2.2.4 Minimize sediment track-out.

- a. Restrict vehicle use to properly designated exit points;
- b. Use appropriate stabilization techniques<sup>15</sup> at all points that exit onto paved roads.

<sup>&</sup>lt;sup>14</sup> Examples of perimeter controls include filter berms, silt fences, vegetative strips, and temporary diversion dikes.

<sup>&</sup>lt;sup>15</sup> Examples of appropriate stabilization techniques include the use of aggregate stone with an underlying geotextile or non-woven filter fabric, and turf mats.

- i. **Exception**: Stabilization is not required for exit points at linear utility construction sites that are used only episodically and for very short durations over the life of the project, provided other exit point controls <sup>16</sup> are implemented to minimize sediment track-out;
- c. Implement additional track-out controls<sup>17</sup> as necessary to ensure that sediment removal occurs prior to vehicle exit; and
- d. Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day. Remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked-out sediment into any stormwater conveyance, storm drain inlet, or water of the U.S. 18

### 2.2.5 Manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil:

- a. Locate the piles outside of any natural buffers established under Part 2.2.1 and away from any stormwater conveyances, drain inlets, and areas where stormwater flow is concentrated;
- b. Install a sediment barrier along all downgradient perimeter areas; 19
- c. For piles that will be unused for 14 or more days, provide cover<sup>20</sup> or appropriate temporary stabilization (consistent with Part 2.2.14);
- d. You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or water of the U.S.
- **2.2.6 Minimize dust.** On areas of exposed soil, minimize dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged in stormwater from the site.
- **2.2.7 Minimize steep slope disturbances.** Minimize the disturbance of "steep slopes" (as defined in Appendix A).

<sup>&</sup>lt;sup>16</sup> Examples of other exit point controls include preventing the use of exit points during wet periods; minimizing exit point use by keeping vehicles on site to the extent possible; limiting exit point size to the width needed for vehicle and equipment usage; using scarifying and compaction techniques on the soil; and avoiding establishing exit points in environmentally sensitive areas (e.g., karst areas; steep slopes).

<sup>&</sup>lt;sup>17</sup> Examples of additional track-out controls include the use of wheel washing, rumble strips, and rattle plates.

<sup>&</sup>lt;sup>18</sup> Fine grains that remain visible (i.e., staining) on the surfaces of off-site streets, other paved areas, and sidewalks after you have implemented sediment removal practices are not a violation of Part 2.2.4.

<sup>&</sup>lt;sup>19</sup> Examples of sediment barriers include berms, dikes, fiber rolls, silt fences, sandbags, gravel bags, or straw bale.

<sup>&</sup>lt;sup>20</sup> Examples of cover include tarps, blown straw and hydroseeding.

### 2.2.8 Preserve native topsoil, unless infeasible.<sup>21</sup>

- **2.2.9 Minimize soil compaction.**<sup>22</sup> In areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed:
  - a. Restrict vehicle and equipment use in these locations to avoid soil compaction; and
  - b. Before seeding or planting areas of exposed soil that have been compacted, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth.

### 2.2.10 Protect storm drain inlets.

- a. Install inlet protection measures that remove sediment from discharges prior to entry into any storm drain inlet that carries stormwater flow from your site to a water of the U.S., provided you have authority to access the storm drain inlet;<sup>23</sup> and
- b. Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible.
- 2.2.11 Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points. <sup>24</sup>.

### 2.2.12 If you install a sediment basin or similar impoundment:

- a. Situate the basin or impoundment outside of any water of the U.S. and any natural buffers established under Part 2.2.1;
- b. Design the basin or impoundment to avoid collecting water from wetlands;
- c. Design the basin or impoundment to provide storage for either:
  - i. The calculated volume of runoff from a 2-year, 24-hour storm (see Appendix H); or
  - ii. 3,600 cubic feet per acre drained.

<sup>&</sup>lt;sup>21</sup> Stockpiling topsoil at off-site locations, or transferring topsoil to other locations, is an example of a practice that is consistent with the requirements in Part 2.2.8. Preserving native topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed. For example, some sites may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain, or may not have space to stockpile native topsoil on site for later use, in which case, it may not be feasible to preserve topsoil.

 $<sup>^{22}</sup>$  Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.

<sup>&</sup>lt;sup>23</sup> Inlet protection measures can be removed in the event of flood conditions or to prevent erosion.

<sup>&</sup>lt;sup>24</sup> Examples of control measures that can be used to comply with this requirement include the use of erosion controls and/or velocity dissipation devices (e.g., check dams, sediment traps), within and along the length of a stormwater conveyance and at the outfall to slow down runoff.

- d. Utilize outlet structures that withdraw water from the surface of the sediment basin or similar impoundment, unless infeasible;<sup>25</sup>
- e. Use erosion controls and velocity dissipation devices to prevent erosion at inlets and outlets; and
- f. Remove accumulated sediment to maintain at least one-half of the design capacity and conduct all other appropriate maintenance to ensure the basin or impoundment remains in effective operating condition.

### **2.2.13** If using treatment chemicals (e.g., polymers, flocculants, coagulants):

- a. Use conventional erosion and sediment controls before and after the application of treatment chemicals. Chemicals may only be applied where treated stormwater is directed to a sediment control (e.g., sediment basin, perimeter control) before discharge.
- b. **Select appropriate treatment chemicals**. Chemicals must be appropriately suited to the types of soils likely to be exposed during construction and present in the discharges being treated (i.e., the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or area).
- c. **Minimize discharge risk from stored chemicals.** Store all treatment chemicals in leak-proof containers that are kept under storm-resistant cover and surrounded by secondary containment structures (e.g., spill berms, decks, spill containment pallets), or provide equivalent measures designed and maintained to minimize the potential discharge of treatment chemicals in stormwater or by any other means (e.g., storing chemicals in a covered area, having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill).
- d. **Comply with state/local requirements.** Comply with applicable state and local requirements regarding the use of treatment chemicals.
- e. Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier. Use treatment chemicals and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the provider/supplier of the applicable chemicals, or document in your SWPPP specific departures from these specifications and how they reflect good engineering practice.
- f. **Ensure proper training.** Ensure that all persons who handle and use treatment chemicals at the construction site are provided with appropriate, product-specific training. Among other things, the training must cover proper dosing requirements.
- g. Perform additional measures specified by the EPA Regional Office for the authorized use of cationic chemicals. If you have been authorized to use cationic chemicals at your site pursuant to Part 1.1.9, you must perform all additional measures as conditioned by your authorization to ensure that the use of such chemicals will not cause an exceedance of water quality standards.

<sup>&</sup>lt;sup>25</sup> The circumstances in which it is infeasible to design outlet structures in this manner are rare. Exceptions may include areas with extended cold weather, where using surface outlets may not be feasible during certain time periods (although they must be used during other periods). If you determine that it is infeasible to meet this requirement, you must provide documentation in your SWPPP to support your determination, including the specific conditions or time periods when this exception will apply.

**2.2.14 Stabilize exposed portions of the site.** Implement and maintain stabilization measures (e.g., seeding protected by erosion controls until vegetation is established, sodding, mulching, erosion control blankets, hydromulch, gravel) that minimize erosion from exposed portions of the site in accordance with Parts 2.2.14a and 2.2.14b.

### a. Stabilization Deadlines:26

Total Amount of Land Disturbance Occurring At Any One Time <sup>27</sup>	Deadline	
i. Five acres or less (≤5.0)  Note: this includes sites disturbing more than five acres (>5.0) total over the course of a project, but that limit disturbance at any one time (i.e., phase the disturbance) to five acres or less (≤5.0)	<ul> <li>Initiate the installation of stabilization measures immediately<sup>28</sup> in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;<sup>29</sup> and</li> <li>Complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days after stabilization has been initiated.<sup>30</sup></li> </ul>	

- 1. The total area of disturbance for a project is five (5) acres or less.
- 2. The total area of disturbance for a project will exceed five (5) acres, but the operator ensures that no more than five (5) acres will be disturbed at any one time through implementation of stabilization measures. In this way, site stabilization can be used to "free up" land that can be disturbed without exceeding the five (5)-acre cap to qualify for the 14-day stabilization deadline. For instance, if an operator completes stabilization of two (2) acres of land on a five (5)-acre disturbance, then two (2) additional acres could be disturbed while still qualifying for the longer 14-day stabilization deadline.

- 1. Prepping the soil for vegetative or non-vegetative stabilization as long as seeding, planting, and/or installation of non-vegetative stabilization products takes place as soon as practicable, but no later than one (1) calendar day of completing soil preparation;
- 2. Applying mulch or other non-vegetative product to the exposed area;
- 3. Seeding or planting the exposed area;
- 4. Starting any of the activities in # 1 3 on a portion of the entire area that will be stabilized; and
- 5. Finalizing arrangements to have stabilization product fully installed in compliance with the deadlines for completing stabilization.

<sup>&</sup>lt;sup>26</sup> EPA may determine, based on an inspection carried out under Part 4.8 and corrective actions required under Part 5.3, that the level of sediment discharge on the site makes it necessary to require a faster schedule for completing stabilization. For instance, if sediment discharges from an area of exposed soil that is required to be stabilized are compromising the performance of existing stormwater controls, EPA may require stabilization to correct this problem.

<sup>&</sup>lt;sup>27</sup> Limiting disturbances to five (5) acres or less at any one time means that at no time during the project do the cumulative earth disturbances exceed five (5) acres. The following examples would qualify as limiting disturbances at any one time to five (5) acres or less:

<sup>&</sup>lt;sup>28</sup> The following are examples of activities that would constitute the immediate initiation of stabilization:

<sup>&</sup>lt;sup>29</sup> The requirement to initiate stabilization immediately is triggered as soon as you know that construction work on a portion of the site is temporarily ceased and will not resume for 14 or more days, or as soon as you know that construction work is permanently ceased. In the context of this provision, "immediately" means as soon as practicable, but no later than the end of the next business day, following the day when the construction activities have temporarily or permanently ceased.

<sup>&</sup>lt;sup>30</sup> If vegetative stabilization measures are being implemented, stabilization is considered "installed" when all activities necessary to seed or plant the area are completed. If non-vegetative stabilization measures are being implemented, stabilization is considered "installed" when all such measures are implemented or applied.

ii. More than five acres (>5.0)	<ul> <li>Initiate the installation of stabilization measures immediately<sup>31</sup> in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;<sup>32</sup> and</li> </ul>
	<ul> <li>Complete the installation of stabilization measures as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.<sup>33</sup></li> </ul>

### iii. Exceptions:

- (a) Arid, semi-arid, and drought-stricken areas (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, and vegetative stabilization measures are being used:
  - (i) Immediately initiate and, within 14 calendar days of a temporary or permanent cessation of work in any portion of your site, complete the installation of temporary non-vegetative stabilization measures to the extent necessary to prevent erosion;
  - (ii) As soon as practicable, given conditions or circumstances on the site, complete all activities necessary to seed or plant the area to be stabilized; and
  - (iii) If construction is occurring during the seasonally dry period, indicate in your SWPPP the beginning and ending dates of the seasonally dry period and your site conditions. Also include the schedule you will follow for initiating and completing vegetative stabilization.
- (b) Operators that are affected by unforeseen circumstances<sup>34</sup> that delay the initiation and/or completion of vegetative stabilization:
  - (i) Immediately initiate and, within 14 calendar days, complete the installation of temporary non-vegetative stabilization measures to prevent erosion;
  - (ii) Complete all soil conditioning, seeding, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as conditions or circumstances allow it on your site; and
  - (iii) Document in the SWPPP the circumstances that prevent you from meeting the deadlines in Part 2.2.14a and the schedule you will follow for initiating and completing stabilization.
- (c) Discharges to a sediment- or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes. Complete stabilization as soon as

<sup>31</sup> See footnote 27

<sup>32</sup> See footnote 28

<sup>33</sup> See footnote 29

<sup>&</sup>lt;sup>34</sup> Examples include problems with the supply of seed stock or with the availability of specialized equipment and unsuitability of soil conditions due to excessive precipitation and/or flooding.

practicable, but no later than seven (7) calendar days after stabilization has been initiated.

- b. Final Stabilization Criteria (for any areas not covered by permanent structures):
  - i. Establish uniform, perennial vegetation (i.e., evenly distributed, without large bare areas) that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas; and/or
  - ii. Implement permanent non-vegetative stabilization measures<sup>35</sup> to provide effective cover.

### iii. Exceptions:

- (a) Arid, semi-arid, and drought-stricken areas (as defined in Appendix A). Final stabilization is met if the area has been seeded or planted to establish vegetation that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas within three (3) years and, to the extent necessary to prevent erosion on the seeded or planted area, non-vegetative erosion controls have been applied that provide cover for at least three years without active maintenance.
- (b) Disturbed areas on agricultural land that are restored to their preconstruction agricultural use. The Part 2.2.14b final stabilization criteria does not apply.
- (c) Areas that need to remain disturbed. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed, and only the minimum area needed remains disturbed (e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, materials).

### 2.3 POLLUTION PREVENTION REQUIREMENTS 36

You must implement pollution prevention controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater and to prevent the discharge of pollutants from spilled or leaked materials from construction activities.

### 2.3.1 For equipment and vehicle fueling and maintenance:

a. Provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuels and oils, from these activities;<sup>37</sup>

 $<sup>^{35}</sup>$  Examples of permanent non-vegetative stabilization measures include riprap, gravel, gabions, and geotextiles.

<sup>&</sup>lt;sup>36</sup> Under this permit, you are not required to minimize exposure for any products or materials where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

<sup>&</sup>lt;sup>37</sup> Examples of effective means include:

Locating activities away from waters of the U.S. and stormwater inlets or conveyances so that stormwater coming into contact with these activities cannot reach waters of the U.S.;

Providing secondary containment (e.g., spill berms, decks, spill containment pallets) and cover where appropriate; and

<sup>•</sup> Having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.

- b. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;
- c. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;
- d. Use drip pans and absorbents under or around leaky vehicles;
- e. Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements; and
- f. Clean up spills or contaminated surfaces immediately, using dry clean up measures (do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

### 2.3.2 For equipment and vehicle washing:

- a. Provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters;<sup>38</sup>
- b. Ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water; and
- c. For storage of soaps, detergents, or solvents, provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these detergents to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

### 2.3.3 For storage, handling, and disposal of building products, materials, and wastes:

- a. For building materials and building products<sup>39</sup>, provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these products to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.
  - Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).
- b. For pesticides, herbicides, insecticides, fertilizers, and landscape materials:
  - i. In storage areas, provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these chemicals to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas; and
  - ii. Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label (see also Part 2.3.5).
- c. For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals:

<sup>&</sup>lt;sup>38</sup> Examples of effective means include locating activities away from waters of the U.S. and stormwater inlets or conveyances and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls.

<sup>&</sup>lt;sup>39</sup> Examples of building materials and building products typically present at construction sites include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, and gravel and mulch stockpiles.

- i. Store chemicals in water-tight containers, and provide either (1) cover (e.g., plastic sheeting, temporary roofs) to minimize the exposure of these containers to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas (e.g., having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill), or provide secondary containment (e.g., spill berms, decks, spill containment pallets); and
- ii. Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.

### d. For hazardous or toxic wastes:40

- i. Separate hazardous or toxic waste from construction and domestic waste;
- ii. Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, tribal, or local requirements;
- iii. Store all outside containers within appropriately-sized secondary containment (e.g., spill berms, decks, spill containment pallets) to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., storing chemicals in a covered area, having a spill kit available on site):
- iv. Dispose of hazardous or toxic waste in accordance with the manufacturer's recommended method of disposal and in compliance with federal, state, tribal, and local requirements;
- v. Clean up spills immediately, using dry clean-up methods, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and
- vi. Follow all other federal, state, tribal, and local requirements regarding hazardous or toxic waste.

### e. For construction and domestic wastes:41

- i. Provide waste containers (e.g., dumpster, trash receptacle) of sufficient size and number to contain construction and domestic wastes;
- ii. Keep waste container lids closed when not in use and close lids at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either (1) cover (e.g., a tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation,

<sup>&</sup>lt;sup>40</sup> Examples of hazardous or toxic waste that may be present at construction sites include paints, caulks, sealants, fluorescent light ballasts, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.

<sup>&</sup>lt;sup>41</sup> Examples of construction and domestic waste include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, demolition debris; and other trash or building materials.

- or (2) a similarly effective means designed to minimize the discharge of pollutants (e.g., secondary containment);
- iii. On business days, clean up and dispose of waste in designated waste containers; and
- iv. Clean up immediately if containers overflow.
- f. For sanitary waste, position portable toilets so that they are secure and will not be tipped or knocked over, and located away from waters of the U.S. and stormwater inlets or conveyances.

### 2.3.4 For washing applicators and containers used for stucco, paint, concrete, form release oils, curing compounds, or other materials:

- a. Direct wash water into a leak-proof container or leak-proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation;
- b. Handle washout or cleanout wastes as follows:
  - i. Do not dump liquid wastes in storm sewers or waters of the U.S.;
  - ii. Dispose of liquid wastes in accordance with applicable requirements in Part 2.3.3; and
  - iii. Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3; and
- c. Locate any washout or cleanout activities as far away as possible from waters of the U.S. and stormwater inlets or conveyances, and, to the extent feasible, designate areas to be used for these activities and conduct such activities only in these areas.

### 2.3.5 For the application of fertilizers:

- a. Apply at a rate and in amounts consistent with manufacturer's specifications, or document in the SWPPP departures from the manufacturer specifications where appropriate in accordance with Part 7.2.6.b.ix;
- Apply at the appropriate time of year for your location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth;
- c. Avoid applying before heavy rains that could cause excess nutrients to be discharged;
- d. Never apply to frozen ground;
- e. Never apply to stormwater conveyance channels; and
- f. Follow all other federal, state, tribal, and local requirements regarding fertilizer application.

### 2.3.6 Emergency Spill Notification Requirements

Discharges of toxic or hazardous substances from a spill or other release are prohibited, consistent with Part 1.3.5. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 as soon as you have knowledge of the release. You must also, within seven (7) calendar days of knowledge of the release, provide a

description of the release, the circumstances leading to the release, and the date of the release. State, tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies.

### 2.4 CONSTRUCTION DEWATERING REQUIREMENTS

Comply with the following requirements to minimize the discharge of pollutants in ground water or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, in accordance with Part 1.2.2.42

- 2.4.1 Treat dewatering discharges with controls to minimize discharges of pollutants;<sup>43</sup>
- **2.4.2** Do not discharge visible floating solids or foam;
- 2.4.3 Use an oil-water separator or suitable filtration device (such as a cartridge filter) that is designed to remove oil, grease, or other products if dewatering water is found to contain these materials:
- **2.4.4** To the extent feasible, use vegetated, upland areas of the site to infiltrate dewatering water before discharge. You are prohibited from using waters of the U.S. as part of the treatment area:
- **2.4.5** At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11;
- **2.4.6** With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and
- **2.4.7** Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.

### 3 WATER QUALITY-BASED EFFLUENT LIMITATIONS

### 3.1 GENERAL EFFLUENT LIMITATION TO MEET APPLICABLE WATER QUALITY STANDARDS

Discharges must be controlled as necessary to meet applicable water quality standards. Discharges must also comply with any additional state or tribal requirements that are in Part 9.

In the absence of information demonstrating otherwise, EPA expects that compliance with the conditions in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that discharges are not being controlled as necessary to meet applicable water quality standards, you must take corrective action as required in Parts 5.1 and 5.2, and document the corrective actions as required in Part 5.4.

 $<sup>^{42}</sup>$  Uncontaminated, clear (non-turbid) dewatering water can be discharged without being routed to a control.

<sup>&</sup>lt;sup>43</sup> Appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, filtration systems (e.g., bag or sand filters), and passive treatment systems that are designed to remove sediment. Appropriate controls to use downstream of dewatering controls to minimize erosion include vegetated buffers, check dams, riprap, and grouted riprap at outlets.

EPA may insist that you install additional controls (to meet the narrative water quality-based effluent limit above) on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI or from other sources indicates that your discharges are not controlled as necessary to meet applicable water quality standards. This includes situations where additional controls are necessary to comply with a wasteload allocation in an EPA-established or approved TMDL.

If during your coverage under a previous permit, you were required to install and maintain stormwater controls specifically to meet the assumptions and requirements of an EPA-approved or established TMDL (for any parameter) or to otherwise control your discharge to meet water quality standards, you must continue to implement such controls as part of your coverage under this permit.

### 3.2 DISCHARGE LIMITATIONS FOR SITES DISCHARGING TO SENSITIVE WATERS<sup>44</sup>

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes, you must comply with the inspection frequency specified in 4.3 and you must comply with the stabilization deadline specified in Part 2.2.14.a.iii.(c).<sup>45</sup>

If you discharge to a water that is impaired for a parameter other than a sediment-related parameter or nutrients, EPA will inform you if any additional controls are necessary for your discharge to be controlled as necessary to meet water quality standards, including for it to be consistent with the assumptions of any available wasteload allocation in any applicable TMDL, or if coverage under an individual permit is necessary.

In addition, on a case-by-case basis, EPA may notify operators of new sites or operators of existing sites with increased discharges that additional analyses, stormwater controls, or other measures are necessary to comply with the applicable

Tiers 2, 2.5 and 3 refer to waters either identified by the state as high quality waters or Outstanding National Resource Waters under 40 CFR 131.12(a)(2) and (3). For the purposes of this permit, you are considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3. For discharges that enter a storm sewer system prior to discharge, the water of the U.S. to which you discharge is the first water of the U.S. that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

EPA may determine on a case-by-case basis that a site discharges to a sensitive water.

<sup>&</sup>lt;sup>44</sup> Sensitive waters include waters that are impaired and Tier 2, Tier 2.5, and Tier 3 waters.

<sup>&</sup>quot;Impaired waters" are those waters identified by the state, tribe, or EPA as not meeting an applicable water quality standard and (1) requires development of a TMDL (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1). Your construction site will be considered to discharge to an impaired water if the first water of the U.S. to which you discharge is an impaired water for the pollutants contained in the discharge from your site. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. For assistance in determining whether your site discharges to impaired waters, EPA has developed a tool that is available both within the electronic NOI form in NeT, and at <a href="https://water.epa.gov/polwaste/npdes/stormwater/discharge.cfm">https://water.epa.gov/polwaste/npdes/stormwater/discharge.cfm</a>.

<sup>&</sup>lt;sup>45</sup> If you qualify for any of the reduced inspection frequencies in Part 4.4, you may conduct inspections in accordance with Part 4.4 for any portion of your site that discharges to a sensitive water.

antidegradation requirements, or notify you that an individual permit application is necessary.

If you discharge to a water that is impaired for polychlorinated biphenyls (PCBs) and are engaging in demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980, you must:

- a. Implement controls<sup>46</sup> to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures, to precipitation and to stormwater; and
- b. Ensure that disposal of such materials is performed in compliance with applicable state, federal, and local laws.

### 4 SITE INSPECTION REQUIREMENTS

### 4.1 PERSON(S) RESPONSIBLE FOR INSPECTING SITE

The person(s) inspecting your site may be a person on your staff or a third party you hire to conduct such inspections. You are responsible for ensuring that the person who conducts inspections is a "qualified person." <sup>47</sup>

### 4.2 FREQUENCY OF INSPECTIONS. 48

At a minimum, you must conduct a site inspection in accordance with one of the two schedules listed below, unless you are subject to the Part 4.3 site inspection frequency for discharges to sensitive waters or qualify for a Part 4.4 reduction in the inspection frequency:

- **4.2.1** At least once every seven (7) calendar days; or
- **4.2.2** Once every 14 calendar days *and* within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. <sup>49</sup> To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

<sup>&</sup>lt;sup>46</sup> Examples of controls to minimize exposure of PCBs to precipitation and stormwater include separating work areas from non-work areas and selecting appropriate personal protective equipment and tools, constructing a containment area so that all dust or debris generated by the work remains within the protected area, using tools that minimize dust and heat (<212°F). For additional information, refer to Part 2.3.3 of the CGP Fact Sheet.

<sup>&</sup>lt;sup>47</sup> A "qualified person" is a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

<sup>&</sup>lt;sup>48</sup> Inspections are only required during the site's normal working hours.

<sup>&</sup>lt;sup>49</sup> "Within 24 hours of the occurrence of a storm event" means that you must conduct an inspection within 24 hours once a storm event has produced 0.25 inches within a 24-hour period, even if the storm event is still continuing. Thus, if you have elected to inspect bi-weekly in accordance with Part 4.2.2 and there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, you must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

### 4.3 INCREASE IN INSPECTION FREQUENCY FOR SITES DISCHARGING TO SENSITIVE WATERS.

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes (see Part 3.2), instead of the inspection frequency specified in Part 4.2, you must conduct inspections in accordance with the following inspection frequencies:

Once every seven (7) calendar days and within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

### 4.4 REDUCTIONS IN INSPECTION FREQUENCY

### 4.4.1 Stabilized areas.

- a. You may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, then once per month in any area of your site where the stabilization steps in 2.2.14a have been completed. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3, as applicable. You must document the beginning and ending dates of this period in your SWPPP.
- b. **Exception.** For "linear construction sites" (as defined in Appendix A) where disturbed portions have undergone final stabilization at the same time active construction continues on others, you may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, in any area of your site where the stabilization steps in 2.2.14a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event of 0.25 inches or greater. If there are no issues or evidence of stabilization problems, you may suspend further inspections. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in Part 4.4.1a Inspections must continue until final stabilization is visually confirmed following a storm event of 0.25 inches or greater.
- 4.4.2 Arid, semi-arid, or drought-stricken areas (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, you may reduce the frequency of inspections to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater. You must document that you are using this reduced schedule and the beginning and ending dates of the seasonally dry period in your SWPPP. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

### 4.4.3 Frozen conditions:

a. If you are suspending construction activities due to frozen conditions, you may temporarily suspend inspections on your site until thawing conditions (as defined in Appendix A) begin to occur if:

- i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable;
- ii. Land disturbances have been suspended; and
- iii. All disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.
- b. If you are still conducting construction activities during frozen conditions, you may reduce your inspection frequency to once per month if:
  - i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable; and
  - ii. Except for areas in which you are actively conducting construction activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

You must document the beginning and ending dates of this period in your SWPPP.

### 4.5 AREAS THAT MUST BE INSPECTED

During your site inspection, you must at a minimum inspect the following areas of your site:

- **4.5.1** All areas that have been cleared, graded, or excavated and that have not yet completed stabilization consistent with Part 2.2.14a;
- **4.5.2** All stormwater controls (including pollution prevention controls) installed at the site to comply with this permit;<sup>50</sup>
- **4.5.3** Material, waste, borrow, and equipment storage and maintenance areas that are covered by this permit;
- **4.5.4** All areas where stormwater typically flows within the site, including drainageways designed to divert, convey, and/or treat stormwater;
- **4.5.5** All points of discharge from the site; and
- **4.5.6** All locations where stabilization measures have been implemented.

You are not required to inspect areas that, at the time of the inspection, are considered unsafe to your inspection personnel.

### 4.6 REQUIREMENTS FOR INSPECTIONS

During your site inspection, you must at a minimum:

**4.6.1** Check whether all stormwater controls (i.e., erosion and sediment controls and pollution prevention controls) are properly installed, appear to be operational, and are working as intended to minimize pollutant discharges;

<sup>&</sup>lt;sup>50</sup> This includes the requirement to inspect for sediment that has been tracked out from the site onto paved roads, sidewalks, or other paved areas consistent with Part 2.2.4.

- **4.6.2** Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site;
- **4.6.3** Identify any locations where new or modified stormwater controls are necessary to meet the requirements of Parts 2 and/or 3;
- **4.6.4** Check for signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to your discharge at points of discharge and, if applicable, the banks of any waters of the U.S. flowing within or immediately adjacent to the site;
- **4.6.5** Identify any incidents of noncompliance observed;
- **4.6.6** If a discharge is occurring during your inspection:
  - a. Identify all discharge points at the site; and
  - b. Observe and document the visual quality of the discharge, and take note of the characteristics of the stormwater discharge, including color; odor; floating, settled, or suspended solids; foam; oil sheen; and other indicators of stormwater pollutants.
- **4.6.7** Based on the results of your inspection, complete any necessary maintenance under Part 2.1.4 and corrective action under Part 5.

### 4.7 INSPECTION REPORT

- **4.7.1** You must complete an inspection report within 24 hours of completing any site inspection. Each inspection report must include the following:
  - a. The inspection date;
  - b. Names and titles of personnel making the inspection;
  - c. A summary of your inspection findings, covering at a minimum the observations you made in accordance with Part 4.6, including any necessary maintenance or corrective actions:
  - d. If you are inspecting your site at the frequency specified in Part 4.2.2, Part 4.3, or Part 4.4.1b, and you conducted an inspection because of rainfall measuring 0.25 inches or greater, you must include the applicable rain gauge or weather station readings that triggered the inspection; and
  - e. If you determined that it is unsafe to inspect a portion of your site, you must describe the reason you found it to be unsafe and specify the locations to which this condition applies.
- **4.7.2** Each inspection report must be signed in accordance with Appendix I, Part I.11 of this permit.
- **4.7.3** You must keep a copy of all inspection reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.
- **4.7.4** You must retain all inspection reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

### 4.8 INSPECTIONS BY EPA

You must allow EPA, or an authorized representative of EPA, to conduct the following activities at reasonable times. To the extent that you are utilizing shared controls that are

- not on site to comply with this permit, you must make arrangements for EPA to have access at all reasonable times to those areas where the shared controls are located.
- **4.8.1** Enter onto all areas of the site, including any construction support activity areas covered by this permit, any off-site areas where shared controls are utilized to comply with this permit, discharge locations, adjoining waterbodies, and locations where records are kept under the conditions of this permit;
- **4.8.2** Access and copy any records that must be kept under the conditions of this permit;
- 4.8.3 Inspect your construction site, including any construction support activity areas covered by this permit (see Part 1.2.1c), any stormwater controls installed and maintained at the site, and any off-site shared controls utilized to comply with this permit; and
- **4.8.4** Sample or monitor for the purpose of ensuring compliance.

### 5 CORRECTIVE ACTIONS

### 5.1 CONDITIONS TRIGGERING CORRECTIVE ACTION.

You must take corrective action to address any of the following conditions identified at your site:

- **5.1.1** A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); or
- **5.1.2** A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly; or
- 5.1.3 Your discharges are causing an exceedance of applicable water quality standards; or
- **5.1.4** A prohibited discharge has occurred (see Part 1.3).

### 5.2 CORRECTIVE ACTION DEADLINES

For any corrective action triggering conditions in Part 5.1, you must:

- **5.2.1** Immediately take all reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events;
- **5.2.2** When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day;
- 5.2.3 When the problem requires a new or replacement control or significant repair, install the new or modified control and make it operational, or complete the repair, by no later than seven (7) calendar days from the time of discovery. If it is infeasible to complete the installation or repair within seven (7) calendar days, you must document in your records why it is infeasible to complete the installation or repair within the 7-day timeframe and document your schedule for installing the stormwater control(s) and making it operational as soon as feasible after the 7-day timeframe. Where these actions result in changes to any of the stormwater controls or procedures documented in your SWPPP, you must modify your SWPPP accordingly within seven (7) calendar days of completing this work.

### 5.3 CORRECTIVE ACTION REQUIRED BY EPA

You must comply with any corrective actions required by EPA as a result of permit violations found during an inspection carried out under Part 4.8.

### 5.4 CORRECTIVE ACTION REPORT

For each corrective action taken in accordance with this Part, you must complete a report in accordance with the following:

- **5.4.1** Within 24 hours of identifying the corrective action condition, document the specific condition and the date and time it was identified.
- **5.4.2** Within 24 hours of completing the corrective action (in accordance with the deadlines in Part 5.2), document the actions taken to address the condition, including whether any SWPPP modifications are required.
- **5.4.3** Each corrective action report must be signed in accordance with Appendix I, Part I.11 of this permit.
- 5.4.4 You must keep a copy of all corrective action reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.
- 5.4.5 You must retain all corrective action reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

### **6 STAFF TRAINING REQUIREMENTS**

Each operator, or group of multiple operators, must assemble a "stormwater team" to carry out compliance activities associated with the requirements in this permit.

- **6.1** Prior to the commencement of construction activities, you must ensure that the following personnel<sup>51</sup> on the stormwater team understand the requirements of this permit and their specific responsibilities with respect to those requirements:
  - a. Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention controls);
  - b. Personnel responsible for the application and storage of treatment chemicals (if applicable);
  - c. Personnel who are responsible for conducting inspections as required in Part 4.1; and
  - d. Personnel who are responsible for taking corrective actions as required in Part 5.
- 6.2 You are responsible for ensuring that all activities on the site comply with the requirements of this permit. You are not required to provide or document formal training for subcontractors or other outside service providers, but you must ensure that such personnel understand any requirements of this permit that may be affected by the work they are subcontracted to perform.

For emergency-related projects, the requirement to train personnel prior to commencement of construction activities does not apply, however, such personnel must have the required training prior to NOI submission.

<sup>&</sup>lt;sup>51</sup> If the person requiring training is a new employee who starts after you commence construction activities, you must ensure that this person has the proper understanding as required above prior to assuming particular responsibilities related to compliance with this permit.

- 6.3 At a minimum, members of the stormwater team must be trained to understand the following if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):
  - a. The permit deadlines associated with installation, maintenance, and removal of stormwater controls and with stabilization;
  - b. The location of all stormwater controls on the site required by this permit and how they are to be maintained;
  - c. The proper procedures to follow with respect to the permit's pollution prevention requirements; and
  - d. When and how to conduct inspections, record applicable findings, and take corrective actions.
- 6.4 Each member of the stormwater team must have easy access to an electronic or paper copy of applicable portions of this permit, the most updated copy of your SWPPP, and other relevant documents or information that must be kept with the SWPPP.

### 7 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

### 7.1 GENERAL REQUIREMENTS

All operators associated with a construction site under this permit must develop a SWPPP consistent with the requirements in Part 7 prior to their submittal of the NOI.<sup>52, 53</sup> The SWPPP must be kept up-to-date throughout coverage under this permit.

If a SWPPP was prepared under a previous version of this permit, the operator must review and update the SWPPP to ensure that this permit's requirements are addressed prior to submitting an NOI for coverage under this permit.

### 7.2 SWPPP CONTENTS

At a minimum, the SWPPP must include the information specified in this Part and as specified in other parts of this permit.

- **7.2.1 All Site Operators.** Include a list of all other operators who will be engaged in construction activities at the site, and the areas of the site over which each operator has control.
- **7.2.2 Stormwater Team.** Identify the personnel (by name or position) that are part of the stormwater team, as well as their individual responsibilities, including which members are responsible for conducting inspections.

Where there are multiple operators associated with the same site, they may develop a group SWPPP instead of multiple individual SWPPs. Regardless of whether there is a group SWPPP or multiple individual SWPPs, each operator is responsible for compliance with the permit's terms and conditions. In other words, if Operator A relies on Operator B to satisfy its permit obligations, Operator A does not have to duplicate those permit-related functions if Operator B is implementing them for both operators to be in compliance with the permit. However, Operator A remains responsible for permit compliance if Operator B fails to implement any measures necessary for Operator A to comply with the permit. In addition, all operators must ensure, either directly or through coordination with other operators, that their activities do not compromise any other operators' controls and/or any shared controls.

<sup>&</sup>lt;sup>52</sup> The SWPPP does not establish the effluent limits and other permit terms and conditions that apply to your site's discharges; these limits, terms, and conditions are established in this permit.

### **7.2.3** Nature of Construction Activities.<sup>54</sup> Include the following:

- a. A description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition;
- b. The size of the property (in acres or length in miles if a linear construction site);
- c. The total area expected to be disturbed by the construction activities (to the nearest quarter acre or nearest quarter mile if a linear construction site);
- d. A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c);
- e. The maximum area expected to be disturbed at any one time, including on-site and off-site construction support activity areas;
- f. A description and projected schedule for the following:
  - i. Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization;
  - ii. Temporary or permanent cessation of construction activities in each portion of the site:
  - iii. Temporary or final stabilization of exposed areas for each portion of the site; and
  - iv. Removal of temporary stormwater controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.
- g. A list and description of all pollutant-generating activities<sup>55</sup> on the site. For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents (e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels) associated with that activity, which could be discharged in stormwater from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction;
- h. Business days and hours for the project;
- i. If you are conducting construction activities in response to a public emergency (see Part 1.4), a description of the cause of the public emergency (e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services), information substantiating its occurrence (e.g., state disaster declaration or similar state or local declaration), and a description of the construction necessary to reestablish affected public services.
- **7.2.4 Site Map.** Include a legible map, or series of maps, showing the following features of the site:
  - a. Boundaries of the property;

<sup>&</sup>lt;sup>54</sup> If plans change due to unforeseen circumstances or for other reasons, the requirement to describe the sequence and estimated dates of construction activities is not meant to "lock in" the operator to meeting these dates. When departures from initial projections are necessary, this should be documented in the SWPPP itself, or in associated records, as appropriate.

<sup>&</sup>lt;sup>55</sup> Examples of pollutant-generating activities include paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations.

- b. Locations where construction activities will occur, including:
  - Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities;
  - ii. Approximate slopes before and after major grading activities (note any steep slopes (as defined in Appendix A));
  - iii. Locations where sediment, soil, or other construction materials will be stockpiled;
  - iv. Any water of the U.S. crossings;
  - v. Designated points where vehicles will exit onto paved roads;
  - vi. Locations of structures and other impervious surfaces upon completion of construction; and
  - vii. Locations of on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c).
- c. Locations of all waters of the U.S. within and one mile downstream of the site's discharge point. Also identify if any are listed as impaired, or are identified as a Tier 2, Tier 2.5, or Tier 3 water;
- d. Areas of federally listed critical habitat within the site and/or at discharge locations;
- e. Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures);
- f. Drainage patterns of stormwater and authorized non-stormwater before and after major grading activities;
- g. Stormwater and authorized non-stormwater discharge locations, including:
  - i. Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets;<sup>56</sup> and
  - ii. Locations where stormwater or authorized non-stormwater will be discharged directly to waters of the U.S.
- h. Locations of all potential pollutant-generating activities identified in Part 7.2.3g;
- i. Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with this permit; and
- j. Locations where polymers, flocculants, or other treatment chemicals will be used and stored.
- **7.2.5 Non-Stormwater Discharges.** Identify all authorized non-stormwater discharges in Part 1.2.2 that will or may occur.

### 7.2.6 Description of Stormwater Controls.

- a. For each of the Part 2.2 erosion and sediment control effluent limits, Part 2.3 pollution prevention effluent limits, and Part 2.4 construction dewatering effluent limits, as applicable to your site, you must include the following:
  - i. A description of the specific control(s) to be implemented to meet the effluent limit;

<sup>&</sup>lt;sup>56</sup> The requirement to show storm drain inlets in the immediate vicinity of the site on your site map only applies to those inlets that are easily identifiable from your site or from a publicly accessible area immediately adjacent to your site.

- ii. Any applicable stormwater control design specifications (including references to any manufacturer specifications and/or erosion and sediment control manuals/ordinances relied upon);<sup>57</sup>
- iii. Routine stormwater control maintenance specifications; and
- iv. The projected schedule for stormwater control installation/implementation.
- b. You must also include any of the following additional information as applicable.
  - i. Natural buffers and/or equivalent sediment controls (see Part 2.2.1 and Appendix G). You must include the following:
    - (a) The compliance alternative to be implemented;
    - (b) If complying with alternative 2, the width of natural buffer retained;
    - (c) If complying with alternative 2 or 3, the erosion and sediment control(s) you will use to achieve an equivalent sediment reduction, and any information you relied upon to demonstrate the equivalency;
    - (d) If complying with alternative 3, a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size;
    - (e) For "linear construction sites" where it is infeasible to implement compliance alternative 1, 2, or 3, a rationale for this determination, and a description of any buffer width retained and/or supplemental erosion and sediment controls installed; and
    - (f) A description of any disturbances that are exempt under Part 2.2.1 that occur within 50 feet of a water of the U.S.
- ii. **Perimeter controls for a "linear construction site"** (see Part 2.2.3). For areas where perimeter controls are not feasible, include documentation to support this determination and a description of the other practices that will be implemented to minimize discharges of pollutants in stormwater associated with construction activities.
  - Note: Routine maintenance specifications for perimeter controls documented in the SWPPP must include the Part 2.2.3a requirement that sediment be removed before it has accumulated to one-half of the above-ground height of any perimeter control.
- iii. **Sediment track-out controls** (see Parts 2.2.4b and 2.2.4c). Document the specific stabilization techniques and/or controls that will be implemented to remove sediment prior to vehicle exit.
- iv. **Sediment basins** (see Part 2.2.12). In circumstances where it is infeasible to utilize outlet structures that withdraw water from the surface, include documentation to support this determination, including the specific conditions or time periods when this exception will apply.
- v. Treatment chemicals (see Part 2.2.13), you must include the following:
  - (a) A listing of the soil types that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems. Also include a listing of soil types expected to be found in fill material to be used in these same areas, to the extent you have this information prior to construction;

<sup>&</sup>lt;sup>57</sup> Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practice and must be explained in the SWPPP.

- (b) A listing of all treatment chemicals to be used at the site and why the selection of these chemicals is suited to the soil characteristics of your site;
- (c) If the applicable EPA Regional Office authorized you to use cationic treatment chemicals for sediment control, include the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards;
- (d) The dosage of all treatment chemicals to be used at the site or the methodology to be used to determine dosage;
- (e) Information from any applicable Safety Data Sheet (SDS);
- (f) Schematic drawings of any chemically enhanced stormwater controls or chemical treatment systems to be used for application of the treatment chemicals;
- (g) A description of how chemicals will be stored consistent with Part 2.2.13c;
- (h) References to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems; and
- (i) A description of the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to use of the treatment chemicals at your site.
- vi. Stabilization measures (see Part 2.2.14). You must include the following:
  - (a) The specific vegetative and/or non-vegetative practices that will be used;
  - (b) The stabilization deadline that will be met in accordance with Part 2.2.14.a.i-ii;
  - (c) If complying with the deadlines for sites in arid, semi-arid, or drought-stricken areas, the beginning and ending dates of the seasonally dry period and the schedule you will follow for initiating and completing vegetative stabilization; and
  - (d) If complying with deadlines for sites affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization, document the circumstances and the schedule for initiating and completing stabilization.
- vii. **Spill prevention and response procedures** (see Part 1.3.5 and Part 2.3). You must include the following:
  - (a) Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks; and
  - (b) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.6 and established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available to all employees.

You may also reference the existence of Spill Prevention Control and

Countermeasure (SPCC) plans developed for the construction activity under Part 311 of the CWA, or spill control programs otherwise required by an NPDES permit for the construction activity, provided that you keep a copy of that other plan on site.<sup>58</sup>

- viii. **Waste management procedures** (see Part 2.3.3). Describe the procedures you will follow for handling, storing and disposing of all wastes generated at your site consistent with all applicable federal, state, tribal, and local requirements, including clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.
- ix. **Application of fertilizers** (see Part 2.3.5). Document any departures from the manufacturer specifications where appropriate.
- **7.2.7 Procedures for Inspection, Maintenance, and Corrective Action.** Describe the procedures you will follow for maintaining your stormwater controls, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Part 2.1.4, Part 4, and Part 5 of this permit. Also include:
  - a. The inspection schedule you will follow, which is based on whether your site is subject to Part 4.2 or Part 4.3, or whether your site qualifies for any of the reduced inspection frequencies in Part 4.4;
  - b. If you will be conducting inspections in accordance with the inspection schedule in Part 4.2.2, Part 4.3, or Part 4.4.1b, the location of the rain gauge or the address of the weather station you will be using to obtain rainfall data;
  - c. If you will be reducing your inspection frequency in accordance with Part 4.4.1b, the beginning and ending dates of the seasonally defined arid period for your area or the valid period of drought;
  - d. If you will be reducing your inspection frequency in accordance with Part 4.4.3, the beginning and ending dates of frozen conditions on your site; and
  - e. Any maintenance or inspection checklists or other forms that will be used.
- **7.2.8 Staff Training.** Include documentation that the required personnel were, or will be, trained in accordance with Part 6.
- 7.2.9 Compliance with Other Requirements.
  - a. **Threatened and Endangered Species Protection.** Include documentation required in Appendix D supporting your eligibility with regard to the protection of threatened and endangered species and designated critical habitat.
  - b. **Historic Properties.** Include documentation required in Appendix E supporting your eligibility with regard to the protection of historic properties.
  - c. Safe Drinking Water Act Underground Injection Control (UIC) Requirements for Certain Subsurface Stormwater Controls. If you are using any of the following stormwater controls at your site, document any contact you have had with the applicable state agency<sup>59</sup> or EPA Regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing

<sup>&</sup>lt;sup>58</sup> Even if you already have an SPCC or other spill prevention plan in existence, your plans will only be considered adequate if they meet all of the requirements of this Part, either as part of your existing plan or supplemented as part of the SWPPP.

<sup>&</sup>lt;sup>59</sup> For state UIC program contacts, refer to the following EPA website: <a href="https://www.epa.gov/uic">https://www.epa.gov/uic</a>.

regulations at 40 CFR 144-147. Such controls would generally be considered Class V UIC wells:

- Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);
- ii. Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow; and
- iii. Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).
- **7.2.10 SWPPP Certification.** You must sign and date your SWPPP in accordance with Appendix I, Part I.11.
- **7.2.11 Post-Authorization Additions to the SWPPP.** Once you are authorized for coverage under this permit, you must include the following documents as part of your SWPPP:
  - a. A copy of your NOI submitted to EPA along with any correspondence exchanged between you and EPA related to coverage under this permit;
  - b. A copy of the acknowledgment letter you receive from NeT assigning your NPDES ID (i.e., permit tracking number);
  - c. A copy of this permit (an electronic copy easily available to the stormwater team is also acceptable).

### 7.3 ON-SITE AVAILABILITY OF YOUR SWPPP

You must keep a current copy of your SWPPP at the site or at an easily accessible location so that it can be made available at the time of an on-site inspection or upon request by EPA; a state, tribal, or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS).

EPA may provide access to portions of your SWPPP to a member of the public upon request. Confidential Business Information (CBI) will be withheld from the public, but may not be withheld from EPA, USFWS, or NMFS.<sup>60</sup>

If an on-site location is unavailable to keep the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance of your construction site.

### 7.4 SWPPP MODIFICATIONS

<sup>&</sup>lt;sup>60</sup> Information covered by a claim of confidentiality will be disclosed by EPA only to the extent of, and by means of, the procedures set forth in 40 CFR Part 2, Subpart B. In general, submitted information protected by a business confidentiality claim may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the CWA. The authorized representatives, including employees of other executive branch agencies, may review CBI during the course of reviewing draft regulations.

- **7.4.1** You must modify your SWPPP, including the site map(s), within seven (7) days of any of the following conditions:
  - a. Whenever new operators become active in construction activities on your site, or you make changes to your construction plans, stormwater controls, or other activities at your site that are no longer accurately reflected in your SWPPP. This includes changes made in response to corrective actions triggered under Part 5. You do not need to modify your SWPPP if the estimated dates in Part 7.2.3f change during the course of construction;
  - b. To reflect areas on your site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;
  - c. If inspections or investigations by EPA or its authorized representatives determine that SWPPP modifications are necessary for compliance with this permit;
  - d. Where EPA determines it is necessary to install and/or implement additional controls at your site in order to meet the requirements of this permit, the following must be included in your SWPPP:
    - i. A copy of any correspondence describing such measures and requirements; and
    - ii. A description of the controls that will be used to meet such requirements.
  - e. To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater controls implemented at the site; and
  - f. If applicable, if a change in chemical treatment systems or chemically enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application.
- 7.4.2 You must maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change (see Part 7.2.10 above) and a brief summary of all changes.
- **7.4.3** All modifications made to the SWPPP consistent with Part 7.4 must be authorized by a person identified in Appendix I, Part I.11.b.
- **7.4.4** Upon determining that a modification to your SWPPP is required, if there are multiple operators covered under this permit, you must immediately notify any operators who may be impacted by the change to the SWPPP.

### 8 HOW TO TERMINATE COVERAGE

Until you terminate coverage under this permit, you must comply with all conditions and effluent limitations in the permit. To terminate permit coverage, you must submit to EPA a complete and accurate Notice of Termination (NOT), which certifies that you have met the requirements for terminating in Part 8.

### 8.1 MINIMUM INFORMATION REQUIRED IN NOT

- **8.1.1** NPDES ID (i.e., permit tracking number) provided by EPA when you received coverage under this permit;
- **8.1.2** Basis for submission of the NOT (see Part 8.2);
- **8.1.3** Operator contact information;
- **8.1.4** Name of site and address (or a description of location if no street address is available); and

#### **8.1.5** NOT certification.

#### 8.2 CONDITIONS FOR TERMINATING CGP COVERAGE

You must terminate CGP coverage only if one or more of the following conditions has occurred:

- **8.2.1** You have completed all construction activities at your site and, if applicable, construction support activities covered by this permit (see Part 1.2.1c), and you have met the following requirements:
  - a. For any areas that (1) were disturbed during construction, (2) are not covered over by permanent structures, and (3) over which you had control during the construction activities, you have met the requirements for final vegetative or non-vegetative stabilization in Part 2.2.14b;
  - b. You have removed and properly disposed of all construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use following your termination of permit coverage;
  - c. You have removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following your termination of permit coverage or those that are biodegradable; and
  - d. You have removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following your termination of permit coverage; or
- **8.2.2** You have transferred control of all areas of the site for which you are responsible under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or
- **8.2.3** Coverage under an individual or alternative general NPDES permit has been obtained.

#### 8.3 HOW TO SUBMIT YOUR NOT

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOT for the 2017 CGP.

To access NeT, go to <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting</a>.

Waivers from electronic reporting may be granted as specified in Part 1.4.1. If the EPA Regional Office grants you approval to use a paper NOT, and you elect to use it, you must complete the form in Appendix K.

### 8.4 DEADLINE FOR SUBMITTING THE NOT

You must submit your NOT within 30 calendar days after any one of the conditions in Part 8.2 occurs.

### 8.5 EFFECTIVE DATE OF TERMINATION OF COVERAGE

Your authorization to discharge under this permit terminates at midnight of the calendar day that a complete NOT is submitted to EPA.

## 9 PERMIT CONDITIONS APPLICABLE TO SPECIFIC STATES, INDIAN COUNTRY LANDS, OR TERRITORIES

The provisions in this Part provide modifications or additions to the applicable conditions of this permit to reflect specific additional conditions required as part of the state or tribal CWA Section 401 certification process, or the Coastal Zone Management Act (CZMA) certification process, or as otherwise established by the permitting authority. The specific additional revisions and requirements only apply to activities in those specific states, Indian country, and areas in certain states subject to construction projects by Federal Operators. States, Indian country, and areas subject to construction by Federal Operators not included in this Part do not have any modifications or additions to the applicable conditions of this permit.

## 9.1 EPA Region 1

## 9.1.1 NHR100000 State of New Hampshire

- a. If you disturb 100,000 square feet or more of contiguous area, you must also apply for an Alteration of Terrain (AoT) permit from DES pursuant to RSA 485- A:17 and Env-Wq 1500. This requirement also applies to a lower disturbance threshold of 50,000 square feet or more when construction occurs within the protected shoreline under the Shoreland Water Quality Protection Act (see RSA 483-B and Env-Wq 1400). A permit application must also be filed if your project disturbs an area of greater than 2,500 square feet, is within 50 feet of any surface water, and has a flow path of 50 feet or longer disturbing a grade of 25 percent or greater. Project sites with disturbances smaller than those discussed above, that have the potential to adversely affect state surface waters, are subject to the conditions of an AoT General Permit by Rule.
- b. You must determine that any excavation dewatering discharges are not contaminated before they will be authorized as an allowable non-stormwater discharge under this permit (see Part 1.2.2). The water is considered uncontaminated if there is no groundwater contamination within 1,000 feet of the groundwater dewatering location. Information on groundwater contamination can be generated over the Internet via the NHDES web site <a href="http://des.nh.gov/">http://des.nh.gov/</a> by using the One Stop Data Mapper at <a href="http://des.nh.gov/onestop/gis.htm">http://des.nh.gov/onestop/gis.htm</a>. If it is determined that the groundwater to be dewatered is near a remediation or other waste site you must apply for the Remediation General Permit (see <a href="https://www3.epa.gov/region1/npdes/rgp.html">https://www3.epa.gov/region1/npdes/rgp.html</a>.)
- c. You must treat any uncontaminated excavation dewatering discharges as necessary to remove suspended solids and turbidity. The discharges must be sampled at least once per week during weeks when discharges occur. Samples must be analyzed for total suspended solids (TSS) or turbidity and must meet monthly average and daily maximum limits of 50 milligrams per liter (mg/L) and 100 mg/L, respectively for TSS or 33 mg/l and 67 mg/l, respectively for turbidity. TSS (a.k.a. Residue, Nonfilterable) or turbidity sampling and analysis must be performed in accordance with Tables IB and II in 40 CFR 136.3 (http://www.ecfr.gov/cgibin/text
  - idx?SID=0243e3c4283cbd7d8257eb6afc7ce9a2&mc=true&node=se40.25.136 13&r gn=div8). Records of any sampling and analysis must be maintained and kept with the SWPPP for at least three years after final site stabilization.
- d. Construction site owners and operators must consider opportunities for postconstruction groundwater recharge using infiltration best management practices

(BMPs) during site design and preparation of the SWPPP. If your construction site is in a town that is required to obtain coverage under the NPDES General Permit for discharges from Municipal Separate Storm Sewer Systems (MS4) you may be required to use such practices. The SWPPP must include a description of any on-site infiltration that will be installed as a post-construction stormwater management measure or reasons for not employing such measures such as 1) The facility is located in a wellhead protection area as defined in RSA 485- C:2; or 2) The facility is located in an area where groundwater has been reclassified to GAA, GAI or GA2 pursuant to RSA 485-C and Env-DW 901; or 3) Any areas that would be exempt from the groundwater recharge requirements contained in Env-Wq 1507.04, including all land uses or activities considered to be a "High-load Area" (see Env-Wq 1502.30). For design considerations for infiltration measures see Env-Wq 1508.06.

- e. Appendix F contains a list of Tier 2, or high quality waters. Although there is no official list of tier 2 waters, it can be assumed that all NH surface waters are tier 2 for turbidity unless 1) the surface water that you are proposing to discharge into is listed as impaired for turbidity in the states listing of impaired waters (see Surface Water Quality Watershed Report Cards at <a href="http://des.nh.gov/organization/divisions/water/wmb/swqa/report\_cards.htm">http://des.nh.gov/organization/divisions/water/wmb/swqa/report\_cards.htm</a>) or 2) sampling upstream of the proposed discharge location shows turbidity values greater than 10 NTU. A single grab sample collected during dry weather (no precipitation within 48 hours) is acceptable.
- f. To ensure compliance with RSA 485-C, RSA 485-A, RSA 485-A:13, I(a), Env-Wq 1700 and Env-Wq 302, the following information may be requested by NHDES. This information must be kept on site unless you receive a written request from NHDES that it be sent to the address shown in Part 9.1.4 (g).
  - i. A site map required in Part 7.2.4, showing the type and location of all post-construction infiltration BMPs utilized at the facility or the reason(s) why none were installed;
  - ii. A list of all non-stormwater discharges that occur at the facility, including their source locations and the control measures being used (see Part 1.2.2).
  - iii. Records of sampling and analysis of TSS required for construction dewatering discharges (see Part 9.1.4 (c)).
- g. All required or requested documents must be sent to:

NH Department of Environmental Services, Wastewater Engineering Bureau, Permits & Compliance Section P.O. Box 95 Concord, NH 03302-0095

## 9.1.2 VTR10F000 Areas in the State of Vermont subject to construction by a Federal Operator

- a. Earth disturbance at any one time is limited to five acres.
- b. All areas of earth disturbance must have temporary or final stabilization within 14 days of the initial disturbance. After this time, disturbed areas must be temporarily or permanently stabilized in advance of any runoff producing event. A runoff producing event is an event that produces runoff from the construction site. Temporary stabilization is not required if the work is occurring in a self-contained

- excavation (i.e. no outlet) with a depth of two feet or greater (e.g. house foundation excavation, utility trenches). Areas of a construction site that drain to sediment basins are not considered eligible for this exemption, and the exemption applies only to the excavated area itself.
- c. The use of the cationic polymers is prohibited unless approved under a site-specific plan.
- d. Site inspections on active construction sites shall be conducted daily during the period from October 15 April 15.
- e. Any applicant under EPA's CGP shall allow authorized Agency representatives, at reasonable times and upon presentation of credentials, to enter upon the project site for purposes of inspecting the project and determining compliance with this Certification.
- f. The Agency may reopen and alter or amend the conditions of this Certification over the life of the project when such action is necessary to assure compliance with the VWQS.

### 9.2 EPA Region 3

### 9.2.1 DCR100000 District of Columbia

- a. The permittee must comply with the District of Columbia Water Pollution Control Act of 1984, as amended, (D.C. Official Code § 8-103.01 et seq.) and its implementing regulations in Title 21, Chapters 11 and 19 of the District of Columbia Municipal Regulations. Nothing in this permit will be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to District of Columbia laws and regulations.
- b. The permittee must comply with the District of Columbia Stormwater Management, and Soil Erosion and Sediment Control in Chapter 5 of Title 21 of the District of Columbia Municipal Regulations.
- c. The permittee must comply with District of Columbia Flood Management control in Chapter 31 of Title 20 of the District of Columbia Municipal Regulations.
- d. The Department may request a copy of the Stormwater Pollution Prevention Plan (SWPPP) and the permittee is required to submit the SWPPP to the Department within 14 days of such request. The Department may conduct an inspection of any facility covered by this permit to ensure compliance with District's law requirements, including water quality standards. The Department may enforce its certification conditions.
- e. The Department may require the permittee to perform water quality monitoring during the permit term if monitoring is necessary for the protection of public health or the environment as designated under the authority in Chapter 19 of Title 21 of the District of Columbia Municipal Regulations.
- f. The Department may require the permittee to provide measurable verification of the effectiveness of Best Management Practices (BMPs) and other control measures used in the stormwater management program, including water quality monitoring.
- g. The Department has determined that compliance with this permit does not protect the permittee from enforcement actions deemed necessary by the Department

- under its associated regulations to address an imminent threat to public health or a significant adverse environmental impact which results in a violation of the District of Columbia Water Pollution Control Act of 1984, as amended, (D.C. Official Code § 8-103.01 et seq.) and its implementing regulations.
- h. The Department reserves the right to modify this Section 401 Water Quality Certification if any changes, modifications, or deletions are made to this general permit. In addition, the Department reserves the right to add and/or alter the terms and conditions of this Section 401 Water Quality Certification to carry out its responsibilities during the term of this general permit with respect to water quality, including any revisions to District of Columbia Water Quality Standards in Chapter 11 of Title 21 of the District of Columbia Municipal Regulations.
- i. Should any violation of the District's Water Quality Standards, or the conditions of this Section 401 Water Quality Certification occur, the Department will direct the permittee to correct the violation(s). The Department has the right to take any action as authorized by the District laws and regulations to address the violations of this permit or the Water Pollution Control Act and implementing regulations. Substantial civil and criminal penalties are authorized for discharging into District waters in violation of an order or permit issued by the Department. This Section 401 Water Quality Certification does not relieve the permittee of the duty to comply with other applicable District's statutes and regulations.
- j. The permittee must submit copies of Notice of Intent (NOI) and Notice of Termination to DOEE at the same time these documents are submitted to EPA.
- k. The permittee shall allow DOEE to inspect any facilities, equipment, practices, or operations regulated or required under this permit and to access records maintained under the conditions of this permit.
- I. All required or requested documents shall be signed and sent to the: Department of Energy & Environment, 1200 First Street, N.E., 5th Floor, Washington, DC 20002, Attention: Associate Director, Inspection and Enforcement Division.

# 9.2.2 DER10F000 Areas in the State of Delaware subject to construction by a Federal Operator

- a. Federal agencies engaging in construction activities must submit, to DNREC, a sediment and stormwater management (\$&\$) plan and obtain approval from DNREC in accordance with 7 Del. C. §4010, 7 DE Admin. Code 5101, and 7 DE Admin. Code 7201.
- b. Federal agencies engaging in construction activities must provide for construction review by a certified construction reviewer in accordance with 7 Del. C. §§4010 & 4013 and 7 DE Admin. Code 5101, subsection 6.1.6.
- c. Federal agencies engaging in construction activities must certify that all responsible personnel involved in the construction project will have attended the blue card training prior to initiation of any land disturbing activity see 7 Del. C. §§ 4002 & 4014 and 7 DE Admin. Code 5101.

## 9.3 EPA Region 5

## 9.3.1 MNR101000 Indian country within the State of Minnesota

- **9.3.1.1 Fond du Lac Band of Lake Superior Chippewa.** The following conditions apply only to discharges on the Fond du Lac Band of Lake Superior Chippewa Reservation:
  - a. A copy of the Stormwater Pollution Prevention Plan (SWPPP) must be submitted to the Office of Water Protection at least fifteen (15) days in advance of sending the Notice of Intent (NOI) to EPA. The SWPPP can be submitted electronically to <u>richardgitar@FDLREZ.com</u> or by hardcopy sent to:

Fond du Lac Reservation Office of Water Protection 1720 Big Lake Road Cloquet, MN 55720

CGP applicants are encouraged to work with the FDL Office of Water Protection in the identification of all proposed receiving.

- b. Copies of the Notice of Intent (NOI) and the Notice of Termination (NOT) must be sent to the Fond du Lac Office of Water Protection at the same time they are submitted to EPA.
- c. The turbidity limit shall NOT exceed 10% of natural background within the receiving water(s) as determined by Office of Water Protection staff.
- d. Turbidity sampling must take place within 24 hours of a ½-inch or greater rainfall event. The results of the sampling must be reported to the Office of Water Protection within 7 days of the sample collection. All sample reporting must include the date and time, location (GPS: UTM/Zone 15), and NTU. CGP applicants are encouraged to work with the Office of Water Protection in determining the most appropriate location(s) for sampling.
- e. Receiving waters with open water must be sampled for turbidity prior to any authorized discharge as determined by Office of Water Protection staff. This requirement only applies to receiving waters in which no ambient turbidity data exists.
- f. This Certification does not pertain to any new discharge to Outstanding Reservation Resource Waters (ORRW) as described in § 105 b.3. of the Fond du Lac Water Quality Standards (Ordinance #12/98, as amended). Although additional waters may be designated in the future, currently Perch Lake, Rice Portage Lake, Miller Lake, Deadfish Lake, and Jaskari Lake are designated as ORRWs. New dischargers wishing to discharge to an ORRW must obtain an individual permit from EPA for stormwater discharges from large and small construction activities.
- g. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in the Water Quality Standards of the Fond du Lac Reservation, Ordinance 12/98, as amended. This includes, but is not limited to, the prevention of any discharge that causes a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of water of the Fond du Lac Reservation for any of the uses designated in the Water Quality Standards of the Fond du Lac Reservation. These uses include wildlife, aquatic life, warm water fisheries, cold water fisheries, subsistence fishing (netting), primary contact recreation, secondary

- contact recreation, cultural, wild rice areas, aesthetic waters, agriculture, navigation, and commercial.
- h. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the Fond du Lac Reservation. All spills must be reported to the appropriate emergency management agency (National Response Center AND the State Duty Officer), and measures shall be taken immediately to prevent the pollution of waters of the Fond du Lac Reservation, including groundwater. The Fond du Lac Office of Water Protection must also be notified immediately of any spill regardless of size.
- i. This certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for such listing.
- **9.3.1.2 Grand Portage Band of Lake Superior Chippewa.** The following conditions apply only to discharges on the Grand Portage Band of Lake Superior Chippewa Reservation:
  - a. The CGP authorization is for construction activities that may occur within the exterior boundaries of the Grand Portage Reservation in accordance to the Grand Portage Land Use Ordinance. The CGP regulates stormwater discharges associated with construction sites of one acre or more in size. Only those activities specifically authorized by the CGP are authorized by this certification (the "Certification"). This Certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for listing as such.
  - b. All construction stormwater discharges authorized by the CGP must comply with the Water Quality Standards and Water Resources Ordinance, as well as Applicable Federal Standards (as defined in the Water Resources Ordinance). As such, appropriate steps must be taken to ensure that petroleum products or other chemical pollutants are prevented from entering the Waters of the Reservation (as defined in the Water Resources Ordinance). All spills must be reported to the appropriate emergency-management agency, and measures must be taken to prevent the pollution of the Waters of the Reservation, including groundwater.
  - c. The 2017 CGP requires inspections and monitoring reports of the construction site stormwater discharges by a qualified person. Monitoring and inspection reports must comply with the minimum requirements contained in the 2017 CGP. The monitoring plan must be prepared and incorporated into the Stormwater Pollution Prevention Plan (the "SWPPP"). A copy of the SWPPP must be submitted to the Board at least 30 days in advance of sending the requisite Notice of Intent to EPA. The SWPPP should be sent to:

Grand Portage Environmental Resources Board P.O. Box 428 Grand Portage, MN 55605

Copies of the Notice of Intent and Notice of Termination required under the CGP must be submitted to the Board at the address above at the same time they are submitted to the EPA.

d. If requested by the Grand Portage Environmental Department, the permittee must provide additional information necessary for a case-by-case eligibility determination to assure compliance with the Water Quality Standards and any Applicable Federal Standards.

- e. Discharges that the Board has determined to be or that may reasonably be expected to be contributing to a violation of Water Quality Standards or Applicable Federal Standards are not authorized by this Certification.
- f. The Board retains full authority provided by the Water Resources Ordinance to ensure compliance with and to enforce the provisions of the Water Resource Ordinance and Water Quality Standards, Applicable Federal Standards, and these Certification conditions.
- g. Appeals related to Board actions taken in accordance with any of the preceding conditions may be heard by the Grand Portage Tribal Court.

# 9.3.2 WIR101000 Indian country within the State of Wisconsin, except the Sokaogon Chippewa (Mole Lake) Community

- **9.3.2.1** Bad River Band of Lake Superior Tribe of Chippewa Indians: The following conditions apply only to discharges on the Bad River Band of the Lake Superior Tribe of Chippewa Indians Reservation:
  - a. Only those activities specifically authorized by the CGP are authorized by this Certification. This Certification does not authorize impacts to cultural properties, or historical sites, or properties that may be eligible for listing as such. 61, 62
  - b. All projects which are eligible for coverage under the CGP and are located within the exterior boundaries of the Bad River Reservation shall be implemented in such a manner that is consistent with the Tribe's Water Quality Standards (WQS) in order to protect Reservations waters that may be impacted by stormwater discharge including embankments, outlets, adjacent streambanks, slopes, and downstream waters.<sup>63</sup>
  - c. Operators are not eligible to obtain authorization under the CGP for all new discharges to an Outstanding Tribal Resource Water (or Tier 3 water). 64 Outstanding Tribal Resource Waters, or Tier 3 waters, include the following: Kakagon Slough and the lower wetland reaches of its tributaries that support wild rice, Kakagon River, Bad River Slough, Honest John Lake, Bog Lake, a portion of Bad River, from where it enters the Reservation through the confluence with the White River, and Potato River. 65
  - d. An operator proposing to discharge to an Outstanding Resource Water (or Tier 2.5 water) under the CGP must comply with the antidegradation provisions of the Tribe's WQS. Outstanding Resource Waters, or Tier 2.5 waters, include the following: a portion of Bad River, from downstream the confluence with the White River to Lake Superior, White River, Marengo River, Graveyard Creek, Bear Trap Creek, Wood Creek, Brunsweiler River, Tyler Forks, Bell Creek, and Vaughn Creek.<sup>66</sup> The antidegradation demonstration materials described in provision E.4.iii. must be submitted to the following address:

<sup>&</sup>lt;sup>61</sup> Bad River Band of Lake Superior Tribe of Chippewa Indians Water Quality Standards adopted by Resolution No. 7-6-11-441 (hereafter, Tribe's WQS).

<sup>62 36</sup> C.F.R. § 800.16(I)(2).

<sup>&</sup>lt;sup>63</sup> See footnote 61.

<sup>&</sup>lt;sup>64</sup> Tribe's WQS: See provisions E.3.ii. and E.4.iv.

<sup>65</sup> Tribe's WQS: See provision E.2.iii.

<sup>66</sup> Tribe's WQS: See provision E.2.ii.

Bad River Tribe's Natural Resources Department Attn: Water Resources Specialist P.O. Box 39 Odanah, WI 54861

e. An operator proposing to discharge to an Exceptional Resource Water (or Tier 2 water) under the CGP must comply with the antidegradation provisions of the Tribe's WQS. Exceptional Resource Waters, or Tier 2 waters, include the following: any surface water within the exterior boundaries of the Reservation that is not specifically classified as an Outstanding Resource Water (Tier 2.5 water) or an Outstanding Tribal Resource Water (Tier 3 water). <sup>67</sup> The antidegradation demonstration materials described in provision E.4.ii. must be submitted to the following address:

Bad River Tribe's Natural Resources Department Attn: Water Resources Specialist P.O. Box 39 Odanah, WI 54861

- f. Projects utilizing cationic treatment chemicals<sup>68</sup> within the Bad River Reservation boundaries are not eligible for coverage under the CGP.<sup>69</sup>
- g. A discharge to a surface water within the Bad River Reservation boundaries shall not cause or contribute to an exceedance of the turbidity criterion included in the Tribe's WQS, which states: Turbidity shall not exceed 5 NTU over natural background turbidity when the background turbidity is 50 NTU or less, or turbidity shall not increase more than 10% when the background turbidity is more than 50 NTU.<sup>70</sup>
- h. All projects which are eligible for coverage under the CGP within the exterior boundaries of the Bad River Reservation must comply with the Bad River Reservation Wetland and Watercourse Protection Ordinance, or Chapter 323 of the Bad River Tribal Ordinances, including the erosion and sedimentation control, natural buffer, and stabilization requirements. Questions regarding Chapter 323 and requests for permit applications can be directed to the Wetlands Specialist in the Tribe's Natural Resources Department at (715) 682-7123 or <a href="wetlands@badrivernsn.gov">wetlands@badrivernsn.gov</a>.
- i. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must notify the Tribe prior to the commencing earth-disturbing activities.<sup>71, 72</sup> The operator must submit a copy of the Notice of Intent (NOI) to the following addresses at the same time it is submitted to the U.S. EPA:

<sup>&</sup>lt;sup>67</sup> Tribe's WQS: See provision E.2.i.

<sup>&</sup>lt;sup>68</sup> See definition of cationic treatment chemicals in Appendix A of the CGP.

<sup>&</sup>lt;sup>69</sup> Tribe's WQS: See provisions E.6.ii.a. and E.6.ii.c.

<sup>&</sup>lt;sup>70</sup> Tribe's WQS: See provision E.7.iii.

<sup>&</sup>lt;sup>71</sup> See footnote 61.

<sup>&</sup>lt;sup>72</sup> See footnote 62.

Bad River Tribe's Natural Resources Department Attn: Water Resources Specialist P.O. Box 39 Odanah, WI 54861

Bad River Tribe's Natural Resources Department Attn: Tribal Historic Preservation Officer (THPO) P.O. Box 39 Odanah, WI 54861

The operator must also submit a copy of the Notice of Termination (NOT) to the above addresses at the same time it is submitted to the U.S. EPA.

- j. The Tribal Historic Preservation Officer (THPO) must be provided 30 days to comment on the project.<sup>73</sup>
- k. The operator must obtain THPO concurrence in writing. This written concurrence will outline measures to be taken to prevent or mitigate effects to historic properties. For more information regarding the specifics of the cultural resources process, see 36 CFR Part 800. A best practice for an operator is to consult with the THPO during the planning stages of an undertaking.<sup>74</sup>
- I. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the following address at the same time as submitting the NOI: 75

Bad River Tribe's Natural Resources Department Attn: Water Resources Specialist P.O. Box 39 Odanah, WI 54861

m. Any corrective action reports that are required under the CGP must be submitted to the following address within one (1) working day of the report completion: <sup>76</sup>

Bad River Tribe's Natural Resources Department P.O. Box 39 Odanah, WI 54861

n. An operator shall be responsible for meeting any additional permit requirements imposed by the U.S. EPA necessary to comply with the Tribe's antidegradation policies if the discharge point is located upstream of waters designated by the Tribe.<sup>77</sup>

<sup>&</sup>lt;sup>73</sup> 36 C.F.R. § 800.3(c)(4).

<sup>&</sup>lt;sup>74</sup> 36 C.F.R. § 800.3(b).

<sup>&</sup>lt;sup>75</sup> See footnote 61.

<sup>&</sup>lt;sup>76</sup> See footnote 61.

<sup>&</sup>lt;sup>77</sup> See footnote 61.

- **9.3.2.2 Lac du Flambeau Band of Lake Superior Tribe of Chippewa Indians:** The following conditions apply only to discharges on the Lac du Flambeau Band of the Lake Superior Tribe of Chippewa Indians Reservation:
  - a. A copy of the Stormwater Pollution Prevention Plan must be submitted to the following office, for the Traival environmental review process, at least thirty (30) days in advance of sending the Notice of Intent (NOI) to EPA:

Lac du Flambeau Tribal Land Management P.O. Box 279 Lac du Flambeau, WI 54538

CGP applicants are encouraged to work with the LdF Water Resources Program in the identification of all proposed receiving waters.

- b. Copies of the NOI and the Notice of Termination (NOT) must be sent to the LdF Water Resources Program at the same time they are submitted to EPA.
- c. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in the Water Quality Standards of the Lac du Flambeau Reservation. This includes, but is not limited to, the prevention of any discharge that cause a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of water of the Lac du Flambeau Reservation for any of the uses designated in the Water Quality Standards of the Lac du Flambeau Reservation.
- d. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the Lac du Flambeau Reservation. All spills must be reported to the appropriate emergency management agency, and measures shall be taken immediately to prevent the pollution of waters of the Lac du Flambeau reservation, including groundwater.
- e. This certification does not authorize impacts to cultural, historical, or archeological features or sties, or properties that may be eligible for such listing.
- f. Due to the significant ecological and cultural importance of the Lac du Flambeau Reservation, any operator requesting a permit for a point source discharge of pollutants (i.e., discharge) associated with the Stormwater Discharge will need a stormwater pollution prevention plan in place that does not violate Lac du Flambeau Water Quality Standards to protect Reservation Waters.

### 9.4 EPA Region 6

### 9.4.1 NMR100000 State of New Mexico, except Indian country

- a. If construction dewatering activities are anticipated at a site, permittees must complete the following steps:
  - i. Investigative information must be documented in the facility SWPPP.
  - ii. Refer to the GWQB Mapper at <a href="https://gis.web.env.nm.gov/GWQB/">https://gis.web.env.nm.gov/GWQB/</a> AND the PSTB Mapper (Go Mapper) at <a href="https://gis.web.env.nm.gov/GoNM/">https://gis.web.env.nm.gov/GoNM/</a>

and check if the following sources are located within the noted distance from your anticipated construct site groundwater dewatering activity:

Project Location Relative to a Source of Potential Groundwater Contamination	Constituents likely to be required for testing
Within 0.5 mile of an open Leaking Underground Storage Tank (LUST) site	BTEX (Benzene, Toluene, Ethylbenzene, and Xylene) plus additional parameters depending on site conditions.*
Within 0.5 mile of an open Voluntary Remediation site	All parameters listed in Appendix A (or an alternate list approved by the NMED
Within 0.5 mile of an open RCRA Corrective Action Site	SWQB)**
Within 0.5 mile of an open Abatement Site	
Within 0.5 mile of an open Brownfield Site	
Within 1.0 mile or more of a Superfund site or National Priorities List (NPL) site with associated groundwater contamination.	

<sup>\*</sup>For further assistance determining whether dewatering may encounter impacted groundwater, the permittee may contact the NMED Ground Water Quality Bureau at: 505-827-2965.

- ii. Indicate on the NOI that dewatering activities are anticipated. Provide information on flow and potential to encounter impacted groundwater.
- iii. Permittee must test the quality of the groundwater according to the chart above. Hardness and pH must also be measured.
- iv. Permittee must send test result data to EPA Region 6 and the NMED Surface Water Quality Bureau. If the test data exceed standards, it cannot be discharged from the construction site into surface waters under this permit. Discharge to surface waters must be conducted under a separate NPDES individual permit to ensure proper treatment and disposal.
- v. If disposal will be to the ground surface or in an unlined pond, the permittee must submit an NO/ to the NMED Ground Water Quality Bureau.
- b. Operators are not eligible to obtain authorization under this permit for all new and existing storm water discharges to outstanding national resource waters (ONRWs) (also referred to as "Tier 3" waters.)
- c. Operators who intend to obtain authorization under this permit for new and existing storm water discharges from construction sites must satisfy the following condition:
  - i. The SWPPP must include site-specific interim and permanent stabilization, managerial, and structural solids, erosion and sediment control best management practices (BMPs) and/or other controls that are designed to prevent to the maximum extent practicable an increase in the sediment yield and flow velocity from pre-construction, pre-development conditions to assure that applicable standards in 20.6.4.NMAC, including the antidegradation policy, or TMDL waste load allocations (WLAs) are met. This requirement applies to discharges both during construction and after construction operations have been completed. The SWPPP must identify

<sup>\*\*</sup>EPA approved-sufficiently sensitive methods must be used - approved methods are listed in 40 CFR Part 136.3.

and document the rationale for selecting these BMPs and/or other controls. The SWPPP must also describe design specifications, construction specifications, maintenance schedules (including a long term maintenance plan), criteria for inspections, and expected performance and longevity of these BMPs. For sites greater than 5 acres in size, BMP selection must be made based on the use of appropriate soil loss prediction models (i.e. SEDCAD, RUSLE, SEDIMOT, MULTISED, etc.) OR equivalent generally accepted (by professional erosion control specialists) soil loss prediction tools.

- ii. For all sites, the operator(s) must demonstrate, and include documentation in the SWPPP, that implementation of the site-specific practices will assure that the applicable standards or TMDL WLAs are met, and will result in sediment yields and flow velocities that, to the maximum extent practicable, will not be greater than the sediment yield levels and flow velocities from preconstruction, pre-development conditions.
- iii. All SWPPPs must be prepared in accordance with good engineering practices by qualified (e.g. CPESC certified, engineers with appropriate training) erosion control specialists familiar with the use of soil loss prediction models and design of erosion and sediment control systems based on these models (or equivalent soil loss prediction tools). Qualifications of the preparer (e.g., professional certifications, description of appropriate training) must be documented in the SWPPP. The operator(s) must design, implement, and maintain BMPs in the manner specified in the SWPPP.
- d. Permittees can call 505-827-9329 for emergencies at any time and 505-476-6000 for non-emergencies during business hours from 5am-5pm, Monday through Friday.
- 9.4.2 NMR101000 Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR101000 and Ute Mountain Reservation Lands that are covered under Colorado permit COR101000.
- **9.4.2.1 Pueblo of Isleta.** The following conditions apply only to discharges on the Pueblo of Isleta Reservation:
  - a. CGP at 1.3 Prohibited discharges: Stormwater discharges associated with construction activity that EPA or the Pueblo of Isleta, prior to authorization under this perm it, determines will cause, have the reasonable potential to cause, or may reasonably be expected to contribute to a violation or excursion of any applicable water quality standard, including the antidegradation policy, or the impairment of a designated use of receiving waters are not authorized by this permit.
  - b. CGP at 1.4.1 How to Submit Your NOI: The operator shall provide a copy of the Notice of Intent ("NOI") to the Pueblo of Isleta at the same time it is submitted to the U.S. Environmental Protection Agency, for projects occurring within the exterior boundaries of the Pueblo of Isleta. The operator shall also notify the Pueblo of Isleta when it has submitted the Notice of Termination ("NOT"). The NOI and NOT shall be sent to the Pueblo of Isleta at the following address:

Water Quality Control Officer Pueblo of Isleta Environment Department PO Box 1270 Isleta, NM 87022 (505) 869-9819

E-mail: POI36871@isletapueblo.com

Overnight/Express Mail Delivery
Pueblo of Isleta
Environment Department
6 Sagebrush St.
Albuquerque, NM 87105

- c. CGP at 1.5 Requirement to post a notice of your permit coverage: Amend to read: "You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road or tribal road that is nearest to the active part of the construction site..."
- d. CGP at 7.2.6 Description of stormwater controls: The SWPPP will be considered to be incomplete if the operator has not coordinated requirements under this Part with the Pueblo of Isleta Environment Department.
- e. CGP I.12.6.1 at pg.l-6 of 8. The Pueblo of Isleta requests notification within 10 hours (rather than 24 hrs.) if health or the environment become endangered.
- f. CGP at 1.12.2 Anticipated noncompliance: Amend to read: "You must give advance notice to EPA and the Pueblo of Isleta at the address indicated in 1.4.1(a) of any planned changes in the permitted facility or activity which may results in noncompliance with permit requirements."
- g. CGP at I.12.6.1: Any noncompliance for projects within the exterior boundaries of the Pueblo of Isleta which may endanger health or the environment shall be reported directly to the EPA Regional Office [(see contacts at https://www2.e pa.gov/national-pollutant-discharge-elimination-system-npdes/contact-us-stormwater#regional)I and to the Pueblo of Isleta Water Quality Control Officer. Any information must be provided orally with n 12 hours of the time you become aware of the circumstances. Other requirements of this Part for a written submission apply. Electronic communication (E-mail) shall be provided as soon as practical. Verbal notice shall be provided to:

Water Quality Control Officer Pueblo of Isleta E-mail: POI36871@isletapueblo.com (505) 869-9819 (505) 917-8346 mobile (505) 869-3030 Police Dispatch

- h. CGP at 2.2 Erosion and sediment control requirements: Erosion and sediment controls shall be designed to retain sediment on-site.
- i. CGP at 2.2 Under Sediment control requirements, Standard Permit Condition Duty to Mitigate Volumes of sediment at or over (five) 5 cubic yards must be removed and placed for disposal within a tribally approved sediment Disposal Site, located on Pueblo of Isleta lands. CGP 2.2 at pg. 8.
- j. Under Minimize erosion, a permittee must secure permission from the Pueblo or affected Pueblo of Isleta land assignment owner if a dissipation device needs to

- be placed up- or down- elevation of a given construction site. CGP 2.2.11 at pg. 11.
- k. CGP at 2.3.6 Emergency spill notification requirements: You must notify the Pueblo of Isleta Water Quality Control Officer and National Response Center (NRC) [at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302] as soon as you have knowledge of the release. Verbal and electronic notice shall be provided as specified in I.12.6.1
- I. CGP at C.3 Equivalent analysis waiver: Parties wishing to apply for an Equivalent Analysis Waiver (see Appendix D, Section C) must provide a copy of the waiver analysis to the Pueblo of Isleta Water Quality Control Officer at the address indicated in 1.4.1 (a).
- **9.4.2.2 Pueblo of Sandia.** The following conditions apply only to discharges on the Pueblo of Sandia Reservation:
  - a. Only those activities specifically authorized by the CGP are authorized by the Pueblo of Sandia's Water Quality certification. The Pueblo of Sandia's Water Quality Certification does not authorize impact to cultural properties, historical sites or properties that may be eligible as such.
  - b. Copies of all Notices of Intent (NOI) submitted to the EPA must also be sent concurrently to the Pueblo of Sandia at the following address. Discharges are not authorized by this permit unless an accurate and complete NOI has been submitted to the Pueblo of Sandia, either by mail or electronically.

### Regular U.S. Delivery Mail:

Pueblo of Sandia Environment Department Attention: Scott Bulgrin, Water Quality Manager 481 Sandia Loop Bernalillo, New Mexico 87004

Electronically:

sbulgrin@sandiapueblo.nsn.us

- c. Any correspondences between the applicant and EPA related to analytical data, written reports, corrective action, enforcement, monitoring, or an adverse incident written reports should likewise be routed to the Pueblo of Sandia at the above address.
- d. The Stormwater Pollution Prevention Plan (SWPPP) must be available to the Pueblo of Sandia Environment Department either electronically or hard copy upon request for review. The SWPPP must be made available at least fourteen (14) days before construction begins. The fourteen (14) day period will give Pueblo staff time to become familiar with the project site, prepare for construction site inspections, and determine compliance with the Pueblo of Sandia Water Quality Standards. Failure to provide a SWPPP to the Pueblo of Sandia may result in the delay or denial of the construction project.
- e. If requested by the Pueblo of Sandia Environment Department, the permittee must provide additional information necessary for a case-by-case eligibility determination to assure compliance with the Pueblo of Sandia Water Quality Standards and/or applicable Federal Standards not authorized by this certification.
- f. An "Authorization to Proceed Letter" with site specific mitigation requirements may

be sent out to the permittee when a review of the NOI and SWPPP, on a case-bycase basis is completed by the Pueblo of Sandia Environment Department. This approval will allow the application to proceed if all mitigation requirements are met.

- g. The Pueblo of Sandia will not allow Small construction Waivers (Appendix C) or the Rainfall Erosivity Waiver (Appendix C.1) to be granted for any small construction activities.
- h. Before submitting a Notice of Termination (NOT) to the EPA, permittees must clearly demonstrate to the Pueblo of Sandia Environment Department through a site visit or documentation that requirements for site stabilization have been met and any temporary erosion control structures have been removed. A short letter stating the NOT is acceptable and all requirements have been met will be sent to the permittee to add to the permittee's NOT submission to EPA.
- Copies of all NOT submitted to the EPA must also be sent concurrently to the Pueblo of Sandia through the mail or electronically.

Regular U.S. Delivery Mail:

Pueblo of Sandia Environment Department Attention: Scott Bulgrin, Water Quality Manager 481 Sandia Loop Bernalillo, New Mexico 87004

Electronically: sbulgrin@sandiapueblo.nsn.us

- j. The Pueblo of Sandia may require the permittee to perform water quality monitoring for pH, turbidity, and total suspended solids (TSS) during the permit term if the discharge is to a surface water leading to the Rio Grande for the protection of public health and the environment.
- **9.4.2.3 Pueblo of Santa Ana.** The following conditions apply only to discharges on the Pueblo of Santa Ana Reservation:
  - a. The permittee shall provide a copy of the Notice of Intent (NOI) to the Pueblo of Santa Ana (the Pueblo), at the same time it is submitted to the U.S. Environmental Protection Agency (EPA), for projects with discharges onto the lands of the Pueblo as defined in the Pueblo's antidegradation policy within the Pueblo of Santa Ana Water Quality Standards.
  - b. The permittee shall provide a final copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Pueblo that is associated with any project identified in the NOI, at the same time that an NOI is submitted to the EPA. The SWPPP should include any projects with discharges onto the lands of the Pueblo as defined in

- the antidegradation policy within the Pueblo of Santa Ana Water Quality Standards.
- c. The operator shall provide copies of inspections reports and of corrective action reports to the Pueblo at the address below for review, upon request.
- d. Upon completion of the project identified in the NOI, the permittee will submit a Notice of Termination (NOT) to the Pueblo.
- e. All required or requested permittee specific information identified above shall be submitted to the following address:

Pueblo of Santa Ana Department of Natural Resources, Attention: Water Resources Division 2 Dove Road Santa Ana Pueblo, NM 87004

- f. Discharges are not authorized by permittee unless an accurate and complete NOI and SWPPP have been submitted to the Pueblo. Failure to provide an accurate and complete NOI and SWPPP may result in a denial of the discharge permit or a delay in groundbreaking or construction.
- g. The permittee will not proceed with site work until authorized by the Pueblo. The Pueblo requires review of the complete and final SWPPP before authorization to proceed. The Pueblo will provide an "Authorization to Process" notice after review and approval of the SWPPP.
- h. The permittee could be required to perform water quality monitoring, sampling or analysis during the active permit dates for constituents determined by the Pueblo.
- i. Before submitting a NOT, permittees must certify to the Pueblo's Department of Natural Resources in writing that requirements for site stabilization have been met, and any temporary erosion control structures have been removed. Documentation of the Pueblo's review that such requirements have been reviewed and met will be provided for the permittee to add to the permittee's NOT submission to EPA. Copies of all NOT submitted to the EPA must also be sent to the Pueblo at the address provided above.
- **9.4.2.4 Pueblo of Santa Clara.** The following conditions apply only to discharges on the Pueblo of Santa Clara Reservation:
  - a. The operator must provide a copy of the Notice of Intent (NOI) and Notice of Termination (NOT) to the Santa Clara Pueblo Governor's Office at the same time it is provided to the US Environmental Protection Agency.
  - b. A copy of the Storm water Pollution Prevention Plan shall be made available to the Pueblo of Santa Clara staff upon request.
- **9.4.2.5 Pueblo of Tesuque.** The following conditions apply only to discharges on the Pueblo of Tesuque Reservation:
  - a. Based on the Section 401 Certification provisions within the CWA, no discharges that will exceed or cause the exceedance of the Pueblo of Tesuque Water Quality Standards will be allowed within the boundaries of the Pueblo of Tesuque.
  - b. The operator shall provide a copy of the Notice of Intent (NOI) to the Pueblo of Tesuque Governor's Office in care of the Department of Environmental and Natural Resources (DENR) at the same time it is submitted to the Environmental

Protection Agency, for projects occurring within the boundaries of Tesuque tribal lands. The operator shall also notify the Pueblo of Tesuque Governor's Office in care of the DENR when it submits the Notice of Termination (NOT), but not before the DENR post-construction inspection has been completed as described below. The NOI and NOT shall be sent to the following address:

Pueblo of Tesuque Office of the Governor Attn: DENR 20 TP828 Administration Bldg. Santa Fe, NM 87506-5512

Alternatively, the operator may arrange with DENR to email the documents.

- c. The operator shall also provide a copy of the Stormwater Pollution Prevention Plan, copies of inspection reports, and copies of corrective action reports to the DENR.
- d. Construction requiring this permit will not commence until the above document submissions have been made and DENR provides the operator with notice to proceed. Operators will not demobilize until DENR personnel inspect the site for complication of stabilization. Once the inspection has taken place and all SWPPPrelated work has been completed to the satisfaction of DENR, the operator will submit its NOT as described above and then demobilize.
- **9.4.2.6 Taos Pueblo**. The following conditions apply only to discharges on the Taos Pueblo Reservation:
  - a. The operator shall provide a copy of the Notice of Intent (NOI) to the Taos Pueblo Governor's Office, War Chief's Office and Environmental Office, at the same time it is submitted to the U.S. Environmental Protection Agency, for projects occurring within the exterior boundaries of Taos Pueblo. The operator shall also notify Taos Pueblo when it has submitted the Notice of Termination (NOT). The NOI and NOT shall be sent to the Taos Pueblo at the following addresses:
    - i. Taos Pueblo Governor's Office P.O. Box 1846 Taos NM 87571
    - ii. Taos Pueblo War Chief's Office P.O. Box 2596 Taos NM 87571
    - ii. Environmental Office Attn: Program Manger P.O. Box 1846 Taos NM 87571

- b. Taos Pueblo requests that in the event Indian artifacts or human remains are inadvertently discovered on projects occurring near or on Taos Pueblo lands that consultation with the tribal Governor's Office occur at the earliest possible time.
- c. The operator shall provide a copy of the Stormwater Pollution Prevention Plan, copies of inspections reports, and copies of corrective action reports to staff in the Taos Pueblo Environmental Office for review and copy, upon request.
- **9.4.2.7 Ohkay Owingeh.** The following conditions apply only to discharges on the Ohkay Owingeh Reservation:
  - a. Prior to commencement of any construction activity on Ohkay Owingeh Lands requiring permit coverage under EPA's Construction General Permit, the operator(s) shall submit to Ohkay Owingeh Office of Environmental Affairs, a copy of the electronic "Notice of Intent," submitted to the Environmental Protection Agency, immediately following EPA's electronic notification that the NOI has been received. A copy of the Stormwater Pollution Prevention Plan(s) must be made available to the Ohkay Owingeh Office of Environmental Affairs upon the tribe's request either electronically or hard copy. Operator(s) shall also submit to Ohkay Owingeh Office of Environmental Affairs a copy of the electronic Notice of Termination (NOT) submitted to the Environmental Protection Agency. Documents shall be submitted to Ohkay Owingeh at the following address:

Ohkay Owingeh Office of Environment Affairs Attention: Environmental Programs Manager P.O. Box 717 Ohkay Owingeh, New Mexico 87566 Office # 505.852.4212 Fax # 505.852.1432 Electronic mail: naomi.archuleta@ohkay.org

- b. Ohkay Owingeh will not allow the Rainfall Erosivity Waivers (see Appendix C) to be granted for any small construction activities.
- c. All vegetation used to prevent soil loss, seeding or planting of the disturbed area(s) to meet the vegetative stabilization requirements must utilize native seeds/vegetation commonly known to the area. All temporary erosion control structures, such as silt fences must be removed as soon as stabilization requirements are met.
- **9.4.2.8 Pueblo of Laguna.** The following conditions apply only to discharges on the Pueblo of Laguna Reservation:
  - a. The operator must provide a paper and electronic copy of the Notice of Intent (NOI) and Notice of Termination (NOT) to the Pueblo of Laguna at the same time it is provided to the U.S. Environmental Protection Agency. The NOI and NOT should be provided to the following address:

Pueblo of Laguna, Office of the Governor Attn: Environmental & Natural Resources Department P.O. Box 194 Laguna, NM 87026

Email: setter@pol-nsn.gov

b. The operator must provide an electronic copy of the Storm Water Pollution

Prevention Plan to the Pueblo of Laguna Environmental Program at the same time the NOI is submitted to the above listed email addresses. Any correspondences between the applicant and EPA related to analytical data, written reports, corrective action, enforcement, monitoring, or an adverse incident written reports threshold likewise be routed to the Pueblo of Laguna Environmental Program.

- c. Immediate initiation of consultation with the Pueblo of Laguna is required should any human remains or artifacts be unearthed during the project that fall under the Native American Graves Protection and Repatriation Act guidelines. If human remains are unearthed, contact the Pueblo of Laguna Police Department at 505.552.6666. If artifacts are unearthed, contact the Pueblo of Laguna Tribal Historic Preservation Office at 505.552.5033.
- **9.4.2.9 Picuris Pueblo.** The following conditions apply only to discharges on the Picuris Pueblo Reservation:
  - a. The operator, landowner and construction operators doing earth-disturbance work must meet the definition of "operator" under the Construction General Permit (CGP), and must provide an electronic and paper copy of the Notice of Intent (NOI) and Notice of Termination (NOT) to **both** The Office of the Picuris Pueblo Governor and the Picuris Pueblo Environmental Department at the same time it is provided to the U.S. Environmental Protection Agency (USEPA). The NOI and NOT should be provided to the following address:

Picuris Pueblo The Office of the Governor PO BOX 127 Penasco, NM 87553 575-587-2519 575-587-1071 (Fax)

Governor: governor@picurispueblo.org

Picuris Pueblo Environmental Department PO BOX 158 Penasco, NM 87553 575-587-0110 575-587-0223 (Fax)

Environmental Director: <a href="mailto:environment@picurispueblo.org">environment@picurispueblo.org</a>

- b. The operator must provide an electronic copy of the Storm Water Pollution Prevention Plan to the Picuris Pueblo Environmental Department at least 30 days prior to submitting the NOI to USEPA and the Picuris Pueblo by email to Picuris Pueblo Environmental Department: <a href="mailto:environment@picurispueblo.org">environment@picurispueblo.org</a>.
- **9.4.2.10 Pueblo of Pojoaque.** The following conditions apply only to discharges on the Pueblo of Pojoaque Reservation:
  - a. The operator, landowner and construction operators doing earth-disturbance work must meet the definition of "operator" under the CGP and must provide a copy of the Notice of Intent (NOI) to the Pueblo of Pojoaque Governor's Office and Environmental Department within 3 days following U.S. Environmental Protection Agency's electronic confirmation that the NOI was certified and submitted and is undergoing its 14-day review period. Additionally, a copy of the Notice of Termination (NOT) must be provided the same day electronic confirmation is

received from the U.S. Environmental Protection Agency that the NOT has been accepted. The NOI and NOT should be provided to the following address:

Pueblo of Pojoaque Office of the Governor 78 Cities of Gold Road Santa Fe, NM 87506

Pueblo of Pojoaque Environmental Department 39 Camino Del Rincon Santa Fe, NM 87506

b. The operator must provide an electronic copy of the Stormwater Pollution Prevention Plans to the Pueblo of Pojoaque Environmental Department by email to Adam L Duran (<a href="mailto:aduran@pojoaque.org">aduran@pojoaque.org</a>) at least 30 days prior to submitting the NOI to EPA and the Pueblo of Pojoaque.

## 9.4.3 OKR101000 Indian country within the State of Oklahoma

- **9.4.3.1** Pawnee Nation. The following conditions apply only to discharges within Pawnee Indian country:
  - a. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Pawnee Nation at the same time it is submitted to the Environmental Protection Agency to the following address:

Pawnee Nation Department of Environmental Conservation and Safety P.O. Box 470
Pawnee, OK 74058
Or email to mmatlock@pawneenation.org

- b. The Storm Water Pollution Prevention Plan must be available to Departmental inspectors upon request.
- c. The Department must be notified at 918-762-3655 immediately upon discovery of any noncompliance with any provision of the permit conditions.
- 9.4.4 OKR10F000 Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, including activities associated with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09).
  - a. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Lee Creek or any water or watershed designated "ORW" in Oklahoma's Water Quality Standards, this permit may only be used to authorize discharges from temporary construction activities. Certification is denied for any on-going activities such as sand and gravel mining or any other mineral mining.
  - b. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Lee Creek or any water or watershed designated "ORW" in Oklahoma's Water Quality Standards, certification is denied for any discharges

- originating from support activities, including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, or borrow areas.
- c. In order to company with Oklahoma's Water Quality Standards, these conditions and restrictions also apply to any construction projects located wholly or partially on Indian Country lands within the State of Oklahoma.

## 9.5 EPA Region 8

- 9.5.1 COR101000 Indian country within the State of Colorado, as well as the portion of the Ute Mountain Reservation located in New Mexico.
- **9.5.1.1 The Ute Mountain Ute Tribe.** The following conditions apply only to discharges on the Ute Mountain Ute Reservation.
  - a. Permittees must send the Stormwater Pollution Prevention Plan (SWPPP) to the Tribal Environmental Department for review and approval at least 30 days before construction starts.
  - b. Before submitting the Notice of Termination (NOT), permittees must clearly demonstrate to the Tribal Environmental Department during an on-site inspection that requirements for site stabilization have been met.
  - c. The permittee must send a copy of the Notice of Intent (NOI) and the Tribal Environmental Department.
  - d. Permittees may submit their SWPPPs and NOI and NOT requests electronically to: clarrick@utemountain.org.
  - e. Written NOIs, SWPPPs, and NOTs may be mailed to:

Colin Larrick, Water Quality Program Manager Ute Mountain Ute Tribe Environmental Department P.O. Box 448 Towaoc, CO 81334

## 9.5.2 MTR101000 Indian country within the State of Montana

- **9.5.2.1 The Confederated Salish and Kootenai Tribes of the Flathead Nation.** The following conditions apply only to discharges on the Confederated Salish and Kootenai Tribes of the Flathead Nation Reservation:
  - a. Permittees must submit the Stormwater Pollution Prevention Plan (SWPPP) to the Confederated Salish and Kootenai Tribes at least 30 days before construction starts.
  - b. Before submitting the Notice of Termination (NOT), permittees must clearly demonstrate to an appointed Tribal staff person during an onsite inspection that requirements for site stabilization have been met.
  - c. The permittee must send a copy of the Notice of Intent (NOI) and the NOT to CSKT.
  - d. Permittees may submit their SWPPPs, NOIs and NOTs electronically to: clintf@cskt.org.
  - e. Written SWPPPs, NOIs and NOTs may be mailed to:

Clint Folden, Water Quality Regulatory Specialist Confederated Salish and Kootenai Tribes Natural Resources Department P.O. Box 278 Pablo, MT 59855

## 9.6 EPA Region 9

## 9.6.1 AZR101000 Indian Country within the state of Arizona, as well as Navajo Nation lands in New Mexico and Utah

- **9.6.1.1 Navajo Nation.** The following conditions apply only to discharges on the Navajo Nation reservation:
  - a. Courtesy copies of Notice of Intents and stormwater pollution prevention plans shall be made available to Navajo EPA.
  - b. Copies of all monitoring reports must be provided to Navajo EPA.
  - c. Facilities covered under the CGP will be subject to compliance inspections by Navajo EPA staff with active Federal Inspector Credentials under the authority of the Clean Water Act.
  - d. Specific awareness and adherence to Sections 201 Anti-degradation Policy, 203 Narrative WQS, and 207.H Turbidity.

## 9.6.2 CAR101000 Indian country within the State of California

- **9.6.2.1 Twenty-Nine Palms Band of Mission Indians.** The following conditions apply only to discharges on the Twenty-Nine Palms Band of Mission Indians Reservation:
  - a. At the time the applicant submits its Notice of Intent (NOI) to the EPA, the applicant must concurrently submit written notification of the NOI and a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Twenty-Nine Palms Band of Mission Indians at the address below:

Tribal Environmental Coordinator Twenty-Nine Palms Band of Mission Indians 46-200 Harrison Place Coachella, CA 92236

- b. The applicant must also concurrently submit to the Tribal Environmental Coordinator written notification of any other forms or information submitted to the EPA, including waivers, reporting, and Notice of Termination (NOT).
- c. Permitted entities under the CGP must keep the Tribal EPA informed of authorized discharges under the CGP by submitting written information about the type, quantity, frequency and location, intended purpose, and potential human health and/or environmental effects of their activities. These requirements are pursuant to Section 4 of the Twenty-Nine Palms Band of Mission Indians Water Pollution Control Ordinance (022405A). This information may be submitted to Tribal EPA in the form of Stormwater Pollution Prevention Plans (SWPPPs), monitoring reports, or other reports as required under the CGP. Spills, leaks, or unpermitted discharges must be reported in writing to Tribal EPA within 24 hours of the incident.

- **9.6.2.2 Morongo Band of Mission Indians.** The following conditions apply only to discharges on the Morongo Band of Mission Indians Reservation:
  - a. This certification does not exempt, and is provisional upon compliance with, other applicable statutes and codes administered by federal and tribal agencies. Pursuant to the Morongo Band of Mission Indians Surface Water Quality Protection Ordinance (Ordinance 39), all unpermitted discharges must be reported to the Morongo Band of Mission Indians Environmental Protection Department (Morongo EPD) within 24 hours of the incident.
  - b. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) and stormwater pollution prevention plan (SWPPP) to the Morongo EPD at the same time it is submitted electronically to the EPA.
  - c. The operator shall allow the Morongo EPD or its designee to inspect and sample at the construction site as needed.

Correspondence should be submitted to:

Morongo Band of Mission Indians Environmental Protection Department 12700 Pumarra Road Banning, CA 92220 Phone: (951) 755-5128

Email: epd@morongo-nsn.gov

- **9.6.3 GUR100000 Island of Guam**. The following conditions apply only to discharges on the Island of Guam:
  - a. Any earth-moving operations which require a permit must be obtained from the Department of Public Works (DPW) with clearance approval from various Government of Guam Agencies including Guam EPA prior to the start of any earth-moving activity.
  - b. In the event that the construction sites are within the Guam Sole Source Aquifer, the construction site owner and operator must consider opportunities to facilitate groundwater recharge for construction and post-construction implementing infiltration Best Management Practices. Stormwater disposal systems shall be designed and operated within the boundaries of the project. Stormwater systems shall not be permitted within any Wellhead Protection Zone unless the discharge meets the Guam Water Quality Standards within the zone. Waters discharged within the identified category G-2 recharge zone shall receive treatment to the degree required to protect the drinking water quality prior to it entering the category G-1 resource zone.
  - c. All conditions and requirements set forth in the 22 Guam Administrative Rules and Regulations (GARR), Division II, Water Control, Chapter 10, Guam Soil Erosion and Sediment Control Regulations (GSESCR) that are more protective than the CGP regarding construction activities must be complied with.
  - d. All standards and requirements set forth in the 22 GARR, Division II, Water Control, Chapter 5, Guam Water Quality Standards (GWQS) 2001 Revisions, must be complied with to include reporting GWQS exceedance to Guam EPA.
  - e. All operators/owners of any property development or earth moving activities shall comply with the erosion control pre-construction and post-construction BMP design

- performance standards and criteria set forth in the 2006 CNMI and Guam Stormwater Management Manual.
- f. All conditions and requirements regarding dewatering activities set forth in 22 Guam Administrative Rules and Regulations Chapter 7, Water Resources Development and Operating Regulations must be complied with to include securing permits with Guam EPA prior to the start of any dewatering activities.
- g. If a project to be developed is covered under the Federal Stormwater Regulations (40 CFR Parts 122 & 123), a Notice of Intent (NOI) to discharge stormwater to the surface and marine waters of Guam must be submitted to the U.S. EPA and a copy furnished to Guam EPA, pursuant to Section 10, 104(B)(5)(d) 22GAR, Division II, Chapter 10.
- h. Guam EPA shall apply the Buffer Requirements listed in Appendix G of the CGP NPDES Permit for construction activities as it pertains to Waters of the U.S. in Guam. Guam EPA shall also apply the same buffer requirements for sinkholes in Guam.
- i. When Guam EPA, through its permit review process, identifies that the proposed construction activity is close proximity to marine waters, contractors and owners will be informed that any activity that may impair water quality are required to stop during peak coral spawning periods as per the Guam Coral Spawning Construction Moratoriums.
- j. The Proposed Construction General Permit must set appropriate measures and conditions to protect Guam's Threatened and Endangered Species and Outstanding Resource Waters of exceptional recreational or ecological significance as determined by the Guam EPA Administrator as per Guam Water Quality Standards 2001 Revisions, §5102, Categories of Waters, D. Outstanding Resource Waters.
- k. When Guam EPA through its permit review process identifies that proposed construction activity is in close proximity to any Section 303d impaired waters, which includes marine waters and surface waters, shall ensure that construction activity does not increase the impaired water's ambient parameters.
- I. When Rainfall Erosivity and TMDL Waivers reflected in the CGP, Appendix C, are submitted to the U.S. EPA, Guam EPA will review waivers on a project by project basis.
- m. Prior to submission of the Notice of Termination (NOT) to the U.S. EPA, permittees must clearly demonstration to Guam EPA that the project site has met all soil stabilization requirements and removal of any temporary erosion control as outlined in the GSESCR.

## 9.7 EPA Region 10

### 9.7.1 IDR100000 State of Idaho, except Indian country

- a. <u>Idaho's Antidegradation Policy</u>. The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).
  - Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01).
     Additionally, a Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.05).

- 2. Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- 3. Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

- b. <u>Pollutants of Concern.</u> The primary pollutants of concern associated with stormwater discharges from construction activities are sediment, typically measured as total suspended solids and turbidity. Other potential pollutants include the following: phosphorus, nitrogen, pesticides, organics, metals, PCBs, petroleum products, construction chemicals, and solid wastes.
- c. <u>Receiving Water Body Level of Protection</u>. The CGP provides coverage to construction activities throughout the entire State of Idaho. Because of the statewide applicability, all of the jurisdictional waters within Idaho could potentially receive discharges either directly or indirectly from activities covered under the CGP. DEQ applies a water body by water body approach to determine the level of antidegradation a water body will receive.

All waters in Idaho that receive discharges from activities authorized under the CGP will receive, at minimum Tier I antidegradation protection because Idaho's antidegradation policy applies to all waters of the state. Water bodies that fully support their aquatic life or recreational uses are considered to be high quality waters and will receive Tier II antidegradation protection.

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs) designated, it is possible for a water body to be designated as an ORW during the life of the CGP. Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy.

To determine the support status of the receiving water body, persons filing a Notice of Intent (NOI) for coverage under this general permit must use the most recent EPA-approved Integrated Report, available on Idaho DEQ's website: <a href="http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/">http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/</a>.

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified as Category 3 of DEQ's Integrated Report. These waters require a case-by-case determination to be made by DEQ based on available information at the time of the application for permit coverage. If a water

body is unassessed, the applicant is directed to contact DEQ for assistance in filing the NOI.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a TMDL has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as "impaired," for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. With the exception, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a health, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i.).

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: <a href="http://www.deq.idaho.gov/assistance-resources/maps-data/">http://www.deq.idaho.gov/assistance-resources/maps-data/</a>.

Water bodies can be in multiple categories for different causes. If assistance is needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, the operator is directed to make contact with the appropriate DEQ regional office of the State office in the table below:

Regional and State Office	Address	Phone Number	Email
Boise	1445 N. Orchard Rd., Boise 83706	208-373- 0550	Kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur D'Alene 83814	208-769- 1422	June.bergquist@deq.idaho.gov
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528- 2650	<u>Troy.saffle@deq.idaho.gov</u>
Lewiston	1118 "F" St., Lewiston 83501	208-799- 4370	Mark.sellet@deq.idaho.gov
Pocatello	444 Hospital way, #300 Pocatello 83201	208-236- 6160	Lynn.vanevery@deq.idaho.gov
Twin Falls	650 Addison Ave., W., Suite 110, Twin Falls 83301	208-736- 2190	Balthasar.buhidar@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise	208-373- 0502	Nicole.deinarowicz@deq.idaho.gov

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d. <u>Turbidity Monitoring</u>. The permittee must conduct turbidity monitoring during construction activities and thereafter on days where there is a direct discharge of pollutants from an unstabilized portion of the site which is causing a visible plume to a water of the U.S.

A properly and regularly calibrated turbidimeter is required for measurements analyzed in the field (preferred method), but grab samples may be collected and taken to a laboratory for analysis. If the permittee can demonstrate that there will be no direct discharge from the construction site, then turbidity monitoring is not required. When monitoring is required, a sample must be taken at an undisturbed area immediately upstream of the project area to establish background turbidity levels for the monitoring event. Background turbidity, location, date and time must be recorded prior to monitoring downstream of the project area. A sample must also be taken immediately downstream from any point of discharge and within any visible plume. The turbidity, location, date and time must be recorded. The downstream sample must be taken immediately following the upstream sample in order to obtain meaningful and representative results.

Results from the compliance point sampling or observation<sup>78</sup> must be compared to the background levels to determine whether project activities are causing an exceedance of state WQS. If the downstream turbidity is 50 NTUs or more than the upstream turbidity, then the project is causing an exceedance of WQS. Any exceedance of the turbidity standard must be reporting to the appropriate DEQ regional office within 24 hours. The following six (6) steps should be followed to ensure compliance with the turbidity standard:

- 1. If a visible plume is observed, quantify the plume by collecting turbidity measurements from within the plume and compare the results to Idaho's instantaneous numeric turbidity criterion (50 NTU over the background).
- 2. If turbidity is less than 50 NTU instantaneously over the background turbidity; continue monitoring as long as the plume is visible. If turbidity exceeds background turbidity by more than 50 NTU instantaneously then stop all earth disturbing construction activities and proceed to step 3.
- Take immediate action to address the cause of the exceedance. That
  may include inspection the condition of project BMPs. If the BMPs are
  functioning to their fullest capability, then the permittee must modify
  project activities and/or BMPs to correct the exceedance.
- 4. Notify the appropriate DEQ regional office within 24 hours.
- 5. Possibly increase monitoring frequency until state water quality standards are met.

<sup>&</sup>lt;sup>78</sup> A visual observation is only acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must collect turbidity data and inspect the condition of the projects BMPs. If the BMPs appear to be functioning to their fullest capability and the turbidity is 50 NTUs or more than the upstream turbidity, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).

6. Continue earth disturbing construction activities once turbidity readings return to within 50 NTU instantaneously <u>and</u> 25 NTU for more than ten consecutive days over the background turbidity.

Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The report must describe all exceedances and subsequent actions taken, including the effectiveness of the action.

e. Reporting of Discharges Containing Hazardous Materials or Petroleum Products. All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in the table below during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Repose Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (208) 632-8000

Regional office	Toll Free Phone Number	Phone Number
Boise	888-800-3480	208-373-0321
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	977-547-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

## 9.7.2 IDR101000 Indian country within the State of Idaho, except Duck Valley Reservation lands (see Region 9)

- **9.7.2.1 Shoshone-Bannock Tribes.** The following conditions apply only to discharges on the Shoshone-Bannock Reservation:
  - f. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the Shoshone-Bannock Tribes Water Resources Department at the same time it is submitted electronically to the Environmental Protection Agency (EPA) and shall provide the Shoshone-Bannock Tribes Water Resources Department the acknowledgement of receipt of the NOI from the EPA within 7 calendar days of receipt from the EPA.
- 9.7.3 WAR10F000 Areas in the State of Washington, except those located on Indian country, subject to construction activity by a Federal Operator. The following conditions apply only to discharges on federal facilities in the State of Washington:
  - a. Discharges shall not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), groundwater quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human

- health-based criteria in the National Toxics Rule (40 CFR Part 131.36). Discharges that are not in compliance with these standards are not authorized.
- b. Prior to the discharge of stormwater and non-storm water to waters of the State, the Permittee must apply all known, available, and reasonable methods of prevention, control, and treatment (AKART). This includes the preparation and implementation of an adequate SWPPP, with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.
- c. Permittees who discharge to segments of waterbodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, phosphorus, or pH must comply with the following numeric effluent limits:

Parameter Identified in 303(d) Listing	Parameter Sampled	Unit	Analytical Method	Numeric Effluent Limit
<ul><li>Turbidity</li><li>Fine Sediment</li><li>Phosphorus</li></ul>	Turbidity	NTU	SM2130 or EPA 180.1	25 NTUs at the point where the stormwater is discharged from the site.
High pH	рН	Su	pH meter	In the range of 6.5 – 8.5

- d. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current EPA approved listing of impaired waters that exists on February 16, 2017, or the date when the operator's complete permit application is received by EPA, whichever is later.
- e. Discharges to waterbodies subject to an applicable Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus, shall be consistent with the assumptions and requirements of the TMDL.
  - i. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges shall be consistent with any specific waste load allocations or requirements establish by the applicable TMDL.
  - ii. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but no specific requirements have been identified, compliance with this permit will be assumed to be consistent with the approved TMDL.
  - iii. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with this permit will be assumed to be consistent with the approved TMDL.
  - iv. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.
  - v. Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which has been completed and approved by EPA prior to February 16, 2017, or prior to the date the operator's complete NOI is received by EPA, whichever is later.

## 9.7.4 WAR101000 Indian country within the State of Washington

- **9.7.4.1** Confederated Tribes of the Colville Reservation. The following conditions apply only to discharges on the Colville Indian Reservation (CIR) and on other Tribal trust lands or allotments of the Confederated Tribes of the Colville Reservation:
  - a. A copy of the Stormwater Pollution Prevention Plan must be submitted to the following office at least thirty (30) days in advance of sending the Notice of Intent (NOI) to EPA:

Environmental Trust Department Confederated Tribes of the Colville Reservation PO Box 150 Nesepelem, WA 99155

- b. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be sent to the ETD at the same time they are submitted to EPA.
- c. Discharges to Omak Creek, the Okanogan River, and Columbia River downstream of Chief Joseph Dam may affect threatened or endangered species, and shall only be permitted in adherence with Appendix D of the CGP.
- d. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in Chapter 4-8 Water Quality Standards of the Colville Law and Order Code, as amended.
- e. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the CIR. All spills must be reported to the appropriate emergency management agency and the ETD, and measures shall be taken immediately to prevent the pollution of waters of the CIR, including groundwater.
- f. Stormwater site inspections shall be conducted at least once every 7 calendar days, within 24-hours of the occurrence of a rain event of 0.25 inches or greater in a 24-hour period, and daily during periods of saturated ground surface or snowmelt with accompanying surface runoff.
- g. Results of discharge sampling must be reported to the ETD within 7 days of sample collection. All sample reporting must include the date and time, location, and individual performing the sampling.
- h. Any corrective action reports that are required under the CGP must be submitted to the ETD at the above address within one (1) working day of the report completion.
- i. This certification does not authorize impacts to cultural, historical, or archeological features or sites, or proprieties that may be eligible for such listing.
- **9.7.4.2 Lummi Nation.** The following conditions apply only to discharges on the Lummi Reservation:
  - a. The Lummi Nation reserves the right to modify this 401 certification if the final version of the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (CGP) on tribal lands in the State of Washington (Permit No. WAR101000) is substantively different than the draft version of the proposed permit that was made available for public comments during April 2016. The Lummi Nation will determine if the final version of the NPDES CGP is substantively different than

- the draft version following review of the final version once the EPA makes it available.
- b. This certification does not exempt and is provisional upon compliance with other applicable statutes and codes administered by federal and Lummi tribal agencies. Pursuant to Lummi Code of Laws (LCL) 17.05.020(a), the operator must also obtain a land use permit from the Lummi Planning Department as provided in Title 15 of the Lummi Code of Laws and regulations adopted thereunder.
- c. Pursuant to LCL 17.05.020(a), each operator shall develop and submit a Storm Water Pollution Prevention Plan to the Lummi Water Resources Division for review and approval by the Water Resources Manager prior to beginning any discharge activities.
- d. Pursuant to LCL Title 17, each operator shall be responsible for achieving compliance with the Water Quality Standards for Surface Waters of the Lummi Indian Reservation (Lummi Administrative Regulations [LAR] 17 LAR 07.010 through 17 LAR 07.210 together with supplements and amendments thereto).
- e. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the Lummi Water Resources Division at the same time it is submitted electronically to the Environmental Protection Agency (EPA) and shall provide the Lummi Water Resources Division the acknowledgement of receipt of the NOI from the EPA and the associated NPDES tracking number provided by the EPA within 7 calendar days of receipt from the EPA.
- f. Each operator shall submit a signed hard copy of the Notice of Termination (NOT) to the Lummi Water Resources Division at the same time it is submitted electronically to the EPA and shall provide the Lummi Water Resources Division the EPA acknowledgement of receipt of the NOT.
- g. Storm Water Pollution Prevention Plans, Notice of Intent, Notice of Termination and associated correspondence with the EPA shall be submitted to:

Lummi Natural Resources Department ATTN: Water Resources Manager 2665 Kwina Road Bellingham, WA 98226-9298

- **9.7.4.3 Makah Tribe.** The following conditions apply only to discharges on the Makah Reservation:
  - a. The operator shall be responsible for achieving compliance with the Makah Tribe's Water Quality Standards.
  - b. The operator shall submit a Storm Water Pollution Prevention Plan to the Makah Tribe Water Quality Program and Makah Fisheries Habitat Division for review and approval at least thirty (30) days prior to beginning any discharge activities.
  - c. The operator shall submit a copy of the Notice of Intent to the Makah Tribe Water Quality Program and Makah Fisheries Habitat Division at the same time it is submitted to EPA.
  - d. Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Aaron Parker Makah Fisheries Management Water Quality Specialist (360) 645-3162 Cell 206-356-0319 <u>Aaron.parker@makah.com</u> PO Box 115 Neah Bay WA 98357

- **9.7.4.4 Puyallup Tribe of Indians.** The following conditions apply only to discharges on the Puyallup Tribe of Indians Reservation:
  - a. Each permittee shall be responsible for achieving compliance with the Puyallup Tribe's Water Quality Standards, including antidegradation provisions. The Puyallup Natural Resources Department will conduct an antidegradation review for permitted activities that have the potential to lower water quality. The antidegradation review will be consistent with the Tribe's Antidegradation Implementation Procedures. The Tribe may also impose additional controls on a site-specific basis, or request EPA to require the operator obtain coverage under an individual permit, if information in the NOI or from other sources indicates that the operator's discharges are not controlled as necessary to meet applicable water quality standards.
  - b. The permittee shall be responsible for meeting any additional permit requirements imposed by EPA necessary to comply with the Puyallup Tribe's antidegradation policies if the discharge point is located within 1 linear mile upstream of waters designated by the Tribe.
  - c. Each permittee shall submit a copy of the Notice of Intent (NOI) to be covered by the general permit to Char Naylor (<a href="mailto:char.naylor@puyalluptribe.com">char.naylor@puyalluptribe.com</a>) and Russ Ladley (<a href="mailto:russ.ladley@puyalluptribe.com">russ.ladley@puyalluptribe.com</a>) by email or at the address listed below at the same time it is submitted to EPA.

Puyallup Tribe of Indians 3009 E. Portland Avenue Tacoma, WA 98404 ATTN: Russ Ladley and Char Naylor

- d. All supporting documentation and certifications in the NOI related to coverage under the general permit for Endangered Species Act purposes shall be submitted to the Tribe's Resource Protection Manager (<a href="mailto:russ.ladley@puyalluptribe.com">russ.ladley@puyalluptribe.com</a>) and Char Naylor (<a href="mailto:char.naylor@puyalluptribe.com">char.naylor@puyalluptribe.com</a>) for review.
- e. If EPA requires coverage under an individual or alternative permit, the permittee shall submit a copy of the permit to Russ Ladley and Char Naylor at the address listed above.
- f. The permittee shall submit all stormwater pollution prevention plans to Char Naylor for review and approval prior to beginning any activities resulting in a discharge to tribal waters.
- g. The permittee shall conduct benchmark monitoring for turbidity (or transparency) and, in the event of significant concrete work or engineered soils, pH monitoring as well. Monitoring, benchmarks, and reporting requirements contained in Condition S.4. (pp.13-20) of the Washington State Construction Stormwater General Permit, effective January 1, 2016, shall apply, as applicable.

- h. The permittee shall notify Char Naylor (253-680-5520) and Russ Ladley (253-680-5560) prior to conducting inspections at construction sites generating storm water discharged to tribal waters.
- i. Treat dewatering discharges with controls necessary to minimize discharges of pollutants in order to minimize the discharge of pollutants to groundwater or surface waters from stormwater that is removed from excavations, trenches, foundations, vaults, or other storage areas. Examples of appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, and filtration systems (e.g., bag or sand filters) that are designed to remove sediment.
  - To the extent feasible, utilize vegetated, upland areas of the site to infiltrate dewatering water before discharge. At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11 of EPA's 2016 General Construction Stormwater Permit. Examples of velocity dissipation devices include check dams, sediment traps, riprap, and grouted riprap at outlets.
- j. The permittee shall provide and maintain natural buffers to the maximum extent possible (and/or equivalent erosion and sediment controls) when tribal waters are located within 100 feet of the site's earth disturbances. If infeasible to provide and maintain an undisturbed 100 foot natural buffer, erosion and sediment controls to achieve the sediment load reduction equivalent to a 100-foot undisturbed natural buffer shall be required.
- **9.7.4.5 Spokane Tribe of Indians.** The following conditions apply only to discharges on the Spokane Tribe Reservation:
  - a. Pursuant to Tribal Law and Order Code (TLOC) Chapter 30 each operator shall be responsible for achieving compliance with the Surface Water Quality Standards of the Spokane Tribe. The operator shall notify the Spokane Tribe, Water Control Board (WCB) of any spills of hazardous material and;
  - b. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the WCB at the same time it is submitted to EPA.
  - c. The permittee shall allow the Tribal Water Control Board or its designee to inspect and sample at the construction site as needed.
  - d. Each operator shall submit a signed copy of the Notice of Termination (NOT) to the WCB at the same time it is submitted to EPA.

The correspondence address for the Spokane Tribe Water Control Board is:

Water Control Board c/o. Brian Crossley P0 Box 480 Wellpinit WA 99040 (509)626-4409 crossley@spokanetribe.com

- **9.7.4.6 Swinomish Indian Tribal Community.** The following conditions apply only to discharges on the Swinomish Reservation:
  - a. Owners and operators seeking coverage under this permit who intend to discharge to Regulated Surface Waters must submit a copy of the Notice of Intent (NOI) to the DEP at the same time the NOI is submitted to EPA.

- b. Owners and operators seeking coverage under this permit must also submit a Stormwater Pollution Prevention Plan to the DEP for review and approval by DEP prior to beginning any discharge activities.
- c. Owners and operators must also submit to the DEP Changes in NOI and/or Notices of Termination at the same time they are submitted to EPA.
- **9.7.4.7 Tulalip Tribes.** The following conditions apply only to discharges on the Tulalip Reservation:
  - a. This certification does not exempt and is provisional upon compliance with other applicable statues and codes administered by federal and Tulalip tribal agencies. Pursuant to Tulalip Tribes code of law, the operator must also obtain a land use permit from the Tulalip Tribes Planning Department as provided in Title 7 of the Tulalip Tribal Code (http://www.codepublishing.com/WA/Tulalip/?Tulalip02/Tulalip0205.html).
  - b. Each CGP operator shall be responsible for achieving compliance with Tulalip Tribes Water Quality Standards.
  - c. Each CGP operator shall submit their Stormwater Pollution Prevention Plan (SWPPP) to the:

Tulalip Natural & Cultural Resources Department Tulalip Tribes 6406 Marine Drive Tulalip, WA 98271

## **Attachment B**

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

### Carrie Boecher

Subject: FW: EPA NeT CGP Coverage Status: Active: Dakota Range I & II Wind Project, NPDES

ID: SDR10I01E

From: no-reply@epacdx.net [mailto:no-reply@epacdx.net]

Sent: Wednesday, July 29, 2020 5:30 PM

To: no-reply@epacdx.net

Subject: EPA NeT CGP Coverage Status: Active: Dakota Range I & II Wind Project, NPDES ID: SDR10I01E

2020-07-29

Dear NeT User,

Coverage status has changed for a project / site under the CGP.

NPDES ID	Form Type	Coverage Status	Operator	Project/Site Name	EPA Comment
SDR10I01E	NOI	Active	M. A. Mortenson Company	Dakota Range I & II Wind Project	

Your Notice of Intent (NOI) requesting coverage under EPA's Construction General Permit (CGP) has been accepted and authorization to discharge under the CGP became effective on 07/29/2020 and will expire on 02/15/2022.

Please note that this email does not represent a determination by EPA regarding the validity of the information you provided in your NOI or LEW. Your eligibility for coverage under this permit is based on the validity of the certification you provided. Your electronic signature on the NOI or LEW form certifies that you have read, understood, and are implementing all of the applicable requirements. An important aspect of this certification requires that you have correctly determined whether you are eligible for coverage under this permit.

The CGP and Common Plan Permit (CPP) require you to have developed a Stormwater Pollution Prevention Plan (SWPPP) prior to submitting your NOI. The CGP and CPP also include specific requirements for erosion and sediment controls, pollution prevention controls, conducting self-inspections, taking corrective actions, and conducting staff training. You must comply with any state, tribal, or territory-specific requirements in Part 9 (see <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#cgp">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#cgp</a>).

A copy of the submission can be found here.

If you have questions about this email or about NeT CGP, please refer to the <u>NeT Help Center</u> or e-mail <u>NPDESereporting@epa.gov</u> for assistance.

This is an automated notification; please do not reply to this email.



# DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES

JOE FOSS BUILDING 523 EAST CAPITOL PIERRE, SOUTH DAKOTA 57501-3182 www.denr.sd.gov

July 24, 2020

Patrick Flowers Northern States Power Company dba Xcel Energy 414 Nicollet Mall Minneapolis, MN 55401

**Dear Patrick Flowers:** 

Thank you for submitting your Notice of Intent for the South Dakota General Permit for Stormwater Discharges Associated with Construction Activities. This letter grants you coverage under this general permit for the project listed below in Grant/Codington County, SD. This coverage does not relieve you from complying with other state and local requirements or from obtaining other required permits. **All contractors who will be doing dirt work or who will be responsible for implementing sediment and erosion controls must submit a Contractor Authorization form identifying the contractor.** The contractor will then be considered a co-permittee and will also be responsible for complying with the general permit.

You must maintain your site in compliance with the permit conditions. Refer to Section 3.0 for effluent limits and Section 4.0 for Stormwater Pollution Prevention Plan requirements. Your project's Permit Number is **SDR10J952**. Please refer to this number in all future correspondence.

**Project Information** (Please check to be certain this information is correct):

John Riley – Project Site Contact Person Dakota Range I & II Wind Project (PCN: N/A) Section , Township 119N/120N, Range 51W/52W Latitude 42.223550°; Longitude -97.025200°

Effective Date: July 24, 2020

Thank you for preserving the natural resources of South Dakota. If you have any questions or need any guidance, please contact the stormwater team at 1-800-737-8676 or by email at <a href="mailto:stormwater@state.sd.us">stormwater@state.sd.us</a>.

Sincerely,

Katie Adair Stormwater Program Assistant

Hatie adais

Surface Water Quality Program

cc: Project Contact: John Riley Engineer: Rob Copouls

Permit No.: SDR10J952 Project: Dakota Range I & II Wind Project

### SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

# General Permit Authorizing Stormwater Discharges Associated with Construction Activities Under the South Dakota Surface Water Discharge System

In compliance with the provisions of the South Dakota Water Pollution Control Act and the Administrative Rules of South Dakota (ARSD), Article 74:52, owners and operators of stormwater discharges from **construction activities**, located in the state of South Dakota are authorized to discharge in accordance with the conditions and requirements set forth herein.

This General Permit shall become effective on April 1, 2018.

General Permit coverage for Northern States Power Company dba Xcel Energy shall become effective July 24, 2020.

This General Permit and the authorization to discharge shall expire at midnight, March 31, 2023.

Signed this 23rd day of March, 2018,

**Authorized Permitting Official** 

Steven M. Pirner

Secretary

Department of Environment and Natural Resources



# DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES

JOE FOSS BUILDING 523 EAST CAPITOL PIERRE, SOUTH DAKOTA 57501-3182 www.denr.sd.gov

July 24, 2020

Chris Norcross M A Mortenson Company 700 Meadow Lane N Minneapolis, MN 55422

Dear Chris Norcross:

Thank you for submitting the Contractor Authorization form under the South Dakota General Permit for Stormwater Discharges Associated with Construction Activities. This letter grants you coverage under this general permit for the project listed below in Grant/Codington County, SD. This coverage does not relieve you from complying with other state and local requirements or from obtaining other required permits. As a contractor doing dirt work and/or responsible for erosion and sediment control at the site, you are a co-permittee and must comply with the conditions of the general permit.

You must maintain your site in compliance with the permit conditions. Refer to Section 3.0 for effluent limits and Section 4.0 for Stormwater Pollution Prevention Plan requirements. The Permit Number for this project is **SDR10J952**. Please refer to this number in all future correspondence.

**Project Information** (Please check to be certain this information is correct):

Dakota Range I & II Wind Project (PCN: N/A)
Section, Township 119N/120N, Range 51W/52W
Latitude 42.223550°; Longitude -97.025200°
Contractor Authorization Date: 07/24/2020

Thank you for preserving the natural resources of South Dakota. If you have any questions or need any guidance, please contact the stormwater team at 1-800-737-8676 or by email at <a href="stormwater@state.sd.us">stormwater@state.sd.us</a>.

Sincerely,

Katie Adair Stormwater Program Assistant Surface Water Quality Program

Hatie adais

cc: Project Contact: Patrick Flowers

Permit No.: SDR10J952 Project: Dakota Range I & II Wind Project

### SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

# General Permit Authorizing Stormwater Discharges Associated with Construction Activities Under the South Dakota Surface Water Discharge System

In compliance with the provisions of the South Dakota Water Pollution Control Act and the Administrative Rules of South Dakota (ARSD), Article 74:52, owners and operators of stormwater discharges from **construction activities**, located in the state of South Dakota are authorized to discharge in accordance with the conditions and requirements set forth herein.

This General Permit shall become effective on April 1, 2018.

General Permit coverage for M A Mortenson Company shall become effective on 07/24/2020.

This General Permit and the authorization to discharge shall expire at midnight, March 31, 2023.

Signed this 23rd day of March, 2018,

**Authorized Permitting Official** 

Steven M. Pirner

Secretary

Department of Environment and Natural Resources



# DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES NOTICE OF INTENT (NOI)

to Obtain Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 stormwater@state.sd.us
Telephone: 1-800-SDSTORM

### ALL QUESTIONS MUST BE ANSWERED COMPLETELY FOR THIS FORM TO BE VALID

I.	Site Owner Contact Information:				
	Company Name: Northern States Power Company d/b/a Xcel Energy				
	Primary Contact Person: Patrick Flowers				
	Mailing Address: 414 Nicollet Mall				
	City: Minneapolis State: MN Zip Code: 55401				
	Phone Number: 612-330-6278 Email Address: patrick.flowers@xcelenergy.com				
	Type of Ownership:				
	(any type not listed previously)				
II.	Contractor Information:				
	Will any contractors be responsible for erosion and sediment control practices: X Yes No				
	(A contractor certification form must be submitted for each contractor that will have day to day responsibility for erosion and				
	sediment control practices. If these contractors have not been identified at the time this NOI is submitted, the contracotr				
	certification form may be submitted after they have been identified, but before they being construction work.)				
III.	Engineering Firm Contact Information (if applicable):				
	Contact Person: Rob Copouls				
	Contact's Email Address: <u>rob.copouls@westwoodps.com</u>				
IV.	Construction Project Information:				
	Project Name: Dakota Range I & II Wind Project				
	Physical Project Address or Description of Construction Site Location: The project is centered near the intersection of County Highway 8 and 459th Avenue. It is located in both Codington and Grant Counties.				
	City: South Shore State: SD Zip Code: 57263				
	On-Site Contact Person: John Riley				
	Contact's Email Address: john.riley@mortenson.com				
	Contact's Mailing Address: 700 Meadow Lane				
	City: Minneapolis State: MN Zip Code: 55422				
	Phone Number: 763-287-5112 County of Construction Site: Grant & Codington				
	Latitude: 42.22355 Longitude: -97.02520 Source (GPS, Google, etc.): GIS				
	Quarter(s): See attached Section(s): Township(s): Range(s):				
	FOR DENR USE ONLY				

Permit Number: \_

\_\_ Approved by: \_\_

\_ Date Approved: \_\_

	Construction Project Information (Continued): (an a	additional 122 acres will be disturbed within the		
	Is this project on Tribal Lands? X Yes No former	er boundaries of the Lake Traverse		
	Total area disturbed by the project (in acres): 987 acres Rese	ervation)		
	Will this project encroach, damage, or destroy one of the historic sites identi-	fied at the following wesites:		
	$\underline{http://history.sd.gov/Preservation/national register of historic places.aspx}$	Yes No		
	http://www.nps.gov/nhl/find/statelists/sd/SD.pdf	0		
V.	<b>Stormwater Pollution Prevent Plan (SWPPP):</b>			
	Has the SWPPP been developed as required? X Yes No			
	(The plan must be developed <b><u>before</u></b> the NOI is submitted. DENR will not is	sue coverage before this has been developed.)		
VI.	Receiving Waters:			
	Please list all possible waters that may receive a discharge from this site. If dindicate which municipality and the ultimate receiving water. Indian River and its unnamed tributaries; Soo Creek and its unramed tributaries.			
	to the Upper South Fork of Whetstone River			
VII.	Nature of Discharge:			
	Please include a brief description of the construction project:  The project will include construction of a wind energy generation facility, including turbines,			
	access roads, an underground collection line, substation, and o	perations & maintenance building.		
	Will construction dewatering be required? X Yes No	If yes, please complete section IX also.		
VIII.		y, p		
, 111,	Project Start Date (MM/DD/YYYY): <u>07/20/2020</u>			
	Estimated Completion Date (MM/DD/YYYY): _01/20/2022			
IX.	Dewatering Activities (Complete this section if you answered yes)	n VII)•		
121.	Date dewatering will commence (MM/DD/YYYY): 08/24/2020	W V 11):		
	Date dewatering will end (MM/DD/YYYY): 11/19/2020			
	Total volume of dewatering (gallons): 40,000 Average flow rate	e (gallons per minute): 70		
	Source of water to be discharged: Turbine foundation excavations			
	Receiving water: Varies by turbine location; see attached drai			
	Brief description of water treatment processes to be employed, if any: Sedi	-		
	sediment basins will be used to treat discharge.			
	Will the dewatering discharge contain anything other than uncontaminated g	roundwater and stormwater: Yes XNo		
	NOTE: If there will be dewatering activities, please place points of withdra			
	map if a topographic map is unavailable. This map should extend to one (1)			
	facility and each of its discharge facilities, and those wells, springs, and othe			
	surface water intake structures listed in public records, or otherwise known to	_		
Χ.	Other Information			
	List other information you feel should be brought to the attention of the SDD	DENR regarding coverage under this general		
	permit. Attach additional sheets if necessary.			
	The project is a proposed wind farm. Approximately 1/5 of the project is a proposed wind farm.	project will occur within the former		
	boundaries of the Lake Traverse Indian Reservation and permi			
	covers project activities that will occur outside the former bound	dary of the reservation.		

### STATE OF SOUTH DAKOTA

### BEFORE THE SECRETARY OF

### THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATION OF	)
Dakota Range I & II Wind Project	) CERTIFICATION OF
STATE OF South Dakota  COUNTY OF Grant and Codington	) APPLICANT ) ) ) )
I, Patrick Flowers , the a sworn upon oath hereby certify the following information of the state of the sworn upon oath hereby certify the following information of the sworn upon oath hereby certify the following information of the sworn upon oath hereby certify the following information of the sworn upon oath hereby certify the following information of the sworn upon oath hereby certify the following information of the sworn upon oath hereby certify the following information of the sworn upon oath hereby certify the following information of the sworn upon oath hereby certify the following information of the sworn upon oath hereby certify the sworn upon oath hereby certification of the sworn upon oath hereby certification oath hereby certification of the sworn upon oath	pplicant in the above matter after being duly ation in regard to this application:

I have read and understand South Dakota Codified Law Section 1-40-27 which provides:

"The secretary may reject an application for any permit filed pursuant to Titles 34A or 45, including any application by any concentrated swine feeding operation for authorization to operate under a general permit, upon making a specific finding that:

- (1) The applicant is unsuited or unqualified to perform the obligations of a permit holder based upon a finding that the applicant, any officer, director, partner, or resident general manager of the facility for which application has been made:
  - (a) Has intentionally misrepresented a material fact in applying for a permit;
  - (b) Has been convicted of a felony or other crime involving moral turpitude;
  - (c) Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;
  - (d) Has had any permit revoked under the environmental laws of any state or the United States; or
  - (e) Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or
- (2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review, recommendation or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification,

consideration of the application may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26."

I certify pursuant to 1-40-27, that as an applicant, officer, director, partner, or resident general manager of the activity or facility for which the application has been made that I; a) have not intentionally misrepresented a material fact in applying for a permit; b) have not been convicted of a felony or other crime of moral turpitude; c) have not habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage; (d) have not had any permit revoked under the environmental laws of any state or the United States; or e) have not otherwise demonstrated through clear and convincing evidence of previous actions that I lack the necessary good character and competency to reliably carry out the obligations imposed by law upon me. I also certify that this application does not substantially duplicate an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Further;

"I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct."

, 20_20

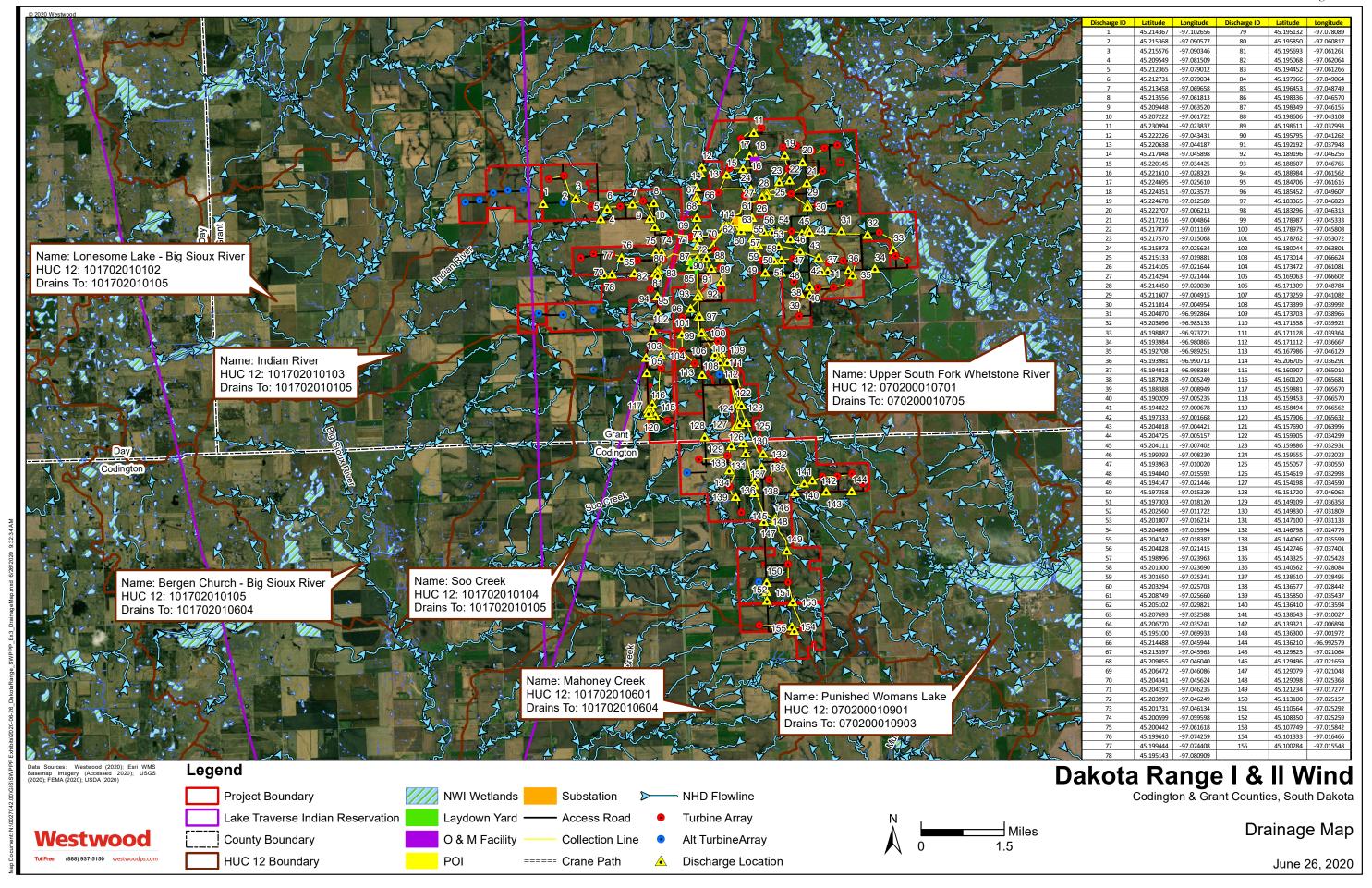
PLEASE ATTACH ANY ADDITIONAL INFORMATION NECESSARY TO DISCLOSE ALL FACTS AND DOCUMENTS PERTAINING TO SDCL 1-40-27 (1) (a) THROUGH (e).

ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION

### Dakota Range I & II Wind Project

Township, Range, Section Information

Township	Range	Section
120N	52W	1
120N	52W	2
120N	52W	10
120N	52W	11
120N	52W	12
120N	52W	13
120N	52W	14
120N	52W	15
120N	52W	22
120N	52W	23
120N	52W	24
120N	52W	25
120N	52W	26
120N	52W	27
120N	52W	28
120N	52W	33
120N	52W	34
120N	52W	35
120N	52W	36
120N	51W	17
120N	51W	18
120N	51W	19
119N	52W	1
119N	52W	2
119N	52W	3
119N	52W	10
119N	52W	11
119N	52W	12
119N	52W	13
119N	52W	14
119N	52W	15
119N	52W	22
119N	52W	23
119N	52W	24



Page 1 of 2



Contractor Authorization - General Stormwater Permit

### DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES **CONTRACTOR AUTHORIZATION FORM**

for Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

This form is required to be submitted when a contractor will act as an operator and have day to day responsibility for erosion and sediment control measures. Submission of this form shall in no way relieve the permittee of permit obligations. Please submit this form to the following address:

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 stormwater@state.sd.us Telephone: 1-800-SDSTORM

ALL QUESTIONS MUST BE ANSWERED COMPLETELY FOR THIS FORM TO BE VALID
Project Name: Dakota Range I & II Wind Project Permit Number (if available): Pending
Project Site Legal Location: See attached
Contractor Company Name: M. A. Mortenson Company
Responsible Contact Person: Chris Norcross
Contact's Email Address: chris.norcross@mortenson.com
Contractor Mailing Address: 700 Meadow Lane N
City: Minneapolis State: MN Zip Code: 55422 Phone Number: 763-287-5955
The contractor(s) responsible for the day to day operation of the construction site shall certify the following:
"I certify under penalty of law that I understand and will comply with the terms and conditions of the Surface Water Discharge General Permit for Stormwater Discharges Associated with Construction Activities for the project identified above."
South Dakota Codified Laws Section 1-40-27 provides:
"The secretary may reject an application for any permit filed pursuant to Titles 34A or 45, including any application by any concentrated swine feeding operation for authorization to operate under a general permit, upon making a specific finding that:
(1) The applicant is unsuited or unqualified to perform the obligations of a permit holder based upon a finding that the applicant, any officer, director, partner or resident general manager of the facility for which application has been made:
(a) Has intentionally misrepresented a material fact in applying for a permit;
(b) Has been convicted of a felony or other crime involving moral turpitude;
(c) Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;
(d) Has had any permit revoked under the environmental laws of any state or the United States; or
FOR DENR USE ONLY
Permit Number: Date Approved: Approved by:

Revised December 07, 2017

- (e) Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or
- (2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review, recommendation or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification, consideration of the application may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26."

I certify pursuant to SDCL 1-40-27, that as an applicant, officer, partner, or resident general manager of the activity or facility for which the application has been made that I; a) have not intentionally misrepresented a material fact in applying for a permit; b) have not been convicted of a felony or other crime of moral turpitude; c) have not habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage; d) have not had any permit revoked under the environmental laws of any state or the United States; or e) have not otherwise demonstrated through clear and convincing evidence of previous actions that I lack the necessary good character and competency to reliably carry out the obligations imposed by law upon me. I also certify that this application does not substantially duplicate an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Further;

"I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct."

Dated this day of, 20_15.		
CHMS NORGROSS		
Applicant (print)		
M		
Applicant (signature)		
Subscribed and sworn before me this day of	, 20 <u></u> .	
My commission expires: 131 223	Anne Marie Lynch MINNESOTA MINNESOTA My Commeson Expires Jan. 31, 2023	

PLEASE ATTACH A SHEET DISCLOSING ALL FACTS PERTAINING TO SDCL 1-40-27 (1) (a) THROUGH (e). ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION.

### Dakota Range I & II Wind Project

Township, Range, Section Information

Township	Range	Section
120N	52W	1
120N	52W	2
120N	52W	10
120N	52W	11
120N	52W	12
120N	52W	13
120N	52W	14
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120N	52W	22
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120N	52W	24
120N	52W	25
120N	52W	26
120N	52W	27
120N	52W	28
120N	52W	33
120N	52W	34
120N	52W	35
120N	52W	36
120N	51W	17
120N	51W	18
120N	51W	19
119N	52W	1
119N	52W	2
119N	52W	3
119N	52W	10
119N	52W	11
119N	52W	12
119N	52W	13
119N	52W	14
119N	52W	15
119N	52W	22
119N	52W	23
119N	52W	24

# **Delegation of Authority**

		·
l,		name), hereby designate the person or specifically described position
below to be environmental	-	ed representative for the purpose of overseeing compliance with including the Construction General Permit (CGP), at the( construction site). The designee is authorized to sign any
reports, storm	water pollution p	revention plans and all other documents required by the permit.
	Person(s) or ition(s)	
Con	npany:	
Ad	dress:	
City, Sta	te, Zip Code	
Phone	Number:	
forth in Appenrepresentative I certify under or supervision and evaluated system, or those to the best of the informatio penalties for siviolations.	dix I of EPA's CGF " as set forth in A penalty of law th in accordance wit the information s se persons directl my knowledge an n submitted is oth	onfirm that I meet the requirements to make such a designation as set, and that the designee above meets the definition of a "duly authorized ppendix I.  at this document and all attachments were prepared under my direction has ystem designed to assure that qualified personnel properly gathered ubmitted. Based on my inquiry of the person or persons who manage they responsible for gathering the information, the information submitted is, disclined belief, true, accurate, and complete. I have no personal knowledge that er than true, accurate, and complete. I am aware that there are significant formation, including the possibility of fine and imprisonment for knowing
Name:		
Company:		
Title:		
Signature:		
Date:		



# DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES NOTICE OF TERMINATION (NOT)

of Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

This form is required to be submitted when a discharge permit is no longer required or necessary. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the following address:

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 <a href="mailto:stormwater@state.sd.us">stormwater@state.sd.us</a> Telephone: 1-800-SDSTORM

Primary Contact Information:		
Company Name:		
Mailing Address:		
		Zip Code:
Phone Number:	Email Address:	
Mailing Address for Facility/Sit	te Location:	
Project Name:		
Contact's Email Address:		
Contact's Mailing Address:		
G'.	C	7' 0 1
I certify under penalty of law that all are authorized by a SWD general per longer authorized to discharge storm	stormwater discharges associated wit rmit have been eliminated. I understan water associated with construction ac	Zip Code:h construction activity from the identified d that by submitting the Notice of Terminativity under this general permit, and that d
I certify under penalty of law that all are authorized by a SWD general per longer authorized to discharge storm pollutants in stormwater associated vand the South Dakota Water Pollutio submittal of this Notice of Termination Dakota Water Pollution Control Act. possibility of fine and imprisonment possibility of fine and fine and imprisonment possibility of fine and imprisonment possibility of fine and fine and fin	stormwater discharges associated wit rmit have been eliminated. I understan twater associated with construction ac with construction activity to waters of a on Control Act if the discharge is not a con does not release an operator from la I am aware that there are significant for knowing violations.	h construction activity from the identified d that by submitting the Notice of Termina
I certify under penalty of law that all are authorized by a SWD general per longer authorized to discharge storm pollutants in stormwater associated vand the South Dakota Water Pollutio submittal of this Notice of Termination Dakota Water Pollution Control Act. possibility of fine and imprisonment possibility of fine and imprisonment possibility of fine and imprisonment gapplicant, if an individual.	I stormwater discharges associated with the standard with construction activity to waters of the construction activity to waters of the control act if the discharge is not also does not release an operator from the I am aware that there are significant for knowing violations.  The signed by the authorized chief elections is the control of the contro	h construction activity from the identified of that by submitting the Notice of Termina tivity under this general permit, and that of the state is unlawful under the federal Cleuthorized by a SWD permit. I also underst ability for any violations of this permit or penalties for submitting false information,
I certify under penalty of law that all are authorized by a SWD general per longer authorized to discharge storm pollutants in stormwater associated wand the South Dakota Water Pollutio submittal of this Notice of Terminatio Dakota Water Pollution Control Act. possibility of fine and imprisonment y NOTE: Notice of Termination shall be applicant, if an individual.	stormwater discharges associated with the seen eliminated. I understant water associated with construction activity to waters of it is control act if the discharge is not act on does not release an operator from lift I am aware that there are significant for knowing violations.  Title:	th construction activity from the identified of that by submitting the Notice of Termina tivity under this general permit, and that a he state is unlawful under the federal Cleuthorized by a SWD permit. I also underst ability for any violations of this permit or penalties for submitting false information, we or executive officer of the applicant, or

# **Construction Site NPDES Permit Notice**

Site-Specific NPDES Authorization Number:	
Operator Name:	
Control Name and Dhana Namehan	
Contact Name and Phone Number:	
Project Description:	
Location of Chammanator Ballution Drawation Blan	
Location of Stormwater Pollution Prevention Plan (SWPPP):	
(6.5.7.7)	
EPA contact information to obtain a copy of the site	To obtain a copy of the site SWPPP find the regional contact for the area where the
Stormwater Pollution Prevention Plan:	project is located at the following web address:
	https://www.epa.gov/npdes/contact-us-stormwater#regional or contact Emily Halter (halter.emily@epa.gov) (202) 564-3324
EPA contact information if sediment is observed at site	Find the regional contact for the area where the project is located at the following
discharge:	web address: https://www.epa.gov/npdes/contact-us-stormwater#regional or
	contact Emily Halter (halter.emily@epa.gov) (202) 564-3324



# DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES NOTICE OF INTENT (NOI)

to Obtain Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 stormwater@state.sd.us
Telephone: 1-800-SDSTORM

### ALL QUESTIONS MUST BE ANSWERED COMPLETELY FOR THIS FORM TO BE VALID

I.	Site Owner Contact Information:						
	Company Name:						
	Primary Contact Person:						
	Mailing Address:						
	City:			State:	_ Zip Code: _		
	Phone Number:		Email A	ldress:			
	Type of Ownership:	Private	Federal	State	Other	(Municipal, County, etc.)	
	G				(any typ	pe not listed previously)	
	Contractor Informa						
		Will any contractors be responsible for erosion and sediment control practices: Yes No					
	(A contractor certification form must be submitted for each contractor that will have day to day responsibility for erosion an						
	sediment control practices. If these contractors have not been identified at the time this NOI is submitted, the contracotr						
	certification form may be submitted after they have been identified, but before they being construction work.)						
[.	Engineering Firm Contact Information (if applicable):						
	Contact Person:						
	Contact's Email Address:						
•	<b>Construction Projec</b>	t Information:					
	Project Name:						
	Physical Project Address or Description of Construction Site Location:						
	City:		State:		Zip Code:		
	On-Site Contact Person	:					
	Contact's Email Address:						
	Contact's Mailing Addr	ess:					
	Phone Number:		County o	f Construction S	Site:		
	Latitude:	Longitud	e:	Source	(GPS, Google	, etc.):	
	0(()	Section(s):		Township(s):		Range(s):	

Permit Number: \_

\_ Approved by: \_

\_ Date Approved: \_\_\_

Construction Project Information (Continued):					
Is this project on Tribal Lands? Yes No					
Total area disturbed by the project (in acres):					
Will this project encroach, damage, or destroy one of the historic sites identified at the following wesites:					
http://history.sd.gov/Preservation/nationalregisterofhistoricplaces.aspx					
http://www.nps.gov/nhl/find/statelists/sd/SD.pdf					
Stormwater Pollution Prevent Plan (SWPPP):					
Has the SWPPP been developed as required?					
(The plan must be developed <u>before</u> the NOI is submitted. DENR will not issue coverage before this has been developed.)					
Receiving Waters:					
Please list all possible waters that may receive a discharge from this site. If discharging to a Municipal Storm Sewer System, indicate which municipality and the ultimate receiving water.					
Nature of Discharge:					
Please include a brief description of the construction project:					
Will construction dewatering be required?					
Construction Dates:					
Project Start Date (MM/DD/YYYY):					
Estimated Completion Date (MM/DD/YYYY):					
Dewatering Activities (Complete this section if you answered yes in VII):					
Date dewatering will commence (MM/DD/YYYY):					
Date dewatering will end (MM/DD/YYYY):					
Total volume of dewatering (gallons): Average flow rate (gallons per minute):					
Source of water to be discharged:					
Receiving water:					
Receiving water:  Brief description of water treatment processes to be employed, if any:					
Brief description of water treatment processes to be employed, if any:					
Brief description of water treatment processes to be employed, if any:					
Brief description of water treatment processes to be employed, if any:  Will the dewatering discharge contain anything other than uncontaminated groundwater and stormwater:  Yes No NOTE: If there will be dewatering activities, please place points of withdrawal and discharge on a topographic map, or oth map if a topographic map is unavailable. This map should extend to one (1) square mile beyond the property boundaries of the square mile beyond the squ					
Brief description of water treatment processes to be employed, if any:  Will the dewatering discharge contain anything other than uncontaminated groundwater and stormwater:  Yes No NOTE: If there will be dewatering activities, please place points of withdrawal and discharge on a topographic map, or oth map if a topographic map is unavailable. This map should extend to one (1) square mile beyond the property boundaries of the square mile beyond the squ					
Brief description of water treatment processes to be employed, if any:					
Brief description of water treatment processes to be employed, if any:  Will the dewatering discharge contain anything other than uncontaminated groundwater and stormwater:  Yes No NOTE: If there will be dewatering activities, please place points of withdrawal and discharge on a topographic map, or other map if a topographic map is unavailable. This map should extend to one (1) square mile beyond the property boundaries of the facility and each of its discharge facilities, and those wells, springs, and other surface water bodies, drinking water wells, and surface water intake structures listed in public records, or otherwise known to the applicant in the map area.					

### STATE OF SOUTH DAKOTA

### BEFORE THE SECRETARY OF

### THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

IN THE MATTER OF THE APPLICATION OF	)
	) CERTIFICATION OF
STATE OF	
COUNTY OF	)
I,sworn upon oath hereby certify the following i	_, the applicant in the above matter after being duly information in regard to this application:

I have read and understand South Dakota Codified Law Section 1-40-27 which provides:

"The secretary may reject an application for any permit filed pursuant to Titles 34A or 45, including any application by any concentrated swine feeding operation for authorization to operate under a general permit, upon making a specific finding that:

- (1) The applicant is unsuited or unqualified to perform the obligations of a permit holder based upon a finding that the applicant, any officer, director, partner, or resident general manager of the facility for which application has been made:
  - (a) Has intentionally misrepresented a material fact in applying for a permit;
  - (b) Has been convicted of a felony or other crime involving moral turpitude;
  - (c) Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;
  - (d) Has had any permit revoked under the environmental laws of any state or the United States; or
  - (e) Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or
- (2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review, recommendation or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification,

consideration of the application may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26."

I certify pursuant to 1-40-27, that as an applicant, officer, director, partner, or resident general manager of the activity or facility for which the application has been made that I; a) have not intentionally misrepresented a material fact in applying for a permit; b) have not been convicted of a felony or other crime of moral turpitude; c) have not habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage; (d) have not had any permit revoked under the environmental laws of any state or the United States; or e) have not otherwise demonstrated through clear and convincing evidence of previous actions that I lack the necessary good character and competency to reliably carry out the obligations imposed by law upon me. I also certify that this application does not substantially duplicate an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Further;

"I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct."

Dated this day of		, 20	
Applicant (print)			
Applicant (signature)			
Subscribed and sworn before me this	day of		, 20
Notary Public (signature)			
My commission expires:			

PLEASE ATTACH ANY ADDITIONAL INFORMATION NECESSARY TO DISCLOSE
ALL FACTS AND DOCUMENTS PERTAINING TO
SDCL 1-40-27 (1) (a) THROUGH (e).
ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT
AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION

(SEAL)



### DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TRANSFER OF PERMIT COVERAGE FORM

for Coverage Under the SWD General Permit for Stormwater Discharges Associated with Construction Activities

This form is required to be submitted when ownership of a construction project or an individual lot in a larger common plan of development has been transferred to a different owner. Please submit this form to the following address:

Submit form to: SD Department of Environment and Natural Resources

Surface Water Quality Program 523 East Capitol Avenue Pierre, South Dakota 57501 stormwater@state.sd.us

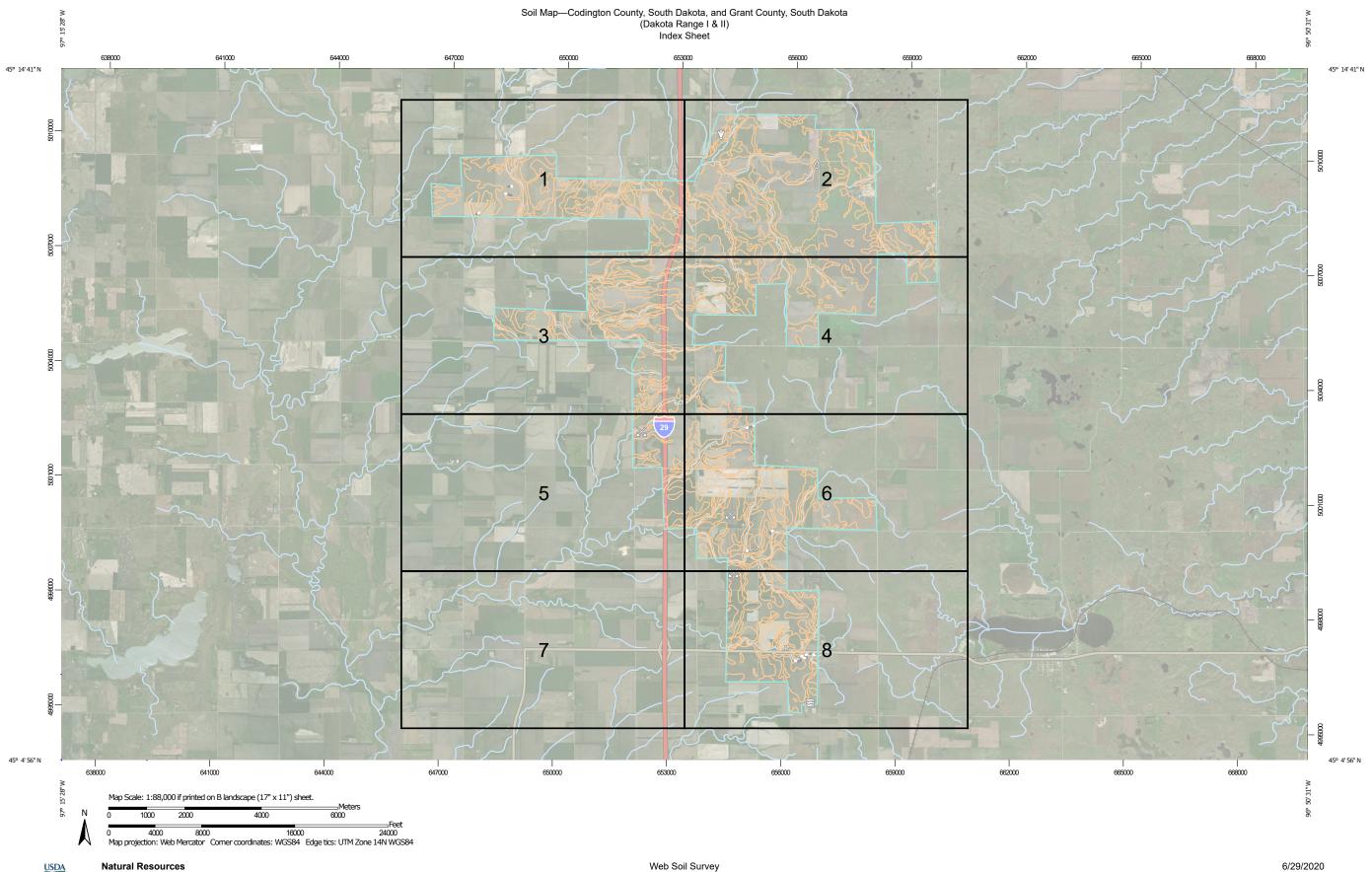
Telephone: 1-800-SDSTORM

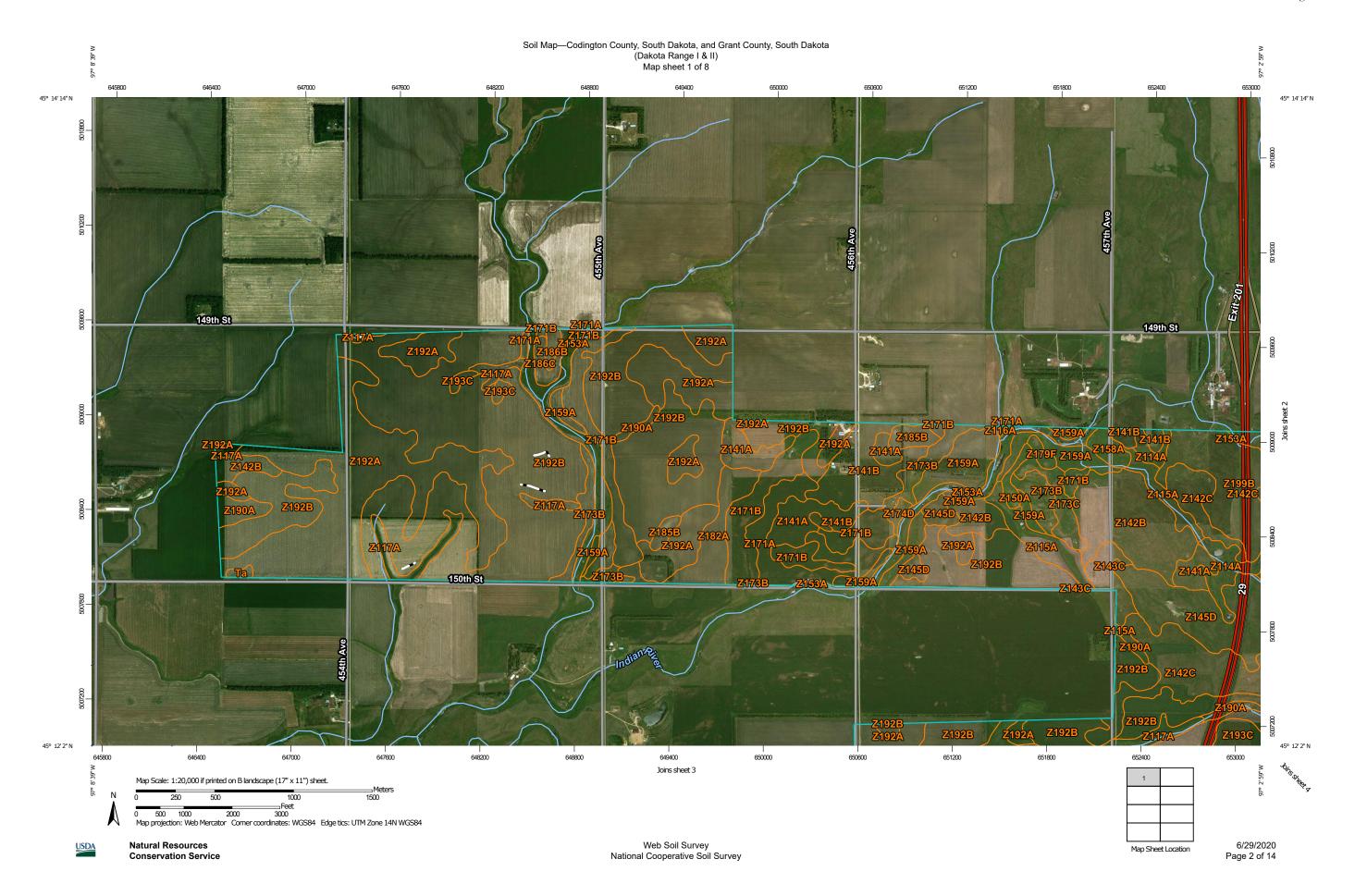
Project Name: Permit Number:

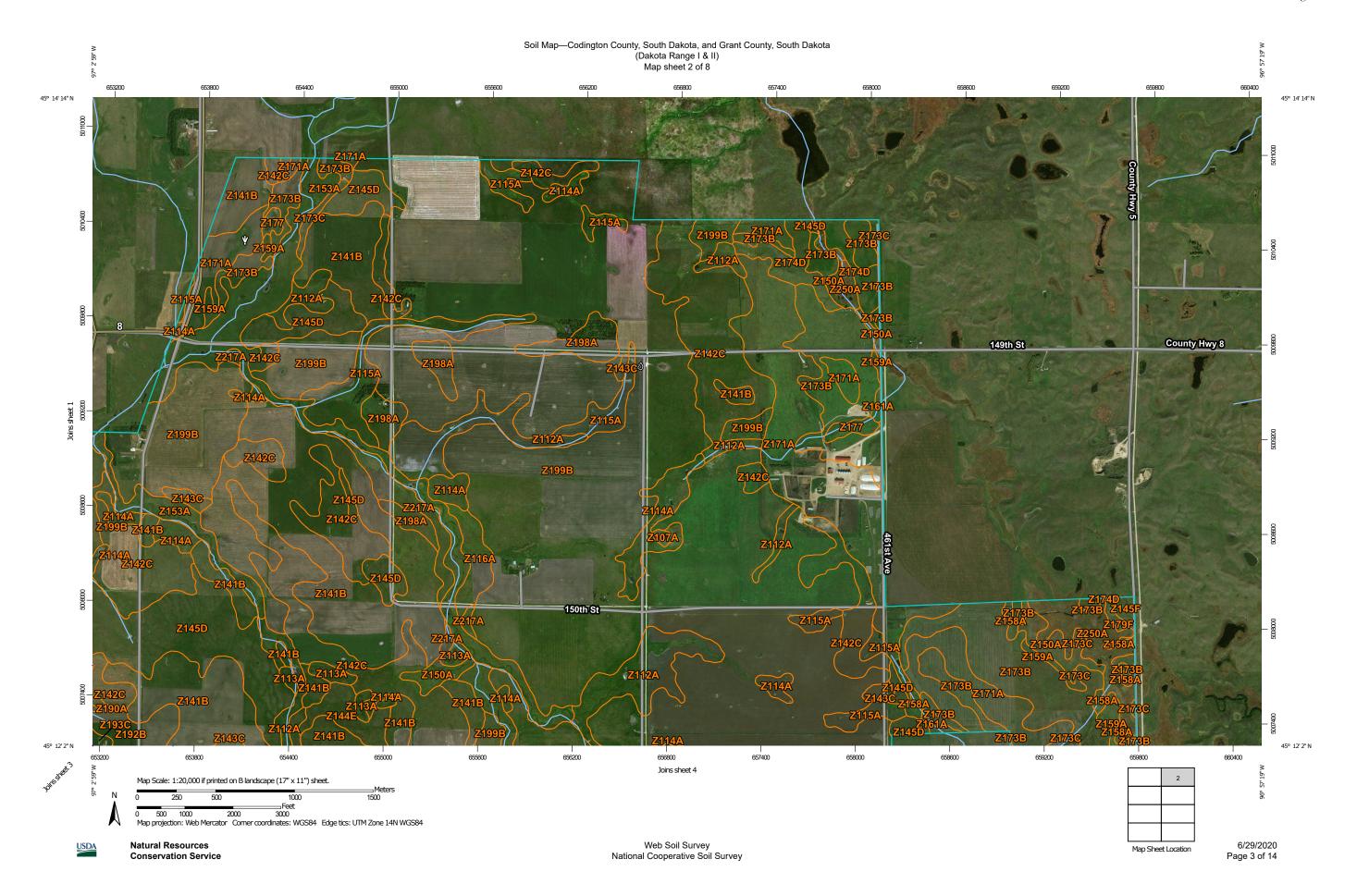
Site (Lot) Legal Location: Site (Lot) Description:

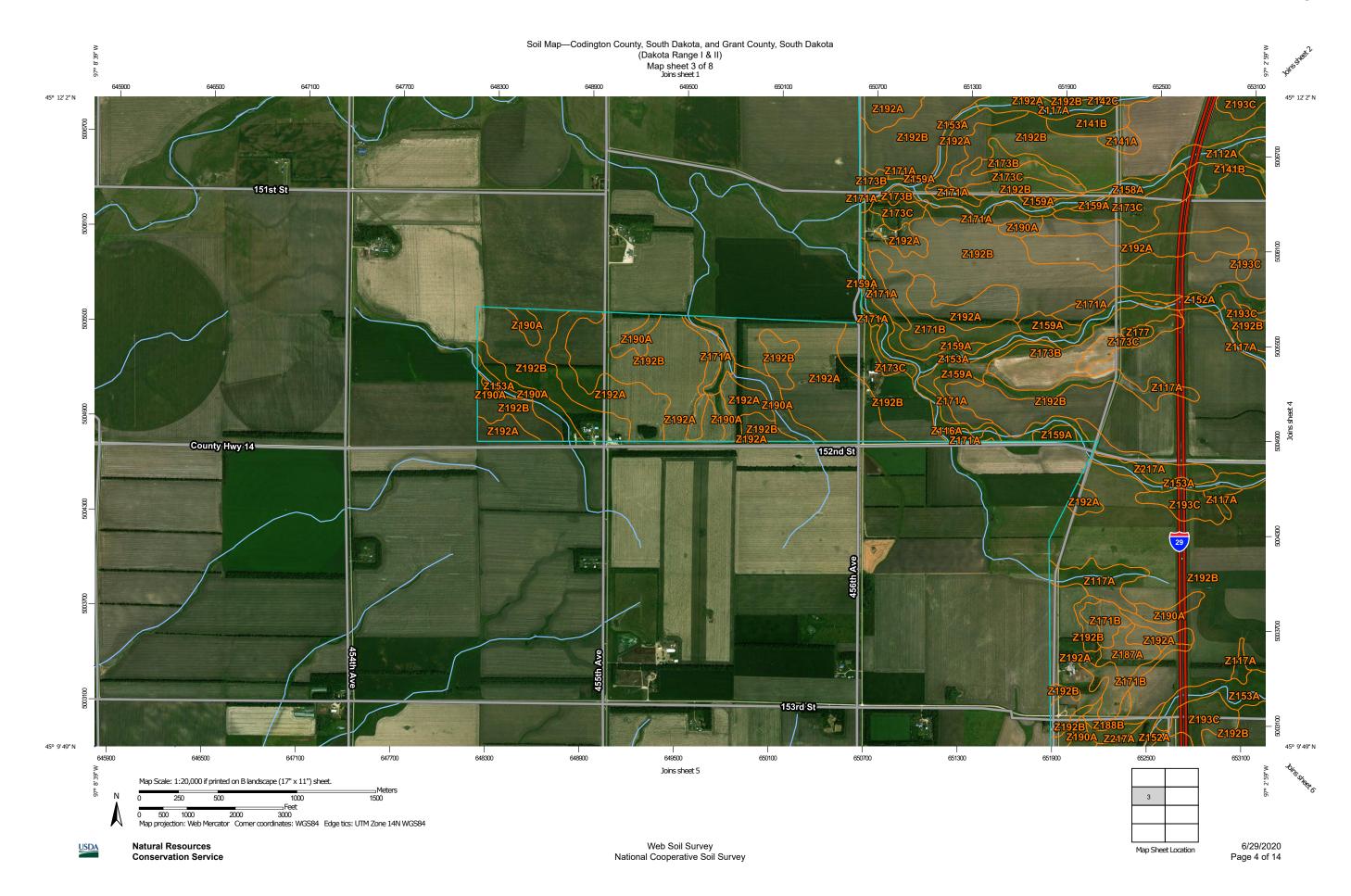
Previous Owner's Name:			
New Owner's Name:			
New Owner's Mailing Information:			
City:	Sta	ite:	Zip Code:
Phone Number:	Email:		
Stabilization measures implemented p	rior to transfer:		
Date transfer of property responsibility	y and liability becomes effective:		
**NOTE: Any change in location, o Plan be updated and revi		requires tl	hat the Stormwater Pollution Prevention
The site (lot) described about is covered Construction Activity. Temporary of transferred ownership/responsibility importance of site stabilization in an	or permanent stabilization has by as indicated above. The new o	oeen establ owners, or	lished on the site, which has now operators, have been made aware of the
of pollutants to waters of the state. I disturbing activities at the site have	The new owner is aware that pe been completed and one of the	rmit cover following	ractices to reduce or eliminate a discharge rage for the site is required until all soil-conditions have been met: ures have a uniform perennial vegetative
cover over at least 70% of t	the site; or		, ,
<ul> <li>equivalent permanent stabi geotextiles.</li> </ul>	lization measure have been emp	ployed, suc	ch as the use of riprap, gabions, or
New Owner/Operator Signature:			
Date:			
Previous Owner/Operator Signature:			
Date:			
	FOR DENR USE O	NLY	
Permit Number:	Date Approved:		Approved by:
Transfer of Ownership – G	General Stormwater Permit		Revised January 31, 2018

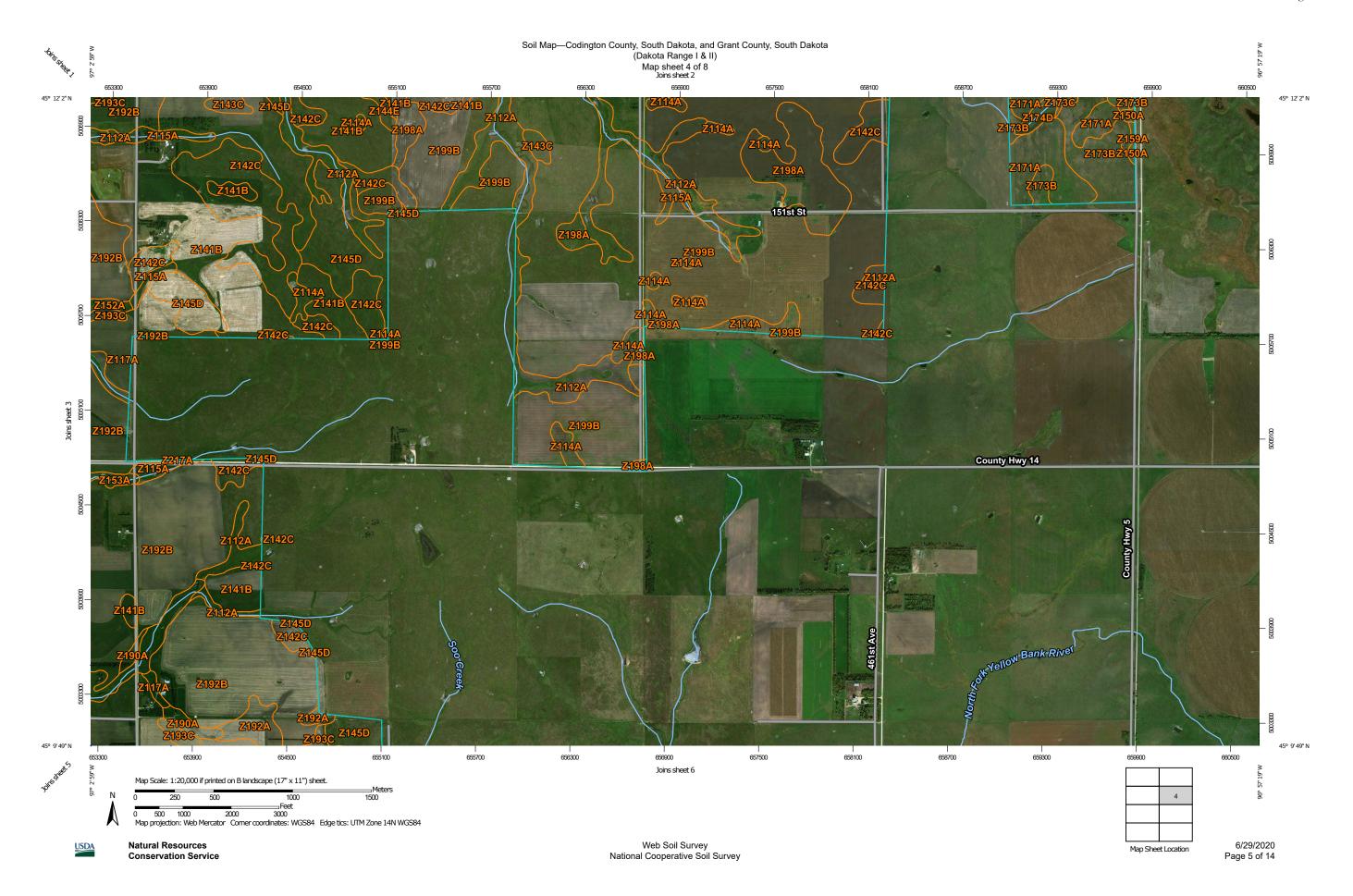
# Attachment C Soil Maps

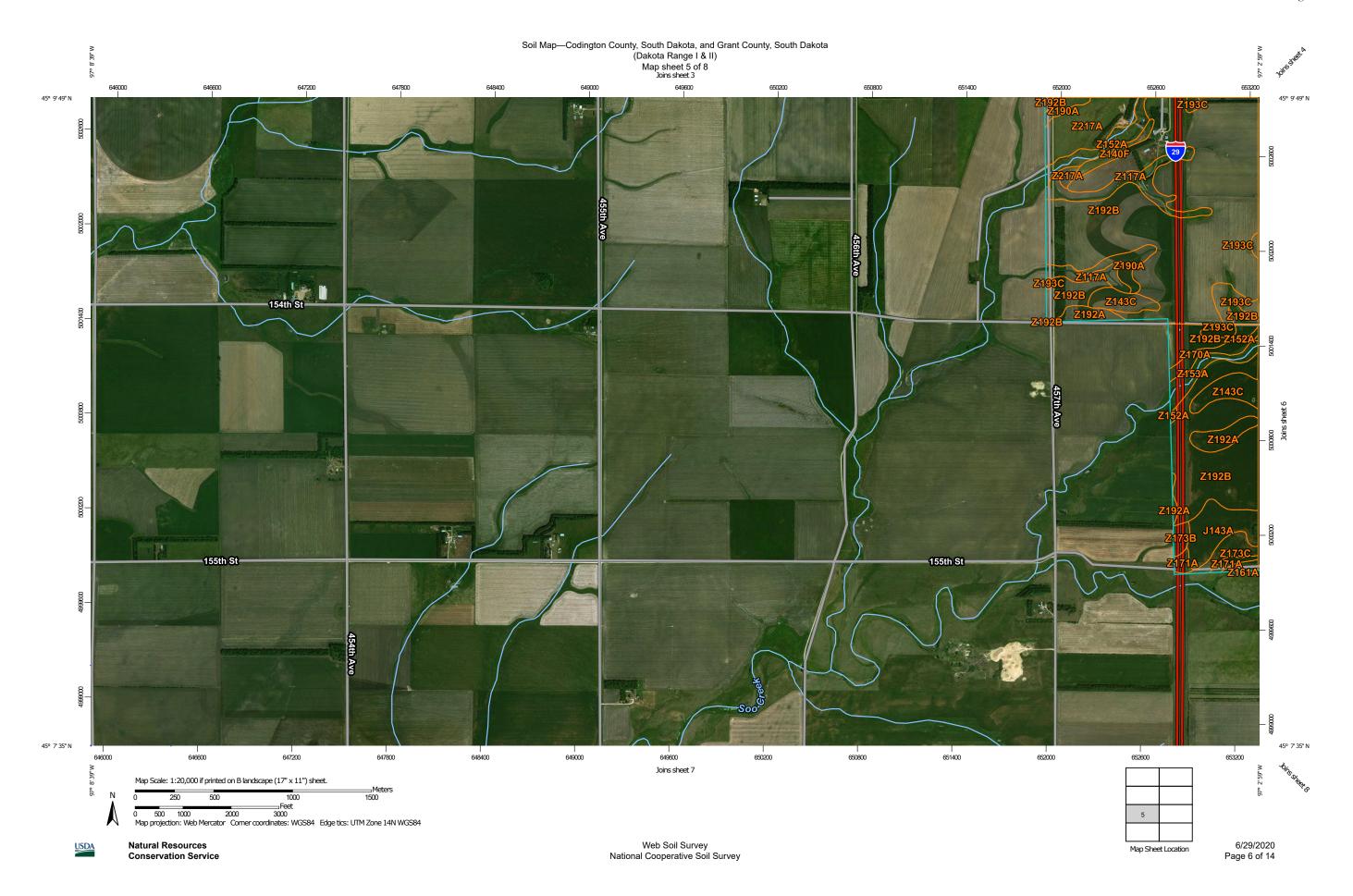


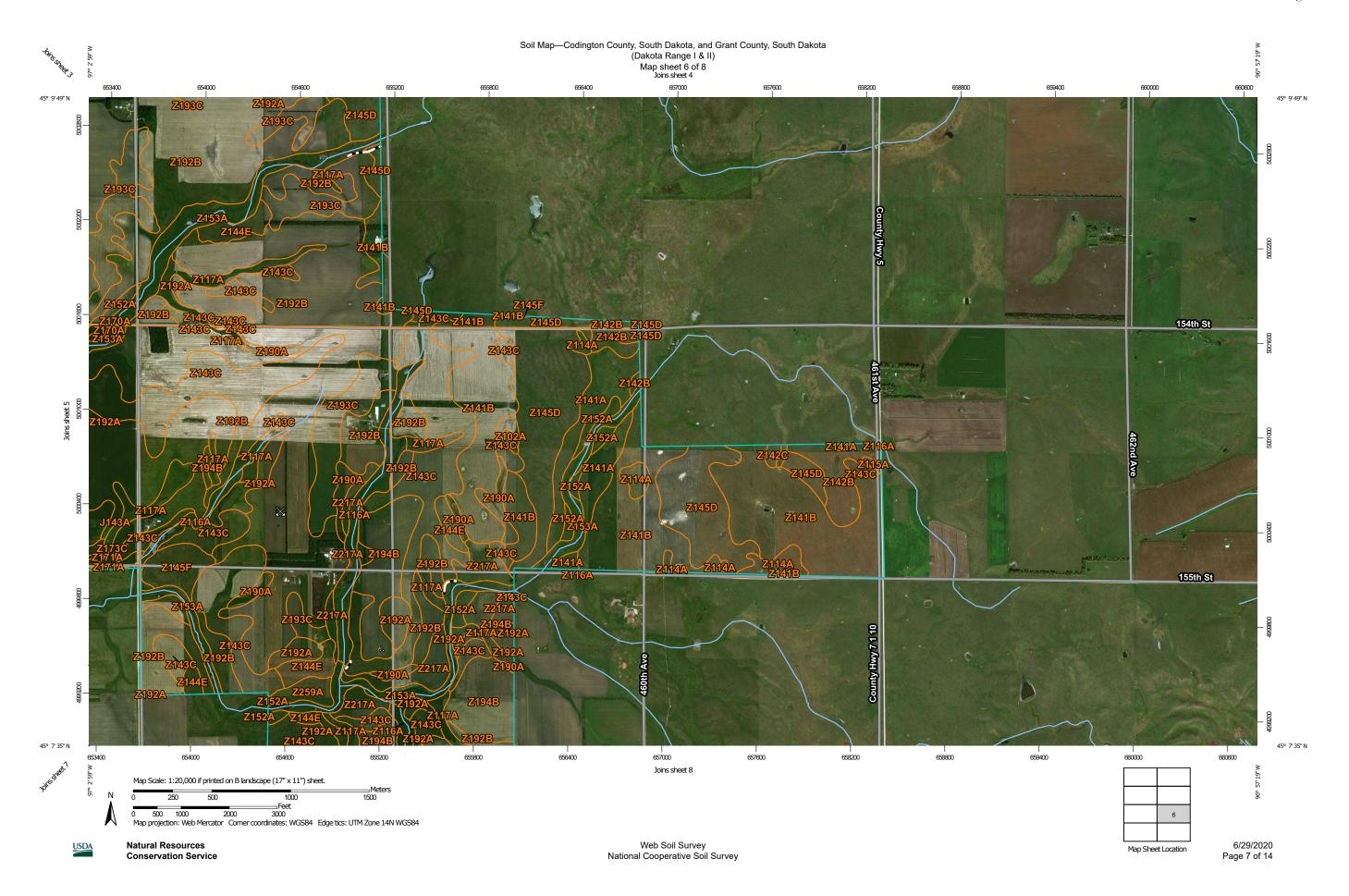




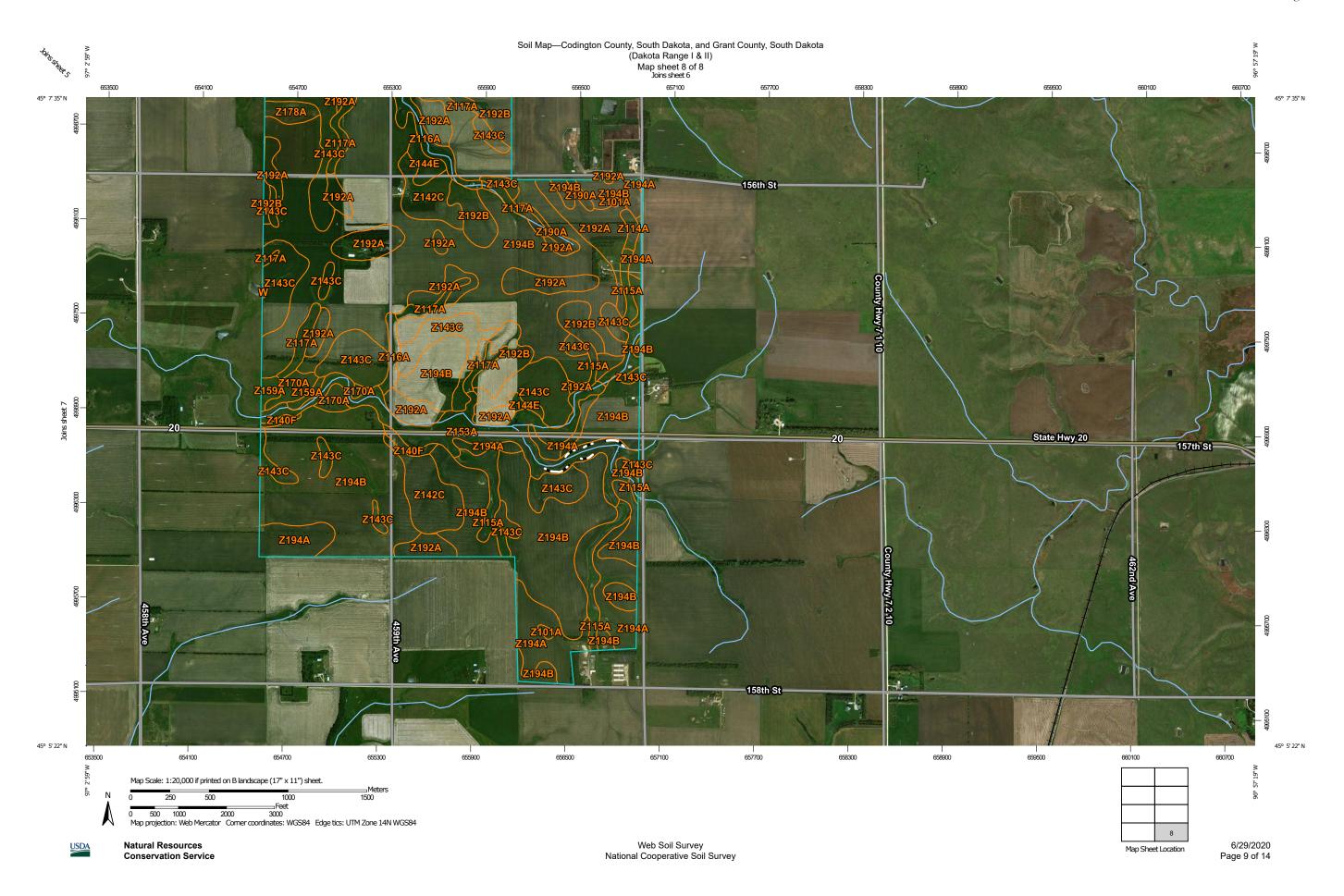












### MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at scales Area of Interest (AOI) Spoil Area ranging from 1:12,000 to 1:20,000. Area of Interest (AOI) Stony Spot Please rely on the bar scale on each map sheet for map Soils Very Stony Spot measurements. Soil Map Unit Polygons \$ Wet Spot Source of Map: Natural Resources Conservation Service Soil Map Unit Lines Web Soil Survey URL: Δ Other Coordinate System: Web Mercator (EPSG:3857) Soil Map Unit Points Special Line Features Maps from the Web Soil Survey are based on the Web Mercator **Special Point Features Water Features** projection, which preserves direction and shape but distorts Blowout ဖ Streams and Canals distance and area. A projection that preserves area, such as the Borrow Pit Albers equal-area conic projection, should be used if more Transportation accurate calculations of distance or area are required. Ж Clay Spot Rails +++ This product is generated from the USDA-NRCS certified data as 0 Closed Depression Interstate Highways of the version date(s) listed below. Gravel Pit **US Routes** Soil Survey Area: Codington County, South Dakota Gravelly Spot Survey Area Data: Version 23, Sep 16, 2019 Major Roads Landfill Soil Survey Area: Grant County, South Dakota Local Roads Survey Area Data: Version 21, Sep 17, 2019 Lava Flow Background Your area of interest (AOI) includes more than one soil survey Marsh or swamp Aerial Photography area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at Mine or Quarry different levels of detail. This may result in map unit symbols, soil Miscellaneous Water properties, and interpretations that do not completely agree across soil survey area boundaries. Perennial Water Soil map units are labeled (as space allows) for map scales Rock Outcrop 1:50,000 or larger. Saline Spot Date(s) aerial images were photographed: Aug 22, 2013—Nov Sandy Spot 14, 2016 Severely Eroded Spot The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background Sinkhole imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. Slide or Slip Sodic Spot

### **Map Unit Legend**

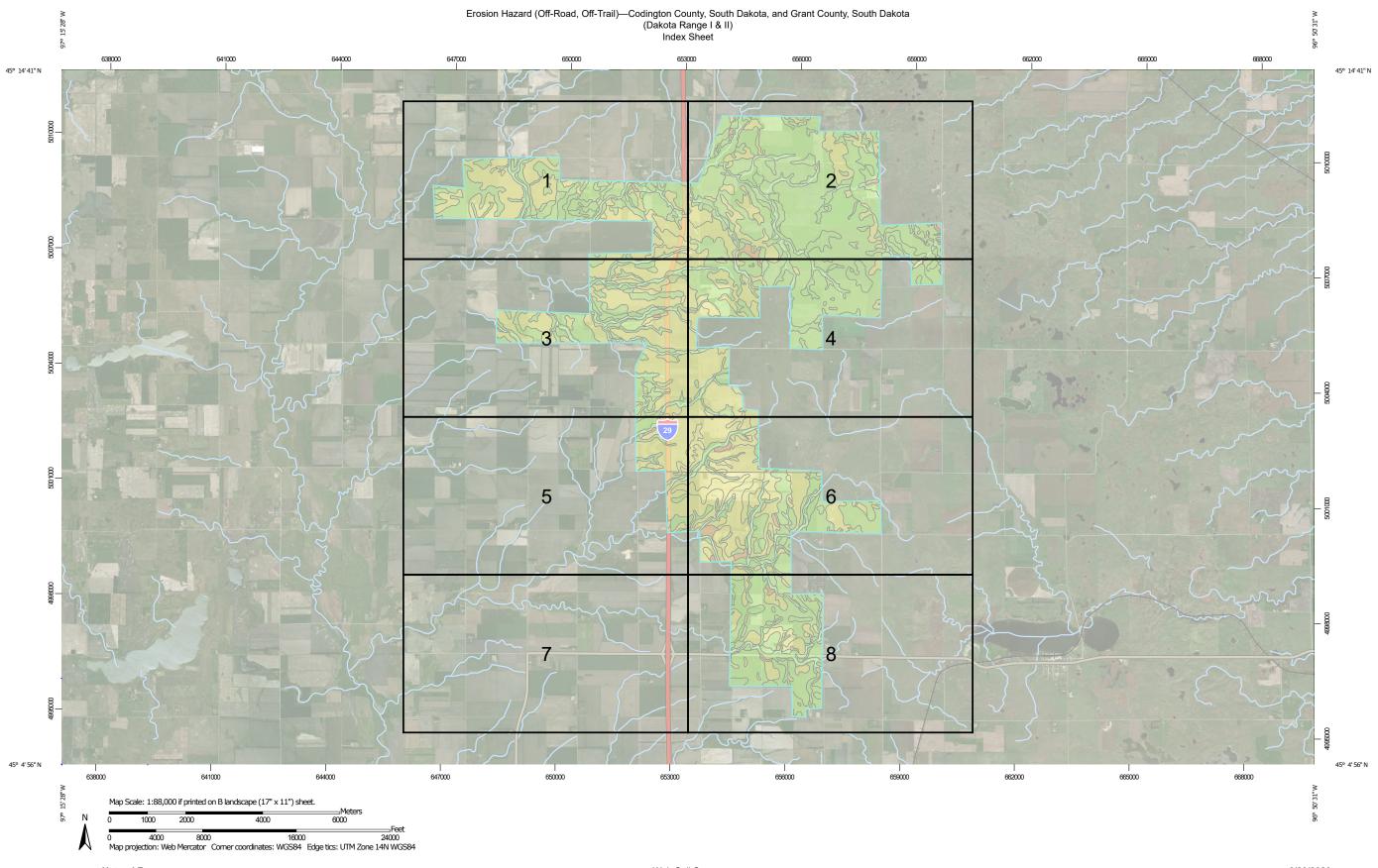
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
J143A	Kranzburg-Brookings silty clay loams, 0 to 2 percent slopes	33.9	0.2%
W	Water	0.2	0.0%
Z101A	Tonka silty clay loam, 0 to 1 percent slopes	2.1	0.0%
Z102A	Badger-Tonka silty clay loams, coteau, 0 to 1 percent slopes	1.8	0.0%
Z114A	Hamerly-Tonka complex, coteau, 0 to 2 percent slopes	30.0	0.2%
Z115A	Hamerly-Badger complex, 0 to 2 percent slopes	62.5	0.4%
Z116A	McKranz-Hidewood, frequently flooded, silty clay loams, 0 to 2 percent slopes	90.3	0.5%
Z117A	Mckranz-Badger silty clay loams, 0 to 2 percent slopes	97.2	0.6%
Z140F	Buse-Langhei complex, coteau, 15 to 40 percent slopes	6.9	0.0%
Z141A	Barnes-Svea loams, coteau, 0 to 2 percent slopes	69.4	0.4%
Z141B	Barnes-Svea loams, coteau, 1 to 6 percent slopes	333.0	1.9%
Z142B	Barnes-Buse-Svea loams, coteau, 1 to 6 percent slopes	43.0	0.2%
Z142C	Barnes-Buse-Svea loams, coteau, 2 to 9 percent slopes	64.1	0.4%
Z143C	Barnes-Buse loams, coteau, 6 to 9 percent slopes	601.0	3.5%
Z144E	Buse-Barnes loams, coteau, 9 to 20 percent slopes	42.1	0.2%
Z145D	Buse-Barnes loams, coteau, 2 to 15 percent slopes, very stony	194.4	1.1%
Z145F	Buse-Barnes loams, coteau, 9 to 40 percent slopes, very stony	24.4	0.1%
Z152A	Lamoure silty clay loam, coteau, 0 to 1 percent slopes, occasionally flooded	24.5	0.1%
Z153A	Lamoure-Rauville silty clay loams, channeled, 0 to 2 percent slopes, frequently flooded	187.1	1.1%
Z159A	Divide loam, 0 to 2 percent slopes, occasionally flooded	7.9	0.0%

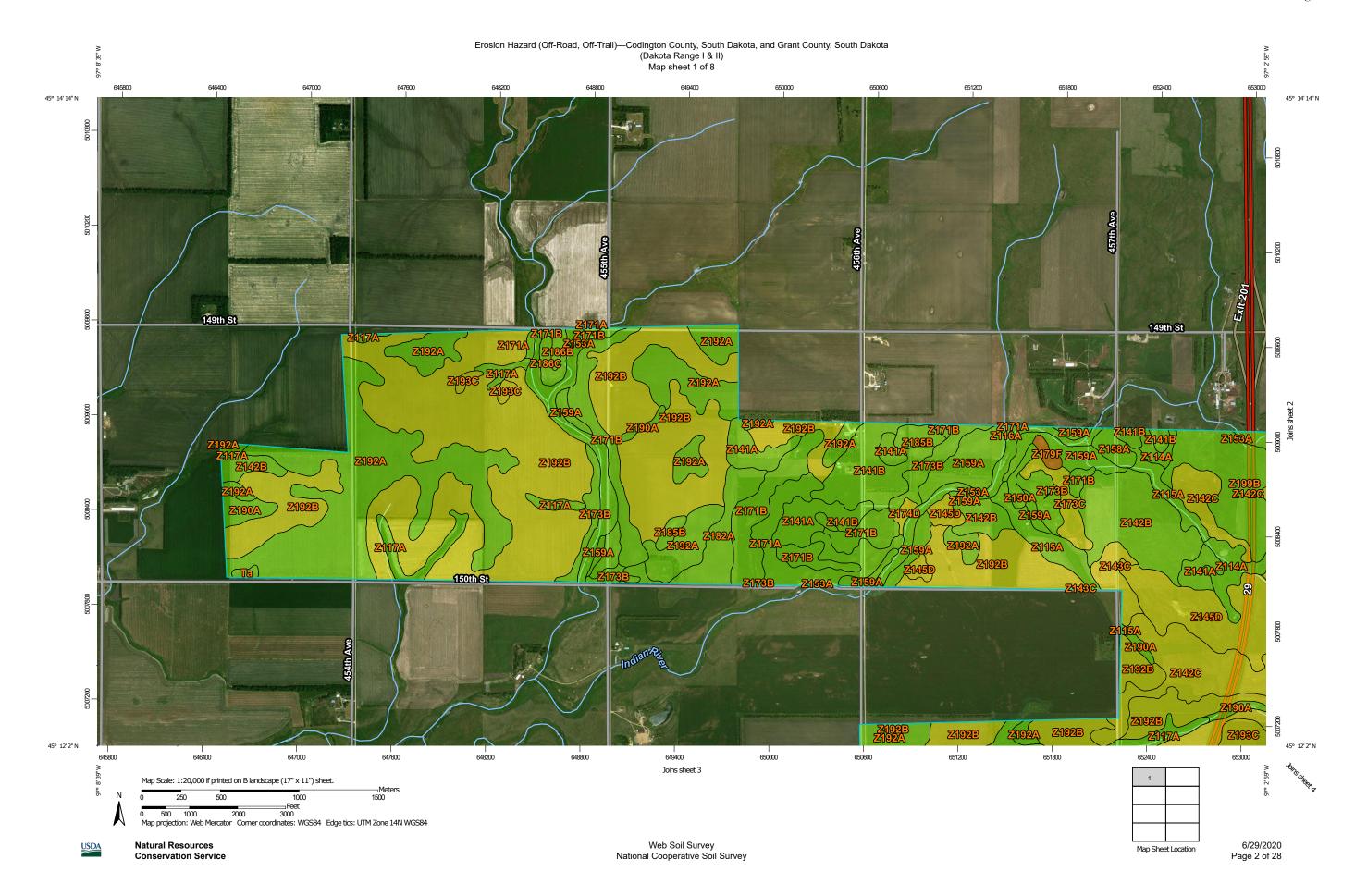
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Z161A	Spottswood loam, 0 to 2 percent slopes, occasionally flooded	4.0	0.0%
Z170A Fordville loam, coteau, 0 to 2 percent slopes		27.4	0.2%
Z171A	Renshaw-Fordville loams, coteau, 0 to 2 percent slopes	13.5	0.1%
Z173B	Renshaw-Sioux complex, coteau, 2 to 6 percent slopes	4.4	0.0%
Z173C	Renshaw-Sioux complex, coteau, 6 to 9 percent slopes	12.2	0.1%
Z178A	Rentill loam, coteau, 0 to 2 percent slopes	9.9	0.1%
Z190A	Brookings silty clay loam, 0 to 2 percent slopes	46.4	0.3%
Z192A	Vienna-Brookings complex, 0 to 2 percent slopes	213.2	1.2%
Z192B	Vienna-Brookings complex, 1 to 6 percent slopes	702.2	4.0%
Z193C	Vienna-Buse complex, coteau, 6 to 9 percent slopes	66.8	0.4%
Z194A	Barnes clay loam, coteau, 0 to 2 percent slopes	109.4	0.6%
Z194B	Barnes clay loam, coteau, 2 to 6 percent slopes	1,013.1	5.8%
Z217A	McKranz silty clay loam, 0 to 2 percent slopes	67.9	0.4%
Z259A	Mahoney silt loam, 0 to 2 percent slopes	11.8	0.1%
Subtotals for Soil Survey A	rea	4,218.2	24.3%
Totals for Area of Interest		17,364.8	100.0%

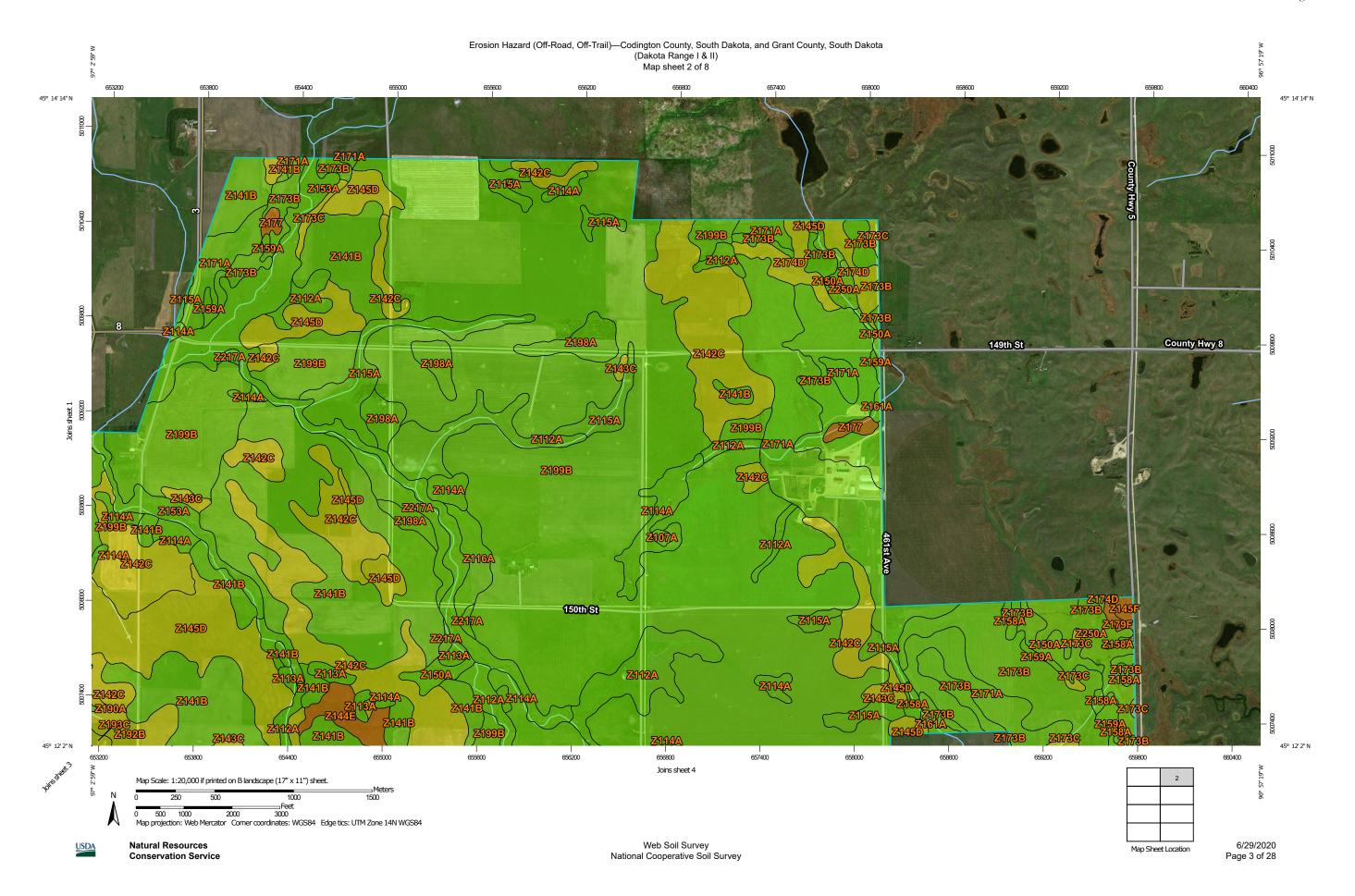
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
Та	Tonka silty clay loam, 0 to 1 percent slopes	2.3	0.0%		
Z107A	Parnell silty clay loam, coteau, 0 to 1 percent slopes	2.3	0.0%		
Z112A	Vallers-Hamerly loams, coteau, 0 to 2 percent slopes	367.5	2.1%		
Z113A	Vallers-Parnell complex, coteau, 0 to 2 percent slopes	17.7	0.1%		
Z114A	Hamerly-Tonka complex, coteau, 0 to 2 percent slopes	164.6	0.9%		
Z115A	Hamerly-Badger complex, 0 to 2 percent slopes	188.3	1.1%		

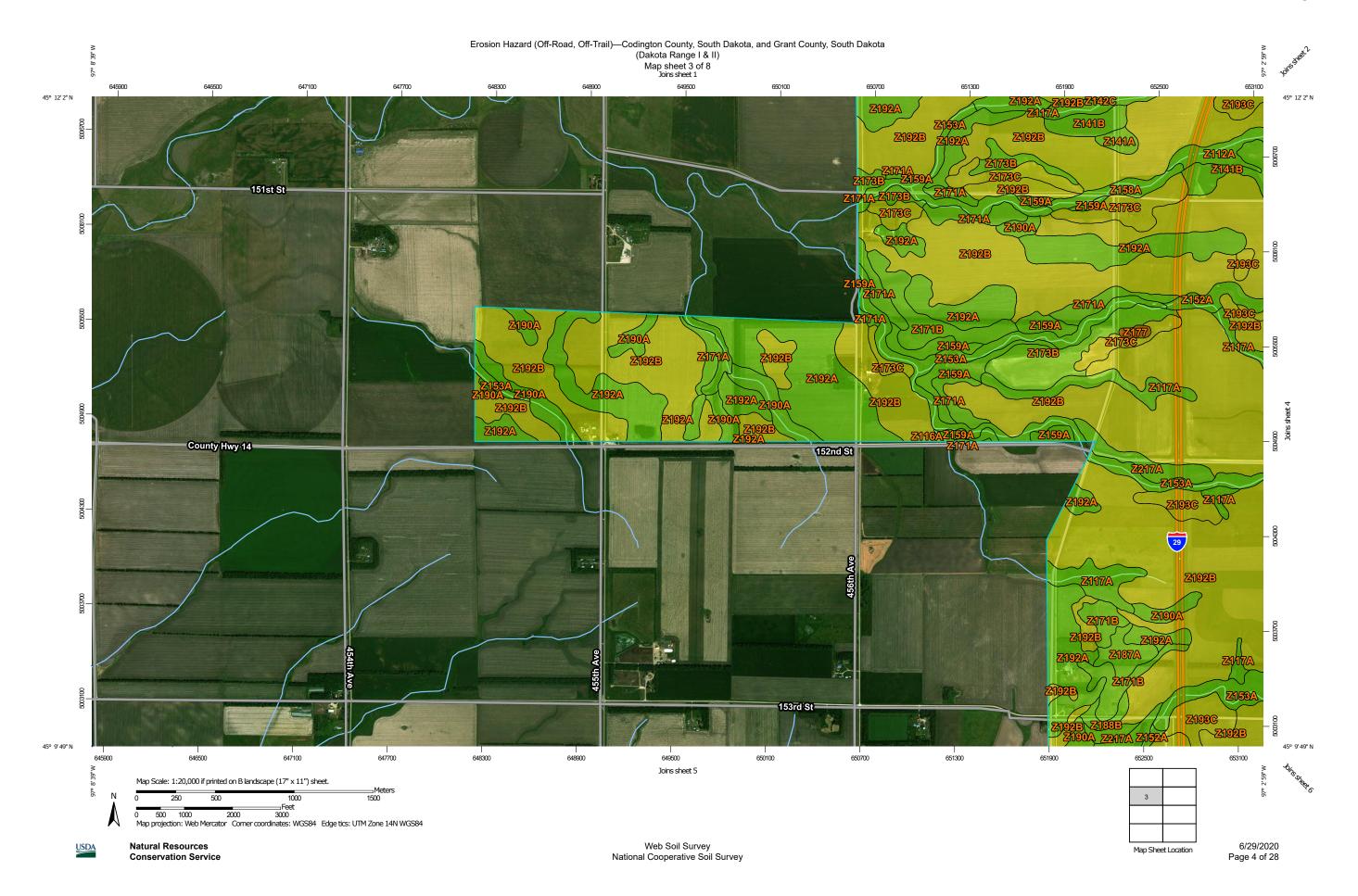
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Z116A	McKranz-Hidewood, frequently flooded, silty clay loams, 0 to 2 percent slopes	26.1	0.2%
Z117A	Mckranz-Badger silty clay loams, 0 to 2 percent slopes	197.6	1.1%
Z140F	Buse-Langhei complex, coteau, 15 to 40 percent slopes	7.2	0.0%
Z141A	Barnes-Svea loams, coteau, 0 to 2 percent slopes	71.8	0.4%
Z141B	Barnes-Svea loams, coteau, 1 to 6 percent slopes	995.0	5.7%
Z142B	Barnes-Buse-Svea loams, coteau, 1 to 6 percent slopes	115.0	0.7%
Z142C	Barnes-Buse-Svea loams, coteau, 2 to 9 percent slopes	751.3	4.3%
Z143C	Barnes-Buse loams, coteau, 6 to 9 percent slopes	81.3	0.5%
Z144E	Buse-Barnes loams, coteau, 9 to 20 percent slopes	43.7	0.3%
Z145D	Buse-Barnes loams, coteau, 2 to 15 percent slopes, very stony	441.2	2.5%
Z145F	Buse-Barnes loams, coteau, 9 to 40 percent slopes, very stony	4.4	0.0%
Z150A	Rauville silty clay loam, coteau, 0 to 1 percent slopes, frequently flooded	48.8	0.3%
Z152A	Lamoure silty clay loam, coteau, 0 to 1 percent slopes, occasionally flooded	41.7	0.2%
Z153A	Lamoure-Rauville silty clay loams, channeled, 0 to 2 percent slopes, frequently flooded	475.1	2.7%
Z158A	Marysland loam, 0 to 1 percent slopes, occasionally flooded	43.6	0.3%
Z159A	Divide loam, 0 to 2 percent slopes, occasionally flooded	157.0	0.9%
Z161A	Spottswood loam, 0 to 2 percent slopes, occasionally flooded	15.0	0.1%
Z170A	Fordville loam, coteau, 0 to 2 percent slopes	0.9	0.0%
Z171A	Renshaw-Fordville loams, coteau, 0 to 2 percent slopes	500.1	2.9%
Z171B	Renshaw-Fordville loams, coteau, 2 to 6 percent slopes	186.6	1.1%

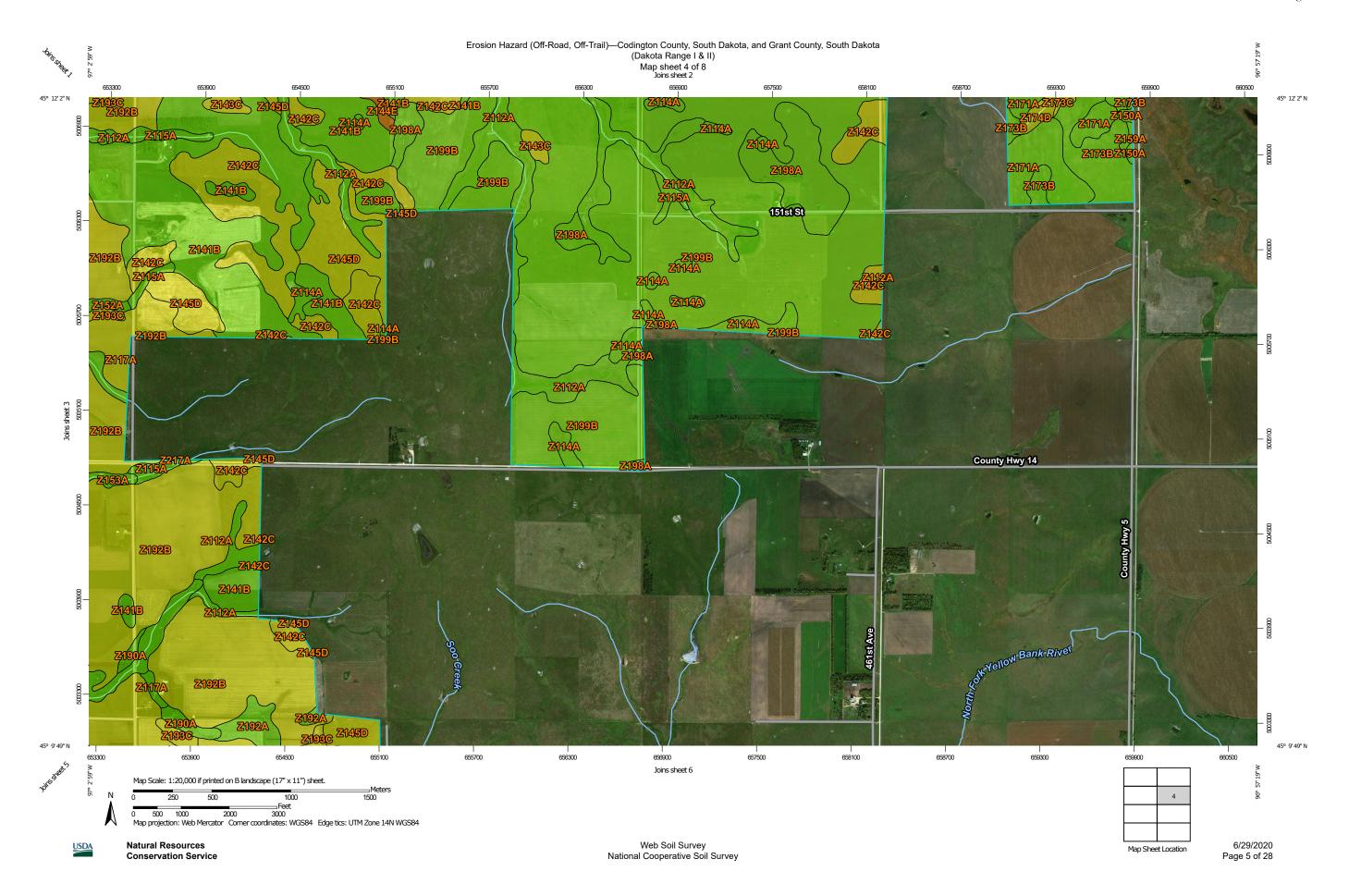
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Z173B	Renshaw-Sioux complex, coteau, 2 to 6 percent slopes	456.6	2.6%
Z173C	Renshaw-Sioux complex, coteau, 6 to 9 percent slopes	114.9	0.7%
Z174D	Sioux-Renshaw complex, coteau, 9 to 15 percent slopes	57.9	0.3%
Z177	Udorthents, coteau (gravel pits)	14.9	0.1%
Z179F	Sioux-Renshaw complex, 15 to 40 percent slopes, very stony	9.5	0.1%
Z182A	Estelline silt loam, coteau, 0 to 2 percent slopes	38.1	0.2%
Z185B	Egeland-Embden complex, coteau, 2 to 6 percent slopes	14.8	0.1%
Z186B	Maddock-Egeland sandy loams, coteau, 2 to 6 percent slopes	4.5	0.0%
Z186C	Maddock-Egeland sandy loams, coteau, 6 to 9 percent slopes	8.7	0.1%
Z187A	Swenoda fine sandy loam, coteau, 0 to 2 percent slopes	22.6	0.1%
Z188B	Lanona-Swenoda fine sandy loams, coteau, 2 to 6 percent slopes	7.3	0.0%
Z190A	Brookings silty clay loam, 0 to 2 percent slopes	132.9	0.8%
Z192A	Vienna-Brookings complex, 0 to 2 percent slopes	769.7	4.4%
Z192B	Vienna-Brookings complex, 1 to 6 percent slopes	3,317.6	19.1%
Z193C	Vienna-Buse complex, coteau, 6 to 9 percent slopes	201.2	1.2%
Z198A	Vienna-Forestville loams, coteau, 0 to 2 percent slopes	157.6	0.9%
Z199B	Vienna-Barnes-Forestville loams, 1 to 6 percent slopes	2,708.4	15.6%
Z217A	McKranz silty clay loam, 0 to 2 percent slopes	105.4	0.6%
Z250A	Rauville mucky silty clay loam, ponded, 0 to 1 percent slopes, frequently flooded	57.7	0.3%
Subtotals for Soil Survey A	rea	13,146.6	75.7%
Totals for Area of Interest		17,364.8	100.0%

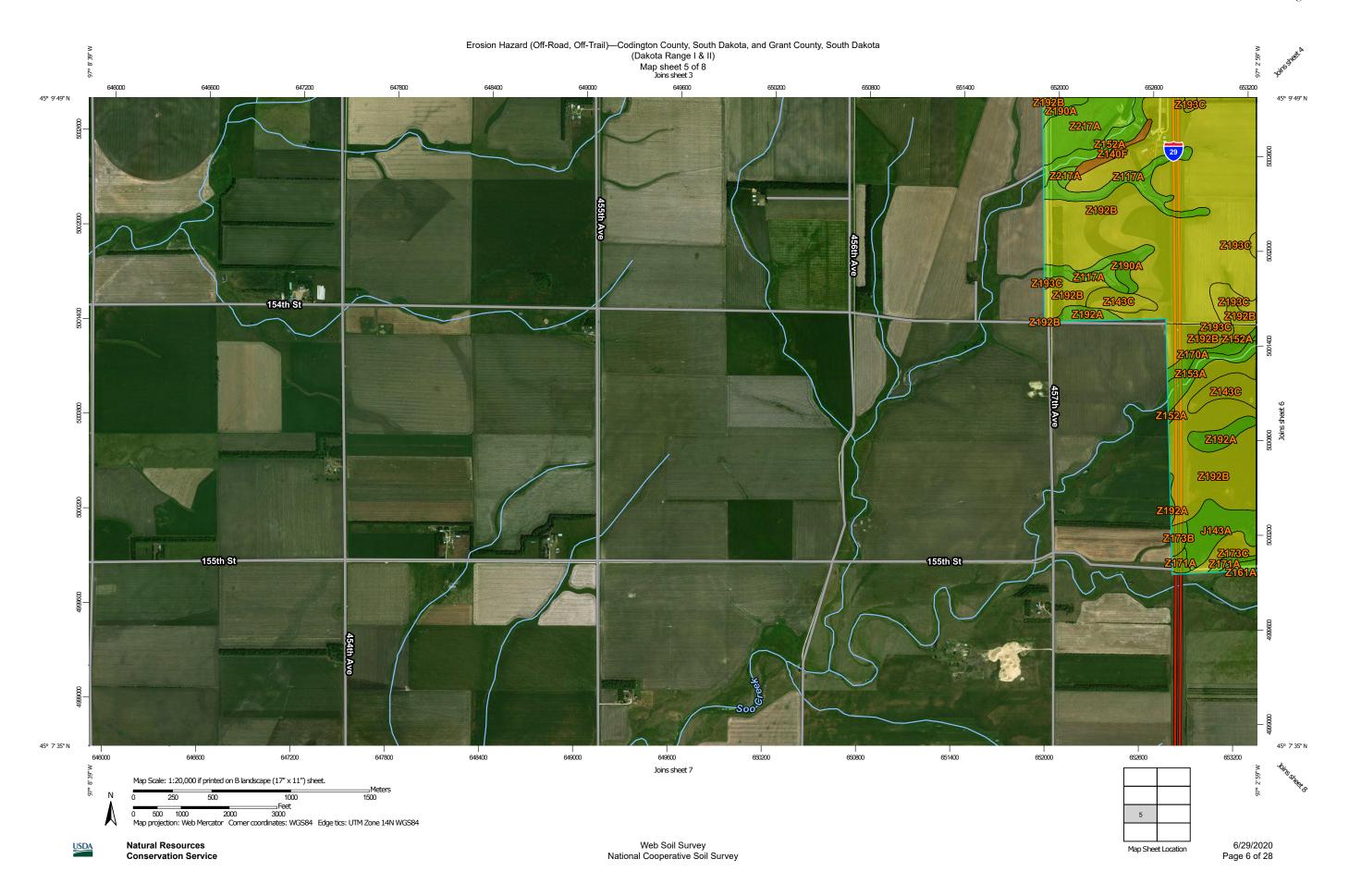


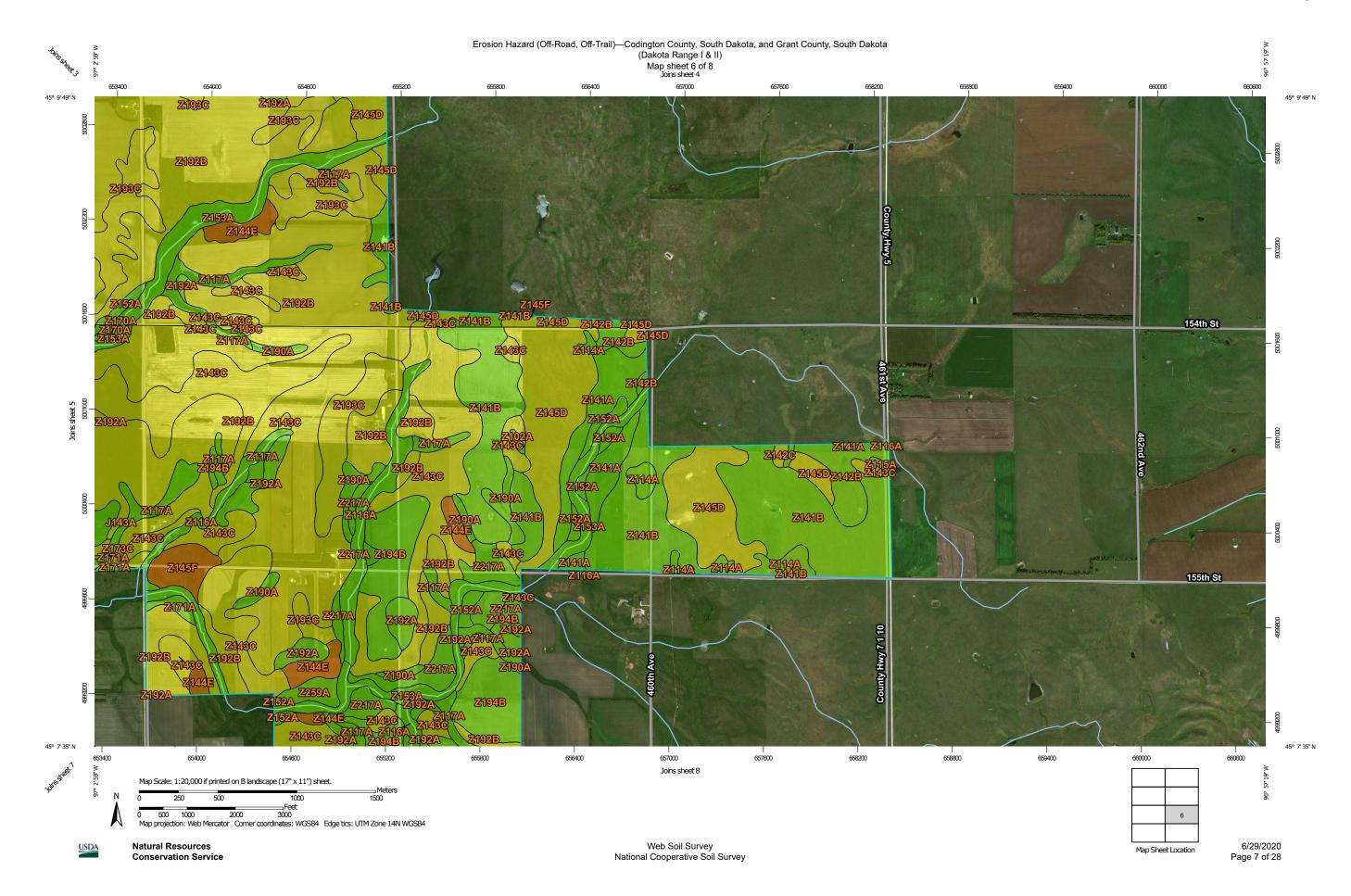


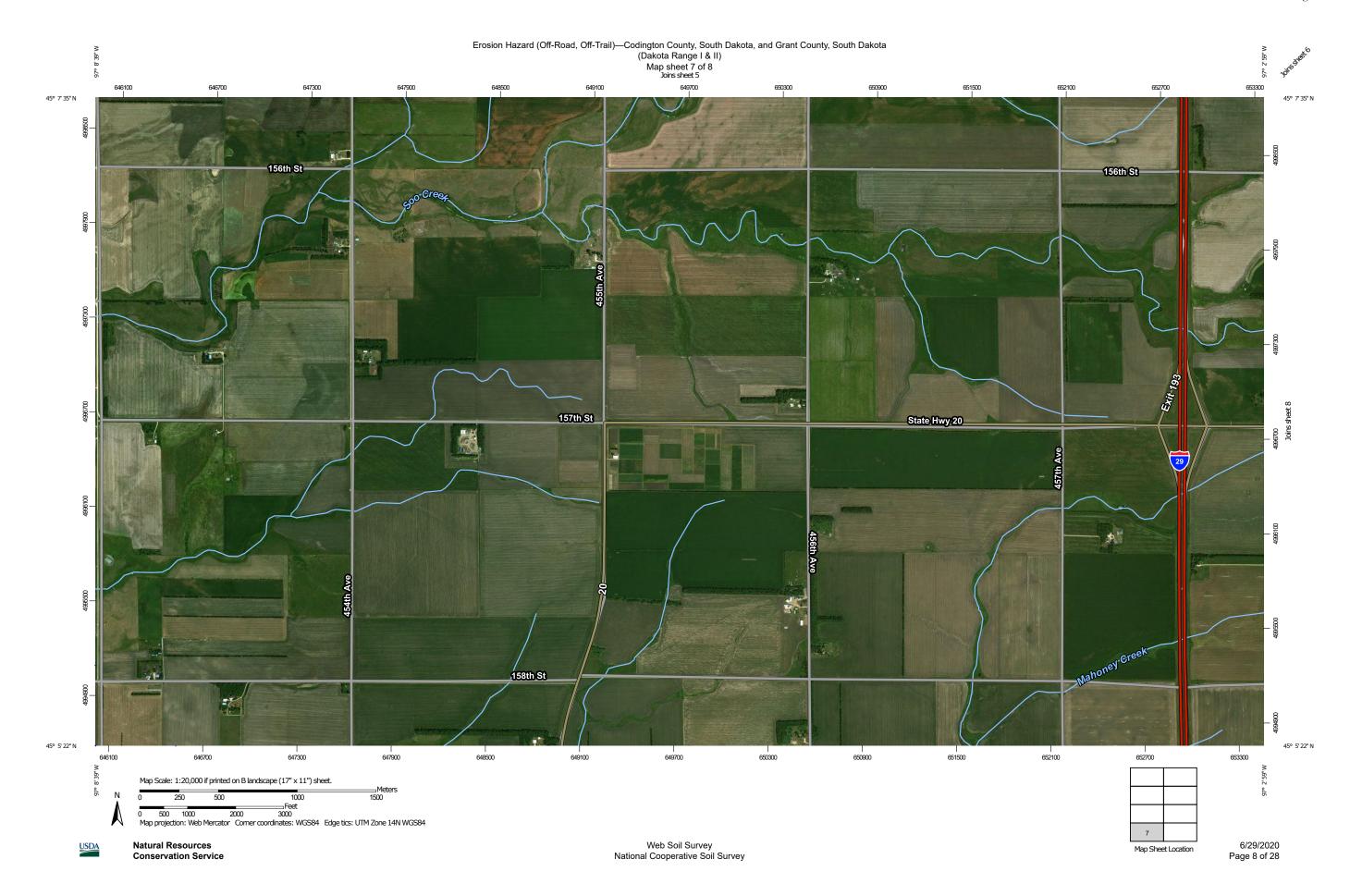


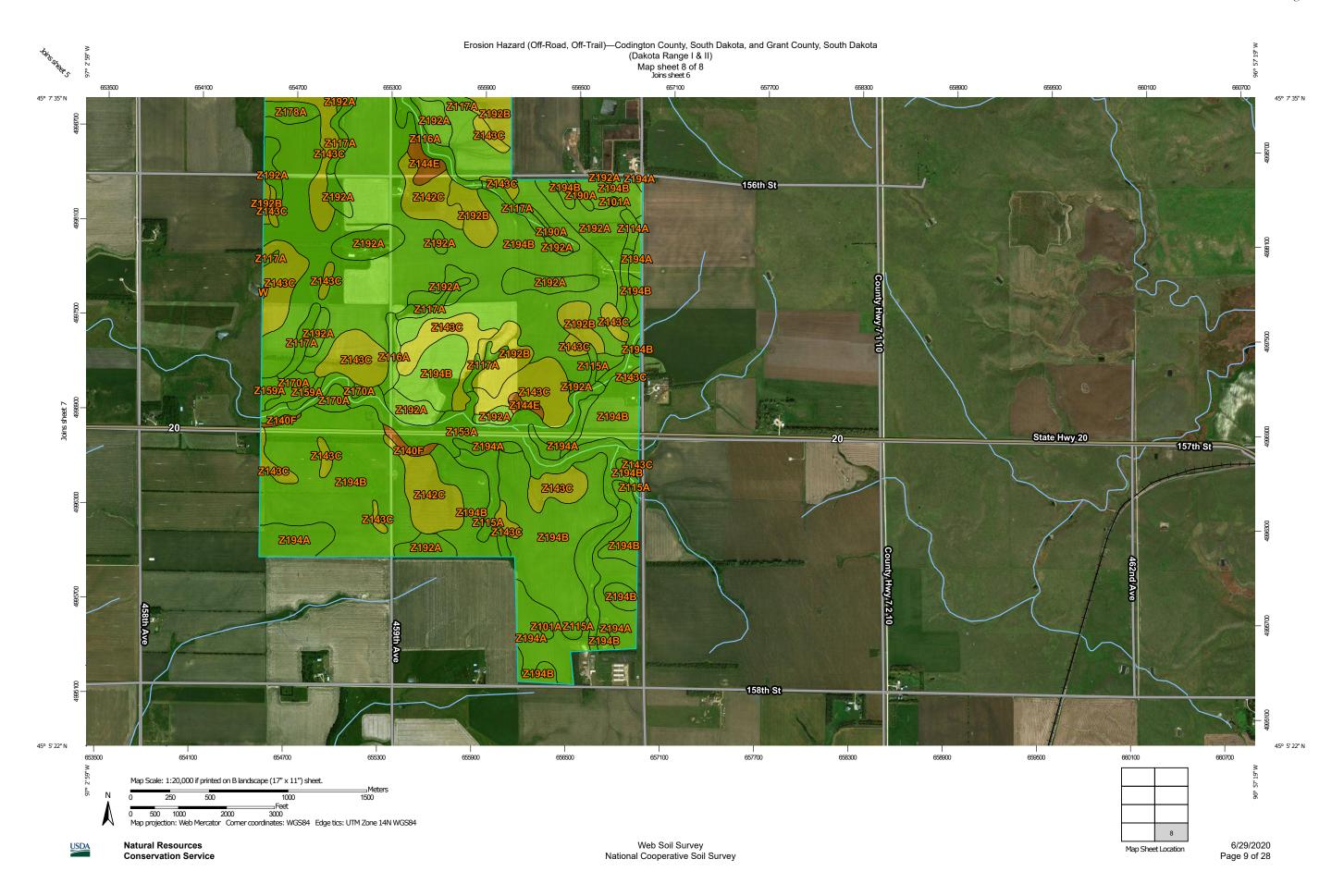












#### MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at scales Area of Interest (AOI) **US Routes** ranging from 1:12,000 to 1:20,000. Area of Interest (AOI) Major Roads Please rely on the bar scale on each map sheet for map Soils Local Roads measurements. Soil Rating Polygons Background Very severe Source of Map: Natural Resources Conservation Service Aerial Photography Web Soil Survey URL: Severe Coordinate System: Web Mercator (EPSG:3857) Moderate Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Slight distance and area. A projection that preserves area, such as the Not rated or not available Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. Soil Rating Lines Very severe This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Severe Soil Survey Area: Codington County, South Dakota Moderate Survey Area Data: Version 23, Sep 16, 2019 Sliaht Soil Survey Area: Grant County, South Dakota Survey Area Data: Version 21, Sep 17, 2019 Not rated or not available Your area of interest (AOI) includes more than one soil survey Soil Rating Points area. These survey areas may have been mapped at different Very severe scales, with a different land use in mind, at different times, or at Severe different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree Moderate across soil survey area boundaries. Slight Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Not rated or not available **Water Features** Date(s) aerial images were photographed: Aug 22, 2013—Nov 14, 2016 Streams and Canals The orthophoto or other base map on which the soil lines were Transportation compiled and digitized probably differs from the background Rails imagery displayed on these maps. As a result, some minor Interstate Highways shifting of map unit boundaries may be evident.

# **Erosion Hazard (Off-Road, Off-Trail)**

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
J143A	Kranzburg-	Slight	Kranzburg (65%)		33.9	0.2%
	Brookings silty clay loams, 0		Brookings (25%)			
	to 2 percent slopes		Badger (4%)			
	Mckranz (4%)  Tonka, undrained (1%)		Mckranz (4%)			
			Estelline (1%)			
W	Water	Not rated	Water (100%)		0.2	0.0%
Z101A	Tonka silty clay	Slight	Tonka (90%)		2.1	0.0%
	loam, 0 to 1 percent slopes		Cubden (5%)			
			Vallers (2%)			
			Hamerly (2%)			
			Parnell (1%)			
Z102A	Badger-Tonka	Slight	Badger (60%)		1.8	0.0%
	silty clay loams, coteau, 0 to 1 percent slopes	Tonka, undrained (30%)				
			Badger, poorly drained (3%)			
			Cubden (2%)			
			Mckranz (2%)			
			Hamerly (2%)			
			Parnell, undrained (1%)			
Z114A	Hamerly-Tonka	Slight	Hamerly (60%)		30.0	0.2%
	complex, coteau, 0 to 2		Tonka (25%)			
	percent slopes		Svea (7%)			
			Balaton (5%)		-	
			Parnell (2%)			
			Hamerly, moderately saline (1%)			
Z115A	Hamerly-Badger	Slight	Hamerly (65%)		62.5	0.4%
	complex, 0 to 2 percent		Badger (25%)			
	slopes		Svea (3%)			

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Balaton (2%)			
			Tonka, undrained (2%)			
			Badger, poorly drained (2%)			
			Hamerly, moderately saline (1%)			
Z116A	McKranz-	Slight	Mckranz (65%)		90.3	0.5%
	Hidewood, frequently flooded, silty clay loams, 0		Hidewood, frequently flooded (25%)			
	to 2 percent slopes		Brookings (5%)			
	siopes		Badger (3%)			
			Rauville, frequently flooded (2%)			
Z117A	Mckranz-Badger	Slight	Mckranz (55%)		97.2	0.6%
	silty clay loams, 0 to 2		Badger (30%)			
	percent slopes		Brookings (6%)			
		Hidewood, frequently flooded (4%)				
			Tonka, undrained (2%)			
			Badger, poorly drained (2%)			
			Mckranz, moderately saline (1%)			
Z140F	Buse-Langhei complex, coteau, 15 to	Severe	Buse (50%)	Surface kw times slope times R index (0.92)	6.9	0.0%
	40 percent slopes		Langhei (35%)	Surface kw times slope times R index (0.93)		
			Barnes (5%)	Surface kw times slope times R index (0.77)		
			Sioux (2%)	Surface kw times slope times R index (0.85)		
			Buse, very stony (1%)	Surface kw times slope times R index (0.92)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Z141A	Barnes-Svea loams, coteau, 0 to 2 percent slopes	Slight	Barnes, occasional saturation (55%)		69.4	0.4%
			Svea (35%)			
			Buse (4%)			
			Badger (2%)			
			Hamerly (2%)			
			Tonka (1%)			
			Barnes, very stony, occasional saturation (1%)			
Z141B	Barnes-Svea loams, coteau, 1 to 6 percent slopes	Slight	Barnes, occasional saturation (60%)		333.0	1.9%
			Svea (30%)			
			Tonka (2%)			
			Hamerly (1%)			
			Badger (1%)			
			Barnes, very stony, occasional saturation (1%)			
Z142B	Barnes-Buse- Svea loams, coteau, 1 to 6 percent slopes	Slight	Barnes, occasional saturation (40%)		43.0	0.2%
			Svea (20%)			
			Tonka (4%)			
			Badger (3%)			
			Hamerly (2%)			
Z142C	Barnes-Buse- Svea loams, coteau, 2 to 9	Moderate	Barnes (40%)	Surface kw times slope times R index (0.18)	64.1	0.4%
	percent slopes		Buse (35%)	Surface kw times slope times R index (0.45)		
			Buse, very stony (1%)	Surface kw times slope times R index (0.45)		
Z143C	Barnes-Buse loams, coteau,	Moderate	Barnes (55%)	Surface kw times slope times R index (0.18)	601.0	3.5%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
	6 to 9 percent slopes		Buse (35%)	Surface kw times slope times R index (0.45)		
			Buse, very stony (1%)	Surface kw times slope times R index (0.45)		
Z144E	Buse-Barnes loams, coteau, 9 to 20	Severe	Buse (50%)	Surface kw times slope times R index (0.81)	42.1	0.2%
	percent slopes		Buse, very stony (1%)	Surface kw times slope times R index (0.81)		
Z145D	Buse-Barnes loams, coteau, 2 to 15	Moderate	Buse, very stony (50%)	Surface kw times slope times R index (0.75)	194.4	1.1%
	percent slopes, very stony	Barnes, very stony (35%)	Surface kw times slope times R index (0.06)			
			Sioux, very stony (2%)	Surface kw times slope times R index (0.36)		
Z145F	Buse-Barnes loams, coteau, 9 to 40 percent slopes, very stony	Severe	Buse, very stony (50%)	Surface kw times slope times R index (0.92)	24.4	0.1%
		Barnes, very stony (40%)	Surface kw times slope times R index (0.77)			
			Sioux, very stony (2%)	Surface kw times slope times R index (0.85)		
Z152A	Lamoure silty clay loam, coteau, 0 to 1	Slight	Lamoure, occasionally flooded (85%)		24.5	0.1%
	percent slopes, occasionally flooded		Rauville, frequently flooded (5%)			
			La Prairie, occasionally flooded (3%)			
			Lamoure, frequently flooded (3%)			
			Divide, occasionally flooded (2%)			
			Ludden, frequently flooded (2%)			

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Z153A	Rauville silty clay loams, channeled, 0	Slight	Lamoure, channeled, frequently flooded (65%)		187.1	1.1%
	to 2 percent slopes, frequently flooded		Rauville, channeled, frequently flooded (25%)			
			Divide, occasionally flooded (5%)			
			Marysland, occasionally flooded (4%)		_	
Z159A	Divide loam, 0 to 2 percent slopes,	Slight	Divide, occasionally flooded (80%)		7.9	0.0%
	occasionally flooded		Marysland, occasionally flooded (10%)			
			Moritz, occasionally flooded (5%)			
	Renwash, rarely flooded (3%)					
			Fordtown, rarely flooded (2%)			
Z161A	Spottswood loam, 0 to 2 percent	Slight	Spottswood, occasionally flooded (85%)		4.0	0.0%
	slopes, occasionally flooded		Divide, occasionally flooded (8%)			
			Fordtown, rarely flooded (5%)			
			Lamoure, occasionally flooded (1%)			
			Castlewood, occasionally flooded (1%)			
Z170A	Fordville loam,	Slight	Fordville (90%)		27.4	0.2%
	coteau, 0 to 2 percent slopes		Renshaw (5%)			
			Divide, occasionally flooded (3%)			
			Spottswood, occasionally flooded (2%)			

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Z171A	Renshaw-	Slight	Renshaw (55%)		13.5	0.1%
	Fordville loams, coteau,		Fordville (35%)			
	0 to 2 percent		Sioux (5%)			
	slopes		Divide, occasionally flooded (3%)			
			Spottswood, occasionally flooded (2%)			
Z173B	Renshaw-Sioux	Slight	Renshaw (60%)		4.4	0.0%
	complex, coteau, 2 to 6		Sioux (30%)			
	percent slopes		Fordville (7%)			
			Spottswood, occasionally flooded (3%)			
Z173C	Renshaw-Sioux complex, coteau, 6 to 9	Moderate	Renshaw (50%)	Surface kw times slope times R index (0.04)		0.1%
	percent slopes		Sioux (40%)	Surface kw times slope times R index (0.01)		
Z178A	Rentill loam,	Slight	Rentill (90%)		9.9	0.1%
	coteau, 0 to 2 percent slopes		Renshaw (5%)			
			Fordville (5%)			
Z190A	Brookings silty	Slight	Brookings (90%)		46.4	0.3%
	clay loam, 0 to 2 percent		Kranzburg (4%)			
	slopes		Badger (3%)			
			Mckranz (2%)			
			Tonka, undrained (1%)			
Z192A	Vienna-	Slight	Vienna (65%)		213.2	1.2%
	Brookings complex, 0 to		Brookings (25%)			
	2 percent slopes		Badger (4%)			
	зюрез		Mckranz (4%)		-	
			Tonka, undrained (1%)			
			Estelline (1%)			
Z192B	Vienna- Brookings complex, 1 to 6 percent slopes	Moderate	Vienna (70%)	Surface kw times slope times R index (0.08)	702.2	4.0%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Z193C	Vienna-Buse complex, coteau, 6 to 9	Moderate	Vienna (65%)	Surface kw times slope times R index (0.45)	66.8	0.4%
	percent slopes		Buse (25%)	Surface kw times slope times R index (0.51)		
Z194A	Barnes clay loam, coteau, 0 to 2 percent slopes	Slight	Barnes, occasional saturation (80%)		109.4	0.6%
			Svea (11%)			
			Hamerly (3%)			
			Badger (3%)			
			Tonka (2%)		1,013.1	
			Barnes, very stony, occasional saturation (1%)			
Z194B	Barnes clay loam, coteau, 2 to 6 percent slopes	loam, coteau, 2 to 6 percent	Barnes, occasional saturation (85%)			5.8%
			Svea (7%)			
			Badger (2%)			
			Tonka (2%)			
			Barnes, very stony, occasional saturation (1%)			
Z217A	McKranz silty	Slight	Mckranz (70%)		67.9	0.4%
	clay loam, 0 to 2 percent		Brookings (12%)			
	slopes		Vienna, occasional saturation (7%)			
			Kranzburg, occasional saturation (6%)			
			Tonka (5%)			
Z259A	Mahoney silt	Slight	Mahoney (85%)		11.8	0.1%
	loam, 0 to 2 percent slopes	to 2	Estelline (10%)			
			Goldsmith (5%)			
Subtotals for S	oil Survey Area				4,218.2	24.3%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Totals for Area of	Interest				17,364.8	100.0%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI	
Та	Tonka silty clay	Slight	Tonka (90%)		2.3	0.0%	
	loam, 0 to 1 percent slopes		Cubden (5%)				
			Vallers (2%)				
			Hamerly (2%)				
			Parnell (1%)				
Z107A	Parnell silty clay	Slight	Parnell (85%)		2.3	0.0%	
	loam, coteau, 0 to 1 percent Vallers (10%)						
	slopes		Cubden (3%)				
			Hamerly (2%)				
Z112A	Vallers-Hamerly	Slight	Vallers (60%)		367.5	2.1%	
	loams, coteau, 0 to 2 percent		Hamerly (30%)				
	slopes		Balaton (3%)				
			Tonka (2%)				
			Svea (2%)				
	Parnell (2%)			ı			
			Hamerly, moderately saline (1%)				
Z113A	Vallers-Parnell	Slight	Vallers (45%)		17.7	0.1%	
	complex, coteau, 0 to 2		Parnell (35%)				
	percent slopes		Hamerly (13%)				
			Svea (4%)				
			Tonka (3%)				
Z114A	Hamerly-Tonka	Slight	Hamerly (60%)		164.6	0.9%	
	complex, coteau, 0 to 2		Tonka (25%)				
	percent slopes		Svea (7%)				
			Balaton (5%)				
			Parnell (2%)				
			Hamerly, moderately saline (1%)				
Z115A	Hamerly-Badger	Slight	Hamerly (65%)		188.3	3 1.1%	
	complex, 0 to 2 percent		Badger (25%)				
	2 percent slopes		2 percent	Svea (3%)			

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Balaton (2%)			
			Tonka, undrained (2%)			
			Badger, poorly drained (2%)			
			Hamerly, moderately saline (1%)			
Z116A	McKranz-	Slight	Mckranz (65%)		26.1	0.2%
	Hidewood, frequently flooded, silty clay loams, 0		Hidewood, frequently flooded (25%)			
	to 2 percent slopes		Brookings (5%)			
	siopes		Badger (3%)			
			Rauville, frequently flooded (2%)			
Z117A	Mckranz-Badger	Slight	Mckranz (55%)		197.6	1.1%
	silty clay loams, 0 to 2		Badger (30%)			
	percent slopes		Brookings (6%)			
			Hidewood, frequently flooded (4%)			
			Tonka, undrained (2%)			
			Badger, poorly drained (2%)			
			Mckranz, moderately saline (1%)			
Z140F	Buse-Langhei complex, coteau, 15 to	Severe	Buse (50%)	Surface kw times slope times R index (0.92)	7.2	0.0%
	40 percent slopes		Langhei (35%)	Surface kw times slope times R index (0.93)		
			Barnes (5%)	Surface kw times slope times R index (0.77)		
			Sioux (2%)	Surface kw times slope times R index (0.85)		
			Buse, very stony (1%)	Surface kw times slope times R index (0.92)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Z141A	Barnes-Svea loams, coteau, 0 to 2 percent slopes	Slight	Barnes, occasional saturation (55%)		71.8	0.4%
			Svea (35%)			
			Buse (4%)			
			Badger (2%)			
			Hamerly (2%)			
			Tonka (1%)			
			Barnes, very stony, occasional saturation (1%)			
Z141B	Barnes-Svea loams, coteau, 1 to 6 percent slopes	Slight	Barnes, occasional saturation (60%)		995.0	5.7%
			Svea (30%)			
			Tonka (2%)			
			Barnes, very stony, occasional saturation (1%)			
			Hamerly (1%)			
			Badger (1%)			
Z142B	Barnes-Buse- Svea loams, coteau, 1 to 6 percent slopes	Slight	Barnes, occasional saturation (40%)		115.0	0.7%
			Svea (20%)			
			Tonka (4%)			
			Badger (3%)			
			Hamerly (2%)			
Z142C	Barnes-Buse- Svea loams, coteau, 2 to 9	Moderate	Barnes (40%)	Surface kw times slope times R index (0.18)	751.3	4.3%
percent slopes		Buse (35%)	Surface kw times slope times R index (0.45)			
			Buse, very stony (1%)	Surface kw times slope times R index (0.45)		
Z143C	Barnes-Buse loams, coteau,	Moderate	Barnes (55%)	Surface kw times slope times R index (0.18)	81.3	0.5%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
	6 to 9 percent slopes		Buse (35%)	Surface kw times slope times R index (0.45)		
			Buse, very stony (1%)	Surface kw times slope times R index (0.45)		
Z144E	Buse-Barnes loams, coteau, 9 to 20	Severe	Buse (50%)	Surface kw times slope times R index (0.81)	43.7	0.3%
	percent slopes		Buse, very stony (1%)	Surface kw times slope times R index (0.81)		
Z145D	Buse-Barnes loams, coteau, 2 to 15	Moderate	Buse, very stony (50%)	Surface kw times slope times R index (0.75)	441.2	2.5%
percent slopes, very stony	slopes, very	Barnes, very stony (35%)	Surface kw times slope times R index (0.06)			
			Sioux, very stony (2%)	Surface kw times slope times R index (0.36)		
Z145F	Buse-Barnes loams, coteau, 9 to 40	Severe	Buse, very stony (50%)	Surface kw times slope times R index (0.92)	4.4	0.0%
	percent slopes, very stony	lopes, very	Barnes, very stony (40%)	Surface kw times slope times R index (0.77)		
			Sioux, very stony (2%)	Surface kw times slope times R index (0.85)		
Z150A	Rauville silty clay loam, coteau, 0 to 1 percent	Slight	Rauville, frequently flooded (85%)		48.8	0.3%
	slopes, frequently flooded		Marysland, occasionally flooded (7%)			
			Lamoure, occasionally flooded (5%)			
			Divide, occasionally flooded (3%)			
Z152A	Lamoure silty clay loam, coteau, 0 to 1	Slight	Lamoure, occasionally flooded (85%)		41.7	0.2%
	percent slopes, occasionally flooded		Rauville, frequently flooded (5%)			

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			La Prairie, occasionally flooded (3%)			
			Lamoure, frequently flooded (3%)			
			Divide, occasionally flooded (2%)			
			Ludden, frequently flooded (2%)			
Z153A	Lamoure- Rauville silty clay loams, channeled, 0	Slight	Lamoure, channeled, frequently flooded (65%)		475.1	2.7%
to 2 percent slopes, frequently flooded		Rauville, channeled, frequently flooded (25%)				
			Divide, occasionally flooded (5%)			
			Marysland, occasionally flooded (4%)			
Z158A	Marysland loam, 0 to 1 percent slopes,	nt	Marysland, occasionally flooded (80%)		43.6	0.3%
	occasionally flooded		Divide, occasionally flooded (10%)			
			Rauville, frequently flooded (8%)			
			Lamoure, occasionally flooded (2%)			
Z159A	Divide loam, 0 to 2 percent slopes,	Slight	Divide, occasionally flooded (80%)		157.0	0.9%
occasionally flooded		Marysland, occasionally flooded (10%)				
			Moritz, occasionally flooded (5%)			
			Renwash, rarely flooded (3%)			

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Fordtown, rarely flooded (2%)			
Z161A	Spottswood loam, 0 to 2 percent	Slight	Spottswood, occasionally flooded (85%)		15.0	0.1%
	slopes, occasionally flooded		Divide, occasionally flooded (8%)			
			Fordtown, rarely flooded (5%)			
			Lamoure, occasionally flooded (1%)			
			Castlewood, occasionally flooded (1%)			
Z170A	Fordville loam,	Slight	Fordville (90%)		0.9	0.0%
	coteau, 0 to 2 percent slopes		Renshaw (5%)			
			Divide, occasionally flooded (3%)			
			Spottswood, occasionally flooded (2%)			
Z171A	Renshaw-	Slight	Renshaw (55%)		500.1	2.9%
	Fordville loams, coteau,		Fordville (35%)			
	0 to 2 percent slopes		Sioux (5%)			
	Зюроз		Divide, occasionally flooded (3%)			
			Spottswood, occasionally flooded (2%)			
Z171B	Renshaw-	Slight	Renshaw (60%)		186.6	1.1%
	Fordville loams, coteau,		Fordville (30%)			
	2 to 6 percent slopes		Sioux (6%)			
	Siopes		Spottswood, occasionally flooded (2%)			
			Divide, occasionally flooded (2%)			
Z173B	Renshaw-Sioux	Slight	Renshaw (60%)		456.6	2.6%
	complex, coteau, 2 to 6		Sioux (30%)			
	percent slopes		Fordville (7%)			

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Spottswood, occasionally flooded (3%)			
Z173C	Renshaw-Sioux complex, coteau, 6 to 9	Moderate	Renshaw (50%)	Surface kw times slope times R index (0.04)	114.9	0.7%
	percent slopes		Sioux (40%)	Surface kw times slope times R index (0.01)		
Z174D	Sioux-Renshaw complex, coteau, 9 to 15	Moderate	Sioux (50%)	Surface kw times slope times R index (0.44)	57.9	0.3%
	percent slopes		Renshaw (35%)	Surface kw times slope times R index (0.44)		
Z177	Udorthents, coteau (gravel pits)	Severe	Udorthents, gravelly (85%)	Surface kw times slope times R index (0.82)	14.9	0.1%
complex, 40 perce	complex, 15 to 40 percent slopes, very stony  Renshaw, very stony (30%)  Buse, very stony (3%)  SI Renshaw, very stony (30%)  Surf (3%)	Severe		Surface kw times slope times R index (0.85)	9.5	0.1%
		Surface kw times slope times R index (0.80)				
				Surface kw times slope times R index (0.87)		
Z182A	Estelline silt	Slight	Estelline (90%)		38.1	0.2%
	loam, coteau, 0 to 2 percent		Renshaw (4%)			
	slopes		Kranzburg (3%)			
			Goldsmith (2%)			
			Badger (1%)			
Z185B	Egeland- Embden	Slight	Egeland (60%)		14.8	0.1%
	complex,		Embden (30%)			
	coteau, 2 to 6 percent slopes		Maddock (10%)			
Z186B	Maddock-	Slight	Maddock (55%)		4.5	0.0%
	Egeland sandy loams, coteau,		Egeland (35%)			
	2 to 6 percent slopes		Embden (10%)			
Z186C	Maddock-	Slight	Maddock (60%)		8.7	0.1%
	Egeland sandy loams, coteau, Egeland (30%)					
	6 to 9 percent slopes		Embden (10%)			
Z187A	Swenoda fine sandy loam,	Slight	Swenoda (80%)		22.6	0.1%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
	coteau, 0 to 2 percent slopes		Doburg, occasional saturation (10%)			
			Egeland (8%)			
			Maddock (2%)			
Z188B	Lanona- Swenoda fine sandy loams, coteau, 2 to 6	Slight	Lanona, occasional saturation (55%)		7.3	0.0%
	percent slopes		Swenoda (35%)			
			Doburg, occasional saturation (7%)			
			Maddock (3%)			
Z190A	Brookings silty	Slight	Brookings (90%)		132.9	0.8%
	clay loam, 0 to 2 percent		Kranzburg (4%)			
slopes			Badger (3%)			
			Mckranz (2%)			
			Tonka, undrained (1%)			
Z192A	Vienna-	Slight	Vienna (65%)		769.7	4.4%
	Brookings complex, 0 to		Brookings (25%)			
	2 percent slopes		Badger (4%)			
	siopes		Mckranz (4%)			
			Tonka, undrained (1%)			
			Estelline (1%)			
Z192B	Vienna- Brookings complex, 1 to 6 percent slopes	Moderate	Vienna (70%)	Surface kw times slope times R index (0.08)	3,317.6	19.1%
Z193C	Vienna-Buse complex, coteau, 6 to 9	Moderate	Vienna (65%)	Surface kw times slope times R index (0.45)	201.2	1.2%
	percent slopes		Buse (25%)	Surface kw times slope times R index (0.51)		
Z198A	Vienna- Forestville loams, coteau, 0 to 2 percent slopes	Slight	Vienna, occasional saturation (60%)		157.6	0.9%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Forestville (25%)			
			Barnes, occasional saturation (11%)			
			Tonka (2%)			
			Rentill (2%)			
Z199B	Vienna-Barnes- Forestville loams, 1 to 6 percent slopes	Slight	Vienna, occasional saturation (40%)		2,708.4	15.6%
			Barnes, occasional saturation (30%)			
			Forestville (15%)			
			Rentill (6%)			
			Hamerly (2%)			
			Tonka (2%)			
Z217A	McKranz silty clay loam, 0 to	Slight	Mckranz (70%)		105.4	0.6%
	2 percent		Brookings (12%)			
	slopes		Vienna, occasional saturation (7%)			
			Kranzburg, occasional saturation (6%)			
			Tonka (5%)			
Z250A	Rauville mucky silty clay loam, ponded, 0 to 1 percent	Slight	Rauville, ponded, frequently flooded (85%)		57.7	0.3%
	slopes, frequently flooded		Marysland, occasionally flooded (7%)			
			Lamoure, frequently flooded (5%)			
		Ludden, frequently flooded (3%)				
Subtotals for S	Soil Survey Area	•			13,146.6	75.7%
Totals for Area	of Interest				17,364.8	100.0%

Rating	Acres in AOI	Percent of AOI		
Slight	10,605.3	61.1%		
Moderate	6,606.2	38.0%		
Severe	153.1	0.9%		
Null or Not Rated	0.2	0.0%		
Totals for Area of Interest	17,364.8	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, soil erosion factor K, and an index of rainfall erosivity (R). 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.

Dakota Range I & II

# **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 factor 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 layer.

## Report—RUSLE2 Related Attributes

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed or the first mineral horizon below an organic surface horizon. Organic horizons are not displayed.

	RUSLE2 R	elated Att	ributes-Codington C	ounty, So	uth Dakota			
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
J143A—Kranzburg-Brookings silty clay loams, 0 to 2 percent slopes								
Kranzburg	65	200	С	.32	5	7.0	64.0	29.0
Brookings	25	_	С	.28	5	7.0	64.0	29.0
Z101A—Tonka silty clay loam, 0 to 1 percent slopes								
Tonka	90	200	C/D	.28	5	7.0	64.0	29.0
Z102A—Badger-Tonka silty clay loams, coteau, 0 to 1 percent slopes								
Badger	60	200	C/D	.32	5	7.0	64.0	29.0
Tonka, undrained	30	_	C/D	.28	5	7.0	64.0	29.0
Z114A—Hamerly-Tonka complex, coteau, 0 to 2 percent slopes								
Hamerly	60	200	C/D	.20	5	39.1	36.9	24.0
Tonka	25	_	C/D	.24	5	17.9	50.1	32.0
Z115A—Hamerly-Badger complex, 0 to 2 percent slopes								
Hamerly	65	200	C/D	.24	5	34.0	42.0	24.0
Badger	25	_	C/D	.32	5	7.0	64.0	29.0

	RUSLE2 R	elated Att	ributes–Codington C	ounty, So	uth Dakota			
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
Z116A—McKranz-Hidewood, frequently flooded, silty clay loams, 0 to 2 percent slopes								
Mckranz	65	200	C/D	.28	5	7.0	65.0	28.0
Hidewood, frequently flooded	25	_	B/D	.24	5	6.7	62.3	31.0
Z117A—Mckranz-Badger silty clay loams, 0 to 2 percent slopes								
Mckranz	55	200	C/D	.32	5	7.0	64.0	29.0
Badger	30	_	C/D	.32	5	7.0	64.0	29.0
Z140F—Buse-Langhei complex, coteau, 15 to 40 percent slopes								
Buse	50	49	С	.28	5	39.5	37.5	23.0
Langhei	35	_	С	.24	5	33.5	36.5	30.0
Z141A—Barnes-Svea loams, coteau, 0 to 2 percent slopes								
Barnes, occasional saturation	55	200	С	.24	5	41.1	36.9	22.0
Svea	35	_	С	.20	5	41.1	36.9	22.0
Z141B—Barnes-Svea loams, coteau, 1 to 6 percent slopes								
Barnes, occasional saturation	60	180	С	.24	5	41.1	36.9	22.0
Svea	30	_	С	.20	5	41.1	36.9	22.0
Z142B—Barnes-Buse-Svea loams, coteau, 1 to 6 percent slopes								
Barnes, occasional saturation	40	180	С	.24	5	41.1	36.9	22.0
Buse	30	_	С	.28	5	39.5	37.5	23.0
Svea	20	_	С	.20	5	41.1	36.9	22.0
Z142C—Barnes-Buse-Svea loams, coteau, 2 to 9 percent slopes								
Barnes	40	141	С	.24	5	41.1	36.9	22.0
Buse	35	_	С	.28	5	39.5	37.5	23.0
Svea	20	_	С	.20	5	41.1	36.9	22.0
Z143C—Barnes-Buse loams, coteau, 6 to 9 percent slopes								
Barnes	55	141	С	.24	5	41.1	36.9	22.0
Buse	35	_	С	.28	5	39.5	37.5	23.0

	RUSLE2 R	elated Att	ributes–Codington C	ounty, So	outh Dakota			
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	esentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
Z144E—Buse-Barnes loams, coteau, 9 to 20 percent slopes								
Buse	50	49	С	.28	5	39.5	37.5	23.0
Barnes	40	_	С	.24	5	41.1	36.9	22.0
Z145D—Buse-Barnes loams, coteau, 2 to 15 percent slopes, very stony								
Buse, very stony	50	98	С	.28	5	39.5	37.5	23.0
Barnes, very stony	35	_	С	.24	5	41.1	36.9	22.0
Z145F—Buse-Barnes loams, coteau, 9 to 40 percent slopes, very stony								
Buse, very stony	50	49	С	.28	5	39.5	37.5	23.0
Barnes, very stony	40	_	С	.24	5	41.1	36.9	22.0
Z152A—Lamoure silty clay loam, coteau, 0 to 1 percent slopes, occasionally flooded								
Lamoure, occasionally flooded	85	200	B/D	.24	5	6.7	62.8	30.5
Z153A—Lamoure-Rauville silty clay loams, channeled, 0 to 2 percent slopes, frequently flooded								
Lamoure, channeled, frequently flooded	65	200	B/D	.24	5	6.7	62.8	30.5
Rauville, channeled, frequently flooded	25	_	B/D	.24	5	6.7	62.3	31.0
Z159A—Divide loam, 0 to 2 percent slopes, occasionally flooded								
Divide, occasionally flooded	80	200	B/D	.20	3	41.6	37.4	21.0
Z161A—Spottswood loam, 0 to 2 percent slopes, occasionally flooded								
Spottswood, occasionally flooded	85	200	B/D	.15	3	41.1	36.9	22.0
Z170A—Fordville loam, coteau, 0 to 2 percent slopes								
Fordville	90	200	В	.17	3	42.0	37.0	21.0
Z171A—Renshaw-Fordville loams, coteau, 0 to 2 percent slopes								
Renshaw	55	200	В	.20	2	42.0	37.0	21.0
Fordville	35	_	В	.17	3	42.0	37.0	21.0

	RUSLE2 R	elated Att	ributes–Codington C	County, So	outh Dakota	ı		
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
Z173B—Renshaw-Sioux complex, coteau, 2 to 6 percent slopes								
Renshaw	60	180	В	.20	2	42.0	37.0	21.0
Sioux	30	_	В	.28	2	45.0	40.0	15.0
Z173C—Renshaw-Sioux complex, coteau, 6 to 9 percent slopes								
Renshaw	50	141	В	.20	2	42.0	37.0	21.0
Sioux	40	_	В	.28	2	45.0	40.0	15.0
Z178A—Rentill loam, coteau, 0 to 2 percent slopes								
Rentill	90	200	С	.24	4	42.1	37.9	20.0
Z190A—Brookings silty clay loam, 0 to 2 percent slopes								
Brookings	90	200	С	.28	5	7.0	64.0	29.0
Z192A—Vienna-Brookings complex, 0 to 2 percent slopes								
Vienna	65	200	С	.37	5	7.0	68.0	25.0
Brookings	25	_	С	.28	5	7.0	64.0	29.0
Z192B—Vienna-Brookings complex, 1 to 6 percent slopes								
Vienna	70	180	С	.37	5	7.0	68.0	25.0
Brookings	20	_	С	.28	5	7.0	64.0	29.0
Z193C—Vienna-Buse complex, coteau, 6 to 9 percent slopes								
Vienna	65	141	С	.32	5	21.3	54.7	24.0
Buse	25	_	С	.28	5	39.5	37.5	23.0
Z194A—Barnes clay loam, coteau, 0 to 2 percent slopes								
Barnes, occasional saturation	80	200	С	.20	5	33.5	36.5	30.0
Z194B—Barnes clay loam, coteau, 2 to 6 percent slopes								
Barnes, occasional saturation	85	180	С	.20	5	33.5	36.5	30.0
Z217A—McKranz silty clay loam, 0 to 2 percent slopes								
Mckranz	70	200	C/D	.28	5	7.0	65.0	28.0
Z259A—Mahoney silt loam, 0 to 2 percent slopes								
Mahoney	85	200	B/D	.28	4	7.0	69.0	24.0
				1				

RUSLE2 Related Attributes–Grant County, South Dakota											
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Representative value					
	map unit	length (ft)				% Sand	% Silt	% Clay			
Ta—Tonka silty clay loam, 0 to 1 percent slopes											
Tonka	90	200	C/D	.28	5	7.0	64.0	29.0			
Z107A—Parnell silty clay loam, coteau, 0 to 1 percent slopes											
Parnell	85	200	C/D	.24	5	17.3	48.7	34.0			
Z112A—Vallers-Hamerly loams, coteau, 0 to 2 percent slopes											
Vallers	60	200	C/D	.24	5	39.5	37.5	23.0			
Hamerly	30	_	C/D	.20	5	39.1	36.9	24.0			
Z113A—Vallers-Parnell complex, coteau, 0 to 2 percent slopes											
Vallers	45	200	C/D	.24	5	39.5	37.5	23.0			
Parnell	35	_	C/D	.24	5	17.3	48.7	34.0			
Z114A—Hamerly-Tonka complex, coteau, 0 to 2 percent slopes											
Hamerly	60	200	C/D	.20	5	39.1	36.9	24.0			
Tonka	25	_	C/D	.24	5	17.9	50.1	32.0			
Z115A—Hamerly-Badger complex, 0 to 2 percent slopes											
Hamerly	65	200	C/D	.24	5	34.0	42.0	24.0			
Badger	25	_	C/D	.32	5	7.0	64.0	29.0			
Z116A—McKranz-Hidewood, frequently flooded, silty clay loams, 0 to 2 percent slopes											
Mckranz	65	200	C/D	.28	5	7.0	65.0	28.0			
Hidewood, frequently flooded	25	_	B/D	.24	5	6.7	62.3	31.0			
Z117A—Mckranz-Badger silty clay loams, 0 to 2 percent slopes											
Mckranz	55	200	C/D	.32	5	7.0	64.0	29.0			
Badger	30	_	C/D	.32	5	7.0	64.0	29.0			
Z140F—Buse-Langhei complex, coteau, 15 to 40 percent slopes											
Buse	50	49	С	.28	5	39.5	37.5	23.0			
Langhei	35		С	.24	5	33.5	36.5	30.0			

RUSLE2 Related Attributes-Grant County, South Dakota										
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value				
						% Sand	% Silt	% Clay		
Z141A—Barnes-Svea loams, coteau, 0 to 2 percent slopes										
Barnes, occasional saturation	55	200	С	.24	5	41.1	36.9	22.0		
Svea	35	_	С	.20	5	41.1	36.9	22.0		
Z141B—Barnes-Svea loams, coteau, 1 to 6 percent slopes										
Barnes, occasional saturation	60	180	С	.24	5	41.1	36.9	22.0		
Svea	30	_	С	.20	5	41.1	36.9	22.0		
Z142B—Barnes-Buse-Svea loams, coteau, 1 to 6 percent slopes										
Barnes, occasional saturation	40	180	С	.24	5	41.1	36.9	22.0		
Buse	30	_	С	.28	5	39.5	37.5	23.0		
Svea	20	_	С	.20	5	41.1	36.9	22.0		
Z142C—Barnes-Buse-Svea loams, coteau, 2 to 9 percent slopes										
Barnes	40	141	С	.24	5	41.1	36.9	22.0		
Buse	35	_	С	.28	5	39.5	37.5	23.0		
Svea	20	_	С	.20	5	41.1	36.9	22.0		
Z143C—Barnes-Buse loams, coteau, 6 to 9 percent slopes										
Barnes	55	141	С	.24	5	41.1	36.9	22.0		
Buse	35	_	С	.28	5	39.5	37.5	23.0		
Z144E—Buse-Barnes loams, coteau, 9 to 20 percent slopes										
Buse	50	49	С	.28	5	39.5	37.5	23.0		
Barnes	40	_	С	.24	5	41.1	36.9	22.0		
Z145D—Buse-Barnes loams, coteau, 2 to 15 percent slopes, very stony										
Buse, very stony	50	98	С	.28	5	39.5	37.5	23.0		
Barnes, very stony	35	_	С	.24	5	41.1	36.9	22.0		
Z145F—Buse-Barnes loams, coteau, 9 to 40 percent slopes, very stony										
Buse, very stony	50	49	С	.28	5	39.5	37.5	23.0		
Barnes, very stony	40	_	С	.24	5	41.1	36.9	22.0		

	RUSLE	Related A	Attributes-Grant Cou	ınty, Sout	h Dakota			
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
Z150A—Rauville silty clay loam, coteau, 0 to 1 percent slopes, frequently flooded								
Rauville, frequently flooded	85	200	B/D	.24	5	6.7	62.3	31.0
Z152A—Lamoure silty clay loam, coteau, 0 to 1 percent slopes, occasionally flooded								
Lamoure, occasionally flooded	85	200	B/D	.24	5	6.7	62.8	30.5
Z153A—Lamoure-Rauville silty clay loams, channeled, 0 to 2 percent slopes, frequently flooded								
Lamoure, channeled, frequently flooded	65	200	B/D	.24	5	6.7	62.8	30.5
Rauville, channeled, frequently flooded	25	_	B/D	.24	5	6.7	62.3	31.0
Z158A—Marysland loam, 0 to 1 percent slopes, occasionally flooded								
Marysland, occasionally flooded	80	200	B/D	.20	3	39.1	36.9	24.0
Z159A—Divide loam, 0 to 2 percent slopes, occasionally flooded								
Divide, occasionally flooded	80	200	B/D	.20	3	41.6	37.4	21.0
Z161A—Spottswood loam, 0 to 2 percent slopes, occasionally flooded								
Spottswood, occasionally flooded	85	200	B/D	.15	3	41.1	36.9	22.0
Z170A—Fordville loam, coteau, 0 to 2 percent slopes								
Fordville	90	200	В	.17	3	42.0	37.0	21.0
Z171A—Renshaw-Fordville loams, coteau, 0 to 2 percent slopes								
Renshaw	55	200	В	.20	2	42.0	37.0	21.0
Fordville	35	_	В	.17	3	42.0	37.0	21.0
Z171B—Renshaw-Fordville loams, coteau, 2 to 6 percent slopes								
Renshaw	60	180	В	.20	2	42.0	37.0	21.0
Fordville	30	_	В	.17	3	42.0	37.0	21.0

	RUSLE	Related A	Attributes-Grant Cou	ınty, Sout	h Dakota			
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
Z173B—Renshaw-Sioux complex, coteau, 2 to 6 percent slopes								
Renshaw	60	180	В	.20	2	42.0	37.0	21.0
Sioux	30	_	В	.28	2	45.0	40.0	15.0
Z173C—Renshaw-Sioux complex, coteau, 6 to 9 percent slopes								
Renshaw	50	141	В	.20	2	42.0	37.0	21.0
Sioux	40	_	В	.28	2	45.0	40.0	15.0
Z174D—Sioux-Renshaw complex, coteau, 9 to 15 percent slopes								
Sioux	50	89	В	.28	2	45.0	40.0	15.0
Renshaw	35	_	В	.20	2	42.0	37.0	21.0
Z177—Udorthents, coteau (gravel pits)								
Udorthents, gravelly	85	49	А	.24	5	44.3	40.7	15.0
Z179F—Sioux-Renshaw complex, 15 to 40 percent slopes, very stony								
Sioux, very stony	60	49	В	.28	2	45.0	40.0	15.0
Renshaw, very stony	30	_	В	.20	2	42.0	37.0	21.0
Z182A—Estelline silt loam, coteau, 0 to 2 percent slopes								
Estelline	90	200	В	.32	3	7.0	68.0	25.0
Z185B—Egeland-Embden complex, coteau, 2 to 6 percent slopes								
Egeland	60	180	A	.15	5	66.8	19.2	14.0
Embden	30	_	A	.10	5	69.6	16.4	14.0
Z186B—Maddock-Egeland sandy loams, coteau, 2 to 6 percent slopes								
Maddock	55	180	A	.15	5	66.9	23.1	10.0
Egeland	35	_	Α	.15	5	66.8	19.2	14.0
Z186C—Maddock-Egeland sandy loams, coteau, 6 to 9 percent slopes								
Maddock	60	131	Α	.15	5	66.9	23.1	10.0
Egeland	30	_	A	.15	5	66.8	19.2	14.0

	RUSLE	2 Related A	Attributes–Grant Cou	ınty, Soutl	n Dakota			
Map symbol and soil name	Pct. of	Slope	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	length (ft)				% Sand	% Silt	% Clay
Z187A—Swenoda fine sandy loam, coteau, 0 to 2 percent slopes								
Swenoda	80	200	В	.15	5	71.3	16.7	12.0
Z188B—Lanona-Swenoda fine sandy loams, coteau, 2 to 6 percent slopes								
Lanona, occasional saturation	55	180	В	.15	5	68.8	16.2	15.0
Swenoda	35	_	В	.15	5	71.3	16.7	12.0
Z190A—Brookings silty clay loam, 0 to 2 percent slopes								
Brookings	90	200	С	.28	5	7.0	64.0	29.0
Z192A—Vienna-Brookings complex, 0 to 2 percent slopes								
Vienna	65	200	С	.37	5	7.0	68.0	25.0
Brookings	25	_	С	.28	5	7.0	64.0	29.0
Z192B—Vienna-Brookings complex, 1 to 6 percent slopes								
Vienna	70	180	С	.37	5	7.0	68.0	25.0
Brookings	20	_	С	.28	5	7.0	64.0	29.0
Z193C—Vienna-Buse complex, coteau, 6 to 9 percent slopes								
Vienna	65	141	С	.32	5	21.3	54.7	24.0
Buse	25	_	С	.28	5	39.5	37.5	23.0
Z198A—Vienna-Forestville loams, coteau, 0 to 2 percent slopes								
Vienna, occasional saturation	60	200	С	.24	5	39.1	36.9	24.0
Forestville	25	_	С	.17	5	39.5	37.5	23.0
Z199B—Vienna-Barnes- Forestville loams, 1 to 6 percent slopes								
Vienna, occasional saturation	40	180	С	.24	5	39.1	36.9	24.0
Barnes, occasional saturation	30	_	С	.24	5	41.1	36.9	22.0
Forestville	15	_	С	.17	5	39.5	37.5	23.0
Z217A—McKranz silty clay loam, 0 to 2 percent slopes								
Mckranz	70	200	C/D	.28	5	7.0	65.0	28.0

RUSLE2 Related Attributes-Grant County, South Dakota										
Map symbol and soil name	Pct. of map unit	Slope length	Hydrologic group	Kf	T factor	Repre	esentative	ve value		
	map unit	(ft)				% Sand	% Silt	% Clay		
Z250A—Rauville mucky silty clay loam, ponded, 0 to 1 percent slopes, frequently flooded										
Rauville, ponded, frequently flooded	85	200	B/D	.24	5	6.7	62.3	31.0		

## **Data Source Information**

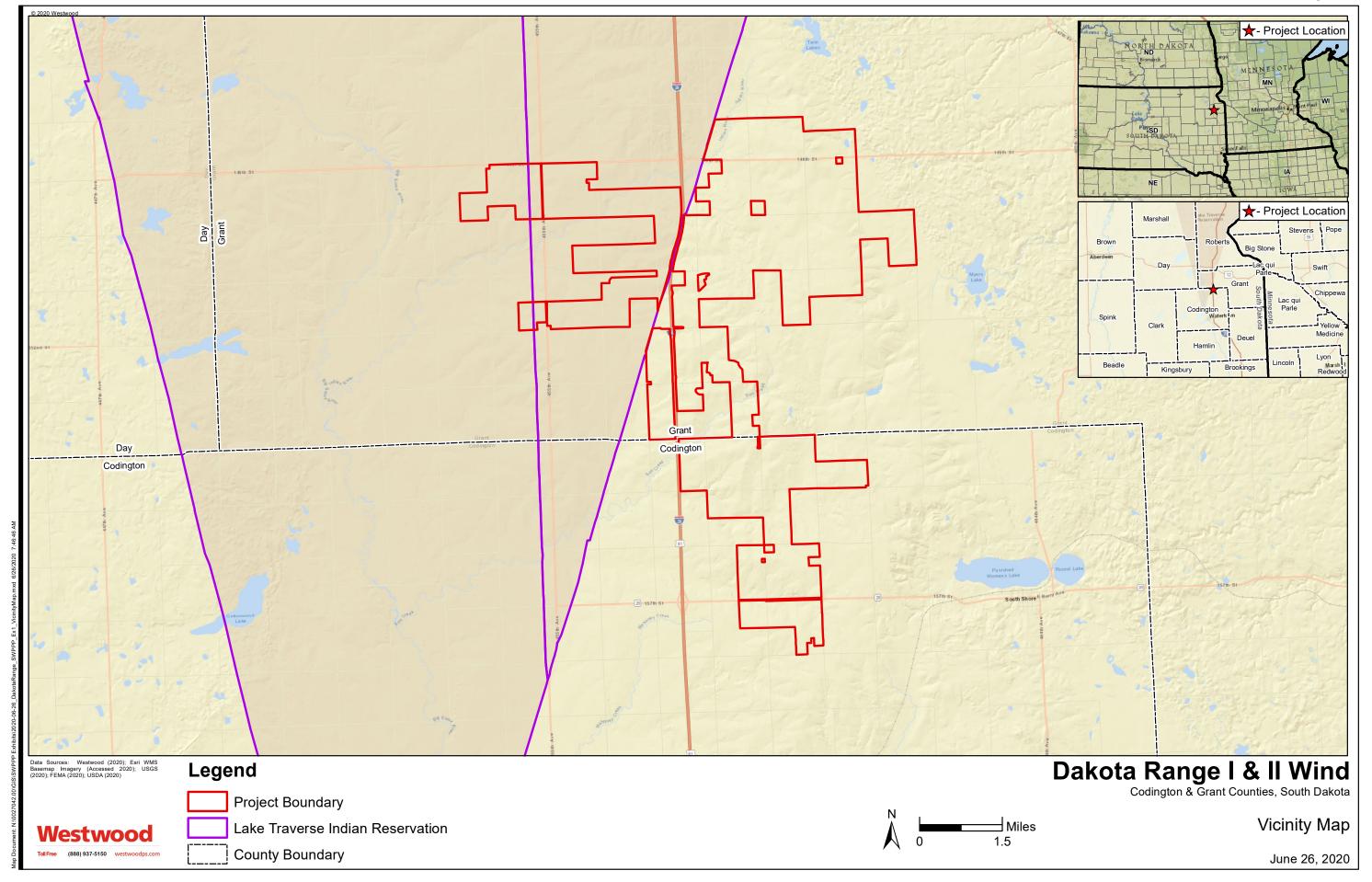
Soil Survey Area: Codington County, South Dakota

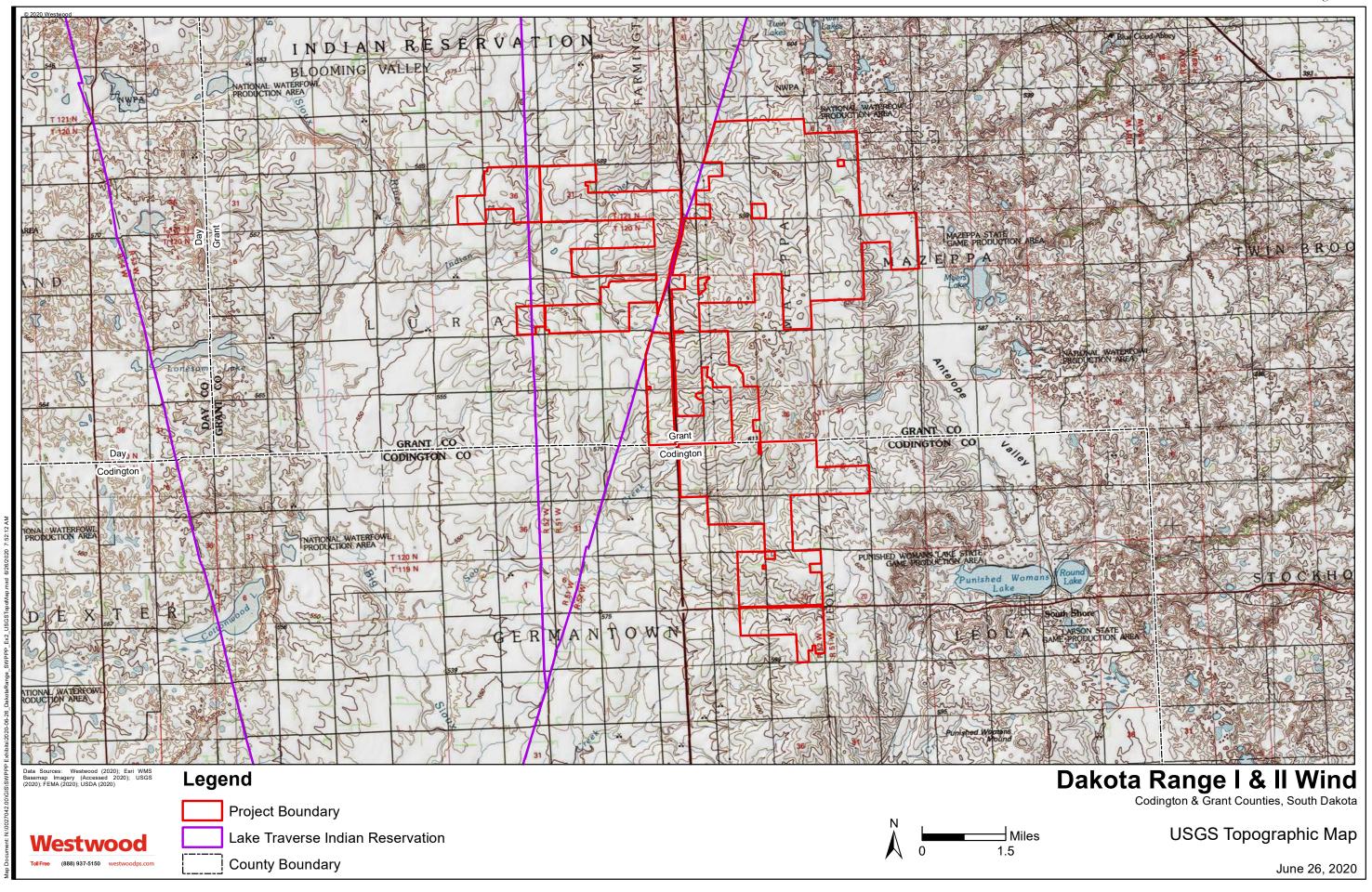
Survey Area Data: Version 23, Sep 16, 2019

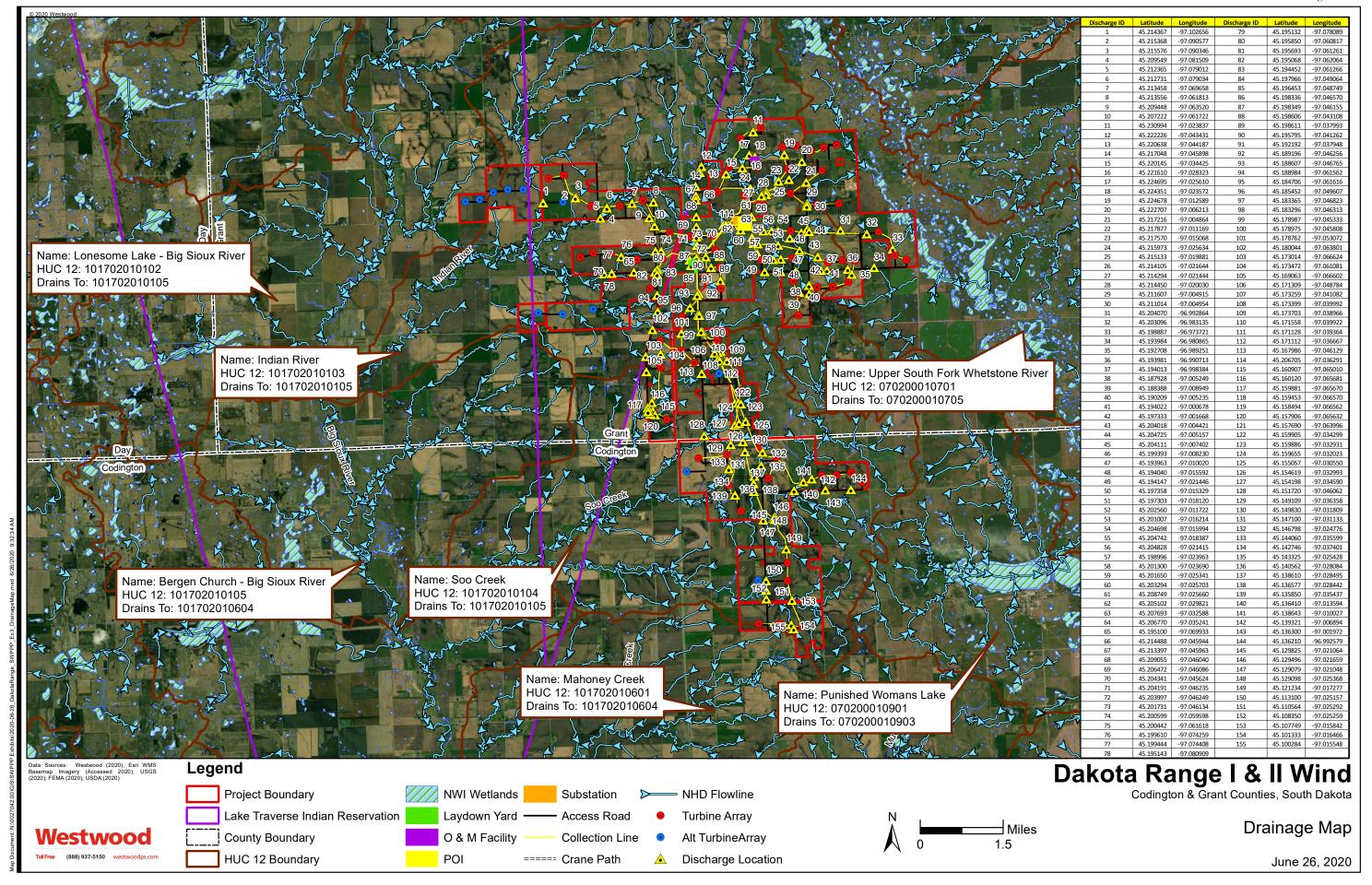
Soil Survey Area: Grant County, South Dakota Survey Area Data: Version 21, Sep 17, 2019

# **Attachment D**

Vicinity Map, US Topographic Map, Drainage Maps, Impaired Water Maps







# **Attachment E**

Site Plans, Erosion and Sediment Control Plans, Details

# Dakota Range I & II Wind Project

Codington and Grant County, South Dakota

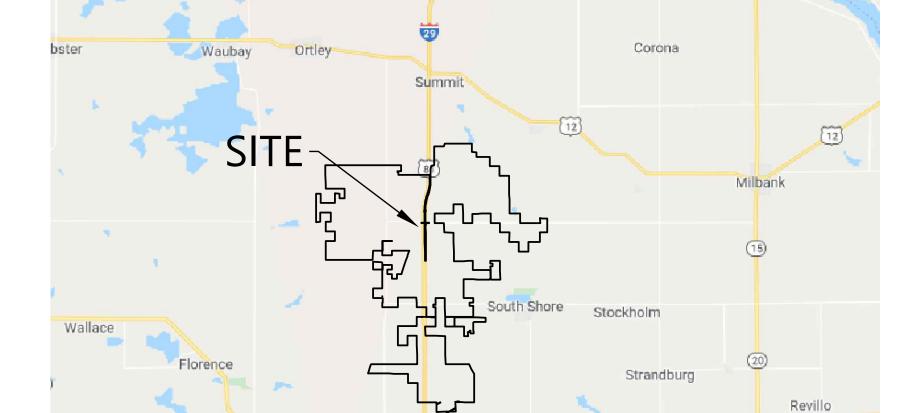
# Civil Construction Plans

		Sheet List Table		Chest Niverland	Chast Title	חבי
	Sheet Number	Sheet Title	REV	Sheet Number NH-277478-8-27	Sheet Title Site Plan T-015	RE\
	NH-277478-1	Cover	0			0
	NH-277478-2	Turbine Coordinates & Culvert Schedule	0	NH-277478-8-28	Site Plan T-057	0
	NH-277478-3	Overall Site Plan	0	NH-277478-8-29	Site Plan T-058	0
	NH-277478-4-1	Delivery Flow Plan	0	NH-277478-8-30	Site Plan T-059 - T-060	0
	NH-277478-4-2	Delivery Flow Plan - Concrete	0	NH-277478-8-31	Site Plan T-061 - T-062	0
	NH-277478-4-3	Public Road Improvement Plan	0	NH-277478-8-32	Site Plan T-063 - T-066	0
	NH-277478-4-4	Public Road Improvement Table	0	NH-277478-8-33	Site Plan T-067	0
	NH-277478-5-1	Construction Details	0	NH-277478-8-34	Site Plan	0
	NH-277478-5-2	Construction Details	0	NH-277478-8-35	Site Plan ALT-26	0
+	NH-277478-5-3	Construction Details	0	NH-277478-8-36	Site Plan T-068 - T-069	0
	NH-277478-5-4	Construction Details	0	NH-277478-8-37	Site Plan T-070	0
	NH-277478-5-5	Construction Details	0	NH-277478-8-38	Site Plan T-071 - T-072	0
	NH-277478-5-6	Construction Details	0	NH-277478-8-39	Turbine Access Road T-021	0
	NH-277478-6	SWPPP Details	0	NH-277478-8-40	Turbine Access Road T-060	0
	NH-277478-7-1	Construction Notes	0	NH-277478-8-41	Turbine Site Plan T-003 T-005 - T-006 T-011	0
	NH-277478-7-2	Construction Notes	0	NH-277478-8-42	Turbine Site Plan T-012 T-015 - T-017	0
	NH-277478-8-1	Site Plan T-016	0	NH-277478-8-43	Turbine Site Plan T-018 T-020 - T-022	0
	NH-277478-8-2	Site Plan T-017 - T-019	0	NH-277478-8-44	Turbine Site Plan T-023 - T-026	0
	NH-277478-8-3	Site Plan T-020 - T-022	0	NH-277478-8-45	Turbine Site Plan T-028 T-030 - T-032	0
	NH-277478-8-4	Site Plan ALT-3 - ALT-4	0	NH-277478-8-46	Turbine Site Plan T-033 - T-034 T-036 - T-037	0
	NH-277478-8-5	Site Plan ALT-5 - ALT-7	0	NH-277478-8-47	Turbine Site Plan T-040 T-045 - T-046 T-050	0
	NH-277478-8-6	Site Plan T-001 - T-003	0	NH-277478-8-48	Turbine Site Plan T-056 - T-059	0
	NH-277478-8-7	Site Plan T-004 - T-005	0	NH-277478-8-49	Turbine Site Plan T-059 - T-062	0
	NH-277478-8-8	Site Plan T-023 - T-024	0	NH-277478-8-50	Turbine Site Plan T-063 - T-066	0
	NH-277478-8-9	Site Plan T-025 - T-027	0	NH-277478-8-51	Turbine Site Plan T-068 - T-071	0
	NH-277478-8-10	Site Plan T-028 - T-030	0	NH-277478-8-52	Turbine Site Plan T-055 T-072	0
	NH-277478-8-11	Site Plan T-007 - T-008	0	NH-277478-9	Substation Grading Plan	0
	NH-277478-8-12	Site Plan T-009 - T-010	0	NH-277478-10	Site Plan O&M	0
	NH-277478-8-13	Site Plan T-006 T-011 T-031	0	NH-277478-11	Laydown Yard Grading Plan	0
	NH-277478-8-14	Site Plan T-032 - T-034	0	NH-277478-12-1	Temporary Improvement 1	0
	NH-277478-8-15	Site Plan T-035 - T-037	0	NH-277478-12-2	Temporary Improvement 2	0
	NH-277478-8-16	Site Plan T-038 - T-040	0	NH-277478-12-3	Temporary Improvement 3-4	0
	NH-277478-8-17	Site Plan T-041 - T-043	0	NH-277478-12-4	Temporary Improvement 5	0
	NH-277478-8-18	Site Plan ALT-12a	0	NH-277478-12-5	Temporary Improvement 6	0
	NH-277478-8-19	Site Plan ALT-13 - ALT-14	0	NH-277478-12-6	Temporary Improvement 7	0
	NH-277478-8-20	Site Plan	0	NH-277478-12-7	Temporary Improvement 8	0
	NH-277478-8-21	Site Plan T-012 T-044	0	NH-277478-12-8	Temporary Improvement 9	0
	NH-277478-8-22	Site Plan T-045	0	NH-277478-12-9	Temporary Improvement 10	0
	NH-277478-8-23	Site Plan T-045	0	NH-277478-12-10	Temporary Improvement 11	0
	NH-277478-8-24	Site Plan T-046 - T-046	0	NH-277478-12-10	Temporary Improvement 12-13	0
	NH-277478-8-25	Site Plan T-013 - T-014 T-052 - 053	0	NH-277478-12-11	Temporary Improvement 14	
	NH-277478-8-26			NH-277478-12-13	. , ,	0
	NH-2//4/8-8-26	Site Plan T-054 - T-056	0	NM-2//4/8-12-13	Temporary Improvement 15-16	0



	DATA SET INFORMATION		
BASE FILE	FILE NAME / NOTES	PROVIDER	DATE
AERIAL IMAGE	DakotaRange2016_20to1.jp2	NAIP	4/20/2020
LAND CONTROL	DKR_Landowner_Status_09102018.shp	Xcel	4/15/2020
ALTA SURVEY	35859.023-DKR-XPALTA.dwg	Apex	4/23/2020
TOPOGRAPHY	DKR_contours3D.dwg	Apex	4/23/2020
TURBINE ARRAY	Layout 54 With Revised 7-21-2020 Coordinates.xlsx	Xcel	7/21/2020
UNDERGROUND COLLECTION	Dakota Range Collection Layout_07302020.shp	Mortenson	7/30/2020
STREAMS/WETLANDS	ACAD-DKR_Layout_2018-11-14-Model.dwg	Xcel	4/15/2020
	ACAD-DKR_Layout_2018-11-14-Model.dwg,		
CULTURAL RESOURCES	QSI_Level3_Survey_Area_20181002.shp	Xcel	4/15/2020
FEMA INFO	ACAD-DKR_Layout_2018-11-14-Model.dwg	Xcel	4/15/2020
	REPORTS / PLANS		
TURBINE DELIVERY MANUAL	Site Preparation Specifications - 0006-5131 v09.pdf	Xcel	3/22/2020
TURBINE VEHICLE DIAGRAMS	*	*	*
TURBINE TRANSPORTATION STUDY	*	*	*
GEOTECHNICAL REPORT	Ex 2.3.2 DKR 1 and 2_geotechnical report_final.pdf	Xcel	6/11/2020
PUBLIC ROAD STUDY	*	*	*
HYDROLOGY REPORT	2020-07-29 Dakota Range I & II Hydro Report Combined.pd	Westwood	7/30/2020
SWPPP	2020_07_30_Dakota Range I II Wind SWPPP Binder.pdf	Westwood	7/30/2020
WETLAND REPORT	DKR_Wetlands Delineation Report_2018-01-17.pdf	Xcel	1/17/2018
CULTURAL REPORT	DKR_SWO Cultural Survey Rev_2019-01-14.pdf	Xcel	1/14/2019

							COLIONALNE	OKI		KIK_3440	Curturar.	3d1 ve y 11e v_2013 01 1+.pu1	Xeei	1/1-/2013
NO	REVISION	ZONE DATE	BY	СНК	ENG	NO	REVISION	ZONE	DATE	BY	СНК	ENG R	EFERENCE DRAV	VINGS
Α	60% CIVIL PLAN SET	06/09/20	ZHW	DJN	DJN							DWG NO.	MANUFACTURER	DESCRIPTION
В	90% CIVIL PLAN SET	07/06/20	ZHW	DFK	DFK									
0	IFC CIVIL PLAN SET	07/31/20	ZHW	DFK	DFK									



PROJECT CONTACT INFORMATION							
TITLE	COMPANY	NAME	CONTACT NUMBER				
Project Manager	Xcel Energy	Robert Sandling					
Project Lead	Xcel Energy	Ahmed Issahak	612-205-0272				
Project Manager	Mortenson	John Riley	763-287-5112				
Project Manager	Westwood	Dave Keleher	952-906-7409				
Project Manager	Westwood	Dani Nygren	952-906-7493				
Engineer of Record	Westwood	Rob Copouls	952-906-7470				

Kranzburg

# Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300 Fax (952) 937-5822 Minnetonka, MN 55343 Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

13738 ROBERT S COPOULS COPOULS

		<b>O</b> Xcel	Energy	®	THI TC PEI Y		
NORTHERN STATES POWER COMPANY							
		Dakota Range I & coddington and gr		arm	PR(		
DWN:	ZHW	DATE:	CHK:	DATE:			
ENG:	DFK	DATE:	CHK:	DATE:			

PROJ. NO: 27717

SCALE: NONE

PM: DFK DATE:

Watertown

THIS MAP/DOCUMENT IS A TOOL TO ASSIST EMPLOYEES IN THE PERFORMANCE OF THEIR JOBS. YOUR PERSONAL SAFETY IS PROVIDED FOR BY USING SAFETY PRACTICES, PROCEDURES, AND EQUIPMENT AS DESCRIBED IN THE SAFETY TRAINING PROGRAMS AND MANUALS.
ENERGY SUPPLY

**ENGINEERING & CONSTRUCTION** 

UNIT Civil Acces	•
Cov	er

NH-277478-1	
NM-2//4/8-1	

TURBINE COORDINATES

<sup>2</sup> ELEVATIONS BASED ON PROPOSED TURBINE PAD GRADING

REVISION

A 60% CIVIL PLAN SET

B 90% CIVIL PLAN SET

0 IFC CIVIL PLAN SET

CONSULT WITH ENGINEER PRIOR TO PEDESTAL ADJUSTMENTS. CONFIRM ELEVATIONS WITH FOUNDATION DESIGN PRIOR TO CONSTRUCTION.

ZONE DATE BY CHK ENG NO

06/09/20 | ZHW | DJN | DJN |

07/06/20 ZHW DFK DFK

07/31/20 ZHW DFK DFK

1						Turbine Index - Based	Ton Layout 54				
Turbine ID	Legacy WTG ID	Turbine Type	Latitude (LL84)	Longitude (LL84)	Northing (UTM Zone 14, meters)	Easting (UTM Zone 14, meters)	Northing (South Dakota State Plane North Zone, US FT)	Easting (South Dakota State Plane North Zone, US FT)	Existing Ground Elevation (FT) [See Note 1]	Rough Graded Pad Elevation (FT) [See Note 2]	Proposed Pedesta Elevation (FT) [See Note 3]
T-001	1	V136 - 3.6 MW - STE	45.22058513	-97.10028671	5009210.548	649150.679	519139.05	2715521.72	1898.62	-	1900.1
T-002	2	V136 - 4.2 MW - STE	45.22130864	-97.09463335	5009301.388	649592.638	519454.89	2716968.05	1914.82	~	1916.3
T-003	3	V136 - 4.2 MW - STE	45.21297779	-97.08485717	5008394.077	650382.141	516509.98	2719594.81	1888.24	1887.6	1889.1
T-004	4	V136 - 4.2 MW - STE	45.21274938	-97.07417879	5008388.657	651221.240	516526.01	2722347.94	1906.44	-	1907.9
T-005 T-006	5 6	V136 - 4.2 MW - STE	45.21393446 45.20521824	-97.06564976	5008536.326	651887.807	517037.34 513952.08	2724528.85	1917.69 2005.21	1916.0	1917.5 2003.3
T-006	7	V136 - 4.2 MW - STE V136 - 3.6 MW - STE	45.19966333	-97.05596992 -97.08955751	5007586.297 5006906.211	652671.204 650048.071	513952.08	2727137.28 2718558.76	1893.86	2001.8	1895.4
T-008	8	V136 - 4.2 MW - STE	45.20064034	-97.08467324	5007023.839	650429.110	512016.40	2719804.13	1910.48	-	1912.0
T-009	9	V136 - 4.2 MW - STE	45.20038546	-97.07815555	5007007.692	650941.680	511984.09	2721486.42	1924.17	-	1925.7
T-010	10	V136 - 4.2 MW - STE	45.19847145	-97.06853837	5006813.092	651702.100	511376.30	2723989.03	1927.32	-	1928.8
T-011	11	V136 - 4.2 MW - STE	45.19841166	-97.05907626	5006824.276	652445.437	511442.96	2726427.31	1964.14	1963.1	1964.6
T-012	12	V136 - 4.2 MW - STE	45.19078447	-97.06414092	5005967.413	652067.965	508616.57	2725223.45	1938.85	1938.8	1940.3
T-013 T-014	A15 A16	V136 - 4.2 MW - STE V136 - 4.2 MW - STE	45.17705875 45.17007538	-97.06095409 -97.06120834	5004448.623 5003672.358	652354.921 652353.569	503645.34 501098.54	2726226.14 2726253.03	1957.24 1957.31	-	1958.7 1958.8
T-015	13	V136 - 3.6 MW - STE	45.15639517	-97.05970169	5002155.464	652508.473	496128.21	2726822.45	1939.70	1938.8	1940.3
T-016	14	V136 - 4.2 MW - STE	45.22926794	-97.02881311	5010309.736	654738.648	522970.31	2733810.36	1960.78	1961.4	1962.9
T-017	15	V136 - 4.2 MW - STE	45.23190699	-97.02102841	5010617.873	655342.556	524005.54	2735779.22	2000.20	2000.2	2001.7
T-018	16	V136 - 4.2 MW - STE	45.22662733	-97.01334976	5010046.163	655959.746	522154.76	2737827.08	2020.20	2020.2	2021.7
T-019	17	V136 - 4.2 MW - STE	45.22683017	-97.00832403	5010078.424	656353.727	522276.46	2739118.33	2031.36	7070.7	2032.9
T-020 T-021	18 19	V136 - 4.2 MW - STE V136 - 4.2 MW - STE	45.22547741 45.22598915	-97.00268766 -96.99814012	5009939.084 5010004.782	656799.922 657155.517	521837.29 522067.14	2740587.78 2741751.74	2031.96 1984.13	2029.7 1983.6	2031.2 1985.1
T-021	20	V136 - 3.6 MW - STE	45.22669771	-96.99315357	5010093.223	657545.026	522372.98	2743026.05	1960.38	1961.3	1962.8
T-023	22	V136 - 4.2 MW - STE	45.21547184	-97.03775666	5008759.994	654073.853	517859.22	2731691.75	1968.00	1967.0	1968.5
T-024	23	V120 - 2.2 MW - STE	45.21430824	-97.02791446	5008649.568	654849.812	517528.19	2734241.92	1946.05	1946.6	1948.1
T-025	27	V136 - 4.2 MW - STE	45.22150806	-97.02308117	5009458.692	655209.729	520197.22	2735390.13	1969.93	1969.0	1970.5
T-026	28	V136 - 4.2 MW - STE	45.22091739	-97.01146249	5009415.489	656123.537	520092.28	2738389.83	2003.77	2003.8	2005.3
T-027 T-028	29 A11	V136 - 4.2 MW - STE V136 - 4.2 MW - STE	45.21438746 45.22004882	-97.01083564 -96.99887671	5008691.285 5009343.429	656190.635 657114.060	517719.07 519895.76	2738639.13 2741642.36	1997.52 2009.45	2009.4	1999.0 2010.9
T-029	30	V136 - 4.2 MW - STE	45.21127947	-97.00129524	5008364.525	656948.305	516677.58	2741138.00	1995.00	-	1996.5
T-030	31	V136 - 4.2 MW - STE	45.21127259	-96.99308232	5008379.767	657593.241	516753.57	2743253.24	1993.04	1993.0	1994.5
T-031	45	V136 - 4.2 MW - STE	45.20424659	-97.04862220	5007492.281	653250.854	513666.99	2729042.77	2007.14	2004.6	2006.1
T-032	46	V136 - 4.2 MW - STE	45.20404907	-97.04020582	5007486.354	653912.363	513674.21	2731213.26	2007.12	2008.0	2009.5
T-033	47	V136 - 4.2 MW - STE	45.20037947	-97.03957670	5007079.894	653971.673	512343.10	2731424.22	2014.89	2012.9	2014.4
T-034 T-035	48a 32	V136 - 4.2 MW - STE V136 - 4.2 MW - STE	45.19580193 45.20461047	-97.03793897 -97.01129400	5006574.498 5007604.262	654112.661 656181.410	510690.71 514152.47	2731907.14 2738652.66	2023.94 1983.18	2023.9	2025.4 1984.7
T-036	26a	V136 - 4.2 MW - STE	45.19721650	-97.02252725	5006761.183	655319.342	511351.81	2735858.42	2007.90	2006.3	2007.8
T-037	33	V136 - 4.2 MW - STE	45.19744202	-97.01105030	5006808.384	656220.173	511542.98	2738811.90	1999.66	1999.0	2000.5
T-038	A18	V136 - 4.2 MW - STE	45.19599342	-96.99799123	5006672.815	657249.874	511139.71	2742195.53	2020.48	-	2022.0
T-039	40	V136 - 4.2 MW - STE	45.19638296	-96.99261942	5006726.568	657670.731	511333.02	2743574.07	2038.09		2039.6
T-040	41	V136 - 4.2 MW - STE	45.19614016	-96.98802937	5006708.572	658031.930	511288.54	2744759.78	2023.61	2023.0	2024.5
T-041 T-042	42 43a	V136 - 4.2 MW - STE V136 - 4.2 MW - STE	45.20345657 45.19718149	-96.97890599 -96.97312083	5007539.260 5006853.549	658728.180 659200.026	514041.84 511811.25	2747010.49 2748586.11	1946.05 1938.25	-	1947.7 1939.8
T-043	44	V136 - 4.2 MW - STE	45.19588063	-96.96895475	5006717.261	659530.885	511377.46	2749677.04	1937.48	_	1939.0
T-044	51	V136 - 4.2 MW - STE	45.18314756	-97.05279420	5005140.460	652979.747	505940.30	2728248.15	1989.33		1990.8
T-045	<del>5</del> 0	V136 - 3.6 MW - STE	45.19017044	-97.03797420	5005948.823	654125. <mark>0</mark> 99	508638.53	2731973.17	2027.17	2026.3	2027.8
T-046	34a	V136 - 4.2 MW - STE	45.19122643	-97.01108869	5006117.815	656234.170	509277.97	2738885.66	2021.06	2023.3	2024.8
T-047 T-048	35 36	V136 - 4.2 MW - STE V136 - 4.2 MW - STE	45.18815677 45.18244736	-97.00983210 -97.00962633	5005779.237 5005145.374	656341.285 656373.086	508171.51 506093.27	2739250.73 2739380.62	2043.12 2050.81	-	2044.6 2052.3
T-049	37	V136 - 4.2 MW - STE	45.18962945	-97.00230002	5005957.453	656928.932	508779.88	2733380.02	2040.63	_	2042.1
T-050	38	V136 - 4.2 MW - STE	45.18954734	-96.99646121	5005959.697	657387.824	508805.74	2742676.85	2042.45	2042.5	2044.0
T-051	<del>3</del> 9	V136 - 4.2 MW - STE	45.19052199	-96.99067380	5006079.271	657839.758	509216.25	2744154.69	2047.97	=	2049.5
T-052	53	V136 - 4.2 MW - STE	45.17438034	-97.05334781	5004165.456	652959.734	502740.73	2728221.82	1991.57	C .	1993.1
T-053	54	V136 - 4.2 MW - STE	45.17103214	-97.04879187	5003802.143	653326.707	501563.60	2729440.42	1987.57	1986.9	1988.4
T-054 T-055	52 A17	V136 - 4.2 MW - STE V136 - 4.2 MW - STE	45.17669957 45.16793583	-97.03993028 -97.03980797	5004448.604 5003475.270	654007.771 654041.010	503711.95 500520.03	2731648.75 2731797.06	2010.01 1994.85	1994.9	2011.5 1996.4
T-056	55	V136 - 4.2 MW - STE	45.16786347	-97.03346809	5003479.344	654539.425	500553.50	2733432.07	2009.94	1994.9	2011.4
T-057	56	V136 - 4.2 MW - STE	45.16334962	-97.03194287	5002980.819	654671.503	498923.30	2733885.50	1990.54	1990.5	1992.0
T-058	57	V136 - 4.2 MW - STE	45.14597583	-97.04855389	5001019.087	653412.656	492436.54	2729834.74	1964.95	1964.0	1965.5
T-059	58	V136 - 4.2 MW - STE	45.14655490	-97.03796325	5001103.580	654243.673	492747.30	2732557.68	1993.95	1993.3	1994.8
T-060	59	V136 - 4.2 MW - STE	45.13851733	-97.03770318	5000211.184	654285.805	489821.28	2732731.95	1957.37	1957.4	1958.9
T-061	62c	V136 - 4.2 MW - STE	45.14540861	-97.01982711	5001011.024	655672.548	492501.34	2737249.18	1996.74	1994.5	1996.0
T-062 T-063	61 64a	V136 - 4.2 MW - STE V136 - 4.2 MW - STE	45.13996046 45.14024767	-97.02293290 -97.00313890	5000399.810 5000469.987	655443.195 656998.671	490486.86 490779.91	2736521.42 2741621.66	1980.30 1970.62	1980.8 1971.5	1982.3 1973.0
T-064	65	V136 - 4.2 MW - STE	45.14020716	-96.99772493	5000476.021	657424.442	490816.90	2743018.24	2013.45	2013.0	2014.5
T-065	A24	V136 - 4.2 MW - STE	45.14074004	-96.99228612	5000545.831	657850.585	491063,13	2744413.47	2006.18	2005.2	2006.7
T-066	66	V136 - 4.2 MW - STE	45.13802265	-96.98835856	5000251.636	658166.893	4 <mark>90110.74</mark>	2745463.06	2011.41	2010.9	2012.4
T-067	60a	V136 - 3.6 MW - STE	45.13165381	-97.03360991	4999456.542	654626.192	487359.25	2733879.15	1935.64	-	1937.1
T-068	68	V136 - 4.2 MW - STE	45.11768880	-97.01707185	4997936.952	655964.716	482427.97	2738331.89	2005.34	2005.4	2006.9
T-069 T-070	69	V136 - 4.2 MW - STE	45.11300431 45.10202910	-97.01726161 -97.02847135	4997416.188 4996175.395	655962.556	480719.41 476614.26	2738345.85 2735600.75	1979.16 1995.31	1981.0	1982.5 1996.5
T-070	70 71a	V136 - 3.6 MW - STE V136 - 4.2 MW - STE	45.10202910	-97.02847135 -97.02069651	4996175.395	655110.529 655722.661	476614.26	2735600.75	2006.76	1995.0 2006.5	2008.0
	Control of the Contro	V136 - 4.2 MW - STE	45.10186557	-97.02069631	4996073.950	656367.118	476332.26	2739727.37	2011.27	2011.3	2012.8
T-072	72	9 130 7.2 14.00	TJ: 1000: 17:	JI WILL THE		000007.11.				and the state of t	

PROPOSED PEDESTAL ELEVATIONS ARE BASED ON EXISTING GROUND ELEVATIONS (OR ROUGH GRADE ELEVATIONS WHERE APPLICABLE). THE PEDESTALS ELEVATIONS HAVE BEEN SET TO PROVIDE 1' OF FREEBOARD ABOVE THE 100-YEAR 24-HOUR STORM HIGH WATER LEVEL.

REVISION

ZONE DATE BY CHK ENG

DRAINAGE CROSSING SCHEDULE
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Crossing		Design Optio	ons
Number	Low Water	LWC	2-Year Cuvlert Sizing
- Trumber	Crossing Design	Length (LF)	(CMP)
DC-1	FLEXAMAT	60	1-24"; 2-18"
DC-2	FLEXAMAT	50	1-18"
DC-3	FLEXAMAT	80	1-30"; 2-24"; 3-18"
DC-4	FLEXAMAT	80	1-18"
DC-5	FLEXAMAT	80	1-18"
DC-6	FLEXAMAT	200	1-30"; 2-24"; 3-18"
DC-7	FLEXAMAT	160	1-30"; 2-24"; 3-18"
DC-8	FLEXAMAT	50	1-18"
DC-9	FLEXAMAT	100	1-18"
DC-11	FLEXAMAT	100	1-18"
DC-12	FLEXAMAT	50	1-18"
DC-13	FLEXAMAT	50	1-18"
DC-14	FLEXAMAT	50	1-24"; 2-18"
DC-15	FLEXAMAT	100	1-24"; 2-18"
DC-16	FLEXAMAT	50	1-18"
DC-17	FLEXAMAT	50	1-24"; 2-18"
DC-18	FLEXAMAT	50	1-24"; 2-18"
DC-19	FLEXAMAT	50	1-18"
DC-20	FLEXAMAT	140	1-24"; 2-18"
DC-21	FLEXAMAT	100	1-36"; 2-24"; 4-18"
DC-22	FLEXAMAT	100	1-48"; 2-36"; 3-30"
DC-24	FLEXAMAT	50	1-18"
DC-27	FLEXAMAT	100	1-30"; 2-24"; 4-18"
DC-28	FLEXAMAT	100	1-18"
DC-29	FLEXAMAT	50	1-18"
DC-30	FLEXAMAT	50	1-18"
DC-31	FLEXAMAT	50	1-18"
DC-32	FLEXAMAT	75	1-18"
DC-33	FLEXAMAT	50	1-18"
DC-34	FLEXAMAT	50	1-18"
DC-35	FLEXAMAT	50	1-24"; 2-18"
DC-36	FLEXAMAT	150	1-30"; 2-24"; 3-18"
DC-37	FLEXAMAT	100	1-24"; 2-18"
DC-38	FLEXAMAT	50	1-24"; 2-18"
DC-39	FLEXAMAT	100	1-18"
DC-41	FLEXAMAT	50	1-36"; 2-30"; 3-24"
DC-42	FLEXAMAT	50	1-30"; 2-24"; 4-18"
DC-43	FLEXAMAT	50	1-18"

# PUBLIC ROAD ENTRANCE CULVERTS

Crossing Number	Туре	2-Year Size
EC1	CMP	1-30"; 2-24"; 4-18
EC2	CMP	1-18"
EC3	CMP	1-18"
EC4	CMP	1-18"
EC5	CMP	1-18"
EC6	CMP	1-18"
EC7	CMP	1-18"
EC8	CMP	1-18"
EC9	CMP	1-18"
EC10	CMP	1-18"
EC11	CMP	1-18"
EC12	CMP	1-18"
EC12	CMP	1-18"
		+
EC14 EC15	CMP	1-18"
	CMP	1-18"
EC16	CMP	1-18"
EC17	CMP	1-18"
EC18	CMP	1-18"
EC19	CMP	1-18"
EC20	CMP	1-18"
EC21	CMP	1-24"; 2-18"
EC22	CMP	1-24"; 2-18"
EC23	CMP	1-18"
EC24	CMP	1-18"
EC25	CMP	1-18"
EC26	CMP	1-18"
EC27	CMP	1-18"
EC28	CMP	1-18"
EC30	CMP	1-18"
EC31	CMP	1-18"
EC32	CMP	1-18"
EC33	CMP	1-18"
EC34	CMP	1-18"
EC35	CMP	1-18"
EC36	CMP	1-18"
EC37	CMP	1-18"
EC38	CMP	1-18"
EC39	CMP	1-18"
EC40	CMP	1-18"
EC41	CMP	1-18"
EC42	CMP	1-18"
EC43	CMP	1-18"
EC44	CMP	1-18"
EC45	CMP	1-18"
EC46	CMP	1-30"; 2-24"; 4-18
EC47	CMP	1-18"
EC48	CMP	1-18"
EC49	CMP	1-18"
EC50	CMP	1-18"
EC51	CMP	1-18"
EC52	CMP	1-30"; 2-24"; 4-18

# NOTES:

REFERENCE DRAWINGS

DWG NO.

MANUFACTURER DESCRIPTION

- 1. DRAINAGE CROSSINGS AND PUBLIC ENTRANCE CULVERT DESIGN IS BASED ON A 2-YEAR 24 HOUR HYDRAULIC ANALYSIS.
- 2. CULVERTS WITHIN THE PUBLIC ROW SHALL BE VERIFIED WITH THE LOCAL JURISDICTION PRIOR TO INSTALLATION.
- 3. FINAL LWC INSTALLATION LOCATIONS SHALL BE AGREED TO BY THE OWNER AND CONTRACTOR.
- ANY INCREASES OR DEDUCTIONS SHALL BE TRUED UP PRIOR TO SUBSTANTIAL COMPLETION. 4. BOTH LWC AND CULVERT SIZING OPTIONS ARE LISTED WHERE NOTED. BOTH ARE NOT REQUIRED. CONTRACTOR AND OWNER MAY CHOOSE BEST FIT IN THE FIELD.
- 5. MULTIPLE SIZING OPTIONS FOR CULVERTS ARE LISTED FOR FLEXIBILITY. CONTRACTOR MAY CHOOSE THE BEST FIT DURING INSTALLATION.
- 6. CRANE PATH CULVERTS ARE BASED ON A 1-YEAR 24-HOUR DESIGN EVENT.
- 7. ONLY MAJOR CRANE PATH CROSSINGS ARE LISTED ABOVE. ADDITIONAL CROSSINGS WITH CULVERTS OR TIMBER MATS MAY BE REQUIRED.

# 8. A CULVERT OPTION IS PROVIDED FOR CRANE PATH CROSSINGS WITH AN INCISED CHANNEL.

# CRANE TEMPORARY CROSSING SCHEDULE

33.9	1-Year Culvert Diamete 1-24"; 2-18"
74.47	1-30"; 2-24"; 3-18"
9168.45	1-72"; 2-54"; 3-48"
8.81	1-18"
161.08	1-24"; 2-18"
	1-54"; 2-42"; 3-36" 1-24"; 2-18"
	1-30"; 2-24"; 4-18"
122.05	1-24"; 2-18"
11.42	1-18"
6.93	1-24"; 2-18"
12.61	1-24"; 2-18"
+	1-30"; 2-24"; 4-18"
	1-18" 1-18"
+	1-18"
371.51	1-30"; 2-24"; 3-18"
4.57	Crane Mat
40.37	1-42"; 2-30"; 3-24"
11.58	1-18"
+	1-54"; 2-42"; 3-36"
	1-18" Crane Mat
11.97	1-18"
7.7	1-18"
40.68	1-36"; 2-30"; 3-24"
6.21	1-18"
2866.74	1-54"; 2-42"; 3-36"
+	1-24"; 2-18" 1-36"; 2-24"; 4-18"
43.17	1-36"; 2-24"; 4-18"
7.5	1-24"; 2-18"
34.11	1-18"
12.71	1-18"
	1-54"; 2-42"; 3-36"
+	1-24"; 2-18"
	1-24"; 2-18" 1-30"; 2-24"; 3-18"
31.05	1-30"; 2-24"; 3-18"
828	1-84"; 2-60"; 3-54"
17.35	1-18"
372.2	1-72"; 2-54"; 3-42"
	1-18"
	1-18" 1-24"; 2-18"
	1-30"; 2-24"; 3-18"
220.08	1-24"; 2-18"
174.41	1-24"; 2-18"
1143.11	1-54"; 2-42"; 3-36"
	1-24"; 2-18"
	1-24"; 2-18" 1-18"
	1-54"; 2-42"; 3-36"
40.95	1-42"; 2-30"; 4-24"
486.23	1-36"; 2-24"; 4-18"
4.53	1-18"
3.07	1-18"
66.07	1-24"; 2-18"
	1-24"; 2-18" 1-24"; 2-18"
<del> </del>	1-24"; 2-18"
350.5	1-30"; 2-24"; 3-18"
18.28	1-30"; 2-24"; 3-18"
8.53	1-24"; 2-18"
582.02	1-48"; 2-36"; 3-30"
27.69	1-30"; 2-24"; 4-18"
	1-30"; 2-24"; 3-18" 1-66"; 2-48"; 3-42"
	1-36"; 2-24"; 4-18"
11.09	1-24"; 2-18"
95.03	1-42"; 2-36"; 3-30"
5.56	1-18"
4.92	1-18"
13.47	1-24"; 2-18"
33.4	1-18"
	1-30"; 2-24"; 3-18" 1-78"; 2-60"; 3-48"
+	1-36"; 2-24"; 4-18"
38.71	
	74.47 9168.45 8.81 161.08 383.9 8.26 460.22 122.05 11.42 6.93 12.61 43.56 3.66 2.51 32.15 371.51 4.57 40.37 11.58 304.7 17.95 3.03 11.97 7.7 40.68 6.21 2866.74 13.32 43.17 4.47 7.5 34.11 12.71 169.44 13.35 15.36 280.5 31.05 828 17.35 372.2 4.58 7.31 92.19 328.68 220.08 174.41 1143.11 30.69 29.36 4.35 205.81 40.95 486.23 4.58 7.31 92.19 328.68 220.08 174.41 1143.11 30.69 29.36 4.35 205.81 40.95 486.23 4.58 7.31 92.19 328.68 220.08 174.41 1143.11 30.69 29.36 4.35 205.81 40.95 486.23 4.58 7.31 92.19 328.68 220.08 174.41 1143.11 30.69 29.36 4.35 205.81 40.95 486.23 4.53 3.007 66.07 7.98 76.17 81.5 350.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53 550.5 18.28 8.53

# 

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Westwood Professional Services, Inc. THIS MAP/DOCUMENT IS A TOOL TO ASSIST EMPLOYEES IN THE

UNIT 0 Civil Access Roads

Turbine Coordinates & Culvert Schedule

CHK: DATE: MANUALS. ENG: DFK DATE: CHK: DATE: **ENERGY SUPPLY** PM: DFK DATE: PROJ. NO: 27717 ENGINEERING & CONSTRUCTION APVD: DATE: SCALE: NONE

# 11,1131/2011

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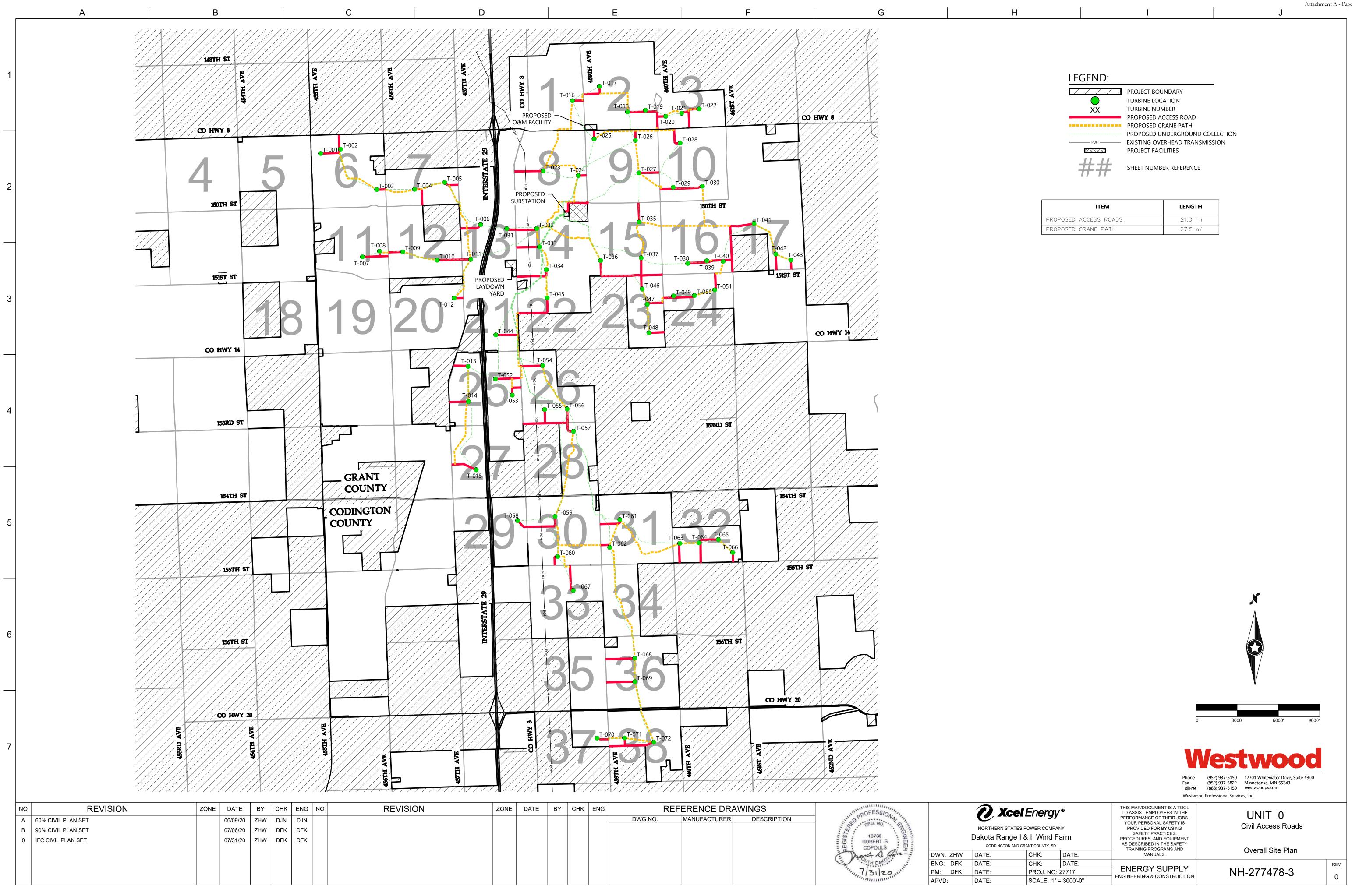
**?** Xcel Energy® HERN STATES POWER COMPANY a Range I & II Wind Farm DDINGTON AND GRANT COUNTY, SD

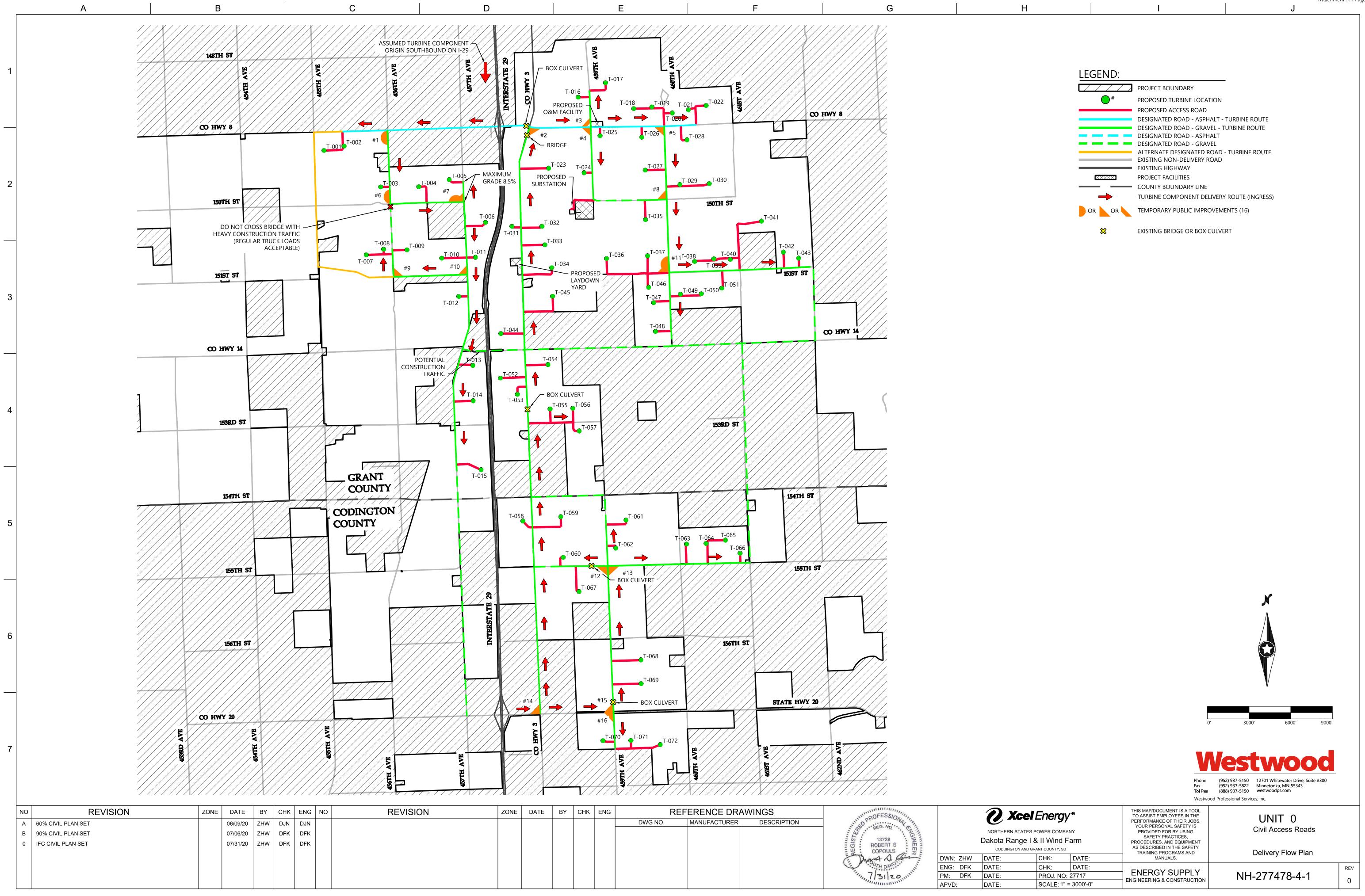
PROVIDED FOR BY USING SAFETY PRACTICES, PROCEDURES, AND EQUIPMENT AS DESCRIBED IN THE SAFETY TRAINING PROGRAMS AND

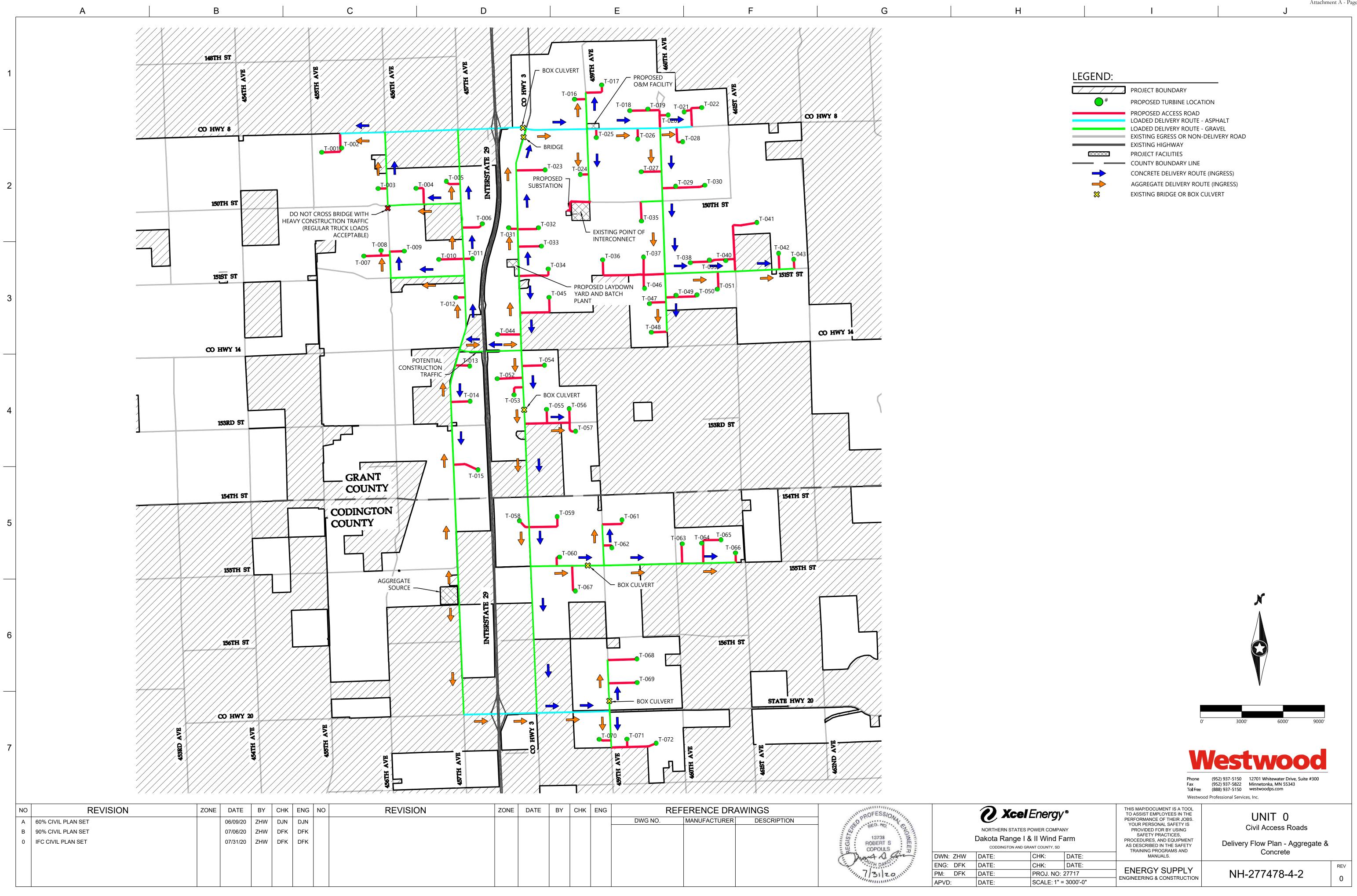
PERFORMANCE OF THEIR JOBS.

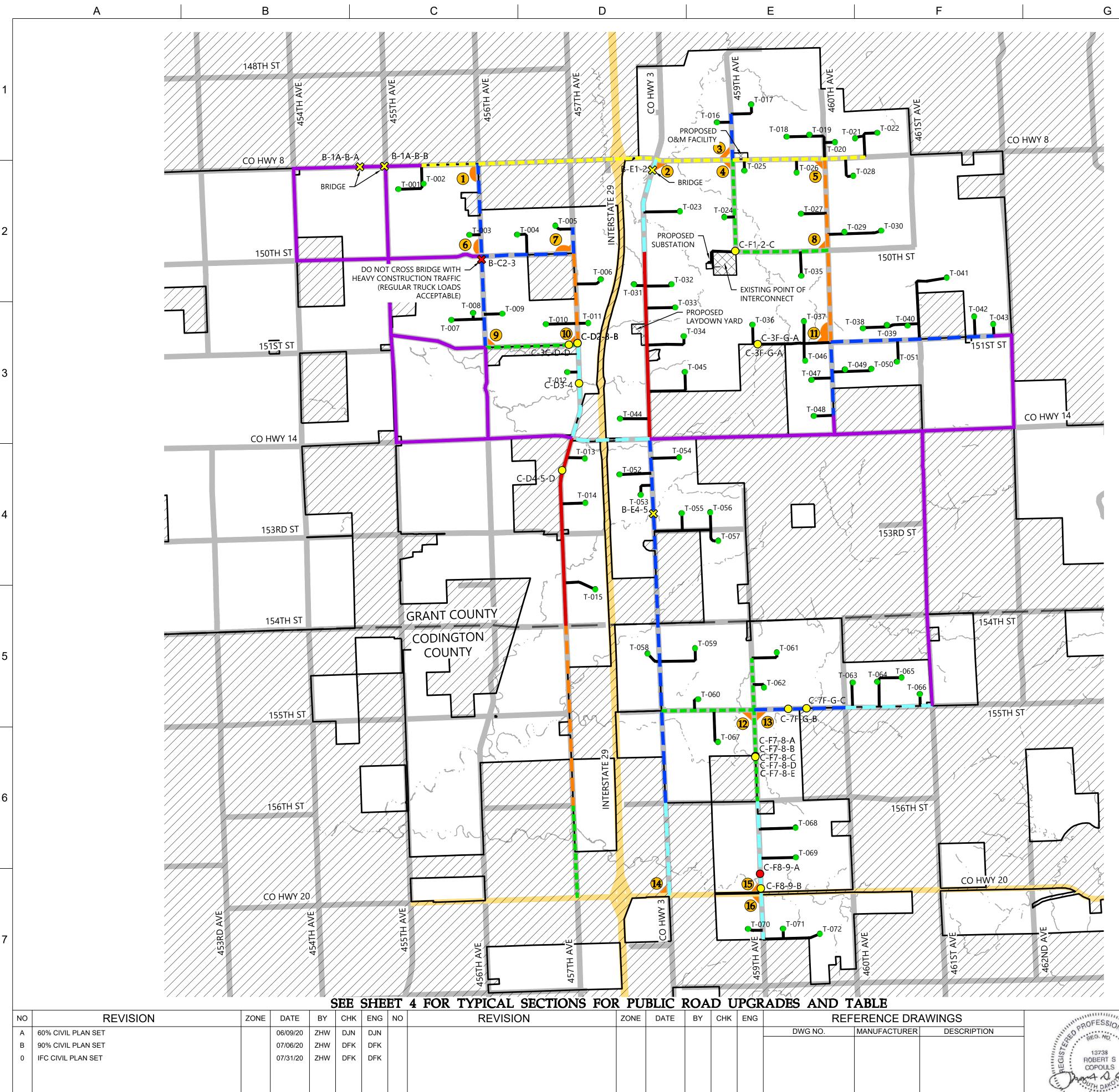
YOUR PERSONAL SAFETY IS

NH-277478-2









# TABLE 1 **CULVERT SCHEDULE** Culvert Name | Recommendation C-F8-9-A Replace

CONFIRM ROAD UPGRADES WITH FINAL PUBLIC ROAD UPGRADE REPORT PREPARED BY WESTWOOD/AET. OBTAIN OWNER APPROVAL PRIOR TO WORK ON PUBLIC ROADS.

UPGRADE RECOMMENDATIONS SHOWN ARE BASED ON THE TRAFFIC FLOW PLANS AND ROAD USE SHOWN ON THESE PLANS. CHANGING THE DIRECTION OR EXTENT OF PROJECT DELIVERIES MAY IMPACT ROAD IMPROVEMENT RECOMMENDATIONS.

# TABLE 3 RDIDGE CDOSSING SCHEDILLE

	TABLE 3 BRIDGE CROSSING SCHEDULE
BRIDGE NAME	NOTES
B-E1-2	No RT Crane, Check Nacelle when Determined. Timber pile mat jump bridge may be used for RT crane crossing.
B-E4-5	No RT Crane, Check Nacelle when Determined. Timber pile mat jump bridge may be used for RT crane crossing.
B-1A-B-B	No RT Crane, Check Nacelle when Determined. Timber pile mat jump bridge may be used for RT crane crossing. All traffic should travel through the center of the bridge so that loads are supported by the concrete box culvert.
B-1A-B-A	No RT Crane, Check Nacelle when Determined. Timber pile mat jump bridge may be used for RT crane crossing. All traffic should travel through the center of the bridge so that loads are supported by the concrete box culvert.

B-C2-3 Do not cross with delivery vehicles. No RT Crane.

PROJECT BOUNDARY

LEGEND:

PROPOSED TURBINE LOCATION PROPOSED ACCESS ROAD EXISTING NON-DELIVERY ROAD EXISTING STATE JURISDICTION ROAD PROJECT FACILITIES COUNTY BOUNDARY LINE

OR OR TEMPORARY PUBLIC IMPROVEMENTS (16) EXISTING BRIDGE OR BOX CULVERT (SEE TABLE 3) EXISTING BRIDGE DO NOT CROSS (SEE TABLE 3)

— · · · — · · · — EXISTING STREAM

EXISTING CULVERT PROTECT EXISTING CULVERT REPLACE

INTERSECTION ID NUMBER

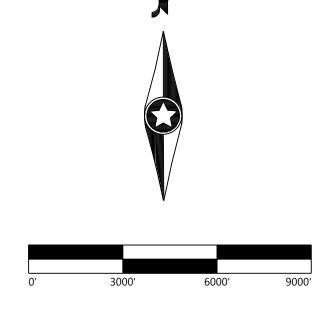
BITUMINOUS MONITOR & MAINTAIN

AGGREGATE MONITOR & MAINTAIN \* BLADE ROAD AND ADD 2" AGGREGATE OVERLAY BLADE ROAD AND ADD 4" AGGREGATE OVERLAY BLADE ROAD AND ADD 6" AGGREGATE OVERLAY 8" CEMENT SFDR (WITH 4" AGGREGATE CAP) UPGRADES UNDETERMINED \*\*

- \* CONFIRM WITH OWNER AND ROAD USE AGREEMENT. THE ENGINEERING ANALYSIS DOES NOT INDICATE UPGRADES ARE NECESSARY, BUT THE ROAD USE AGREEMENT MAY REQUIRE A 2" AGGREGATE OVERLAY REGARDLESS.
- \*\* THESE ROADS WERE (OR WILL BE) INCLUDED IN GEOTECHNICAL DATA COLLECTION FOR POSSIBLE FUTURE USE (ALTERNATES OR EGRESS). THE TRAFFIC FLOW PLANS DO NOT INCLUDE LOADED TRAFFIC ON THESE ROADS, CONSEQUENTLY ROAD UPGRADES ARE UNDETERMINED. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THESE ROADS AND UPGRADE RECOMMENDATIONS ARE DESIRED - ADDITIONAL ENGINEERING ANALYSIS WILL BE NEEDED.

TABLE 2 INTERSECTION IMPROVEMENT SCHEDULE				
Intersection	Description	Sheet Reference		
1	INTERSECTION OF CO HWY 8 & 456TH AVE	NH-277478-12-1		
2	INTERSECTION OF CO HWY 8 & CO HWY 3	NH-277478-12-2		
3	INTERSECTION OF CO HWY 8 & 459TH AVE	NH-277478-12-3		
4	INTERSECTION OF CO HWY 8 & 459TH AVE	NH-277478-12-3		
5	INTERSECTION OF CO HWY 8 & 460TH AVE	NH-277478-12-4		
6	INTERSECTION OF 150TH ST & 456TH AVE	NH-277478-12-5		
7	INTERSECTION OF 150TH ST & 457TH AVE	NH-277478-12-6		
8	INTERSECTION OF 150TH ST & 460TH AVE	NH-277478-12-7		
9	INTERSECTION OF 151TH ST & 456TH AVE	NH-277478-12-8		
10	INTERSECTION OF 151TH ST & 457TH AVE	NH-277478-12-9		
11	INTERSECTION OF 151TH ST & 460TH AVE	NH-277478-12-10		
12	INTERSECTION OF 155TH ST & 459TH AVE	NH-277478-12-11		
13	INTERSECTION OF 155TH ST & 459TH AVE	NH-277478-12-11		
14	INTERSECTION OF CO HWY 20 & CO HWY 3	NH-277478-12-12		
15	INTERSECTION OF CO HWY 20 & 459TH AVE	NH-277478-12-13		
16	INTERSECTION OF CO HWY 20 & 459TH AVE	NH-277478-12-13		

- THE RECOMMENDATIONS PROVIDED ARE INTENDED TO PROVIDE SAFE DRIVING CONDITIONS THROUGHOUT THE DURATION OF CONSTRUCTION, MEET TURBINE DELIVERY REQUIREMENTS, AND PROVIDE A ROAD AT THE END OF CONSTRUCTION THAT MEETS OR EXCEEDS THE PRECONSTRUCTION CONDITION.
- REFER TO REPORT BY AMERICAN ENGINEERING TESTING FOR INFORMATION ON EXISTING ROAD EVALUATION AND RECOMMENDATIONS. CHANGING THE DIRECTION AND EXTENT OF PROJECT DELIVERIES MAY AFFECT ROAD IMPROVEMENT RECOMMENDATIONS.
- EXISTING DRAINAGE STRUCTURES SHALL BE MONITORED BY THE GENERAL CONTRACTOR THROUGHOUT CONSTRUCTION. IT MAY BE NECESSARY TO REPLACE OR REPAIR DRAINAGE STRUCTURES IF DAMAGED BY PROJECT DELIVERIES. IF CULVERTS NEED TO BE REPAIRED OR REPLACED THEY SHALL BE DONE PER COUNTY/TOWNSHIP STANDARDS.
- SPECIFICATION FOR GRAVEL ROAD UPGRADES SHALL FOLLOW PROJECT ROAD SPECIFICATION.
- IT MAY BE NECESSARY TO FIX OR MAINTAIN PAVED PUBLIC ROADS, SPECIFICALLY IN THE VICINITY OF INTERSECTIONS (BOTH PUBLIC TO PUBLIC ROAD AND PUBLIC TO PRIVATE ROADS) DUE TO TRUCK TURNING MOVEMENTS. CONTRACTOR SHALL KEEP THE ROADS IN A SAFE DRIVING CONDITION AT ALL TIMES.
- TRAFFIC CONTROL SHALL BE INSTALLED PER SDDOT AND/OR MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION BETWEEN ROAD IMPROVEMENTS AND EXISTING ROADS, AS WELL AS BETWEEN ROAD IMPROVEMENTS AND EXISTING DRIVEWAYS.



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Xcel Energy®	
NORTHERN STATES POWER COMPANY	
Dakota Range I & II Wind Farm	
CODDINCTON AND CRANT COUNTY OF	

CHK:

PROJ. NO: 27717

SCALE: 1" = 3000'-0"

DWN: ZHW | DATE:

ENG: DFK DATE:

PM: DFK DATE:

DATE:

APVD:

PERFORMANCE OF THEIR JOBS. YOUR PERSONAL SAFETY IS PROVIDED FOR BY USING DATE: CHK:

DATE:

Civil Access Roads SAFETY PRACTICES, PROCEDURES, AND EQUIPMENT AS DESCRIBED IN THE SAFETY TRAINING PROGRAMS AND MANUALS.

THIS MAP/DOCUMENT IS A TOOL TO ASSIST EMPLOYEES IN THE

**ENERGY SUPPLY** 

**ENGINEERING & CONSTRUCTION** 

Public Road Improvement Plan

UNIT 0

NH-277478-3

REV

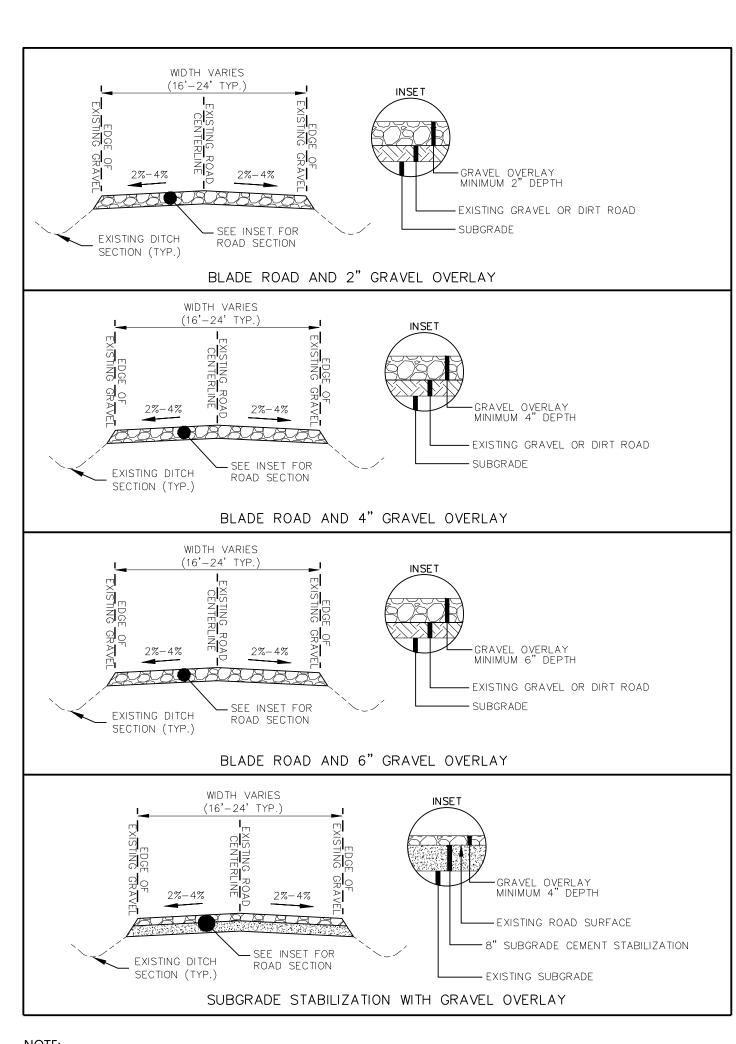
Road Name	From	То	Road Width (Approx FT) [See	Length (LF)	Improvement Type	County
			Note 3]		. ,,	
Co Hwy 8	455th Ave	456th Ave	24	5280	Bituminous Monitor & Maintain	Grant
Co Hwy 8	456th Ave	457th Ave	24	5280	Bituminous Monitor & Maintain	Grant
Co Hwy 8	457th Ave	I-29	24	2640	Bituminous Monitor & Maintain	Grant
Co Hwy 8	Co Rd 3	459th Ave	24	4224	Bituminous Monitor & Maintain	Grant
Co Hwy 8	459th Ave	460th Ave	24	5280	Bituminous Monitor & Maintain	Grant
Co Hwy 8	460th Ave	0.5 mi E	24	2640	Bituminous Monitor & Maintain	Grant
150th St	0.5 mi W	460th Ave	16	2640	Aggregate Monitor & Maintain	Grant
150th St	456th Ave	457th Ave	16	5280	Blade Road and 4" Aggregate Overlay	Grant
151st St	456th Ave	457th Ave	16	5280	Aggregate Monitor & Maintain	Grant
151st St	460th Ave	461st Ave	16	5280	Blade Road and 4" Aggregate Overlay	Grant
151st St	461st Ave	Co Hwy 5	16	5280	Blade Road and 4" Aggregate Overlay	Grant
Co Hwy 14	457th Ave	I-29	24	2112	Blade Road and 2" Aggregate Overlay	Grant
Co hwy 14	I-29	Co Rd 3	24	2640	Blade Road and 2" Aggregate Overlay	Grant
Co Rd 2	Co Rd 3	459th Ave	17	5280	Aggregate Monitor & Maintain	Codingt
Co Rd 2	459th Ave	460th Ave	17	5280	Blade Road and 4" Aggregate Overlay	Codingt
Co Rd 2	460th Ave	461st Ave	18	5280	Blade Road and 2" Aggregate Overlay	Codingt
456th Ave	Co Hwy 8	150th St	18	5280	Blade Road and 4" Aggregate Overlay	Grant
456th Ave	0.5 mi N	151st St	18	2640	Blade Road and 4" Aggregate Overlay	Grant
457th Ave	0.5 mi N	150th St	16	2640	Blade Road and 4" Aggregate Overlay	Grant
457th Ave	150th St	151st St	16	5280	Blade Road and 6" Aggregate Overlay	Grant
457th Ave	151st St	Co Hwy 14	16	5280	Blade Road and 2" Aggregate Overlay	Grant
457th Ave	Co Hwy 14	153rd St	20	5280	8" Cement SFDR	Grant
457th Ave	153rd St	County Line	16	5280	8" Cement SFDR	Grant
457th Ave	Co Hwy 1	155th St	18	5280	Blade Road and 6" Aggregate Overlay	Codingt
457th Ave	155th St	156th St	20	5280	Blade Road and 6" Aggregate Overlay	Codingt
457th Ave	156th St	Hwy 20	21	5280	Aggregate Monitor & Maintain	Codingt
Co Rd 3	Co Hwy 8	150th St	21	5280	Blade Road and 2" Aggregate Overlay	Grant
Co Rd 3	150th St	151st St	24	5280	8" Cement SFDR	Grant
Co Rd 3	151st St	Co Hwy 14	24	5280	8" Cement SFDR	Grant
Co Rd 3	Co Hwy 14	153rd St	24	5280	Blade Road and 4" Aggregate Overlay	Grant
Co Rd 3	153rd St	County Line	24	5280	Blade Road and 4" Aggregate Overlay	Grant
Co Rd 9	Co Hwy 1	Co Rd 2	24	5280	Blade Road and 4" Aggregate Overlay	Codingt
Co Rd 9	Co Rd 2	156th St	22	5280	Blade Road and 4" Aggregate Overlay	Codingt
Co Rd 9 1/10th	156th St	Hwy 20	22	5280	Blade Road and 2" Aggregate Overlay	Codingt
459th Ave	0.5 mi N	Co Hwy 8	16	2640	Blade Road and 4" Aggregate Overlay	Grant
459th Ave	Co Hwy 8	150th St	17	5280	Aggregate Monitor & Maintain	Grant
459th Ave	Co Hwy 1	Co Rd 2	16	5280	Aggregate Monitor & Maintain	Codingt
459th Ave	Co Rd 2	156th St	18	5280	Aggregate Monitor & Maintain	Codingt
459th Ave	156th St	Hwy 20	18	5280	Blade Road and 2" Aggregate Overlay	Codingt
459th Ave	Hwy 20	0.5 mi S	18	2640	Blade Road and 2" Aggregate Overlay	Codingt
460th Ave	Co Hwy 8	150th St	17	5280	Blade Road and 6" Aggregate Overlay	Grant
460th Ave	150th St	151st St	17	5280	Blade Road and 6" Aggregate Overlay	Grant
TOULITAVE	13011131	1013030		3200		Grant

Public Road Improvement C	<i>quantities</i>
Improvement Type	Total Length (LF)
Bituminous Monitor & Maintain	25344
Aggregate Monitor & Maintain	34320
Blade Road and 2" Aggregate Overlay	33792
Blade Road and 4" Aggregate Overlay	60720
Blade Road and 6" Aggregate Overlay	26400
8" Cement SFDR	21120
Sum	201696

G

CONFIRM ROAD UPGRADES WITH FINAL PUBLIC ROAD UPGRADE REPORT PREPARED BY WESTWOOD/AET. OBTAIN OWNER APPROVAL PRIOR TO WORK ON PUBLIC ROADS.

UPGRADE RECOMMENDATIONS SHOWN ARE BASED ON THE TRAFFIC FLOW PLANS AND ROAD USE SHOWN ON THESE PLANS. CHANGING THE DIRECTION OR EXTENT OF PROJECT DELIVERIES MAY IMPACT ROAD IMPROVEMENT RECOMMENDATIONS.



NOTE:

1. THE AGGREGATE DEPTHS LISTED ARE MINIMUMS. IT MAY BE NECESSARY TO ADD ADDITIONAL GRAVEL FOR MAINTENANCE DURING CONSTRUCTION OR AS A POST-CONSTRUCTION CAP DEPENDING ON ROAD CONDITION, OWNER, AND COUNTY/TOWNSHIP REQUIREMENTS.

CONFIRM GRAVEL IS ACCEPTABLE TO THE COUNTY/TOWNSHIPS FOR USE ON PUBLIC ROADS.
 SOME PUBLIC ROADS WITH WIDTH LESS THAN 16' MAY REQUIRE WIDENING. ROAD WIDENING TO FOLLOW
TYPICAL SECTIONS ABOVE, GENERALLY MATCHING THE EXISTING ROAD CROSS-SECTION & TRANSITIONING AS
NEEDED. STRUCTURAL SECTIONS FOR WIDENED AREAS TO MATCH FULL-DEPTH POST-UPGRADE STRUCTURAL
SECTIONS FOR EACH SEGMENT.

# Westwood

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 (952) 937-5150
 12701 Whitewater Drive, Suite #300

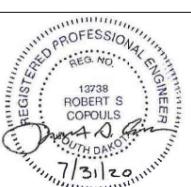
 Fax
 (952) 937-5822
 Minnetonka, MN 55343

 Toll Free
 (888) 937-5150
 westwoodps.com

 Westwood Professional Services, Inc.

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Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN								DWG NO. MANUFACTURER DESCRIPTION	
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<b>O</b> Xcel Energy®												
	NORTHERN STATES POWER COMPANY											
	Dakota Range I &	ll Wind Fa	arm									
	CODDINGTON AND GRANT COUNTY, SD											
DWN: ZHW	DATE:	CHK:	DATE:									

CHK:

DATE:

PROJ. NO: 27717

SCALE: 1" = 3000'-0"

ENG: DFK DATE:

PM: DFK DATE:

DATE:

APVD:

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TO ASSIST EMPLOYEES IN THE
PERFORMANCE OF THEIR JOBS.
YOUR PERSONAL SAFETY IS
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SAFETY PRACTICES,
PROCEDURES, AND EQUIPMENT
AS DESCRIBED IN THE SAFETY
TRAINING PROGRAMS AND
MANUALS.

**ENERGY SUPPLY** 

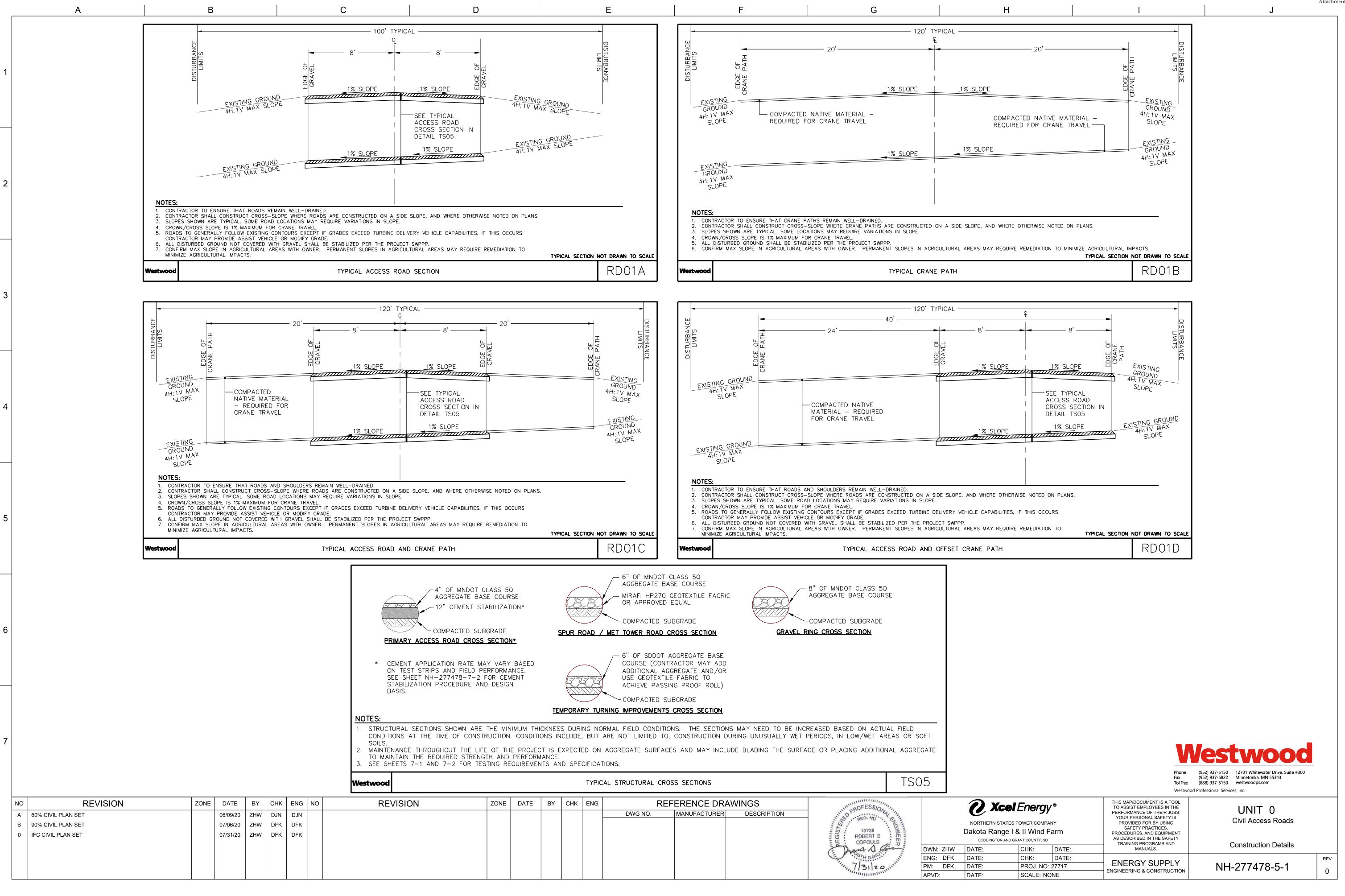
ENGINEERING & CONSTRUCTION

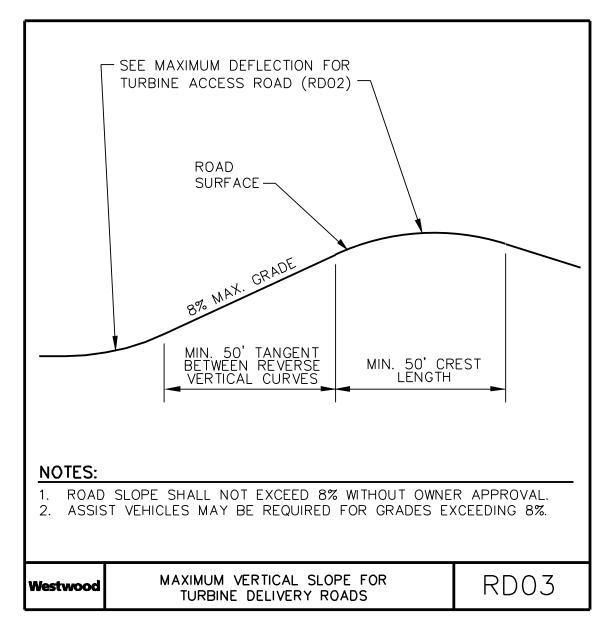
UNIT 0
Civil Access Roads

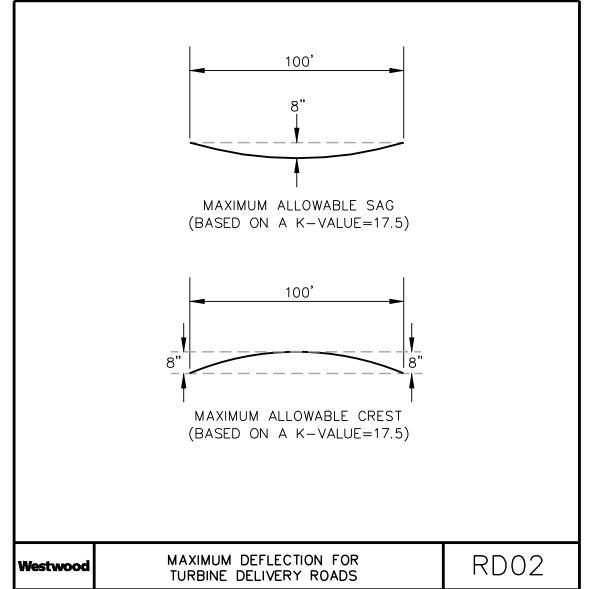
Public Road Sections and Table

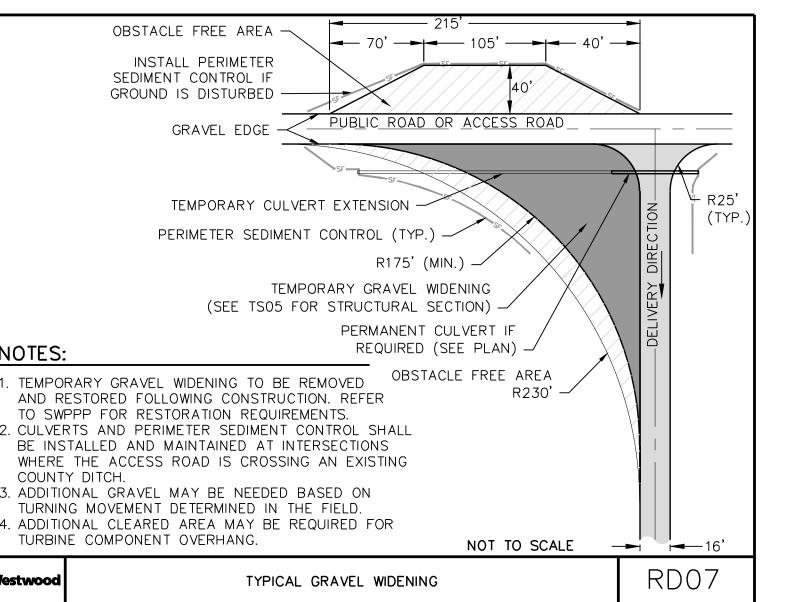
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REV 0









OBSTACLE FREE AREA

SEDIMENT CONTROL IF

GROUND IS DISTURBED

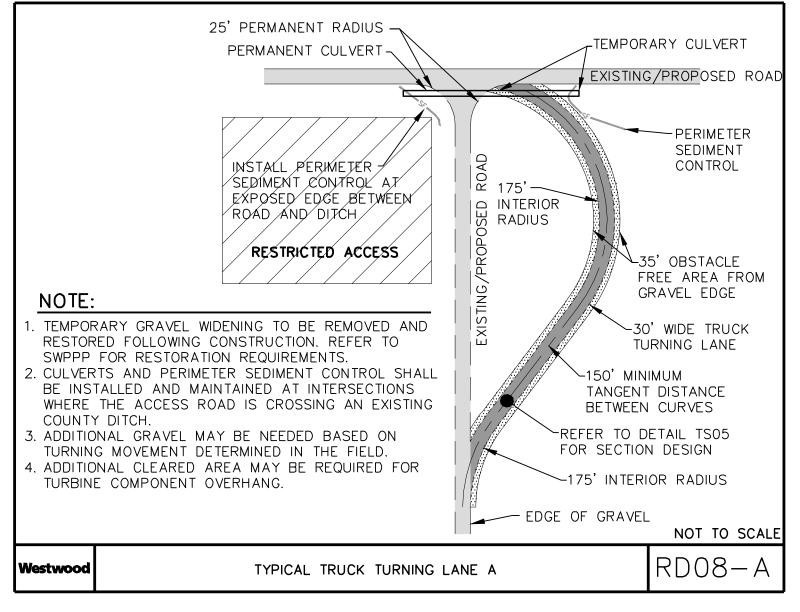
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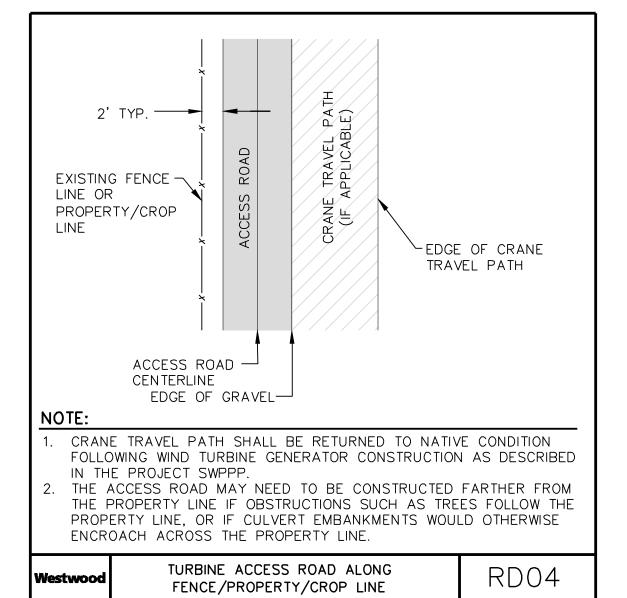
COUNTY DITCH.

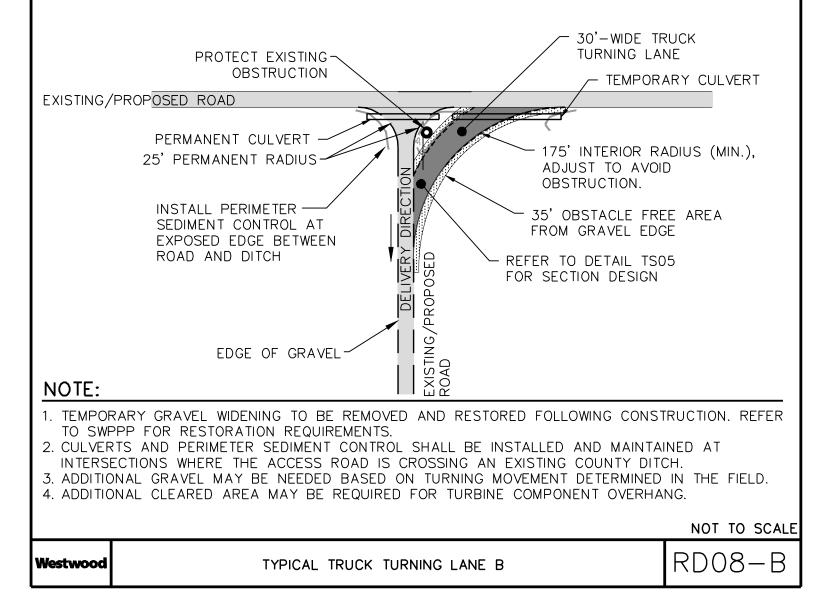
TURBINE COMPONENT OVERHANG.

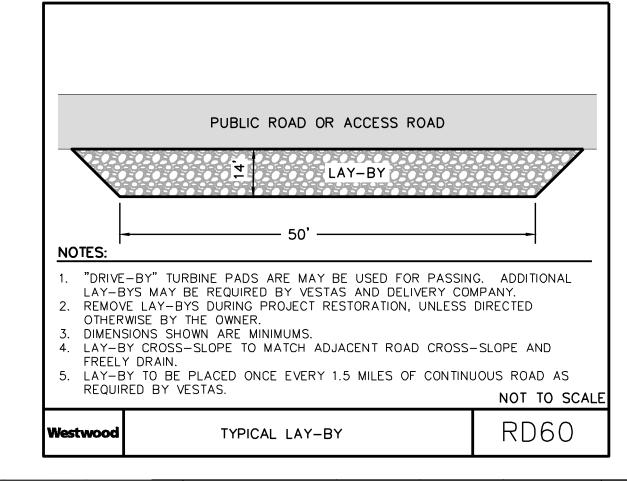
INSTALL PERIMETER

GRAVEL EDGE











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NORTHERN STATES POWER COMPANY
Dakota Range I & II Wind Farm
CODDINGTON AND GRANT COLINTY SD

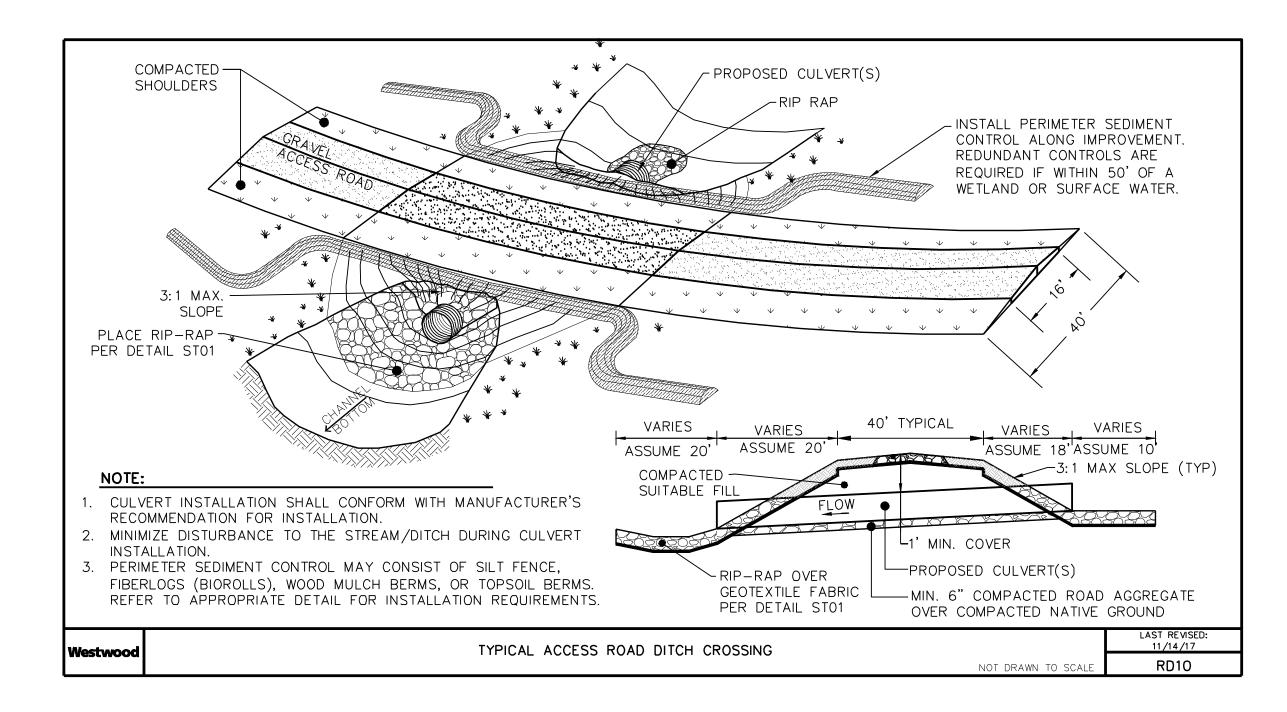
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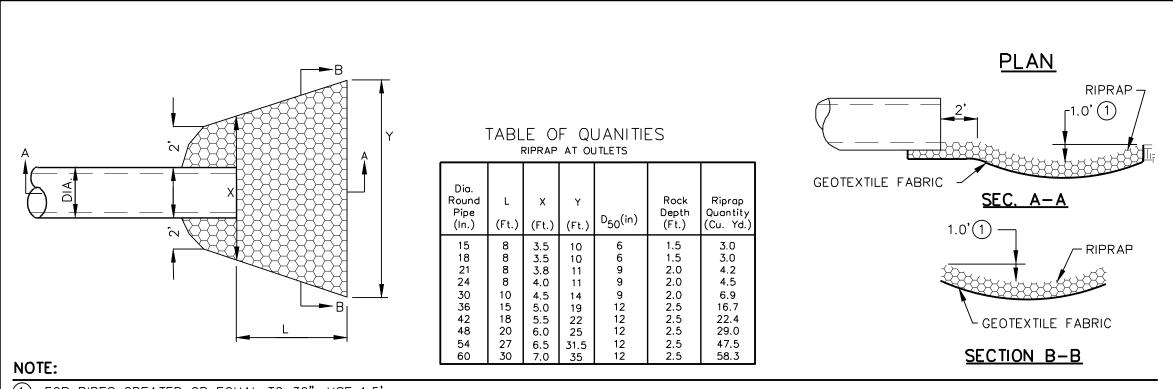
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PROVIDED FOR BY USING	Civil Access Roads
SAFETY PRACTICES, PROCEDURES, AND EQUIPMENT	

Construction Details	
NH-277478-5-2	

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NH-211410-3-2

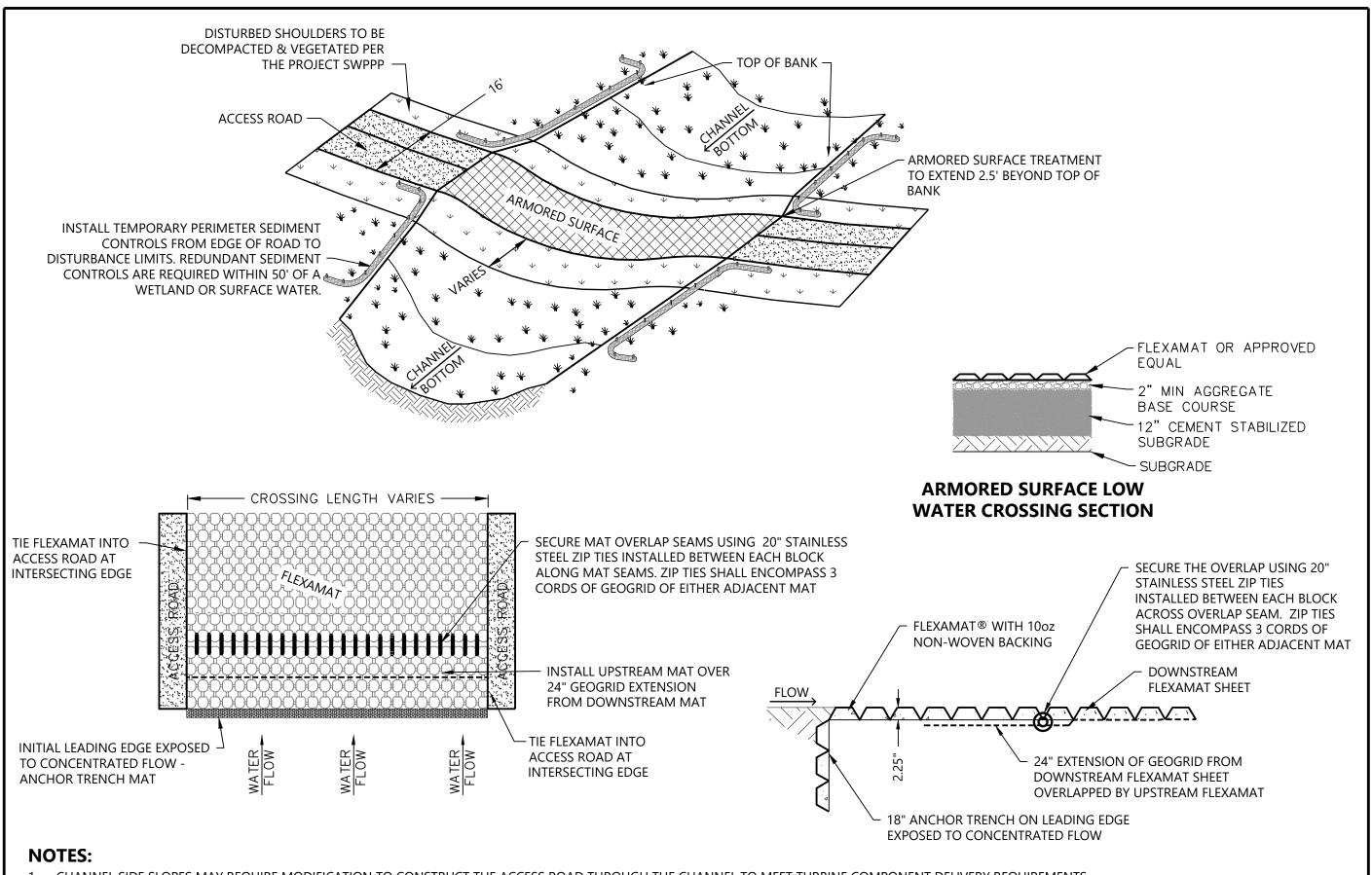




- 1. FOR PIPES GREATER OR EQUAL TO 30", USE 1.5'.
- 2. THE CONTRACTOR SHALL PLACE RIP RAP, PULVERIZED TOPSOIL, SEED AND WOODFIBER BLANKET IMMEDIATELY AFTER PIPE IS INSTALLED, EXTEND AREA TO MATCH
- 3. RIP RAP IS NOT REQUIRED AT CULVERTS LESS THAN 24" IF CULVERTS DRAIN INTO AN UNDISTURBED VEGETATED AREA (OR IF OUTLET IS STABILIZED WITH
- EROSION CONTROL BLANKET AND RAPID VEGETATION GROWTH IS ANTICIPATED).

  4. RIP RAP SHALL BE INSTALLED AT ALL CULVERTS 24" THROUGH 60" PER THIS DETAIL.
- 5. CULVERTS LARGER THAN 60" REQUIRE STILLING BASINS. CONTACT ENGINEER FOR ADDITIONAL INFORMATION AND DETAILS.
- 6. RIP RAP SHALL EXTEND THE ENTIRE WIDTH BETWEEN MULTIPLE CULVERTS.
- 7. RIP RAP MATERIAL SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE FHWA STANDARD SPECIFICATIONS FP-14 SECTION 705.02. CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH SECTION 251.

Westwood	PERMANENT RIP RAP OUTLETS	ST01
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- 1. CHANNEL SIDE SLOPES MAY REQUIRE MODIFICATION TO CONSTRUCT THE ACCESS ROAD THROUGH THE CHANNEL TO MEET TURBINE COMPONENT DELIVERY REQUIREMENTS.
- 2. THE ACCESS ROAD SHALL CROSS THE CHANNEL AS CLOSE TO 90-DEGREES AS POSSIBLE.
- 3. THE FINISHED ACCESS ROAD SURFACE SHALL BE AT AN ELEVATION THAT ALLOWS WATER TO FLOW THROUGH THE CHANNEL UNIMPEDED AND WITHOUT PONDING UPSTREAM OF ROAD OR ON THE ROAD SURFACE.
- 4. ARMORED SURFACE TREATMENT OF THE ROAD SURFACE SHALL EXTEND THROUGH THE CHANNEL BOTTOM AND UP THE CHANNEL SIDE SLOPES TO THE OBSERVED TOP OF BANK OF THE CHANNEL, UNLESS OTHERWISE NOTED
- 5. PERIMETER SEDIMENT CONTROL MAY CONSIST OF SILT FENCE, FIBERLOGS (BIOROLLS), WOOD MULCH BERMS, OR TOPSOIL BERMS. REFER TO APPROPRIATE DETAIL FOR INSTALLATION REQUIREMENTS.
- 6. REDUNDANT PERIMETER SEDIMENT CONTROLS ARE REQUIRED WITHIN 50' OF A WETLAND OR SURFACE WATER.
- 7. REFER TO DRAINAGE CROSSING SCHEDULE FOR ADDITIONAL INFORMATION.
  8. ARMORED SURFACE TREATMENTS SHALL BE INSTALLED DURING RESTORATION, OR AT THE CONTRACTOR'S DISCRETION, TO PROTECT THE SURFACE TREATMENT FROM HEAVY CONSTRUCTION TRAFFIC.
- 9. ARMORED SURFACE TREATMENT OPTIONS ARE DESIGNED BASED OFF THE SHEAR STRESS FROM THE 10-YEAR HYDRAULIC ANALYSIS. SHEAR STRESS IS CALCULATED BASED ON THE EXISTING SLOPE AND 10-YEAR FLOOD
- 10. PREPARE THE SUBGRADE OF THE LOW WATER CROSSING SO THAT FLOW WILL BE DIRECTED TO THE CENTER OF THE CROSSING. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND
- PROVIDE A FIRM UNYIELDING FOUNDATION FOR THE MATS.

  11. REFER TO MANUFACTURER'S INSTALLATION RECOMMENDATION.

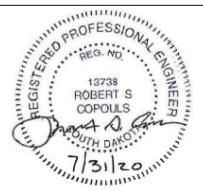
Westwood PERMANENT TURBINE ACCESS ROAD LOW WATER CROSSING ROAD LOW TO SCALE



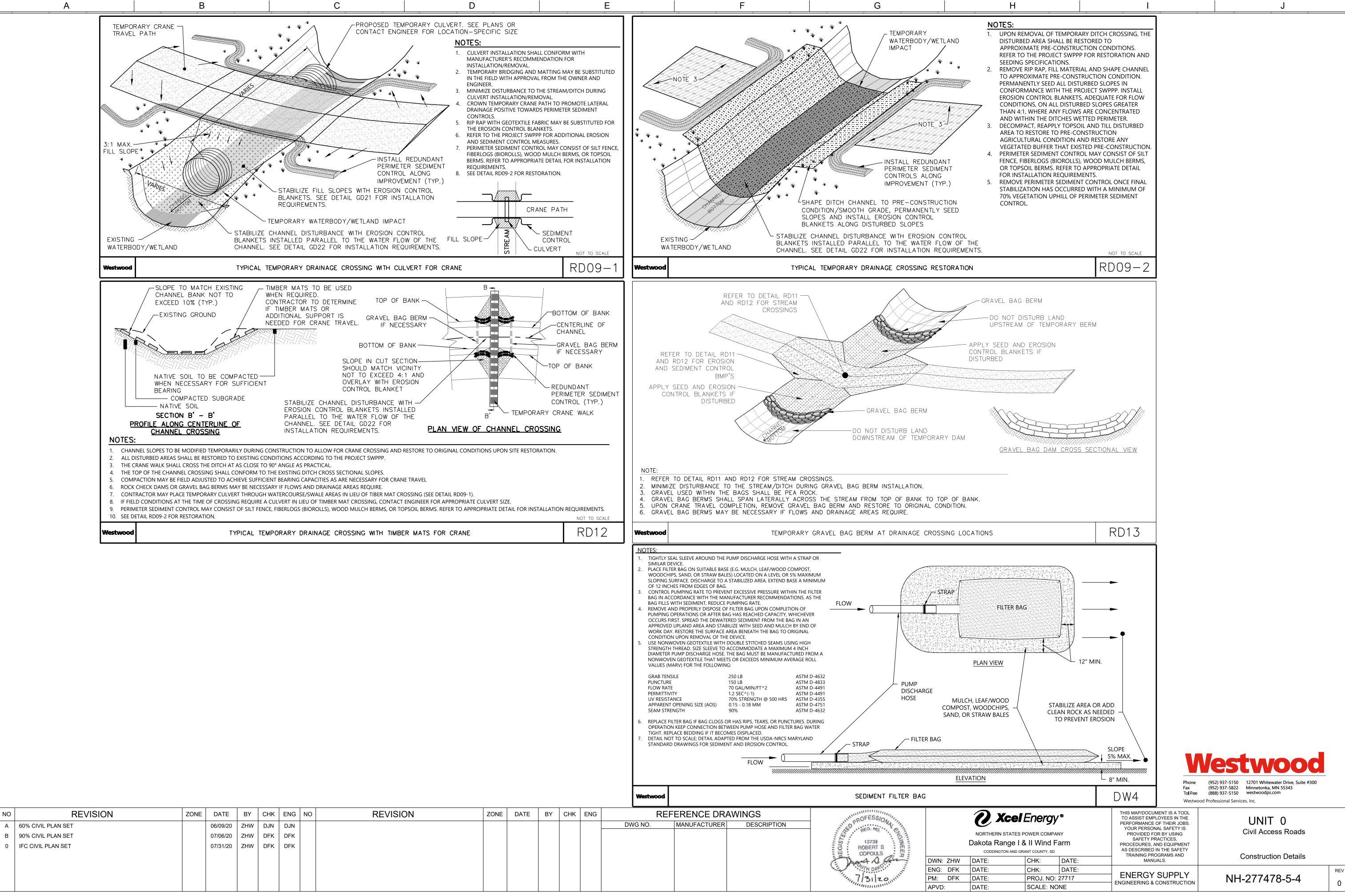
Phone (952) 937-5150 12701 Whitewater Drive, Suite #3
Fax (952) 937-5822 Minnetonka, MN 55343
Tol Free (888) 937-5150 westwoodps.com

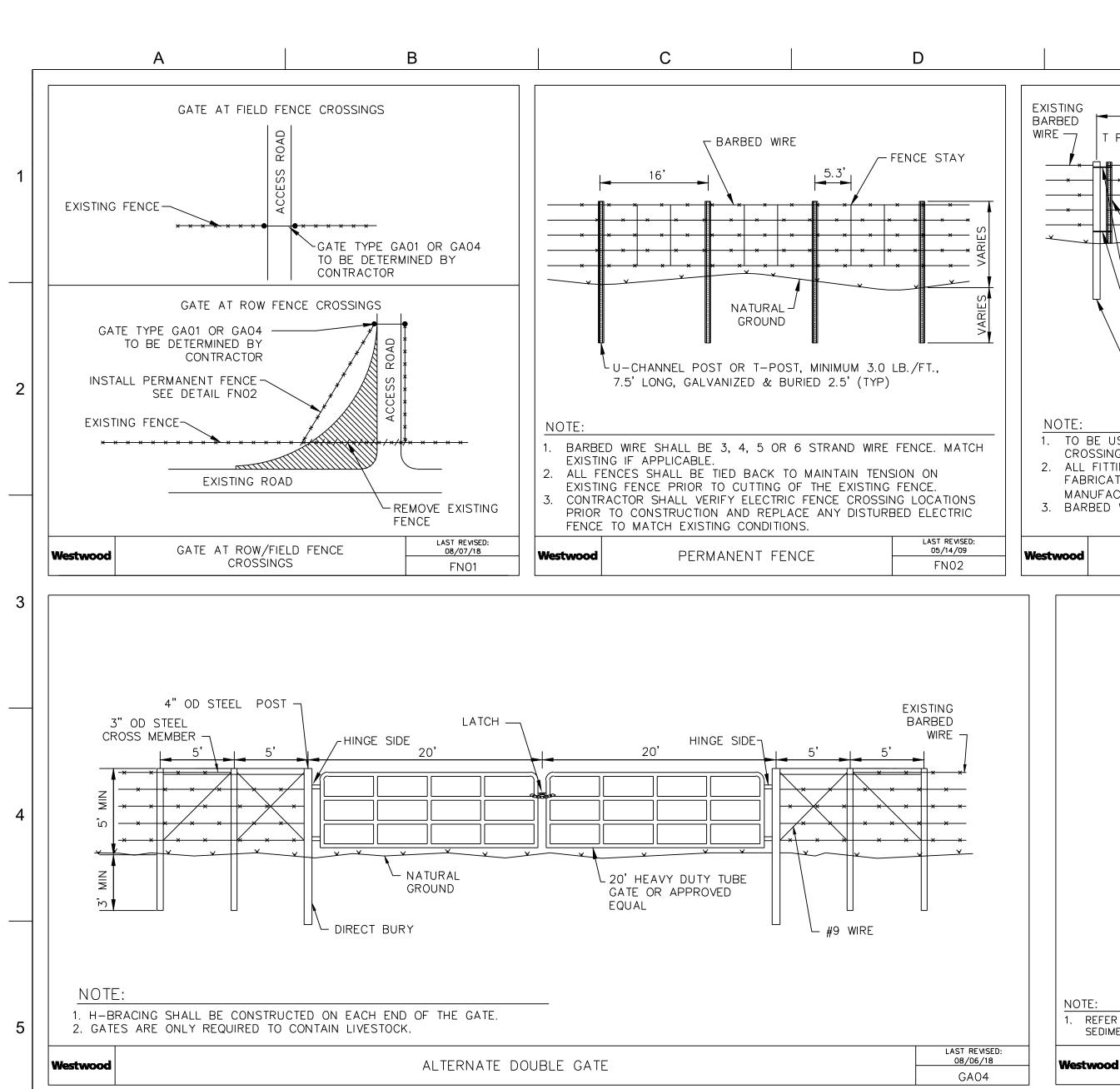
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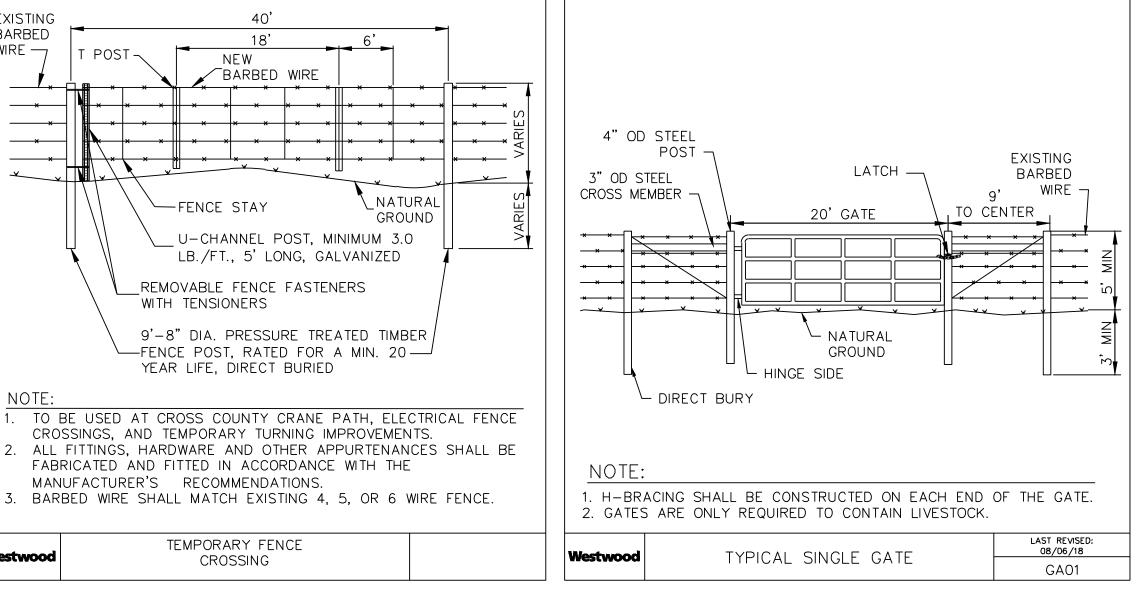


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		NORTHERN STATES			PROVIDED FOR BY USING SAFETY PRACTICES.	C1411 / 100033 1 10003						
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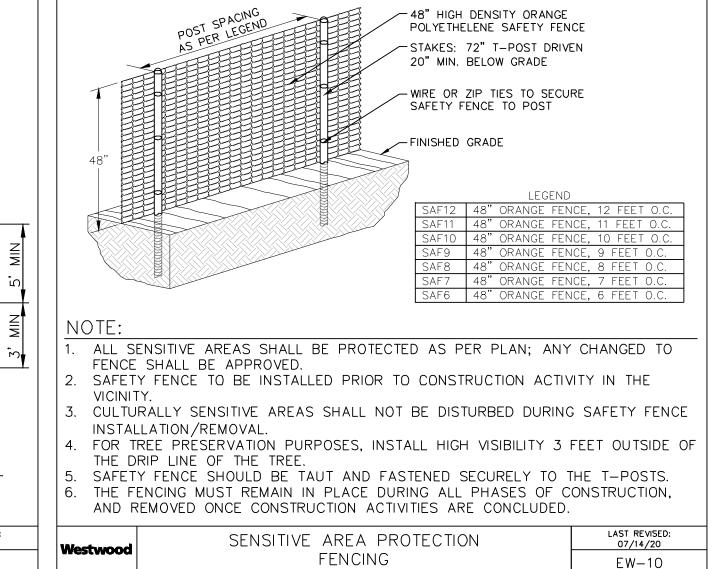


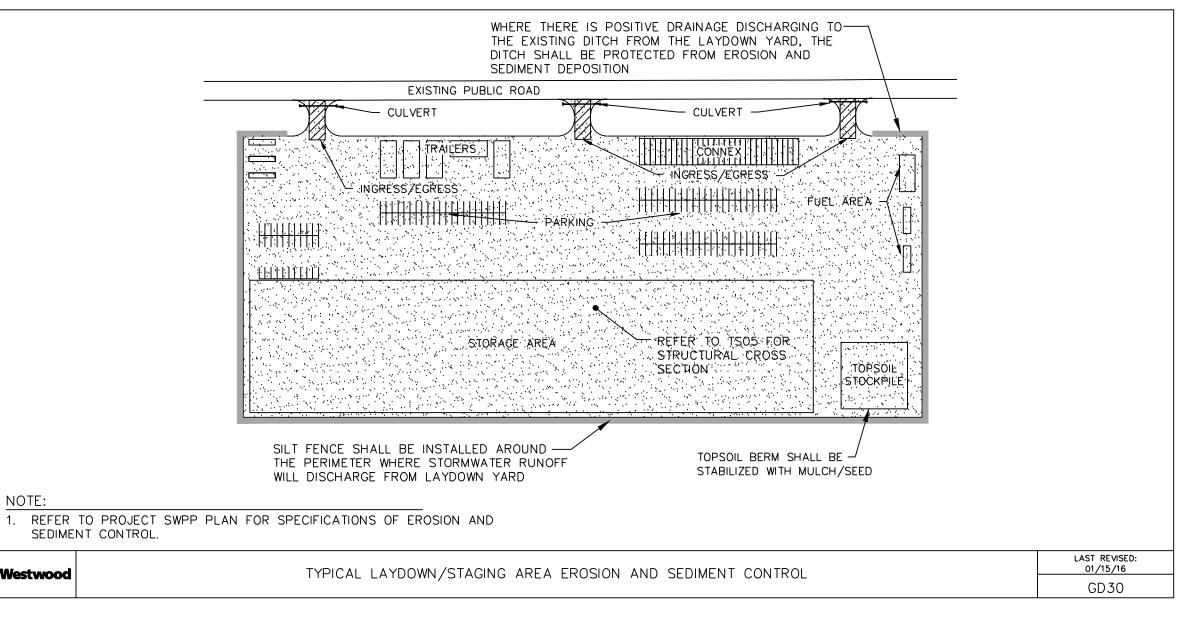


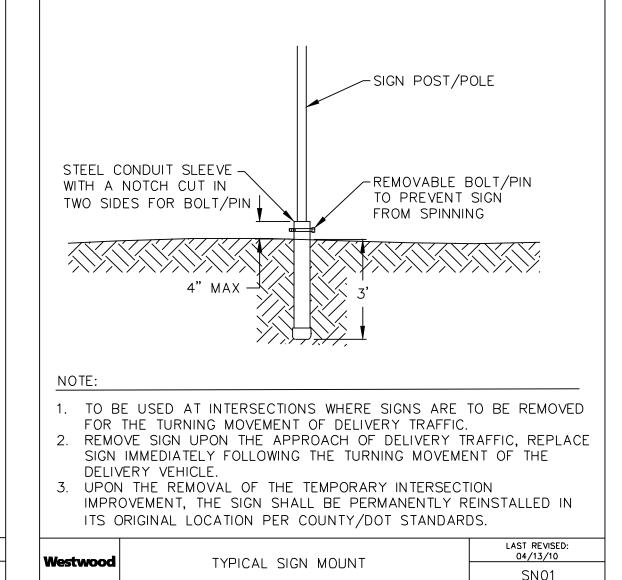
\* NOTE - ALL FENCE AND GATE STRUCTURES SHALL BE INSTALLED PER LAND LEASE AGREEMENTS.



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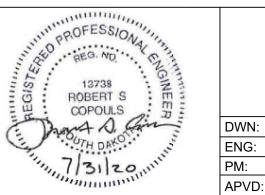






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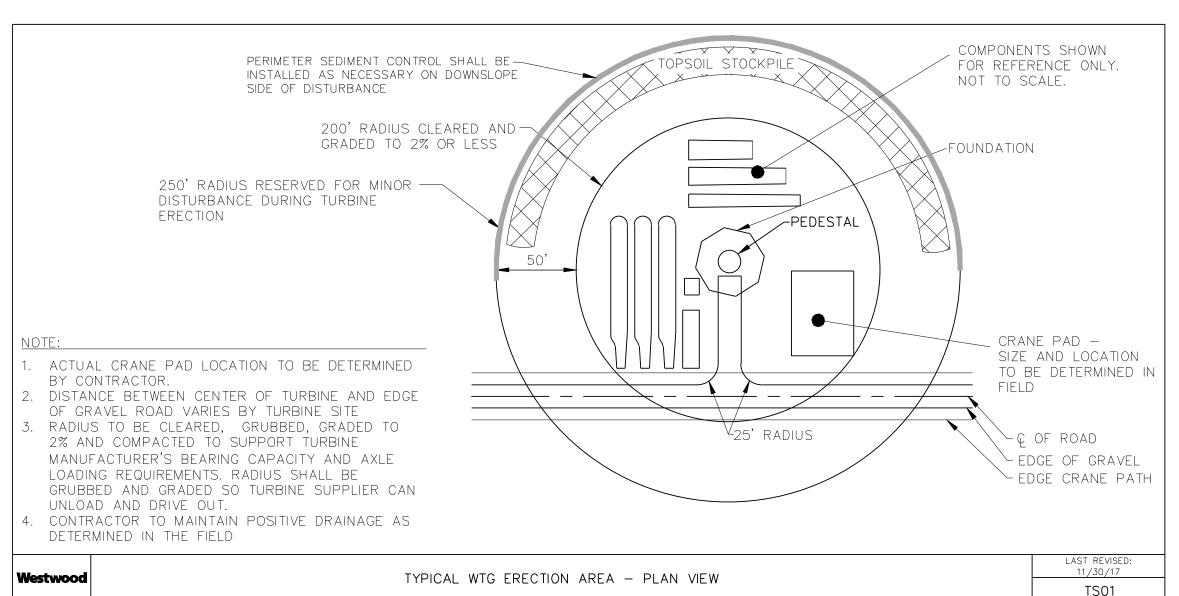
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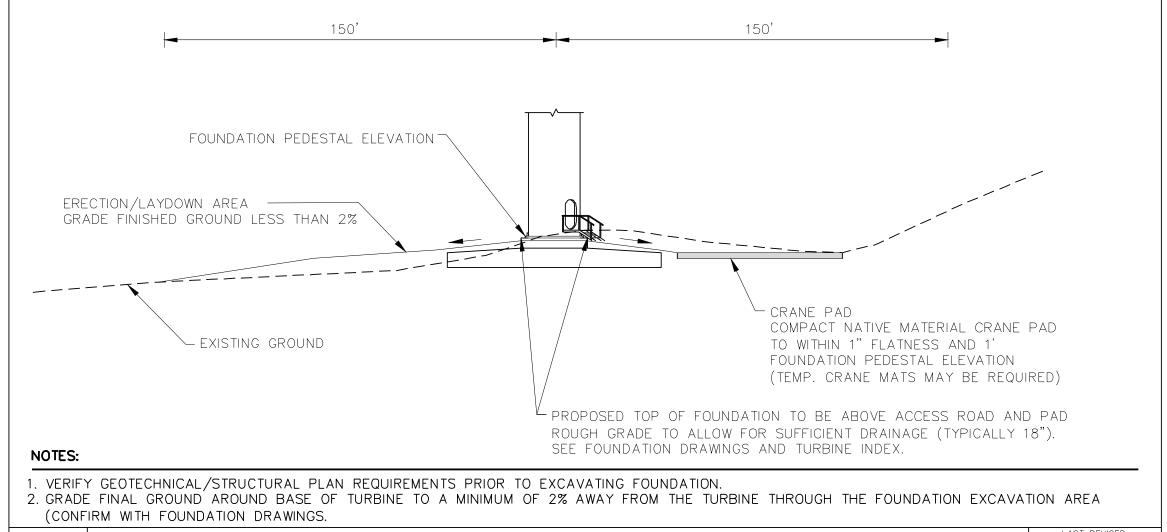
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	Dakota Range I &	ዪ II Wind F፣	arm	PROCEDURES, AND EQUIPMENT	
	CODDINGTON AND GR	ANT COUNTY, SD		AS DESCRIBED IN THE SAFETY TRAINING PROGRAMS AND	
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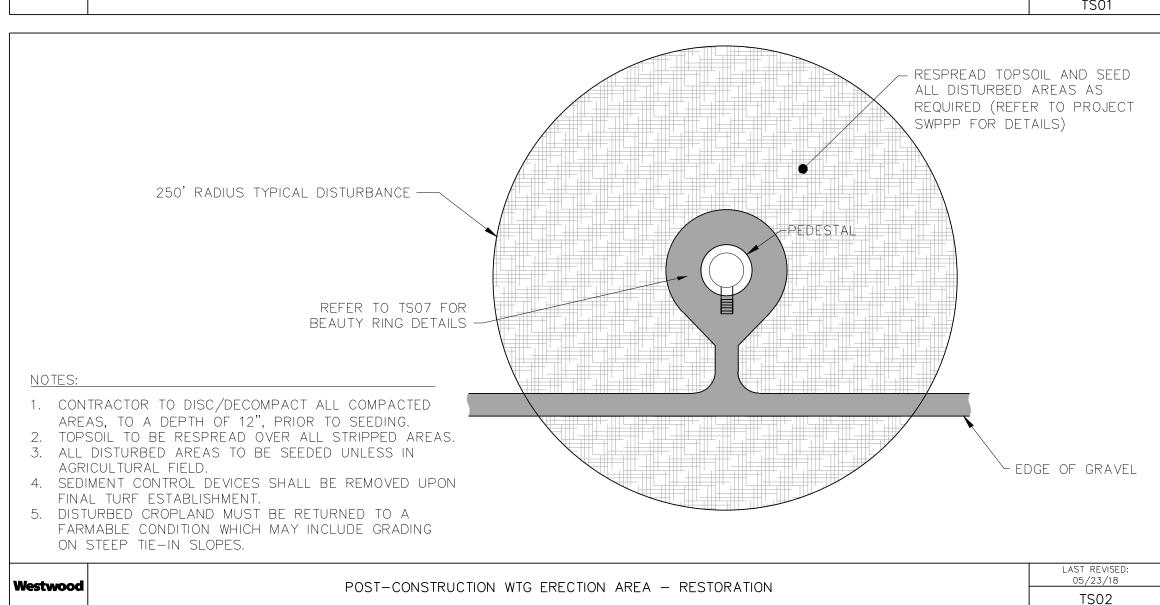
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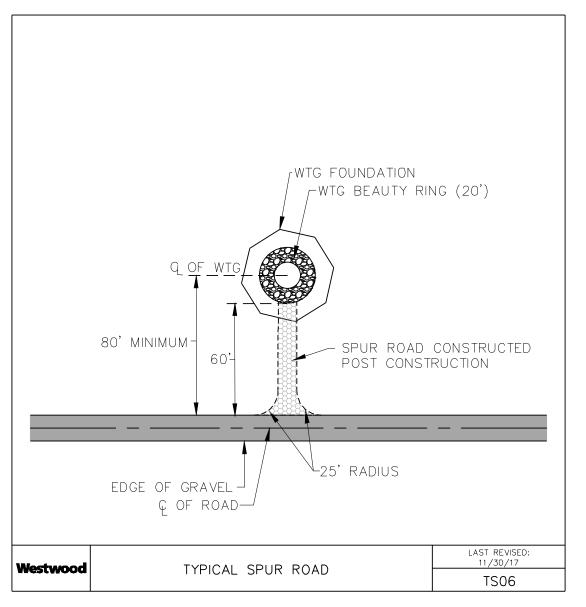
UNIT 0 Civil Access Roads Construction Details REV NH-277478-5-5 0



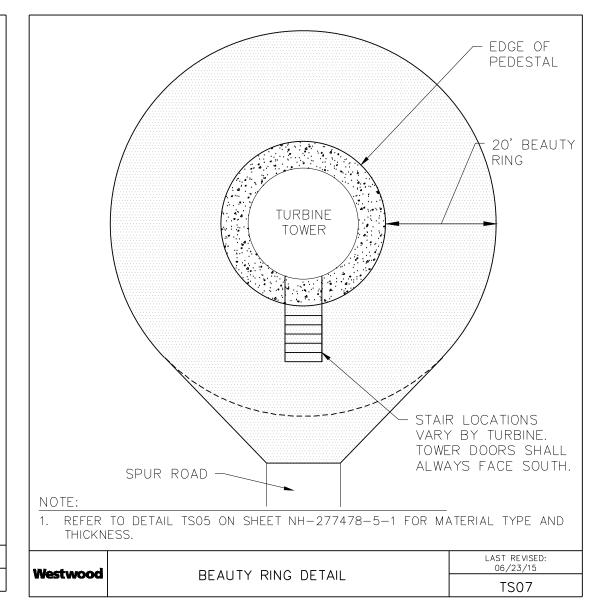


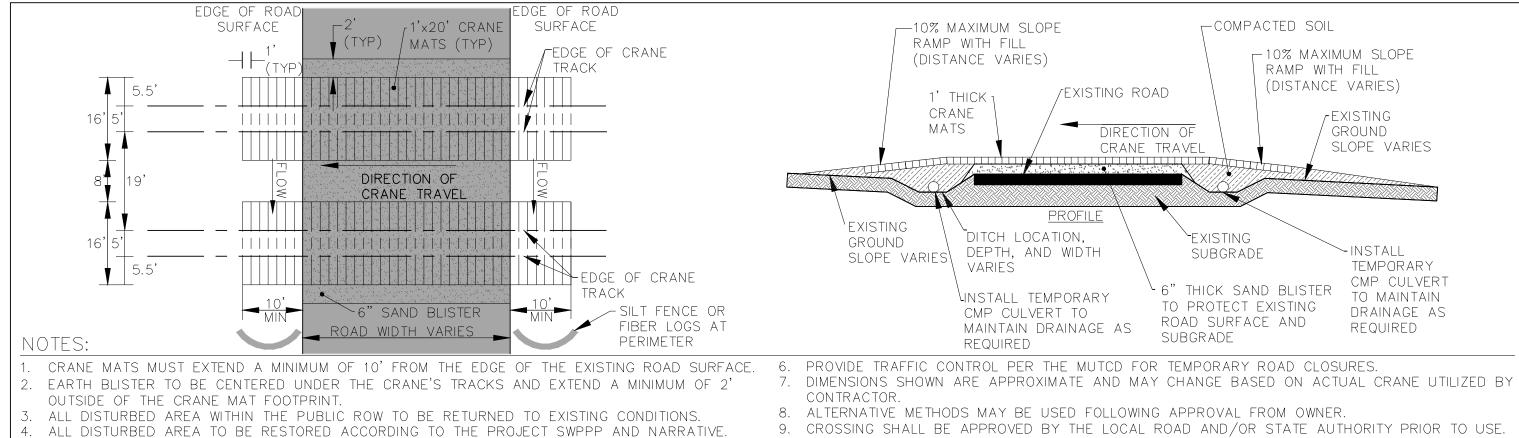
TYPICAL WTG ERECTION AREA - PROFILE VIEW





EP01





10. UPON REMOVAL OF CROSSING APPLY SEED AND EROSION CONTROL BLANKET TO FINAL GRADE TO

RESTORE DITCHES AND SLOPES TO PRECONSTRUCTION CONDITION.

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В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK									
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK									

TEMPORARY CRANE CROSSING FOR EXISTING ROADS

5. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY REPAIRS TO THE ROAD BASED ON DAMAGE.

CAUSED BY THE CRANE CROSSING.

Westwood

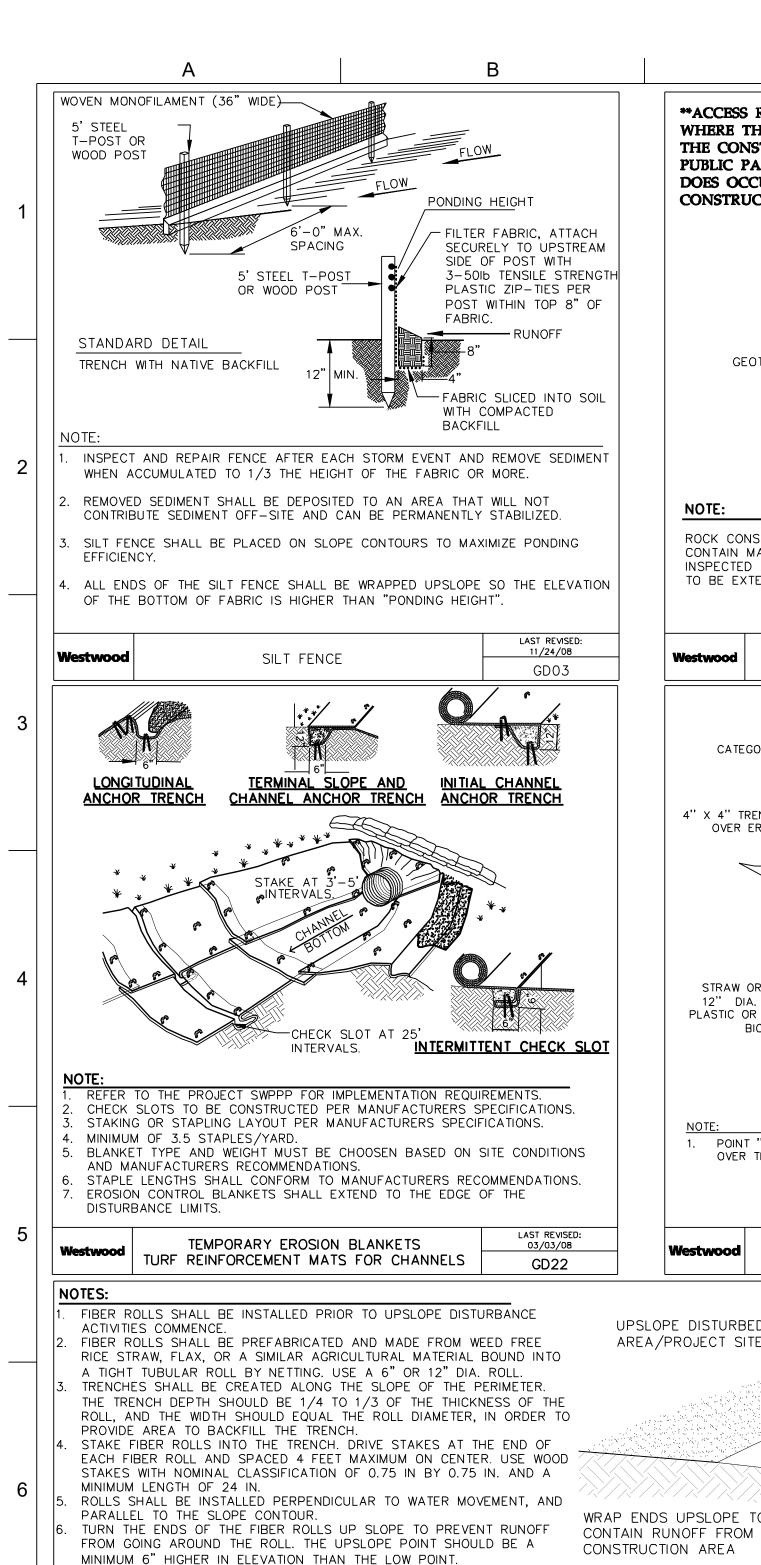
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				Westwood Pr	rofessional Services, Inc.		
	NORTHERN S  Dakota Rar	TEATES POWER COM TAGE   &     Wind IN AND GRANT COUNTY, S	PANY Farm	THIS MAP/DOCUMENT IS A TOOL TO ASSIST EMPLOYEES IN THE PERFORMANCE OF THEIR JOBS. YOUR PERSONAL SAFETY IS PROVIDED FOR BY USING SAFETY PRACTICES, PROCEDURES, AND EQUIPMENT AS DESCRIBED IN THE SAFETY TRAINING PROGRAMS AND	UNIT 0 Civil Access Roads		
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APVD:	DATE:	SCALE: I	NONE	ENGINEERING & CONSTRUCTION			

TS03

5/22/13

GD21



IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED A MINIMUM OF 6 INCHES, NOT ABUTTED.

FIBER ROLLS ENCASED WITH PLASTIC NETTING ARE USED FOR A TEMPORARY APPLICATION ONLY AND SHOULD BE REMOVED FOLLOWING

TEMPORARY INSTALLATIONS SHOULD ONLY BE REMOVED WHEN UP

LEVEL. IT IS RECOMMENDED THAT AT A MINIMUM, THE BMPS BE

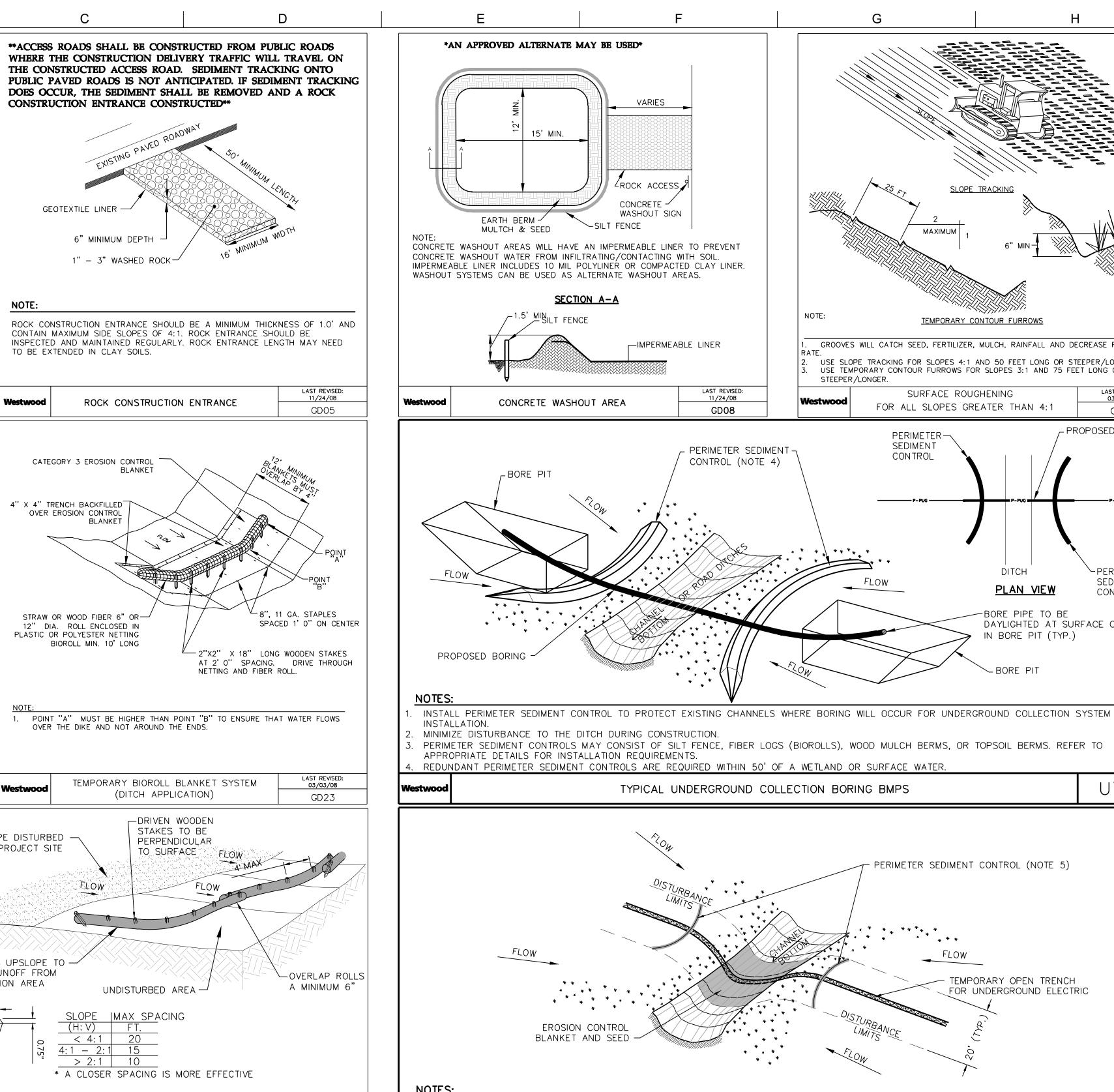
SOIL AND VEGETATION THAN IS NECESSARY

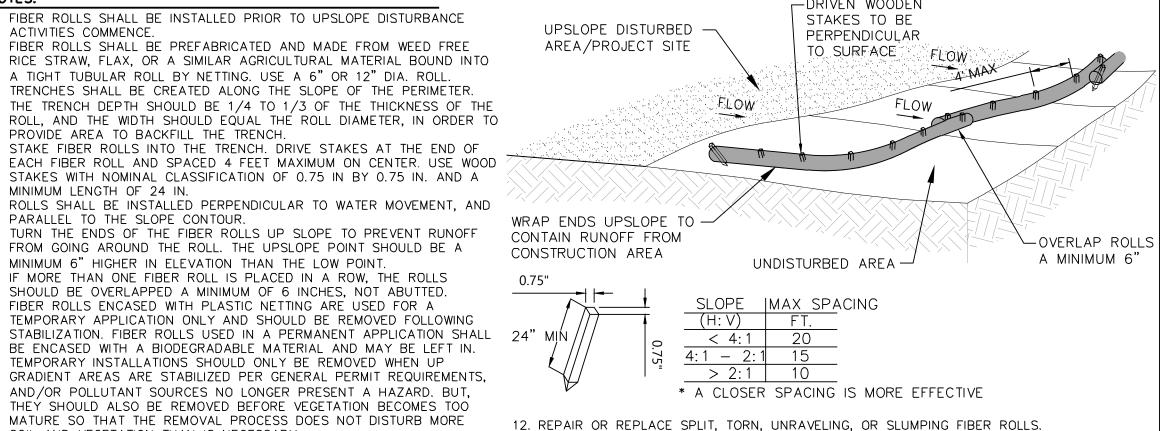
BE ENCASED WITH A BIODEGRADABLE MATERIAL AND MAY BE LEFT IN.

AND/OR POLLUTANT SOURCES NO LONGER PRESENT A HAZARD. BUT,

THEY SHOULD ALSO BE REMOVED BEFORE VEGETATION BECOMES TOO

EXTENDED RAIN EVENTS, AND AFTER THE CONCLUSION OF RAIN EVENTS.

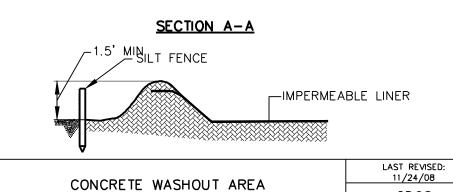




MATURE SO THAT THE REMOVAL PROCESS DOES NOT DISTURB MORE 13. SEDIMENT THAT ACCUMULATES UPSLOPE OF THE BMP SHOULD BE PERIODICALLY REMOVED 10. FIBER ROLLS MUST BE INSPECTED IN ACCORDANCE WITH GENERAL IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN PERMIT REQUIREMENTS FOR THE ASSOCIATED PROJECT TYPE AND RISK SEDIMENT ACCUMULATION REACHES ONE-THIRD THE DESIGNATED SEDIMENT STORAGE DEPTH. 14. RILLS OR GULLIES MAY BEGIN TO FORM FOLLOWING MAJOR STORM EVENTS WHERE RUNOFF INSPECTED WEEKLY, PRIOR TO FORECASTED RAIN EVENTS, DAILY DURING HAS OVERTOPPED THE FIBER ROLLS. THESE RILLS OR GULLIES SHOULD BE PROMPTLY

> 3/19/12 TYPICAL FIBER ROLLS FOR PERIMETER CONTROL OF CONSTRUCTION AREA LIMIT

\*AN APPROVED ALTERNATE MAY BE USED\* VARIES 15' MIN. ∠ROCK ACCESS CONCRETE WASHOUT SIGN FARTH BFRM -MULTCH & SEED CONCRETE WASHOUT AREAS WILL HAVE AN IMPERMEABLE LINER TO PREVENT CONCRETE WASHOUT WATER FROM INFILTRATING/CONTACTING WITH SOIL.



GD08

PERIMETER SEDIMENT

CONTROL (NOTE 4)

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

G

USE TEMPORARY CONTOUR FURROWS FOR SLOPES 3:1 AND 75 FEET LONG OR STEEPER/LONGER.

LAST REVISED: 03/03/08 SURFACE ROUGHENING FOR ALL SLOPES GREATER THAN 4:1 GD09 - PROPOSED BORING

DITCH

PLAN VIEW

BORE PIPE TO BE

IN BORE PIT (TYP.)

DAYLIGHTED AT SURFACE OR

-PERIMETER SEDIMENT

CONTROL

PERIMETER-SEDIMENT

CONTROL

SLOPE RATIO STAPLES/YARD 1.2 STAPLES 2:1 (H:V)> √1.7 STAPLES NON-WOVEN GEOTEXTILE FILTER FABRIC UNDER TYPICAL TREATMENT WET SLOPE LINING SOIL STABILIZATION ISOMETRIC VIEW REFER TO THE PROJECT SWPPP FOR IMPLEMENTATION REQUIREMENTS. MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICK AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL DO NOT STRETCH BLANKET TYPE AND WEIGHT MUST BE CHOSEN BASED ON SITE CONDITIONS, SDDOT PERFORMANCE FACTORS AND MANUFACTURERS RECOMMENDATIONS. STAPLE LENGTHS SHALL CONFORM TO MANUFACTURERS RECOMMENDATIONS. TYPICAL SLOPE STABILIZATION -TEMPORARY EROSION BLANKETS TURF

SPACING FOR STAPLES

NOTE: EROSION AND SEDIMENT CONTROL DETAILS PROVIDED ARE TO BE USED AT CONTRACTOR'S DISCRETION OR AS SPECIFIED IN THE PROJECT SWPPP. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN COMPLIANCE.

REINFORCEMENT MATS FOR SLOPES

# MINIMIZE DISTURBANCE TO THE DITCH DURING CONSTRUCTION. PERIMETER SEDIMENT CONTROLS MAY CONSIST OF SILT FENCE, FIBER LOGS (BIOROLLS), WOOD MULCH BERMS, OR TOPSOIL BERMS. REFER TO APPROPRIATE DETAILS FOR INSTALLATION REQUIREMENTS. 4. REDUNDANT PERIMETER SEDIMENT CONTROLS ARE REQUIRED WITHIN 50'OF A WETLAND OR SURFACE WATER. UT06 TYPICAL UNDERGROUND COLLECTION BORING BMPS PERIMETER SEDIMENT CONTROL (NOTE 5) \* \* \* \* \* \* \* FLOW FLOW TEMPORARY OPEN TRENCH FOR UNDERGROUND ELECTRIC

- BACKFILL TRENCH, PLACE EROSION CONTROL BLANKET AND SEED SAME DAY AS DISTURBANCE WITHIN CHANNEL FROM TOP OF BANK TO TOP OF BANK. MINIMIZE DISTURBANCE TO THE DITCH DURING CONSTRUCTION.
- RESTORE DISTURBED AREAS TO NATIVE CONDITIONS. REFER TO THE PROJECT SWPPP.

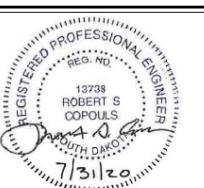
**EROSION CONTROL** 

BLANKET AND SEED

PERIMETER SEDIMENT CONTROLS MAY CONSIST OF SILT FENCE, FIBER LOGS (BIOROLLS), WOOD MULCH BERMS, OR TOPSOIL BERMS.

REDUNDANT PERIMETER SEDIMENT CONTROLS ARE REQUIRED WITHIN 50' OF A WETLAND OR SURFACE WATER.

Westwood TYPICAL UNDERGROUND COLLECTION OPEN TRENCH DRY SWALE CROSSING BMPS REFERENCE DRAWINGS QOFESSIO



# **?** Xcel Energy® NORTHERN STATES POWER COMPANY Dakota Range I & II Wind Farm

DWN: ZHW | DATE:

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APVD:

CODDINGTON AND GRANT COUNTY, SD

CHK:

PROJ. NO: 27717

SCALE: NONE

UT07

TRAINING PROGRAMS AND CHK: DATE: MANUALS.

DATE

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**ENGINEERING & CONSTRUCTION** 

Westwood Professional Services, Inc.

Civil Access Roads

**SWPPP** Details

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REV NH-277478-6 0

RD42 REVISION REVISION BY CHK ENG ZONE DATE BY CHK ENG NO ZONE DATE DWG NO. MANUFACTURER DESCRIPTION A 60% CIVIL PLAN SET 06/09/20 | ZHW | DJN | DJN | B 90% CIVIL PLAN SET 07/06/20 | ZHW | DFK | DFK 07/31/20 ZHW DFK DFK 0 | IFC CIVIL PLAN SET

# **ROAD DESIGN PARAMETERS**

1. THE ROAD HAS BEEN DESIGNED TO ACCOMMODATE LOADS DURING CONSTRUCTION AND LIGHT DUTY TRUCKS FOR LOW VOLUME USE IN NORMAL OPERATING CONDITIONS. THE

ROAD DESIGN SPECIFIED IS NOT INTENDED FOR ALL WEATHER USE FOR HEAVY DUTY, HIGH VOLUME CONSTRUCTION LOADS. 2. ROAD MAINTENANCE CAN BE EXPECTED DURING CONSTRUCTION AND OVER THE LIFE OF THE PERMANENT FACILITY.

3. ACCESS ROADS HAVE BEEN DESIGNED IN ACCORDANCE TO THE VESTAS CIVIL WORKS SPECIFICATION DATED 12/09/2017

# **EARTHWORK**

### GENERAL

- a. THIS SECTION DESCRIBES WORK RELATED TO EARTHWORK AND MAY INCLUDE CLEARING AND GRUBBING, EXCAVATIONS, SUBGRADE, STRUCTURAL FILL AND EMBANKMENTS, AGGREGATE PLACEMENT, GENERAL FILL, ANY ASSOCIATED INSPECTIONS AND TESTING OF EARTHWORK, AND ALL OTHER WORK NECESSARY TO COMPLETE EARTHWORK FOR
- b. THIS SECTION DOES NOT ADDRESS CEMENT STABILIZATION. REFER TO ACCESS ROAD CEMENT STABILIZATION SECTION ON SHEET NH-277478-7-2.
- c. THIS SECTION DOES NOT ADDRESS EARTHWORK ASSOCIATED WITH WTG FOUNDATIONS, CONCRETE PADS OR SLAB-ON-GRADE FOUNDATIONS (SUBSTATION AND O&M), INCLUDING FOUNDATION SUBGRADE PREPARATION OR BACKFILL. REFER TO STRUCTURAL DRAWINGS FOR FOUNDATION RELATED WORK.

# 2. SUBMITTALS

- a. THE FOLLOWING MATERIAL SUBMITTALS ARE REQUIRED FOR REVIEW BY THE ENGINEER OF RECORD (EOR) PER SPECIFIC PRODUCT AND PRE-PLACEMENT:
- a.1. STRUCTURAL FILL MATERIAL
- a.2. AGGREGATE a.3. GEOSYNTHETIC FABRIC
- a.4. CULVERTS
- a.5. LOW WATER CROSSING MATERIAL
- b. REFER TO TABLE 1 FOR REQUIRED TESTS FOR EACH SUBMITTAL.

### 3. MATERIALS

- a.1. STRUCTURAL FILL MATERIAL SHALL CONSIST OF NATIVE SAND, SILTY SAND, CLAYEY SAND, SANDY LEAN CLAY, OR LEAN CLAY WITH A LIQUID LIMIT LESS THAN 35 AND A
- a.1. STRUCTURAL FILL SHALL BE USED FOR EMBANKMENTS, TURBINE PADS, INTERSECTION IMPROVEMENTS, ACCESS ROADS, SPUR ROADS, MET TOWER ROADS, PUBLIC ROAD IMPROVEMENTS, LAYDOWN, SUBSTATION, AND O&M YARD.
- b. AGGREGATE MATERIAL
- b.1. PERMANENT APPLICATIONS
- b.1.1. AGGREGATE MATERIAL SHALL CONSIST OF MNDOT CLASS 5Q BASE AGGREGATE. SEE TABLE 2 FOR GRADATION AND REQUIREMENTS.
- b.1.2. AGGREGATE MATERIAL (MNDOT CLASS 5Q) INCLUDES ACCESS ROADS, SPUR ROADS, MET TOWER ROADS, PUBLIC ROAD IMPROVEMENTS, SUBSTATION (BASE AGGREGATE ONLY), O&M YARD, AND BEAUTY RINGS.
- b.2. TEMPORARY APPLICATIONS
- b.2.1. AGGREGATE MATERIAL SHALL CONSIST OF LOCALLY SOURCED SDDOT BASE AGGREGATE. SEE TABLE 3 FOR GRADATION.
- b.2.2. AGGREGATE MATERIAL (SDDOT BASE COURSE) INCLUDES TEMPORARY INTERSECTION IMPROVEMENTS, LAYDOWN YARD, BATCH PLANT, AND STAGING AREAS.
- c. GENERAL FILL
- c.1. GENERAL FILL MATERIAL SHALL BE ANY ON-SITE MATERIAL FREE OF FROST, VEGETATION, AND OTHER DELETERIOUS MATERIAL.
- c.2. GENERAL FILL SHALL BE USED FOR NON-STRUCTURAL FILL LANDSCAPING AREAS.
- d. GEOSYNTHETIC
- d.1. ROAD APPLICATIONS d.1.1. GEOSYNTHETIC SHALL CONSIST OF MIRAFI HP 270 GEOTEXTILE FABRIC OR ENGINEER APPROVED EQUAL.
- d.1.2. GEOSYNTHETIC SHALL BE USED FOR ACCESS ROADS (AS NEEDED), SPUR ROADS, MET TOWER ROADS, AND TEMPORARY INTERSECTION IMPROVEMENTS (AS NEEDED) AS SHOWN ON THE DRAWINGS.
- d.2. DRAINAGE APPLICATIONS
- d.2.1. GEOSYNTHETIC SHALL CONSIST OF MIRAFI 140N GEOTEXTILE FABRIC OR ENGINEER APPROVED EQUAL.
- d.2.2. GEOSYNTHETIC SHALL BE USED FOR RIPRAP AREAS AS SHOWN ON THE DRAWINGS.
- e. RIPRAP
- e.1. RIRRAP SHALL CONSIST OF ROCK THAT MEETS D50 REQUIREMENTS SPECIFIED IN THE PLANS AND SDDOT SPECIFICATION SECTION 830. e.2. RIPRAP SHALL BE USED AS SHOWN ON THE PLANS.
- f. CULVERTS
- f.1. ALL PERMANENT CULVERTS ARE PLANNED TO BE A MINIMUM 18" IN DIAMETER AND MANUFACTURED OF A MINIMUM 16-GAGE CORRUGATED METAL PIPE WITH NO END TREATMENTS UNLESS OTHERWISE NOTED OR REQUIRED BY LOCAL JURISDICTION.
- f.2. TEMPORARY CULVERTS 54" AND LARGER FOR CRANE CROSSINGS SHALL BE A MINIMUM OF 12-GAGE CORRUGATED METAL PIPE.
- f.3. FILL MATERIAL OVER CULVERTS SHALL FOLLOW THE STRUCTURAL FILL REQUIREMENTS OUT LINED IN TABLE 1 FOR ACCESS ROAD FILL. f.4. CULVERTS TO BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND WITH 1' MINIMUM COVER.
- g. LOW WATER CROSSINGS
- g.1. ALL PERMANENT LOW WATER CROSSINGS SHALL CONSIST OF FLEXAMAT WITH NON-WOVEN BACKING OR AN APPROVED EQUAL.

# 4. CONSTRUCTION

- a. CLEARING AND GRUBBING
- a.1. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE 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
- b. EXCAVATIONS
- b.1. TOPSOIL SHALL BE STRIPPED FROM ALL ROADWAY AREAS AT A MINIMUM DEPTH OF ±4 INCHES. TOPSOIL SHALL NOT BE STRIPPED OUTSIDE OF THE DESIGNATED DISTURBANCE AREAS.
- b.2. 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. SEEDING AND MULCHING TO BE UNDER THE DIRECTION OF THE PROPERTY OWNER.

# c. SUBGRADE

- c.1. SUBGRADE SOIL BELOW FILL SHALL BE COMPACTED AND PROOF-ROLLED IN ACCORDANCE WITH TABLE 1.
- c.2. FOR CEMENT STABILIZED SUBGRADES, REFER TO ACCESS ROAD CEMENT STABILIZATION SECTION ON SHEET NH-277478-7-2
- c.3. GEOTEXTILE FABRIC SHALL BE PLACED AFTER SUBGRADE TESTING REQUIREMENTS AS SPECIFIED IN TABLE 1. GEOTEXTILE FABRIC SHALL BE INSTALLED PER MANUFACTURES RECOMMENDATION.
- d. STRUCTURAL FILL AND EMBANKMENTS
- d.1. FILL MAY BE PLACED ABOVE GRADE AFTER TOPSOIL STRIPPING, IN LOOSE LIFTS NOT EXCEEDING 1 FOOT, AND COMPACTED IN ACCORDANCE WITH TABLE 1.
- d.2. SIDE SLOPES GREATER THAN 4:1 WILL NOT BE PERMITTED, UNLESS OTHERWISE NOTED ON THE PLAN.
- e. AGGREGATE PLACEMENT
- e.1. SUBSEQUENT TO THE SUBGRADE PREPARATION, THE AGGREGATE BASE SHALL BE PLACED, COMPACTED, AND TESTED TO THE SPECIFICATIONS IDENTIFIED IN TABLE 1. f. GENERAL FILL
- f.1. CLEAN ON-SITE SOILS OR APPROVED IMPORTED MATERIAL MAY BE USED AS FILL MATERIAL FOR GENERAL SITE GRADING IN NON-STRUCTURAL FILL LANDSCAPING AREAS. THIS MATERIAL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 1 FOOT.
- g. SEEDING, MULCHING, AND STABILIZATION g.1. FOLLOWING THE PLACEMENT OF THE AGGREGATE AND APPROVAL OF THE TESTING, TOPSOIL SHALL BE DISTRIBUTED OVER THE EXPOSED DISTURBED AREAS, EXCLUDING THE
- AGGREGATE DRIVING SURFACE.

- g.2. FOLLOWING SITE GRADING OPERATIONS, TOPSOIL CAN BE USED TO BRING THE GROUND ELEVATIONS UP TO THE DESIGNED FINISHED GRADE ELEVATIONS.
- q.3. THE TOPSOIL SHALL HAVE TEMPORARY AND PERMANENT STABILIZATION MEASURES ESTABLISHED IN ACCORDANCE WITH THE PROJECT SWPPP.

# TABLE 1: MATERIAL TESTING SCHEDULE

	Location	Required Test	ASTM Standard	Frequency	Specified Criteria	
		Standard Proctor	ASTM D-698	1 per soil type as determined by independent testing agency	N/A	
	Spur Roads	Nuclear Density	ASTM D-6938	1 per 500 LF (minimum 3 per road)	95% of Standard Proctor Test	
Subgrade (Non-cement Stabilized)	Met Tower Roads O&M Yard	Proof Roll	N/A	Entire Length / Area	No rutting greater than 1.5" and no "pumping" of the sebeneath/behind the loaded truck. See testing requirement for additional information.	
	Temporary Roads Temporary Intersection Improvements Laydown Yard Batch Plant Turbine Pads (Staging Areas)	Proof Roll	N/A	Entire Length / Area	No rutting greater than 1.5" and no "pumping" of the separate than 1.5" and	
	Crane Walks Crane Pad	By Others or Contractor Means and Methods	N/A	By Others or Contractor Means and Methods		
	Source (On -Site Borrow) (Imported Fill) (Common Excavation)	Grain Size Analysis Standard Proctor Moisture Content Atterberg Limits	ASTM C-136  ASTM D-698  ASTM D-2216  ASTM D-4318	1 per 10,000 CY.	Atterburg Limits (LL max = 35, Pl max =15)	
Structural Fill	Embankments Turbine Pads (Staging Areas) Intersection Improvements Access Roads Spur Roads Met Tower Roads Public Road Improvements	Nuclear Density	ASTM D-6938	1 test per 2,500 SF per 1' lift.	95% of Standard Proctor Test Moisture Content within 2% of optimum	
	Substation O&M Yard Laydown Yard	Proof Roll	N/A	Entire Length / Area	No rutting greater than 1.5" and no "pumping" of the so beneath/behind the loaded truck. See earthwork specifications for additional information.	
			T			
	Quarry Testing	Grain Size Analysis Atterberg Limits	ASTM C-136 ASTM D-4318	Per source from quarry.	See Tables 1 and 2 See Tables 1 and 2	
	(Pre-Placement)	Los Angeles Abrasion	ASTM C-131	Sample from site every 2,500 CY.	40% Max Loss	
Aggregate Material	Access Roads Spur Roads Met Tower Roads Public Road Improvements Substation (Base Aggregate Only) O&M Yard Beauty Rings Temporary Intersection Improvements Laydown Yard Batch Plant	Proof Roll	N/A	Entire Length / Area	No rutting greater than 1.5" and no "pumping" of the so beneath/behind the loaded truck. See earthwork specifications for additional information.	
General Fill	Non structural fill landscaping areas	NI/A	N/A	N / A	NI/A	
General Fill	Non-structural fill landscaping areas	N/A	N/A	N/A	N/A	

G

# 5. INSPECTIONS AND TESTING

- a. TESTING SHALL BE PERFORMED BY A DESIGNATED INDEPENDENT TESTING AGENCY
- b. TESTING AND INSPECTION RECORDS SHALL BE MAINTAINED BY THE CONTRACTOR AND MADE ACCESSIBLE TO THE CIVIL EOR
- b.1. THE ENGINEER MAY REVIEW THE TESTING AND INSPECTION RECORDS TO CHECK CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONSTRUCTION CONTRACTOR FROM THE RESPONSIBILITY FOR CORRECTING DEFECTIVE WORK.
- c. REFER TO TABLE 1 FOR PROJECT TESTING SPECIFICATIONS
- d. PROOF ROLLING: PROOF ROLLING SHALL BE PERFORMED IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER OR QUALIFIED GEOTECHNICAL REPRESENTATIVE
- d.1. SUBGRADE AND AGGREGATE BASE SHALL BE PROOF ROLLED USING A FULLY LOADED TANDEM AXLE DUMP TRUCK WITH A MINIMUM GROSS WEIGHT OF 25 TONS OR A FULLY LOADED WATER TRUCK WITH AN EQUIVALENT AXLE LOADING

SIEVE SIZE	PERCENT PASSING
2"	-
1 <sub>2</sub> "	100
1"	-
3/4"	70-100
3/8"	45-90
NO. 4	35-80
NO. 10	20-65
NO. 40	10-35
NO. 200	3-10

MAX SHALE, IF NO. 200 > 7% BY MASS = 7% MINIMUM CRUSHING REQUIREMENT = 10%

GRADATION HAS BEEN OBTAINED FROM THE 2018 MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION BOOK, SECTION 3138.2.

SIEVE SIZE	PERCENT PASSING
1"	100
3/4"	80-100
1/2"	68-91
NO. 4	46-70
NO. 8	34-58
NO. 40	13-35
NO. 200	3-12

MEET FOLLOWING REQUIREMENTS PER 882.2

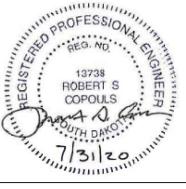
LIQUID LIMIT (MAX) = 25 PLASTICITY INDEX = 0-6 L.A ABRASION (% MAX) = 40%

GRADATION HAS BEEN OBTAINED FROM THE 2015 SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION BOOK.



Phone (952) 937-5150 12701 Whitewater Drive, Suite #300 (952) 937-5822 Minnetonka, MN 55343 Toll Free (888) 937-5150 westwoodps.com Westwood Professional Services, Inc.

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ENGINEERING & CONSTRUCTION

UNIT 0 Civil Access Roads

Construction Notes

NH-277478-7-1

# **ACCESS ROAD CEMENT STABILIZATION**

# 1. GENERAL

a. THIS SECTION DESCRIBES WORK RELATED TO ACCESS ROAD SUBGRADE SOIL STABILIZED WITH PORTLAND CEMENT. THIS SECTION DOES NOT INCLUDE CEMENT STABILIZATION FOR OTHER PROJECT INFRASTRUCTURE, SUCH AS CRANE WALKS, CRANE PADS, LAYDOWN YARDS, OR SUBGRADE BELOW FOUNDATIONS, UNLESS SPECIFICALLY STATED IN THESE PLANS.

b. IT IS EXPECTED THAT AGGREGATE-SURFACED ACCESS ROADS WILL REQUIRE ONGOING MAINTENANCE DURING CONSTRUCTION AND OVER THE LIFE OF THE PERMANENT FACILITY TO KEEP THEM IN A SERVICEABLE CONDITION, REGARDLESS OF THE AGGREGATE THICKNESS AND SUBGRADE PREPARATION. IT IS NOT PRACTICAL TO DESIGN AN AGGREGATE SECTION OF ADEQUATE THICKNESS THAT PREVENTS ONGOING MAINTENANCE. RUTS, DEPRESSIONS, AND SOFT SUBGRADE SHOULD BE REPAIRED AS NEEDED TO FACILITATE TRAFFIC. THROUGHOUT THE OPERATIONAL LIFE OF THE PROJECT, ADDITIONAL AGGREGATE MAY BE PLACED IN RUTS AND DEPRESSIONS, OR THE ENTIRE AGGREGATE SECTION AND SOFT SUBGRADE MAY BE REMOVED AND REPLACED WITH A NEW AGGREGATE

### 2. SUBMITTALS

a. SUBMIT A QUALITY CONTROL PLAN TO ENGINEER FOR REVIEW ONLY, PRIOR TO CONSTRUCTION ACTIVITIES. THE PLAN SHOULD INCLUDE THE FOLLOWING ITEMS, AT A MINIMUM:

- a.1. QUALIFICATIONS FOR EXPERIENCED PERSONNEL OVERSEEING STABILIZATION
- a.2. REPRESENTATIVE MOISTURE-DENSITY RELATIONSHIP (PROCTOR) TESTS
- a.3. STABILIZATION DEPTH AND WIDTH
- a.4. CEMENT AND MOISTURE APPLICATION RATE MONITORING
- a.5. TEMPERATURE MONITORING
- a.6. MOISTURE/COMPACTION TESTS
- a.7. DYNAMIC CONE PENETROMETER (DCP) TEST EQUIPMENT AND PROCEDURE
- a.8. PROOF-ROLL VEHICLE TYPE AND WEIGHT
- a.9. SURFACE MOISTURE CONTROL FOR CURING
- a.10. CORRECTIVE ACTION PLAN IF SPECIFICATION IS NOT MET

b. SUBMIT A TEST STRIP CONSTRUCTION PLAN, INCLUDING THE FOLLOWING ITEMS, AT A MINIMUM:

- b.1. TEST STRIP LOCATIONS AND LENGTHS
- b.2. CEMENT APPLICATION RATES
- b.3. QUALITY CONTROL PLAN

- a. CEMENT: ANY TYPE OF PORTLAND CEMENT THAT COMPLIES WITH ASTM C150.
- b. WATER: RELATIVELY CLEAN AND FREE FROM HARMFUL AMOUNTS OF ALKALIES, ACIDS, OR ORGANIC MATTER.
- c. AGGREGATE: REFER TO CONSTRUCTION NOTES ON SHEET NH-277478-7-1
- d. GEOTEXTILE: REFER TO CONSTRUCTION NOTES ON SHEET NH-277478-7-1.

# 4. CONSTRUCTION

a. TEST STRIPS

- a.1. AT THE START OF ACCESS ROAD CONSTRUCTION, CONTRACTOR SHALL CONSTRUCT TEST STRIPS, EACH 300 LF, AT A MINIMUM OF THREE DIFFERENT CEMENT CONTENTS CHOSEN BY THE CONTRACTOR (FOR EXAMPLE 5%, 7%, AND 9%). TEST STRIPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATIONS WITHIN THIS SECTION.
- a.2. STABILIZATION MAY PROCEED USING THE CEMENT APPLICATION RATE THAT PRODUCES PASSING INSPECTION AND TESTING RESULTS FOR THE TEST STRIP. DO NOT PROCEED WITH STABILIZATION IF THE INSPECTION AND TESTING REQUIREMENTS ARE NOT MET. CONSTRUCT ADDITIONAL TEST STRIPS WITH HIGHER CEMENT APPLICATION RATES UNTIL PASSING INSPECTION AND TESTING REQUIREMENTS.

# b. PREPARATION

- b.1. STRIP TOPSOIL TO A MINIMUM DEPTH OF 4 INCHES. STRIPPING DEPTH MAY NEED TO EXTEND DEEPER TO REMOVE ROOTS/ORGANICS AND ACHIEVE THE REQUIRED CEMENT STABILIZED SUBGRADE STRENGTH. ROOTS SMALLER THAN 1/2 INCH DIAMETER ARE ACCEPTABLE.
- b.2. SHAPE SUBGRADE TO THE PROPER WIDTH AND GRADE.
- b.3. THE CONSTRUCTION MATERIALS TESTING COMPANY SHALL EVALUATE SUBGRADE MATERIAL TO DETERMINE IF A REPRESENTATIVE MOISTURE-DENSITY RELATIONSHIP (PROCTOR) TEST EXISTS, AND IF NOT A NEW PROCTOR TEST SHALL BE PERFORMED.
- b.4. DETERMINE THE IN-SITU MOISTURE CONTENT OF THE SUBGRADE SHORTLY BEFORE SPREADING CEMENT USING A NUCLEAR DENSITY GAUGE OR OTHER SUITABLE DEVICE. PERFORM ADDITIONAL MOISTURE CONTENT CHECKS IF WEATHER CONDITIONS OR SOIL CONDITIONS CHANGE. SEE BEST PRACTICES FOR SUBGRADE MOISTURE RECOMMENDATIONS.
- b.5. DO NOT STABILIZE SUBGRADE THAT IS FROZEN. REFER TO BEST PRACTICES FOR ADDITIONAL TEMPERATURE RECOMMENDATIONS.

# c. SPREADING CEMENT

- c.1. APPLY CEMENT AT A RATE THAT ENSURES THE WEIGHT SPREAD IS WITHIN 10% OF THE DESIRED AMOUNT. FURNISH A SQUARE-YARD CLOTH, SCALES, WEIGHT TICKETS, AND/OR PERSONNEL TO CHECK THE SPREAD RATE OF CEMENT PLACED.
- c.2. UNIFORMLY SPREAD CEMENT TO THE FULL WIDTH OF THE AREA TO BE COVERED.
- c.3. CEMENT APPLICATION RATE MAY NEED TO BE ADJUSTED THROUGHOUT CONSTRUCTION TO ACHIEVE DESIRED RESULTS BASED ON FIELD CONDITIONS. d. MIXING
- d.1. BEGIN MIXING AS SOON AS PRACTICAL AFTER THE CEMENT IS SPREAD, AND CONTINUE UNTIL A HOMOGENEOUS AND UNIFORM MIXTURE IS PRODUCED TO THE DEPTH AND WIDTH SPECIFIED IN THE DESIGN DOCUMENTS.
- d.2. MIX AT A SPEED THAT ENSURES A UNIFORM MIXTURE OF SOIL, CEMENT, AND WATER. d.3. PULVERIZE SUBGRADE DURING MIXING PROCESS TO AVOID LARGE CLODS OF SOIL. REFER TO BEST PRACTICES FOR RECOMMENDATIONS.
- d.4. APPLY WATER THROUGH A METERING DEVICE SUCH AS THE RECLAIMER TO UNIFORMLY DISTRIBUTE THE PROPER AMOUNT OF WATER. SEE BEST PRACTICES FOR SUBGRADE MOISTURE RECOMMENDATIONS.
- d.5. IF STABILIZATION HALTS AND NEEDS TO BE RESUMED AT A LATER TIME, CONSTRUCTION JOINTS SHALL BE FORMED BY CUTTING BACK INTO THE
- COMPLETED WORK A MINIMUM OF 2 FEET. e. COMPACTION AND FINISHING
- e.1. BEGIN COMPACTION IMMEDIATELY AFTER SOIL, CEMENT, AND WATER HAVE BEEN MIXED, TYPICALLY WITHIN 45 MINUTES OF MIXING. COMPLETE COMPACTION WITHIN 2 HOURS.
- e.2. COMPACT THE STABILIZED SUBGRADE TO THE SPECIFICATIONS PRESENTED IN TABLE CS2 AND UNTIL NO EVIDENCE OF FURTHER COMPACTION IS
- OBSERVED. e.3. COMPACTION SHALL BE PERFORMED WITH MULTIPLE PASSES OF A SHEEP FOOT OR TAMPING ROLLER (FOR FINE-GRAINED SOIL), AND FINISHED BY A
- SMOOTH DRUM ROLLER TO SET THE FINAL ROAD PROFILE. e.4. PLACE AGGREGATE ON STABILIZED SUBGRADE AFTER PASSING THE PROOF-ROLL AND DCP TESTING SPECIFICATIONS IN THE INSPECTION AND TEST NOTES ON THIS SHEET, REFER TO ACCESS ROAD CROSS SECTION DETAILS IN THE CONSTRUCTION DETAILS FOR AGGREGATE THICKNESS AND WIDTH. AGGREGATE
- THICKNESS APPLIES TO THE BEGINNING OF CONSTRUCTION. ADDITIONAL AGGREGATE MAY BE REQUIRED AT THE END OF CONSTRUCTION DUE TO AGGREGATE LOSS FROM ROAD USE, IF REQUIRED BY OWNER SPECIFICATIONS.

# **5. INSPECTION AND TESTING**

a. REFER TO TABLE CS1 AND TABLE CS2 FOR TESTING SPECIFICATIONS.

REVISION

- b. ONCE THE MINIMUM REQUIRED CBR IS ACHIEVED AT OR BEFORE THE CORRESPONDING TIME PERIOD SHOWN IN TABLE CS1, BUT NO SOONER THAN 24 HOURS AFTER COMPACTION, THE CONTRACTOR MAY PROCEED WITH PROOF-ROLL TESTING. FUTURE DCP TESTING ON THAT SEGMENT OF SUBGRADE IS NOT REQUIRED.
- c. IF DCP TESTING SPECIFICATIONS ARE NOT MET WITHIN 7 DAYS, ADDITIONAL TESTS MAY BE PERFORMED AT A LATER DATE (E.G., 14 DAYS), OR ADDITIONAL AGGREGATE SURFACE AND/OR THE ADDITION OF GEOTEXTILE MAY BE REQUIRED. REFER TO TABLE CS3 FOR ALTERNATE ACCESS ROAD SECTIONS, OR CONTACT ENGINEER FOR ADDITIONAL RECOMMENDATIONS. COMPLETE SUBGRADE FAILURE OR EXCESSIVE RUTTING MAY OCCUR IF NO REMEDIAL ACTION IS TAKEN.

DATE | BY | CHK | ENG | NO

- d. PROOF-ROLLING SHALL BE PERFORMED PRIOR TO PLACING AGGREGATE AND IN THE PRESENCE OF A QUALIFIED GEOTECHNICAL REPRESENTATIVE. REFER TO TABLE CS2 AND CONSTRUCTION NOTES ON SHEET NH-277478-7-1 FOR PROOF-ROLL TESTING AND EQUIPMENT SPECIFICATIONS.
- e. PROOF-ROLLING SHALL BE PERFORMED WITH A MINIMUM OF TWO PASSES BUT NOT WITHIN 12 INCHES OF THE EDGE OF THE STABILIZED SECTION.
- f. If Proof-rolls fail, test the failed area with DCP and use an alternate road section according to **Table CS3**, or contact engineer for RECOMMENDATIONS.

g. REFER TO THE CONSTRUCTION NOTES ON SHEET NH-277478-7-1 FOR AGGREGATE PLACEMENT, INSPECTION, AND TESTING SPECIFICATIONS.

# **BEST PRACTICES FOR CEMENT STABILIZATION**

- THE FOLLOWING RECOMMENDATIONS SHOULD BE CONSIDERED FOR BEST RESULTS:
- 1. WELL BEFORE CONSTRUCTION BEGINS, LABORATORY TESTS MAY BE PERFORMED ON NATIVE SOIL SAMPLES MIXED WITH VARIOUS AMOUNTS OF CEMENT AND TESTED FOR CBR AND/OR UNCONFINED COMPRESSIVE STRENGTH AT SEVERAL DIFFERENT CURE TIMES TO ASSESS THE FEASIBILITY OF CEMENT STABILIZATION AND ESTIMATED CEMENT APPLICATION RATES FOR TEST STRIPS AND CONSTRUCTION. LABORATORY TESTS ARE ESPECIALLY RECOMMENDED IF HIGH PLASTICITY CLAY, WET, AND/OR ORGANIC SOIL IS ANTICIPATED.
- 2. IT IS NOT RECOMMENDED TO MIX SOIL AND CEMENT IF AIR TEMPERATURES ARE PROJECTED TO BE BELOW 40 DEGREES FOR THE NEXT 3 DAYS OR BELOW 32 DEGREES FOR THE NEXT 7 DAYS. CONSULT ENGINEER PRIOR TO MIXING IF COLD TEMPERATURES ARE EXPECTED
- 3. PROVIDE SUFFICIENT EQUIPMENT IN GOOD WORKING CONDITION TO ALLOW FOR CONTINUOUS AND UNIFORM BLENDING AND COMPACTION OF THE SUBGRADE. DISKING IS NOT AN ADEQUATE BLENDING METHOD. OPERATE EQUIPMENT SO THAT IT DOES NOT DISPLACE CEMENT SPREAD ON SUBGRADE SURFACE.
- 4. SUBGRADE SOIL SHOULD BE MOISTURE CONDITIONED TO NEAR OPTIMUM MOISTURE CONTENT PRIOR TO SPREADING CEMENT. REFER TO TABLE CS4 FOR MOISTURE CONTENT ADJUSTMENT RECOMMENDATIONS. CONTACT ENGINEER IF MOISTURE CONDITIONING TO NEAR OPTIMUM IS NOT FEASIBLE.
- 5. PULVERIZE SUBGRADE DURING MIXING PROCESS UNTIL 100 PERCENT OF THE MATERIAL PASSES THROUGH A 1.5 INCH SIEVE AND AT LEAST 80 PERCENT OF THE MATERIAL, EXCLUDING GRAVEL, PASSES THROUGH THE NO. 4 (4.75 MM) SIEVE.
- 6. THE SURFACE OF THE STABILIZED SUBGRADE SHOULD BE MAINTAINED FOR THE FIRST WEEK FOLLOWING STABILIZATION TO PREVENT MOISTURE LOSS AFTER
- SHAPING AND COMPACTING TO ENSURE THAT CEMENT CAN FULLY HYDRATE. INADEQUATE MOISTURE AVAILABILITY WILL LOWER THE LONG TERM STRENGTH.
- 7. STABILIZE SUBGRADE 1 TO 2 FEET WIDER THAN THE PROPOSED AGGREGATE SURFACE ROAD WIDTH TO PROVIDE ADEQUATE STRENGTH FOR THE FULL ROAD WIDTH.

TABLE CS1 - CEMENT STABILIZED SUBGRADE CRITERIA													
DAYS ELAPSED BETWEEN COMPACTION AND DCP TEST (1)	MINIMUM CBR	MINIMUM DCP (BLOWS/4")	MINIMUM UNCONFINED COMPRESSIVE STRENGTH (2) (PSI)	ALLOWABLE BEARING CAPACITY <sup>(3)</sup> (PSF)									
3	20	9	90	5,500									
7	30	13	135	7,900									
14	40	17	180	10,200									
28	50	21	225	12,500									

- (1) DCP TESTS MAY BE PERFORMED SOONER BUT MUST MEET THE MINIMUM CBR/DCP TEST CRITERIA FOR THE NEXT TIME INCREMENT
- (2) UNCONFINED COMPRESSIVE STRENGTH BASED ON CORRELATIONS TO CBR, FOR REFERENCE ONLY UNLESS STATED OTHERWISE IN THESE SPECIFICATIONS. (3) ALLOWABLE BEARING CAPACITY BELOW A TIRE AT THE SURFACE OF 4" OF GRAVEL LAYER, INCLUDES A SAFETY FACTOR OF 1.5 AND ASSUMES AN UNSTABILIZED SUBGRADE CBR OF 1.5.

**TABLE CS2 - CEMENT STABILIZED SUBGRADE TESTING SCHEDULE** 

LOCATION	TEST	ASTM STANDARD	FREQUENCY	SPECIFIED CRITERIA
	STANDARD PROCTOR	D698	AS NEEDED	REPRESENTATIVE PROCTORS FOR ALL SUBGRADE MATERIAL ON SITE
CEMENT STABILIZED SUBGRADE (BEFORE CEMENT STABILIZATION)	COMPACTION TEST W/ NUCLEAR DENSITY GAUGE	D6938	AS NEEDED (MIN. 1 PER ROAD PER DAY)	NEAR OPTIMUM MOISTURE CONTENT (SEE BEST PRACTICES) NO DENSITY CRITERIA
	COMPACTION TEST W/ NUCLEAR DENSITY GAUGE	D6938	1 PER 100 LF (MIN. 3 PER TEST STRIP)	95% OF MAXIMUM DRY DENSITY AND NEAR OPTIMUM (SEE BEST PRACTICES)
CEMENT STABILIZED SUBGRADE (TEST STRIPS)	DYNAMIC CONE PENETRATION (DCP)	D6951 (17.6 LB HAMMER)	3 PER 100 LF (TEST CENTERLINE AND 2' FROM EACH SHOULDER)	SEE TABLE CS1
(. 20 . 0	PROOF-ROLL	N/A	ENTIRE LENGTH	NO RUTTING GREATER THAN 3/4" AND NO PUMPING. SEE CONSTRUCTION NOTES FOR PROOF-ROLL EQUIPMENT.
	COMPACTION TEST W/ NUCLEAR DENSITY GAUGE	D6938	1 PER 500 LF UNTIL CONSISTENT PASSING RESULTS (MIN. 20 TESTS), THEN 1 PER 1,000 LF (MIN. 2 PER ROAD)	95% OF MAXIMUM DRY DENSITY AND NEAR OPTIMUM (SEE BEST PRACTICES)
CEMENT STABILIZED SUBGRADE (AFTER CEMENT STABILIZATION)	DYNAMIC CONE PENETRATION (DCP)	D6951 (17.6 LB HAMMER)	1 PER 500 LF IN EACH PASS OF THE RECLAIMER (MIN. 3 PER ROAD)	SEE TABLES CS1 AND CS3

N/A

REFERENCE DRAWINGS

PROOF-ROLL

### **TABLE CS3 - ALTERNATE ACCESS** ROAD SECTIONS FOR LOCALIZED **FAILED AREAS** AGGREGATE 7 DAY DCP **THICKNESS** CBR (BLOWS/4") (IN) 13 4 30 9 - 13 20 - 30 7 - 9 15 - 20 6 5 - 7 10 - 15 8\* < 5 CONTACT ENGINEER OR 6 INCHES OF AGGREGATE OVER GEOTEXTILE

BY CHK ENG

AGGREGATE MATERIAL

DATE

TABLE CS4 - MOISTURE CONTENT ADJUSTMENTS									
MOISTURE CONTENT RELATIVE TO OPTIMUM	RECOMMENDED ADJUSTMENT								
DRY	ADD WATER DURING MIXING TO INCREASE MOISTURE TO SLIGHTLY ABOVE OPTIMUM								
NEAR (WITHIN ±2%)	NO OR SLIGHT MOISTURE ADJUSTMENTS NEEDED, PENDING PASSING DCP TEST RESULTS								
WET	DRY SOIL TO NEAR OPTIMUM PRIOR TO MIXING CEMEN' BY SCARIFYING OR PRE-MIXING WITH LIME, AND/OR INCREASE CEMENT CONTENT DURING MIXING								

**ENTIRE LENGTH** 

REFER TO CONSTRUCTION NOTES ON SHEET NH-277478-7-1

# **GENERAL NOTES**

- 1. CONSTRUCTION PLANS ARE BASED OFF THE COORDINATE SYSTEM NAD83 SOUTH DAKOTA STATE PLANE (2011 ADJ.). NORTH
- 2. SITE DRAINAGE INFRASTRUCTURE INCLUDING SWALES, ACCESS ROAD SWALE CROSSINGS, AND OUTLET FEATURES ARE SIZED FOR A 2 YEAR 24HR RAIN EVENT.
- THE ALTA SURVEY AND EXISTING PLANIMETRIC DATA WAS PROVIDED BY TIMMONS, DATED 12/12/2018.
- 4. THE GROUND SURFACE CONTOURS (AT TWO-FOOT VERTICAL INTERVALS) AND ELEVATIONS ARE BASED ON LIDAR DATA PROVIDED BY THE OWNER.
- 5. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IF THEY FIND THAT GROUND ELEVATIONS DETERMINED DURING FIELD STAKING VARY FROM THE GROUND ELEVATIONS SHOWN ON THE DRAWINGS FOR POTENTIAL DESIGN MODIFICATIONS.
- 6. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE OWNER SHALL BE NOTIFIED AND ARE NOT TO BE REMOVED WITHOUT PERMISSION FROM THE OWNER. 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.
- 7. EFFORTS SHALL BE MADE TO MINIMIZE SOIL DISTURBANCE TO AREAS OUTSIDE OF THE ROAD DISTURBANCE LIMITS, CRANE PATHS, AND TURBINE SITES.
- 8. GRADE ALL ACCESS ROADS AND CRANE PATHS TO A MAXIMUM SLOPE OF 8%.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. CONSTRUCTION ACTIVITIES SHALL NOT BLOCK THE NATURAL DRAINAGE SWALES CAUSING RAINWATER TO POND. IF
- CULVERTS ARE NEEDED, THE PROJECT ENGINEER MUST BE CONTACTED FOR APPROPRIATE SIZING OF STRUCTURE. 10. ANY FACILITIES REMOVED TO ALLOW FOR CONSTRUCTION (MAILBOXES, SIGNS, FENCES, ETC.) SHALL BE REPLACED BY THE
- CONTRACTOR IN A CONDITION AS GOOD AS PRE-EXISTING UNLESS INDICATED FOR REMOVAL ON THE DEMOLITION PLAN.
- 11. THE CONTRACTOR SHALL NOTIFY SOUTH DAKOTA 811 AT LEAST 48 HOURS BEFORE EXCAVATION ACTIVITIES COMMENCE. 12. ALL CONSTRUCTION PERFORMED SHALL CONFORM WITH THE CURRENT STANDARDS AND SPECIFICATION OF GRANT AND
- CODINGTON COUNTIES. WHERE DISCREPANCIES EXIST BETWEEN THE PROJECT SPECIFICATIONS AND THE COUNTY SPECIFICATIONS OR STANDARD, THE CONTRACTOR SHALL ABIDE BY THE GREATER OR MORE RESTRICTIVE REQUIREMENTS.
- 13. TURBINE SETBACKS ARE NOT IDENTIFIED ON THE CONSTRUCTION PLANS. IT SHALL BE THE RESPONSIBILITY OF THE OWNER AND CONTRACTOR TO ENSURE ALL TURBINE SETBACKS MEET PROJECT REQUIREMENTS. 14. 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 TOPSOIL REPLACED,
- EXCEPT WHERE REQUESTED BY THE TOWNSHIP OR COUNTY TO PERMANENTLY REMAIN. DISTURBED AREAS OUTSIDE OF THE FINAL ROADWAY SHALL BE SEEDED AND MULCHED.
- 15. GEOTECHNICAL REPORTS WITH RECOMMENDATIONS HAVE BEEN PROVIDED BY THE OWNER.
- 16. FIELD SURVEY WETLAND INFORMATION HAS BEEN PROVIDED BY THE OWNER, ALL WETLAND DELINEATIONS AND PERMITTING SHALL BE THE RESPONSIBILITY OF OTHERS AND BE COMPLETED PRIOR TO CONSTRUCTION COMMENCING. THE OWNER AND GENERAL CONTRACTOR SHALL VERIFY THAT ALL WETLAND PERMITS HAVE BEEN SUBMITTED AND APPROVED PRIOR TO CONSTRUCTION COMMENCING.
- 17. CULTURAL RESOURCE REPORTS HAVE NOT BEEN PROVIDED. CULTURAL RESOURCE LOCATIONS ARE NOT SHOWN ON THE PLANS. INFORMATION WILL BE THE RESPONSIBILITY OF THE OWNER AND GENERAL CONTRACTOR. 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.
- 18. AN ENVIRONMENTAL ASSESSMENT HAS NOT BEEN PROVIDED. THE CONTRACTOR SHALL BE FAMILIAR WITH THE REPORT AND REVIEW ALL RECOMMENDATIONS.
- 19. 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
- 20. 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.

# TRAFFIC CONTROL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGGERS, AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE COUNTY/MUNICIPALITY AND ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

# STORM WATER DESIGN PARAMETERS

- 1. SEE SHEET NH-277478-2 FOR CULVERT SIZING AND DESIGN PARAMETERS. SEE HYDROLOGY REPORT FOR FURTHER DESIGN CALCULATIONS. CULVERTS SHALL BE MINIMUM 18" CORRUGATED METAL PIPE. ALL TEMPORARY PORTIONS OF THE INSTALLED CULVERTS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
- 2. IT IS EXPECTED THAT CULVERTS WILL BE OVERTOPPED DURING SOME STORMS AND MAINTENANCE WILL BE REQUIRED
- THROUGH THE LIFE OF THE PROJECT. 3. WHEN INSTALLING DRAINAGE CULVERTS THE CONTRACTOR SHALL USE JUDGMENT IN SETTING THE FLOW LINE ELEVATIONS AND CULVERT LONGITUDINAL SLOPE. TYPICALLY THE FLOW LINE ELEVATIONS AND LONGITUDINAL SLOPE OF THE CULVERT SHOULD MATCH THE NATURAL GROUND ELEVATIONS AND SLOPE TO ENSURE POSITIVE DRAINAGE. WHEN POSSIBLE, ALL CULVERTS SHOULD BE PLACED AT A MINIMUM 0.5% GRADE.
- 4. ANTICIPATED DRAINAGE CROSSINGS ARE SHOWN ON THE CONSTRUCTION PLAN, ADDITIONAL CULVERTS MAY NEED TO BE INSTALLED IN AREAS WHERE CONCENTRATED FLOW IS EXPECTED DUE TO CONSTRUCTION ACTIVITIES.
- CONSTRUCT DRAINAGE CROSSINGS TO MAINTAIN EXISTING FLOW CHARACTERISTICS OF THE FEATURES. FEATURES SHALL BE GRADED TO PRECONSTRUCTION CONTOURS.

# **EROSION AND SEDIMENT CONTROL / 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 SOUTH DAKOTA DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES AND BEING IN CONFORMANCE WITH THE SOUTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL STORMWATER PERMIT. SEE THE PROJECT SITE PLANS AND ASSOCIATED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR EROSION CONTROL AND RESTORATION LOCATIONS AND SPECIFICATIONS. UNLESS OTHERWISE NOTED OR MODIFIED IN THE SWPPP/HEREIN, ALL SECTIONS OF THE GENERAL CONDITIONS SHALL APPLY.
- 3. ALL TOP-SOIL BERMS, FIBER ROLLS, AND OTHER EROSION CONTROL FEATURES SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SWPPP'S AVAILABILITY.

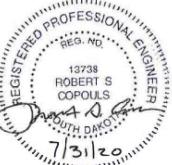
4. ALL DRAINAGE SWALES DISTURBED DURING CONSTRUCTION ACTIVITIES AND NOT COVERED BY ROAD SURFACING MATERIALS, SHALL BE STABILIZED IN ACCORDANCE WITH THE SWPP PLAN.



(952) 937-5150 12701 Whitewater Drive, Suite #300 (952) 937-5822 Minnetonka, MN 55343 Toll Free (888) 937-5150 westwoodps.com

Α	60% CIVIL PLAN SET	06/09/20 ZHW	DJN	DJN		DWG NO.	MANUFACTURER	DESCRIPTION	TIND PROBLEM NO AL MA
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REVISION



NO RUTTING GREATER THAN 3/4" AND

NO PUMPING.

SEE CONSTRUCTION NOTES FOR

PROOF-ROLL EQUIPMENT.

<b>Xcel</b> Energy®			
NORTHERN STATES POWER COMPANY			
Dakota Range I & II Wind Farm			
CODDINGTON AND GRANT COUNTY, SD			
DWN: ZHW	DATE:	CHK:	DATE:
ENG: DFK	DATE:	CHK:	DATE:

PROJ. NO: 27717

SCALE: NONE

DATE:

DATE:

PM: DFK

APVD:

TO ASSIST EMPLOYEES IN THE PERFORMANCE OF THEIR JOBS YOUR PERSONAL SAFETY IS PROVIDED FOR BY USING SAFETY PRACTICES. PROCEDURES, AND EQUIPMENT AS DESCRIBED IN THE SAFETY TRAINING PROGRAMS AND MANUALS.

THIS MAP/DOCUMENT IS A TOOL

**ENERGY SUPPLY** 

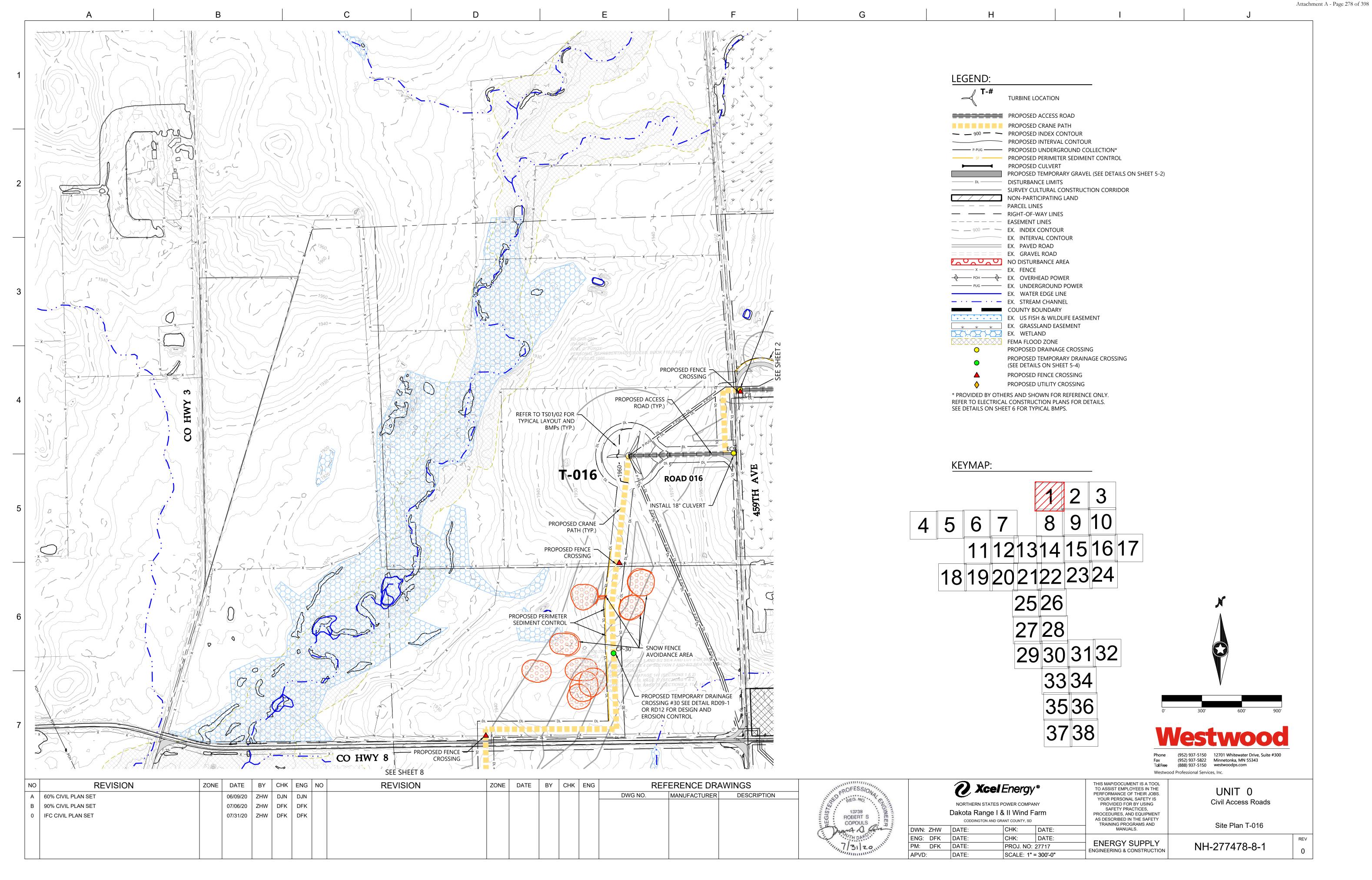
ENGINEERING & CONSTRUCTION

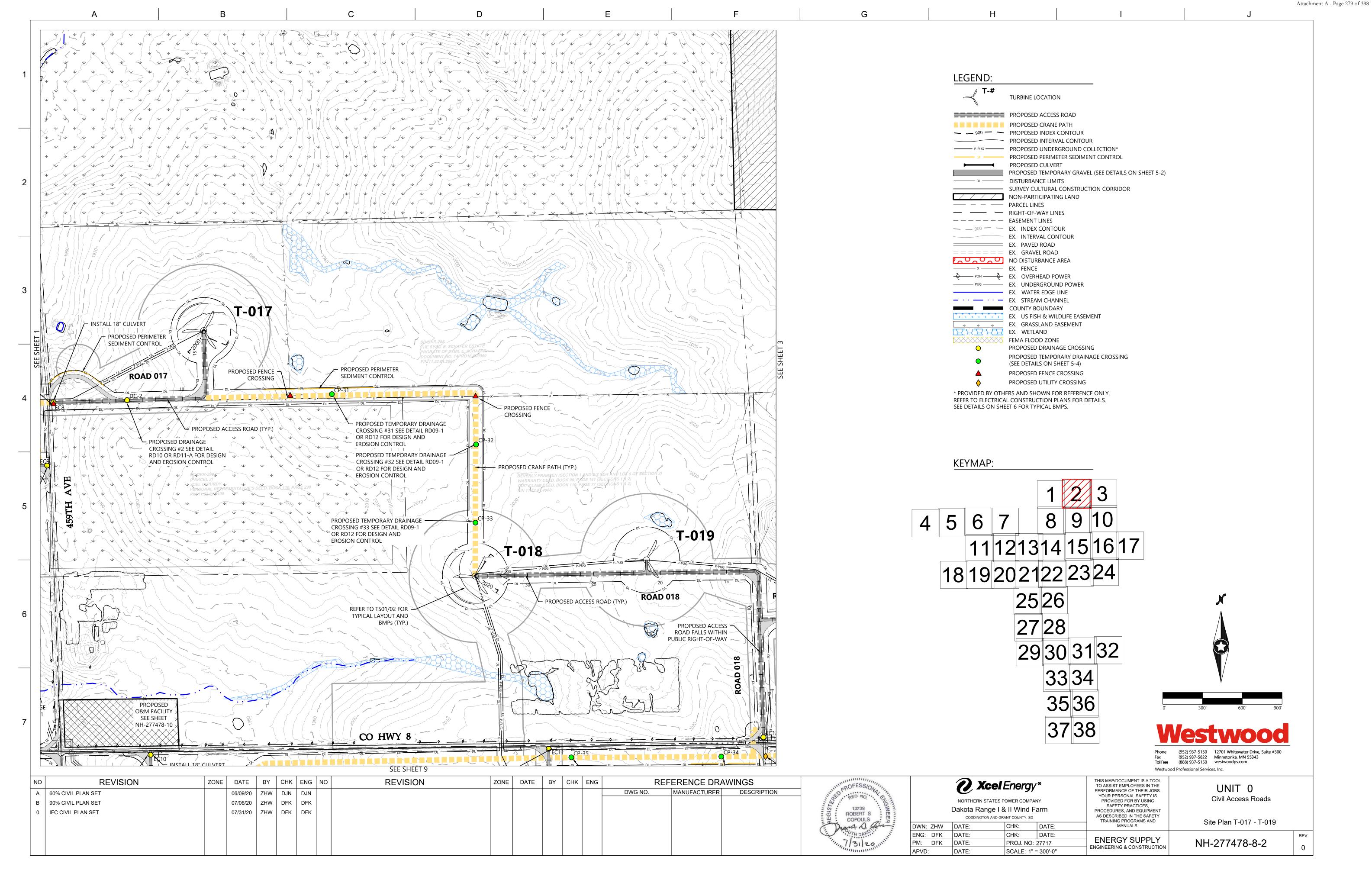
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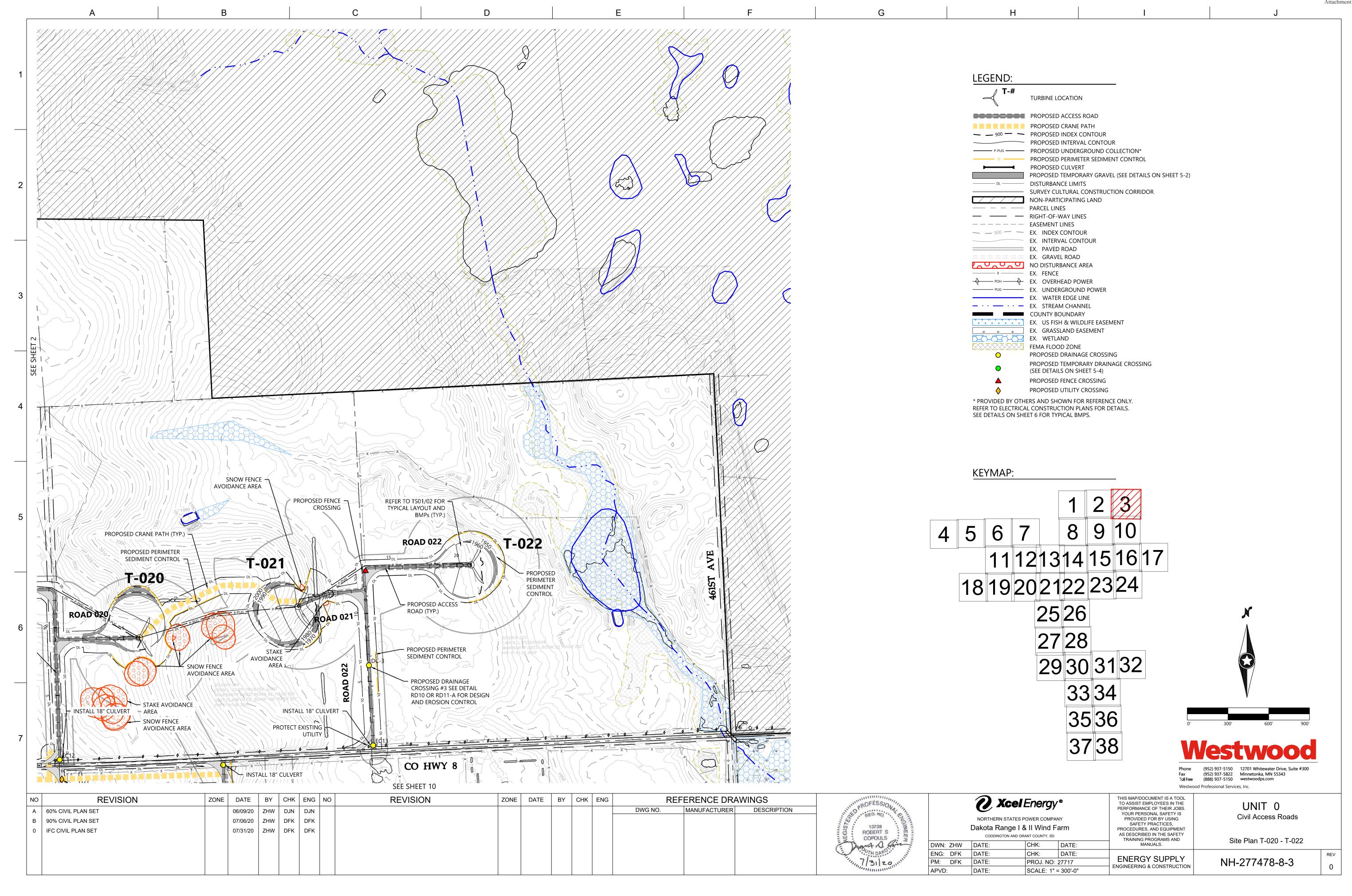
Westwood Professional Services, Inc.

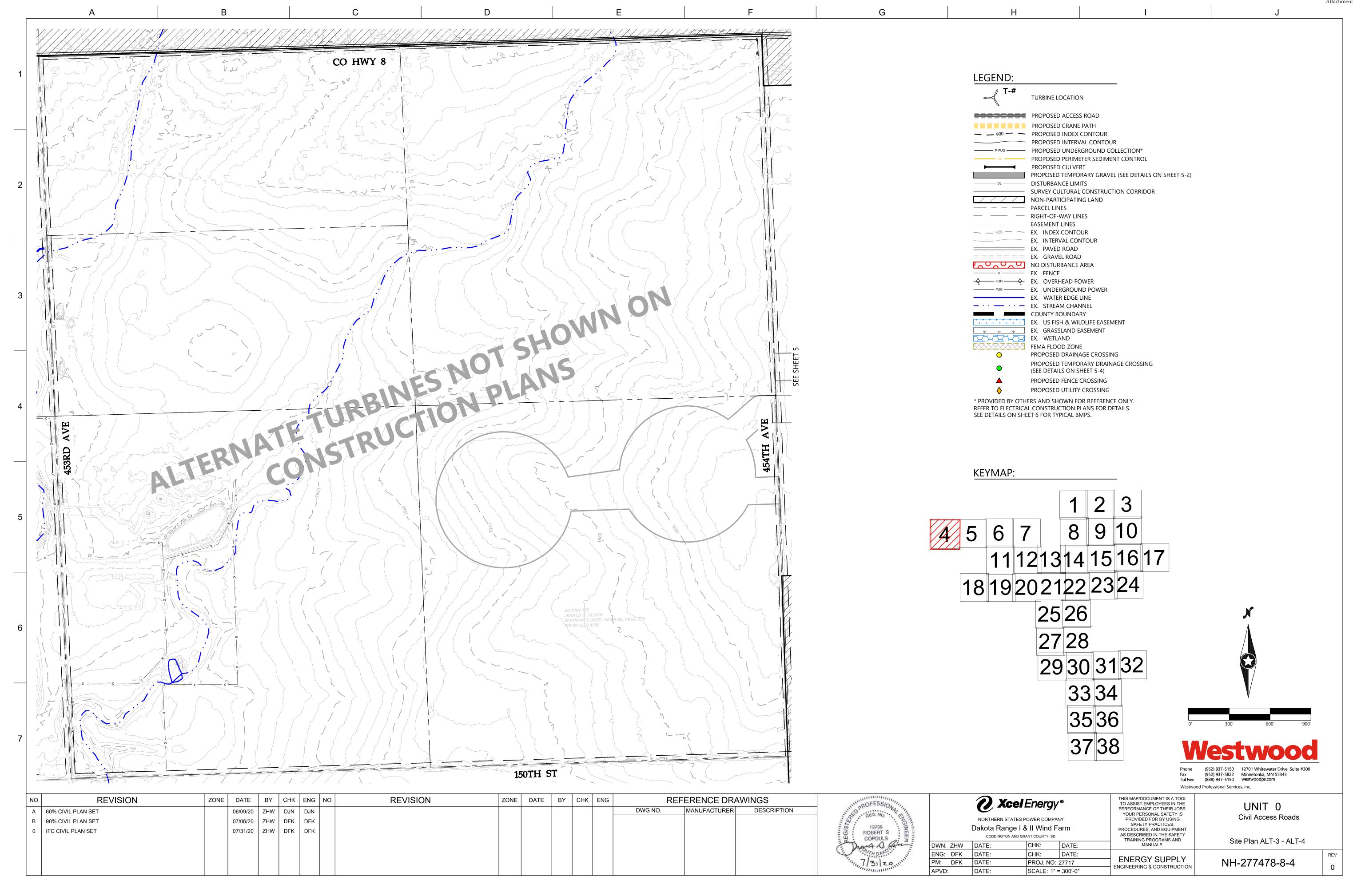
Construction Notes

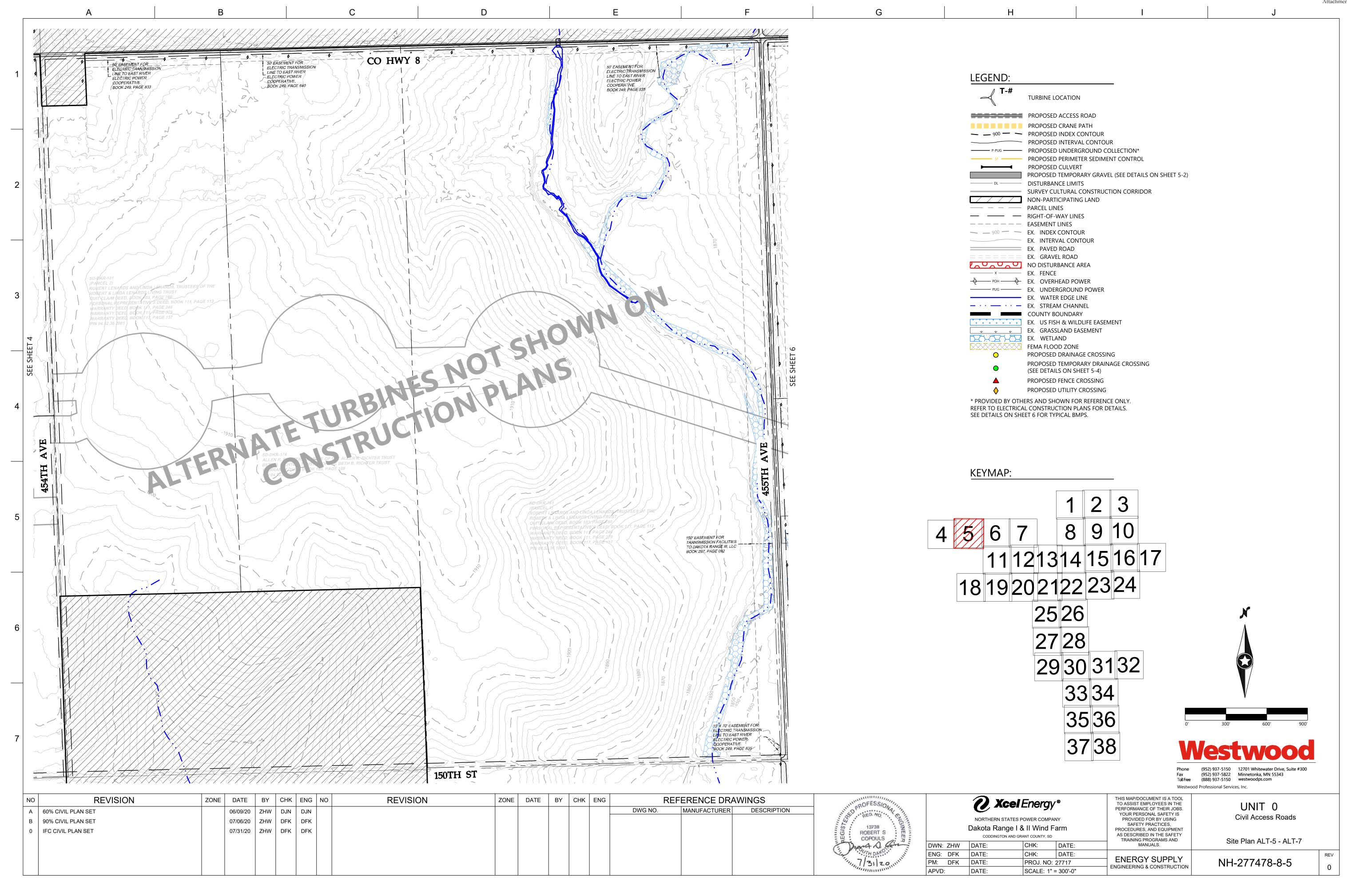
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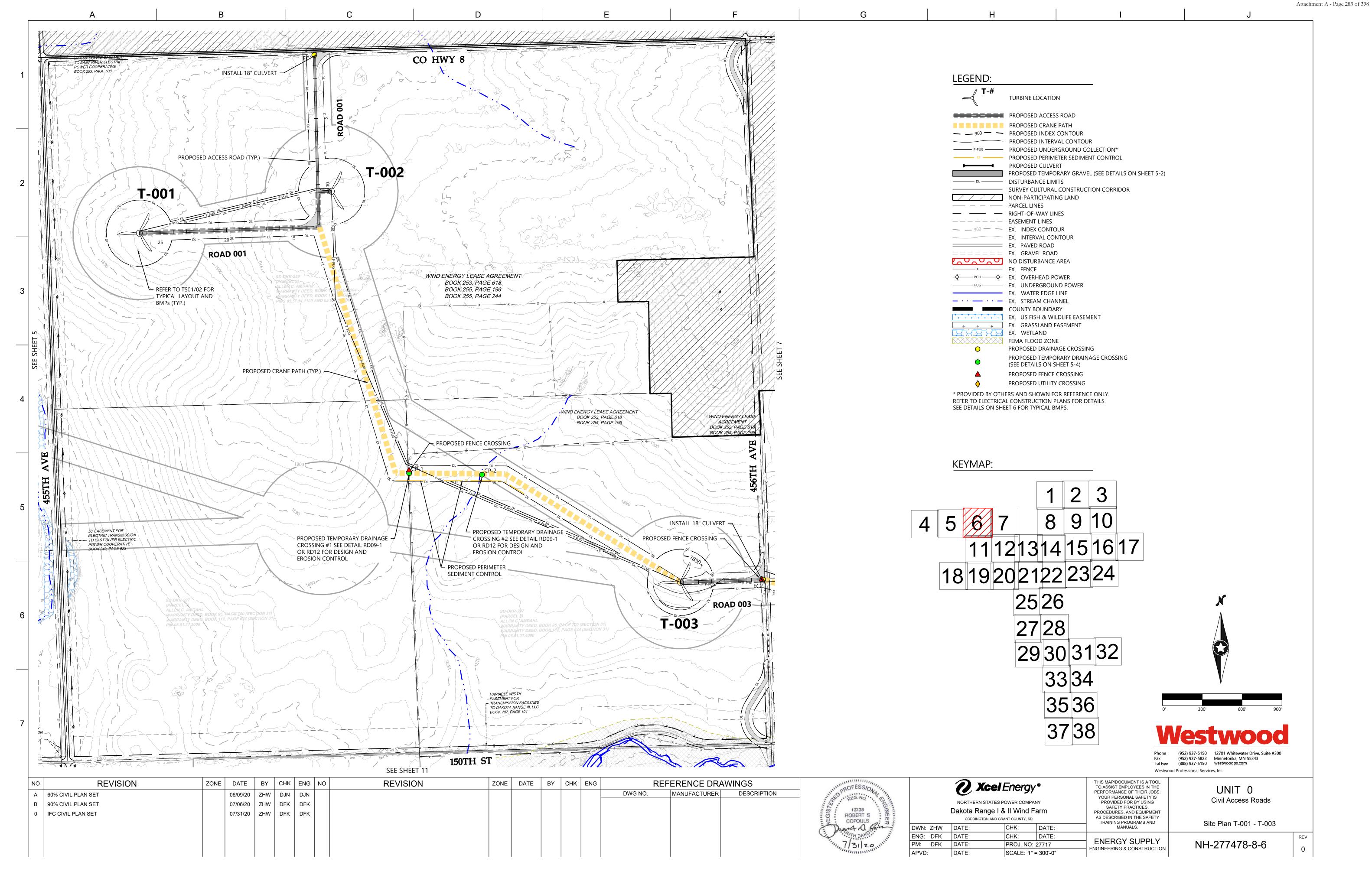


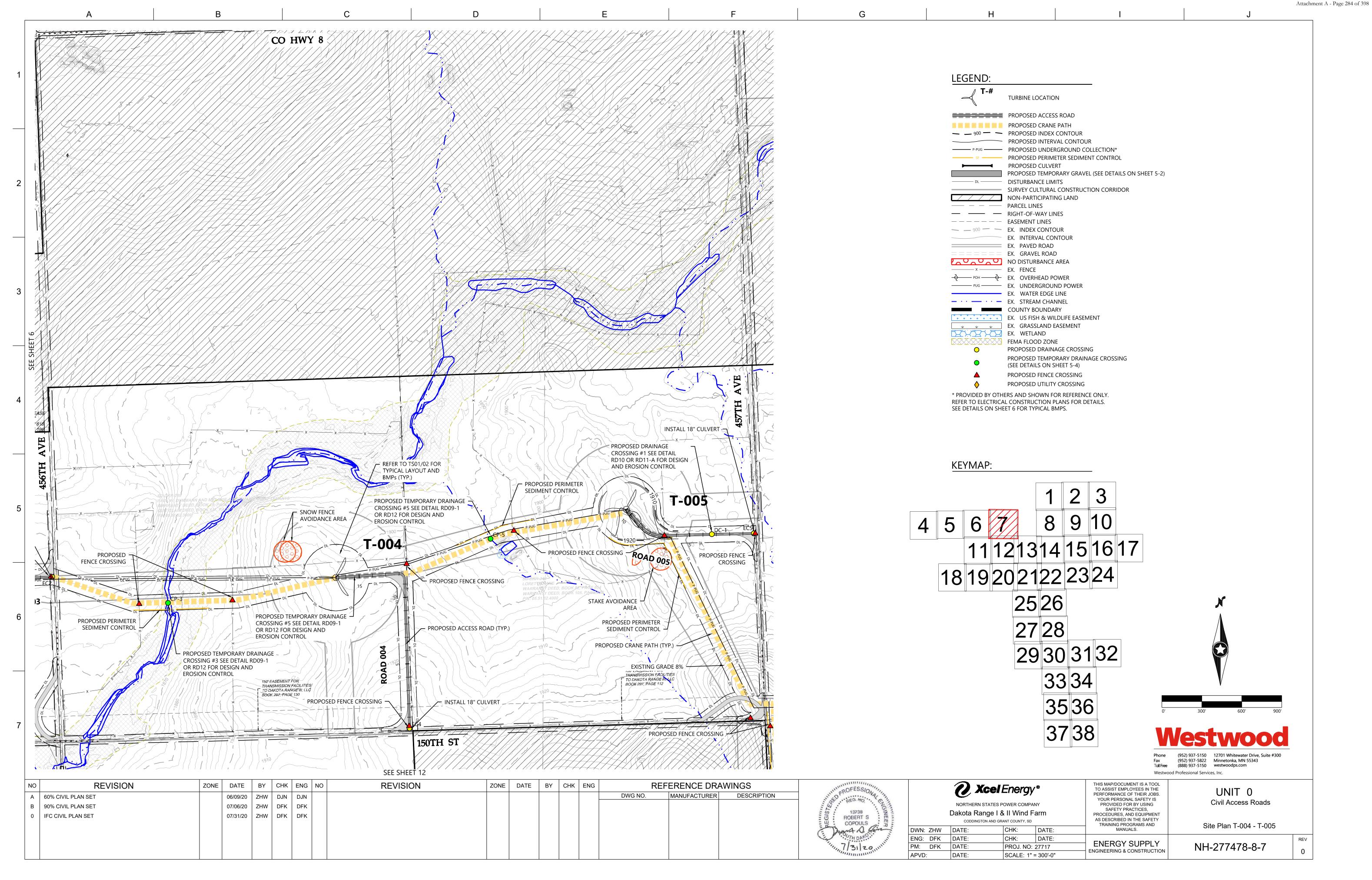


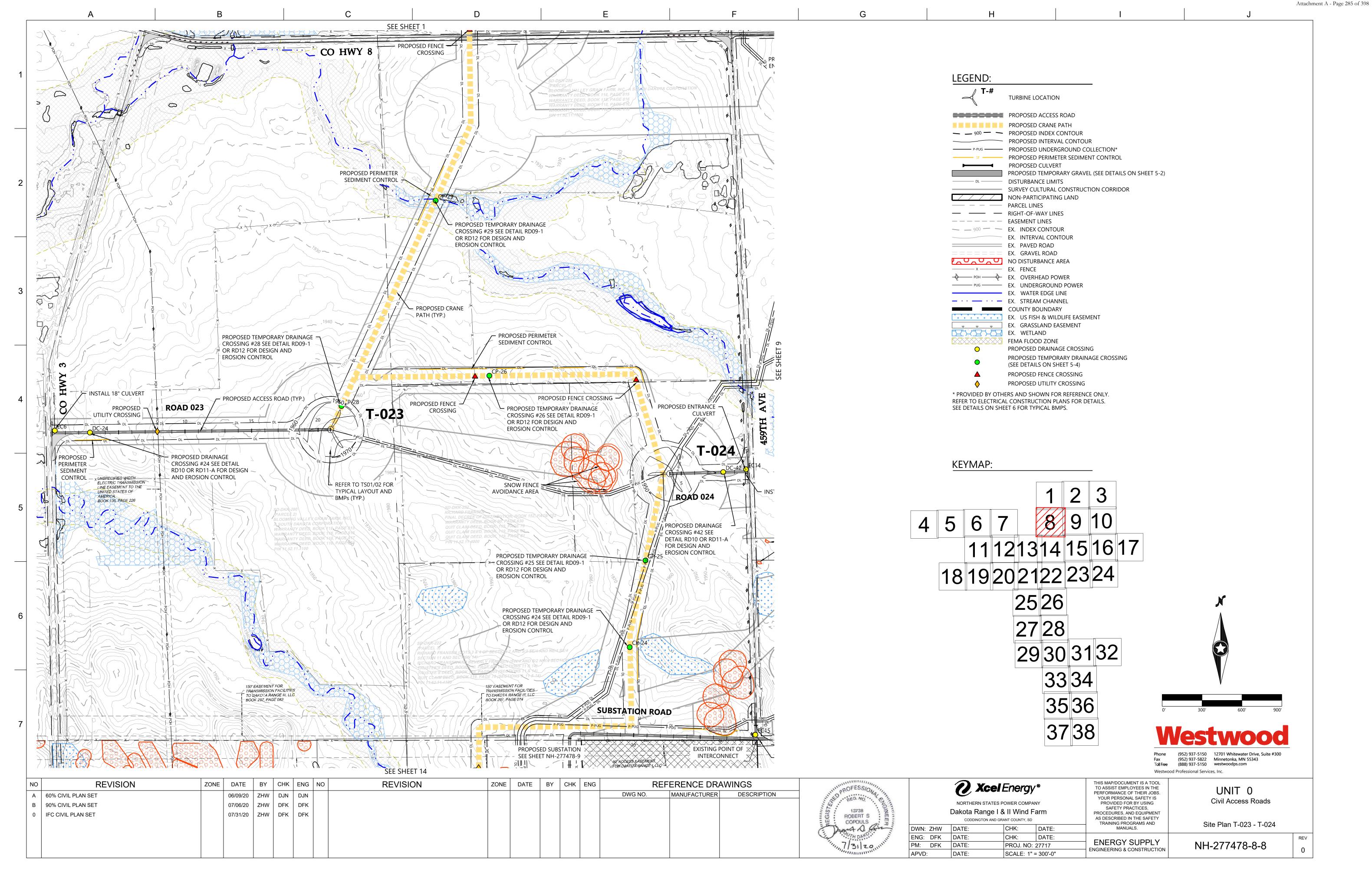


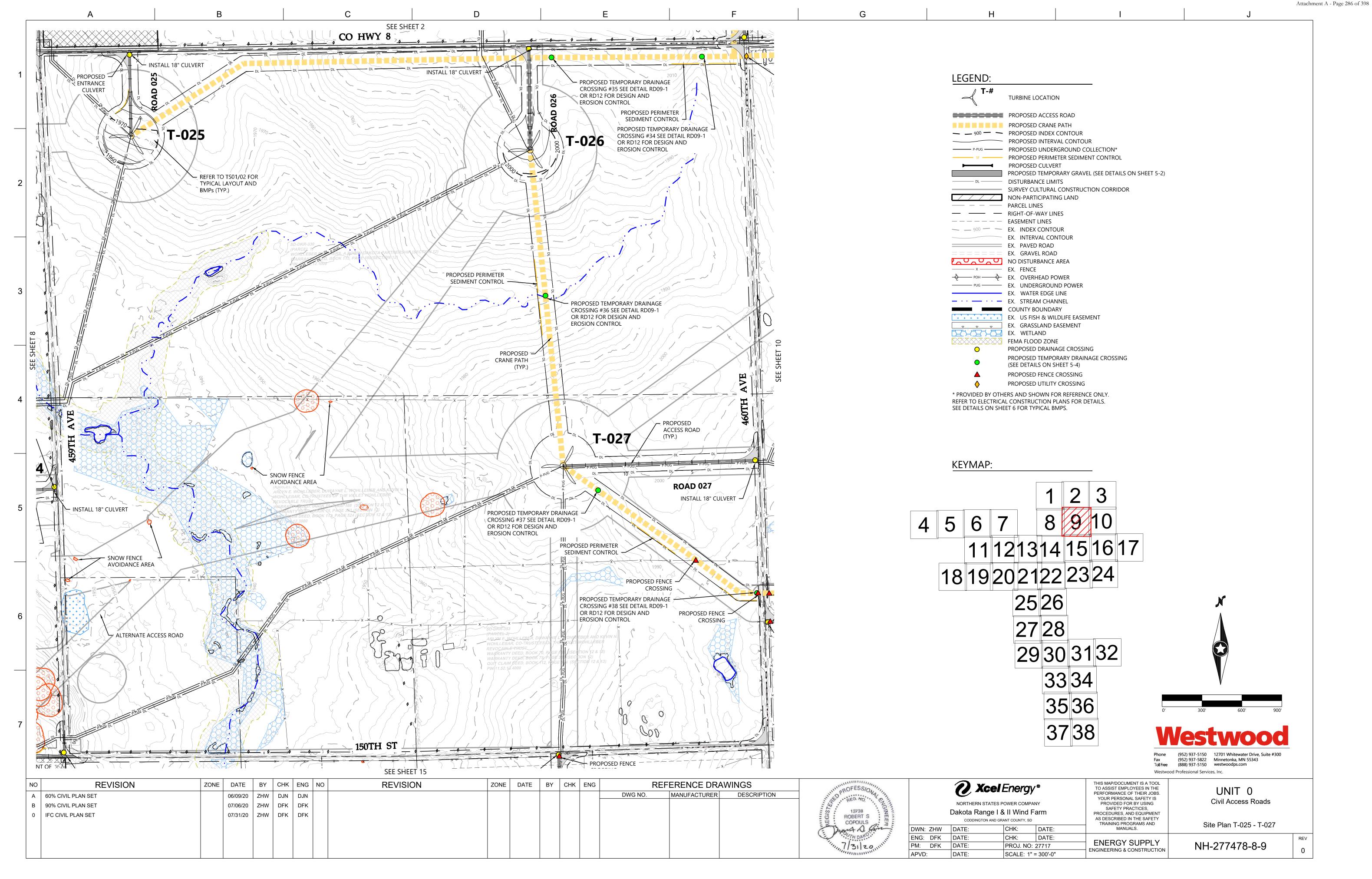


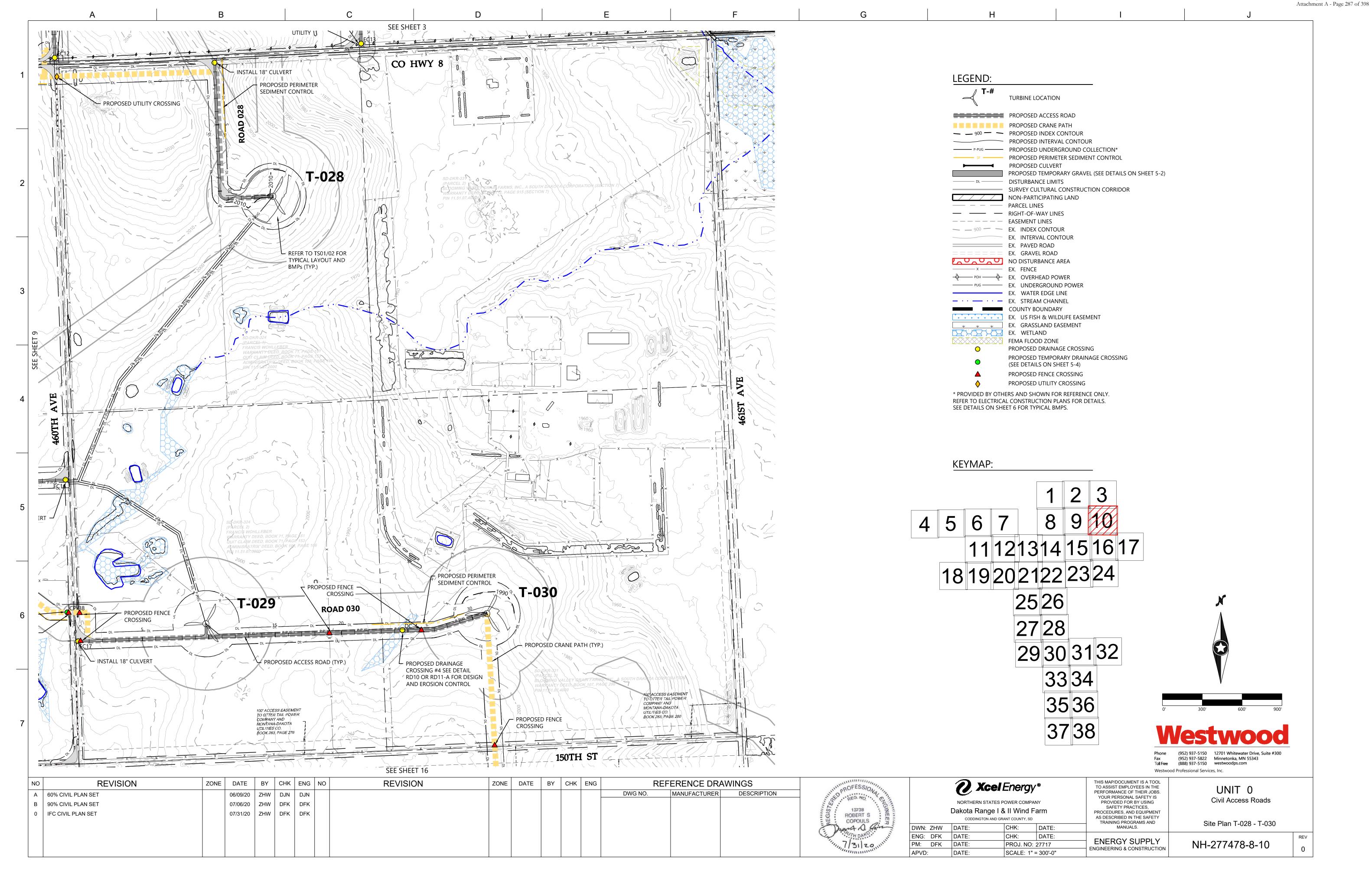


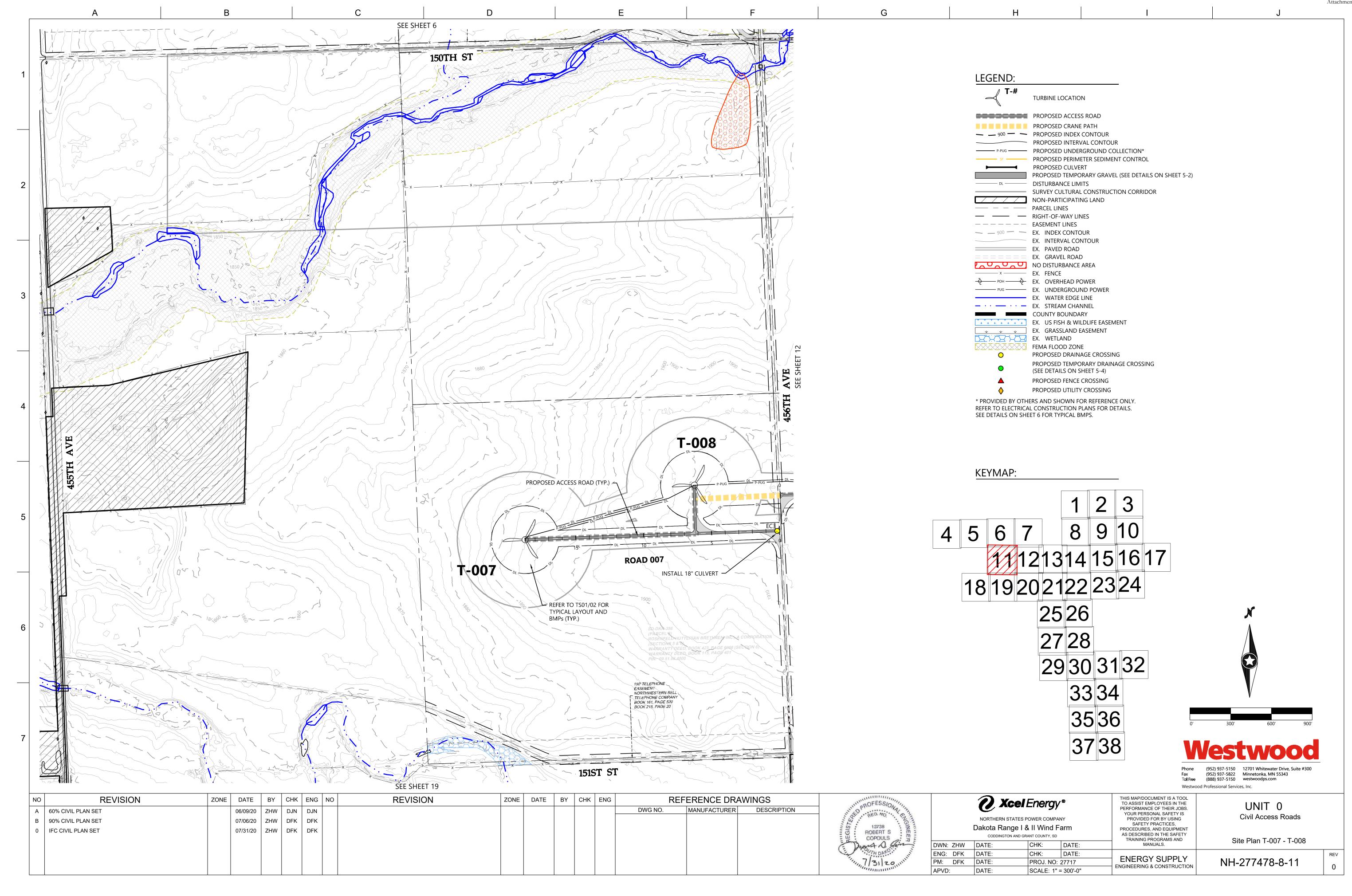


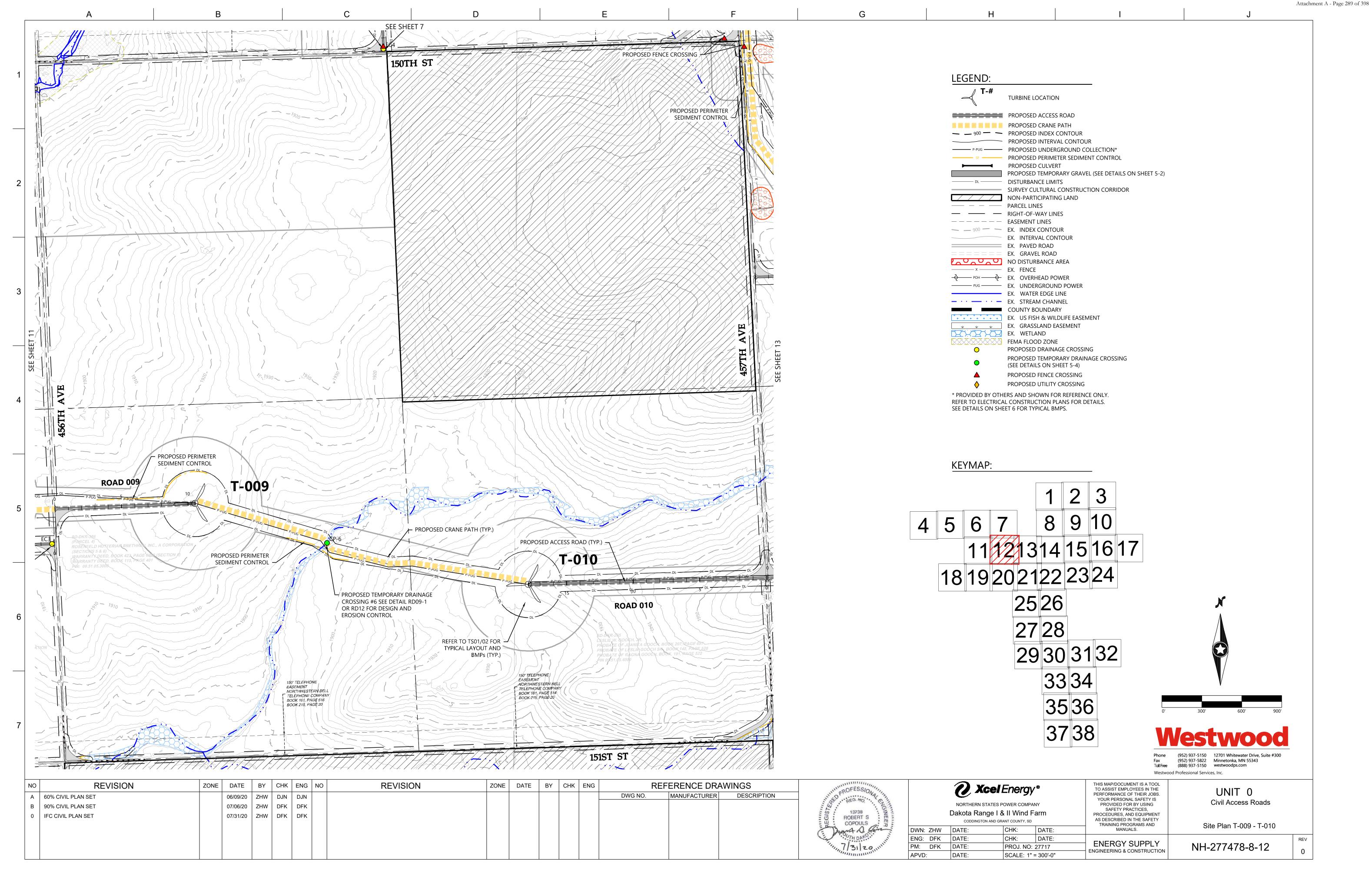


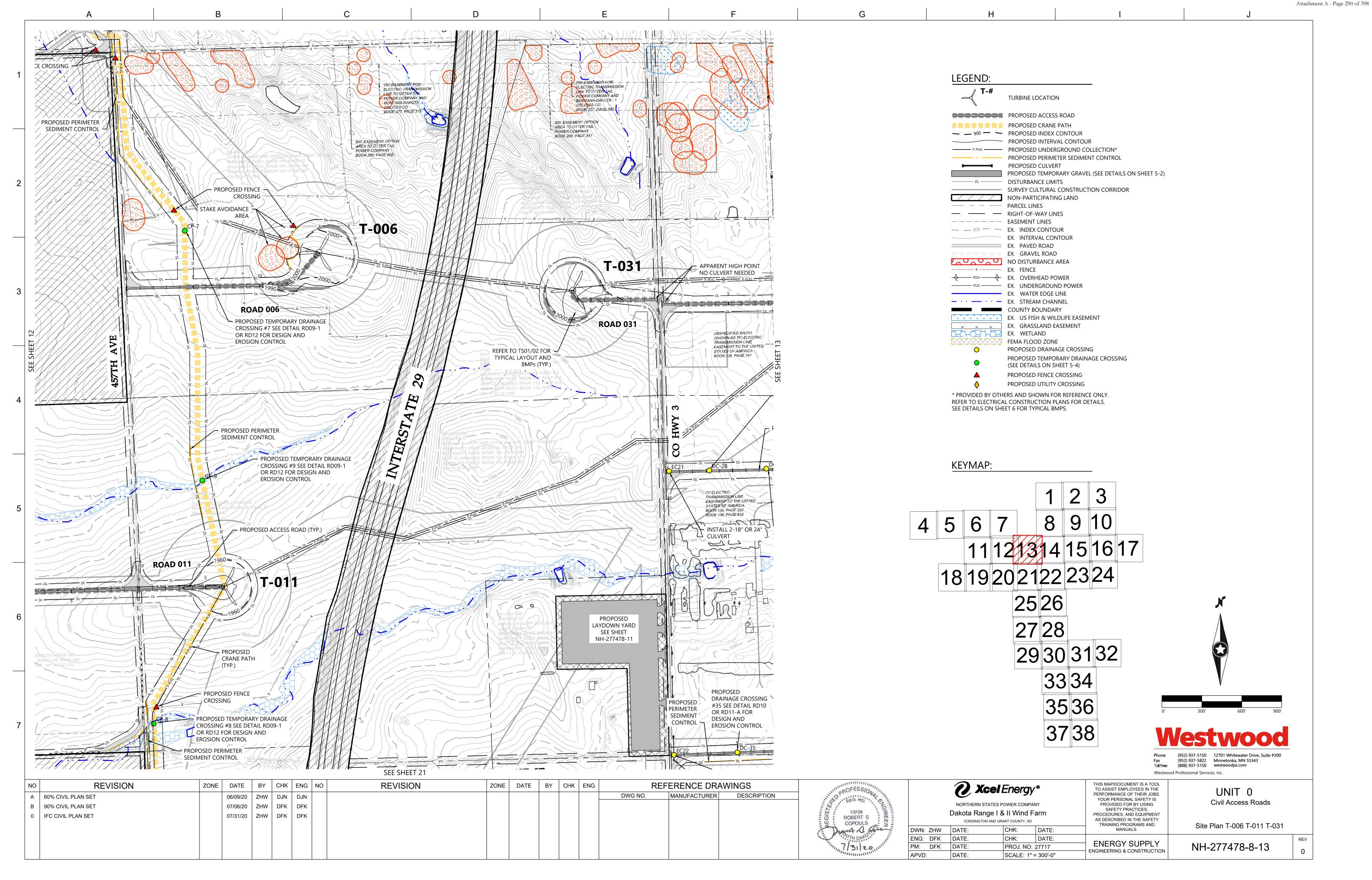


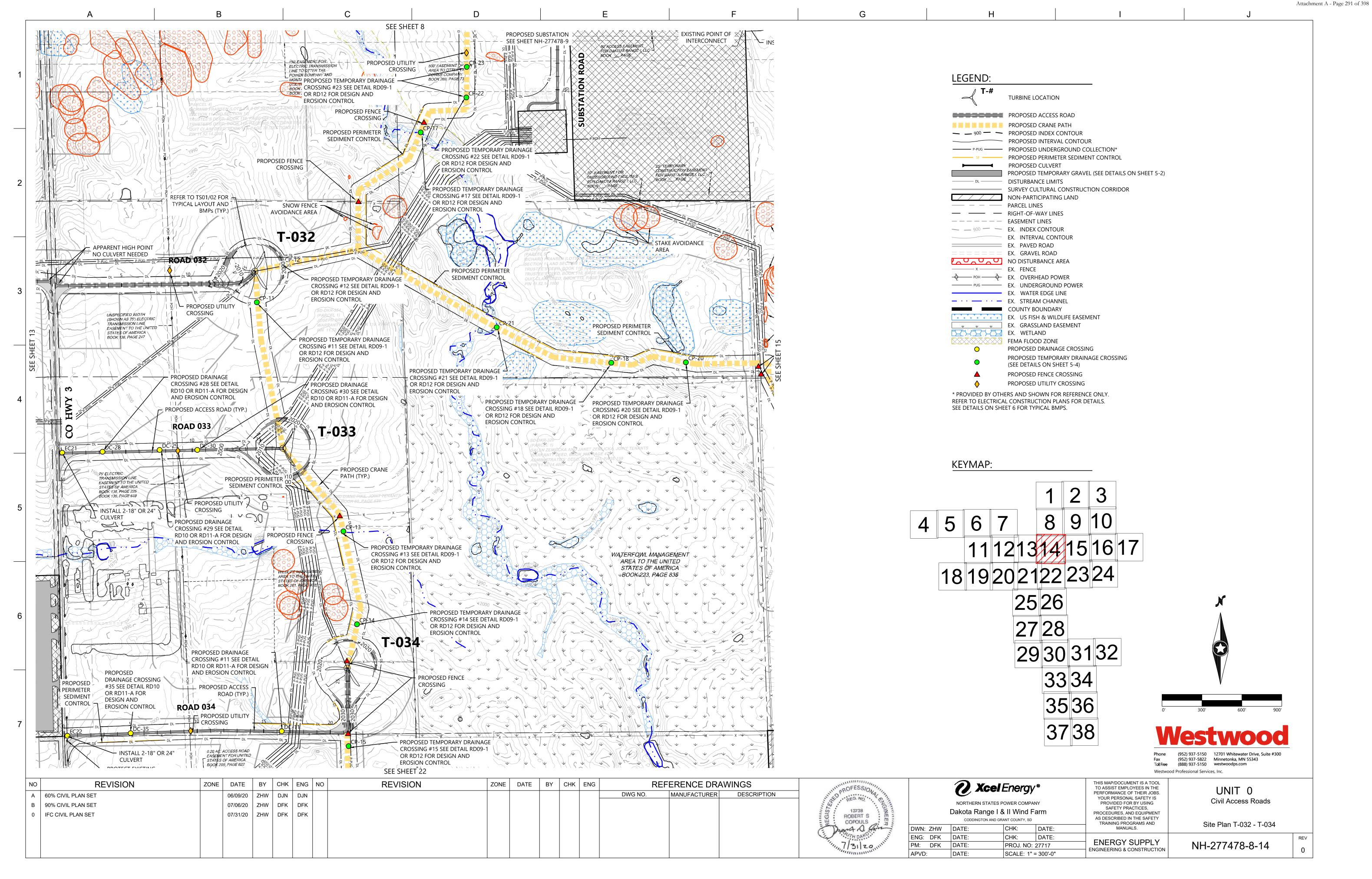


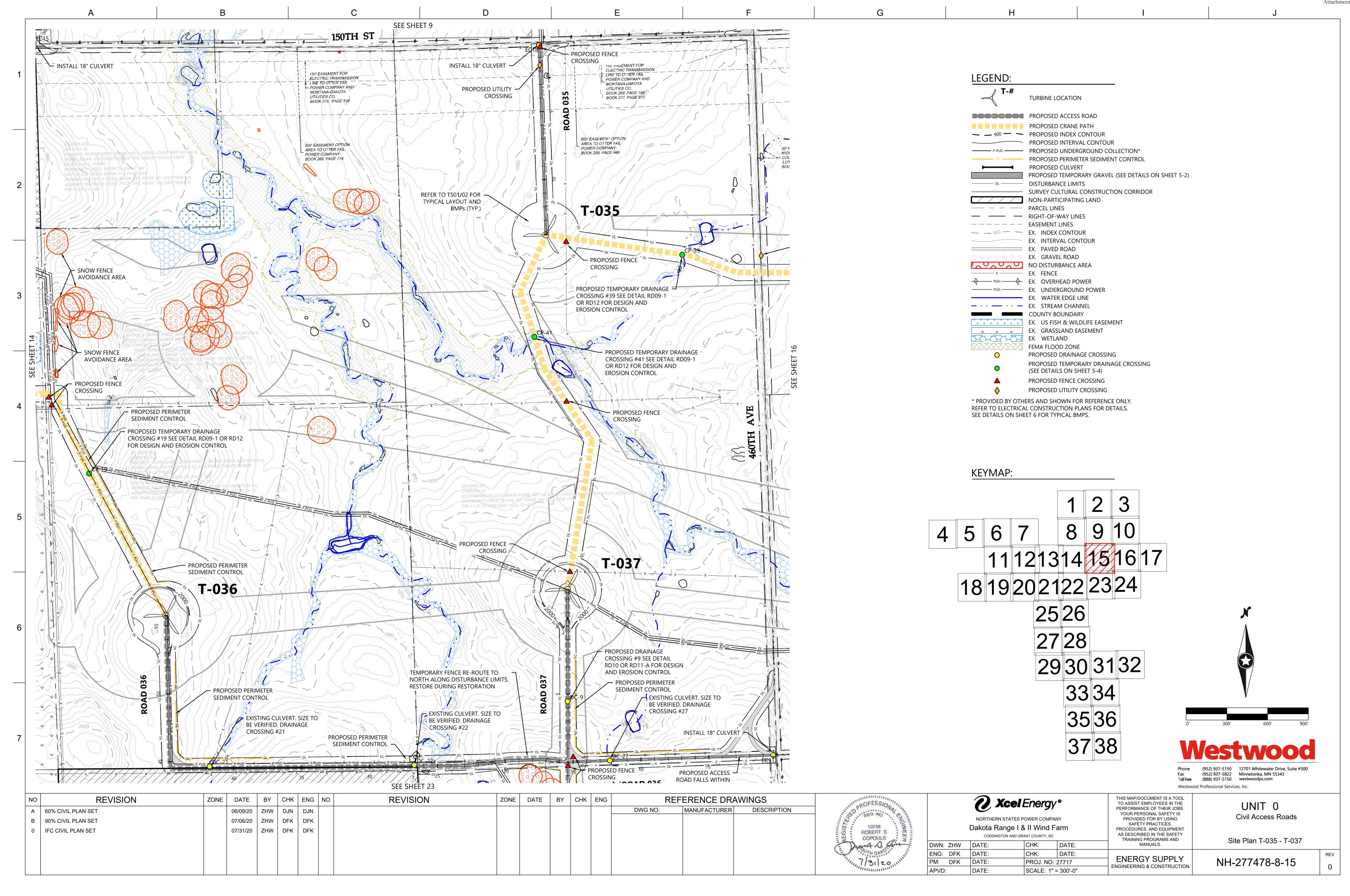


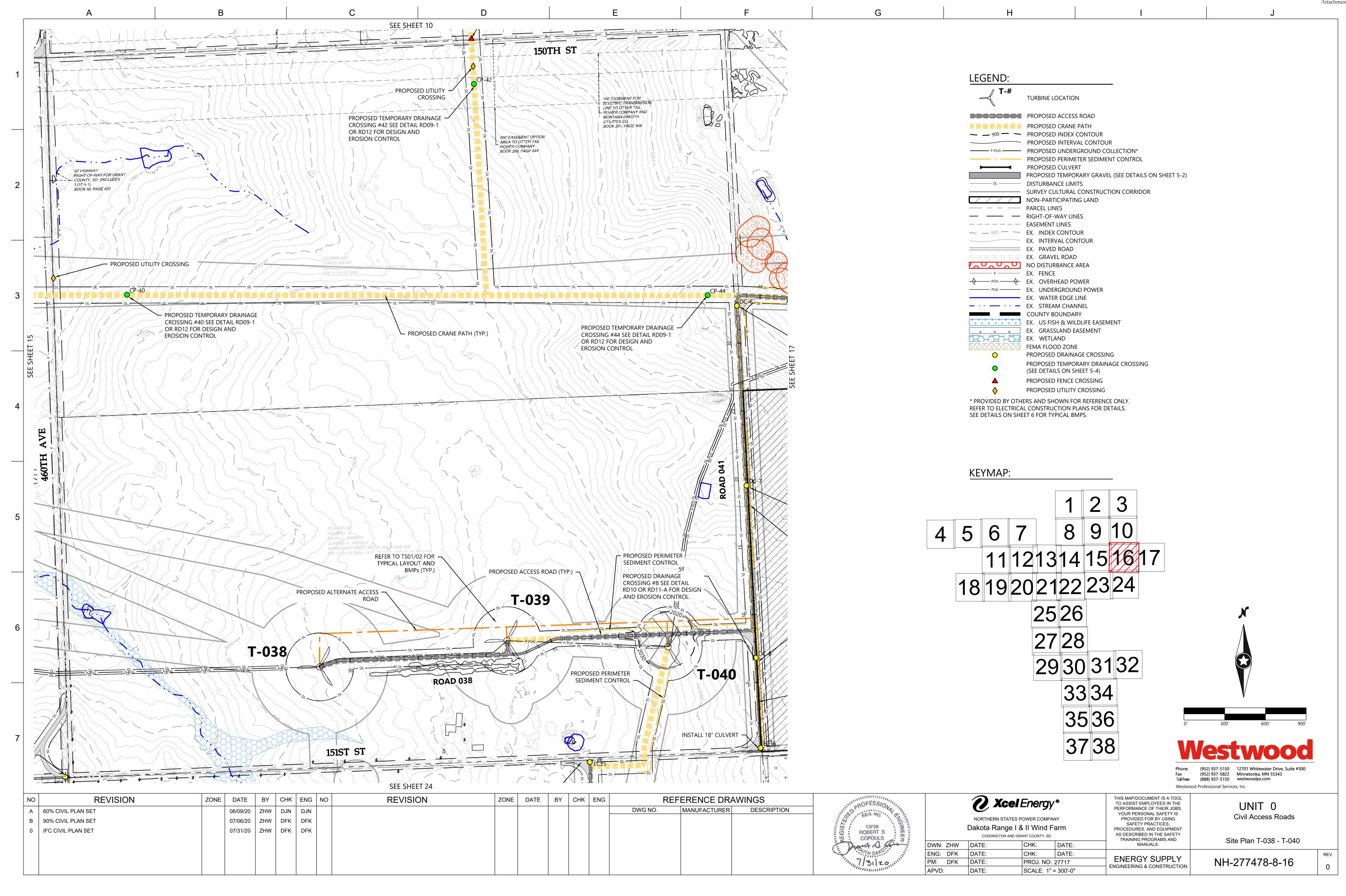


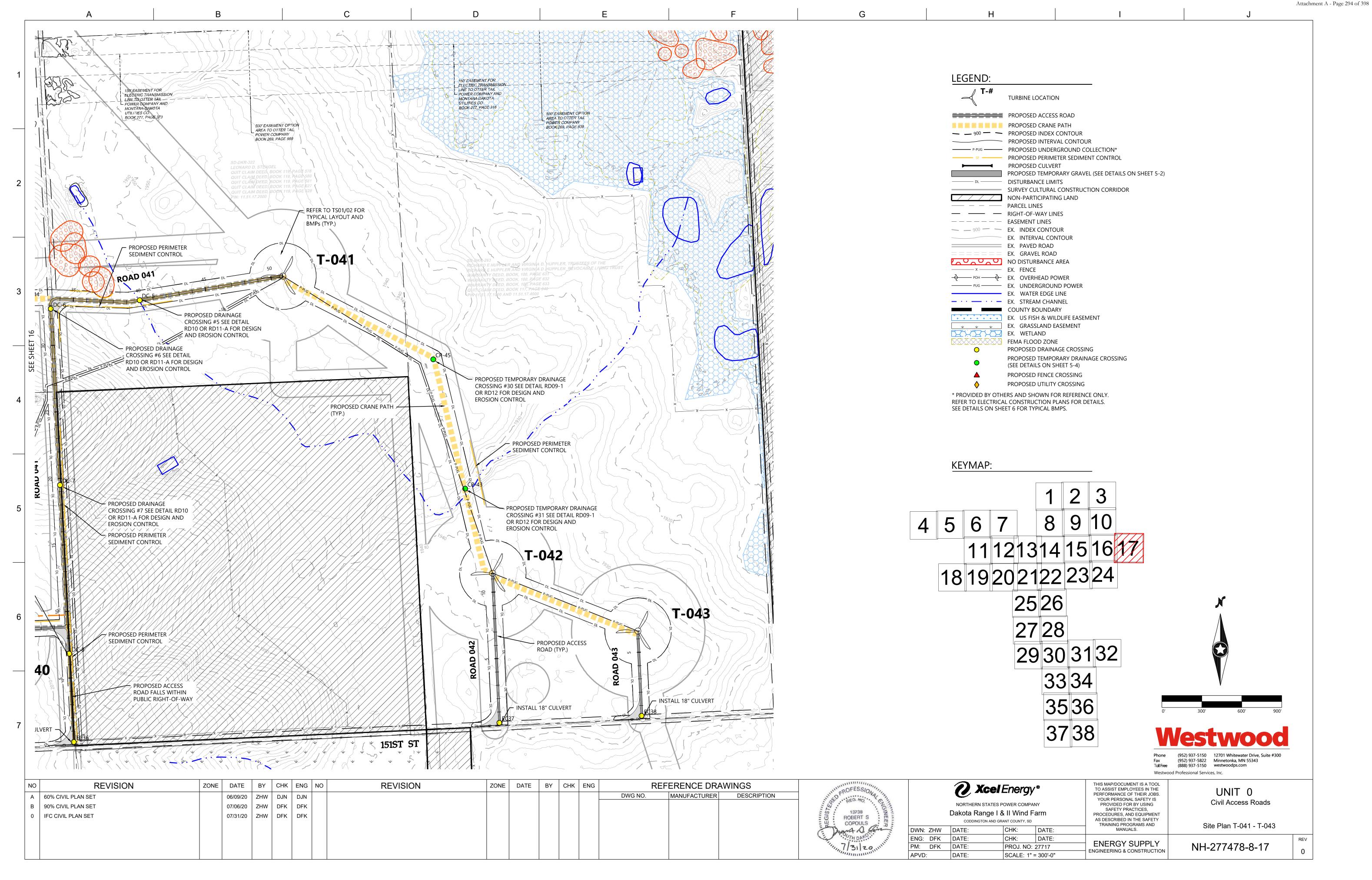


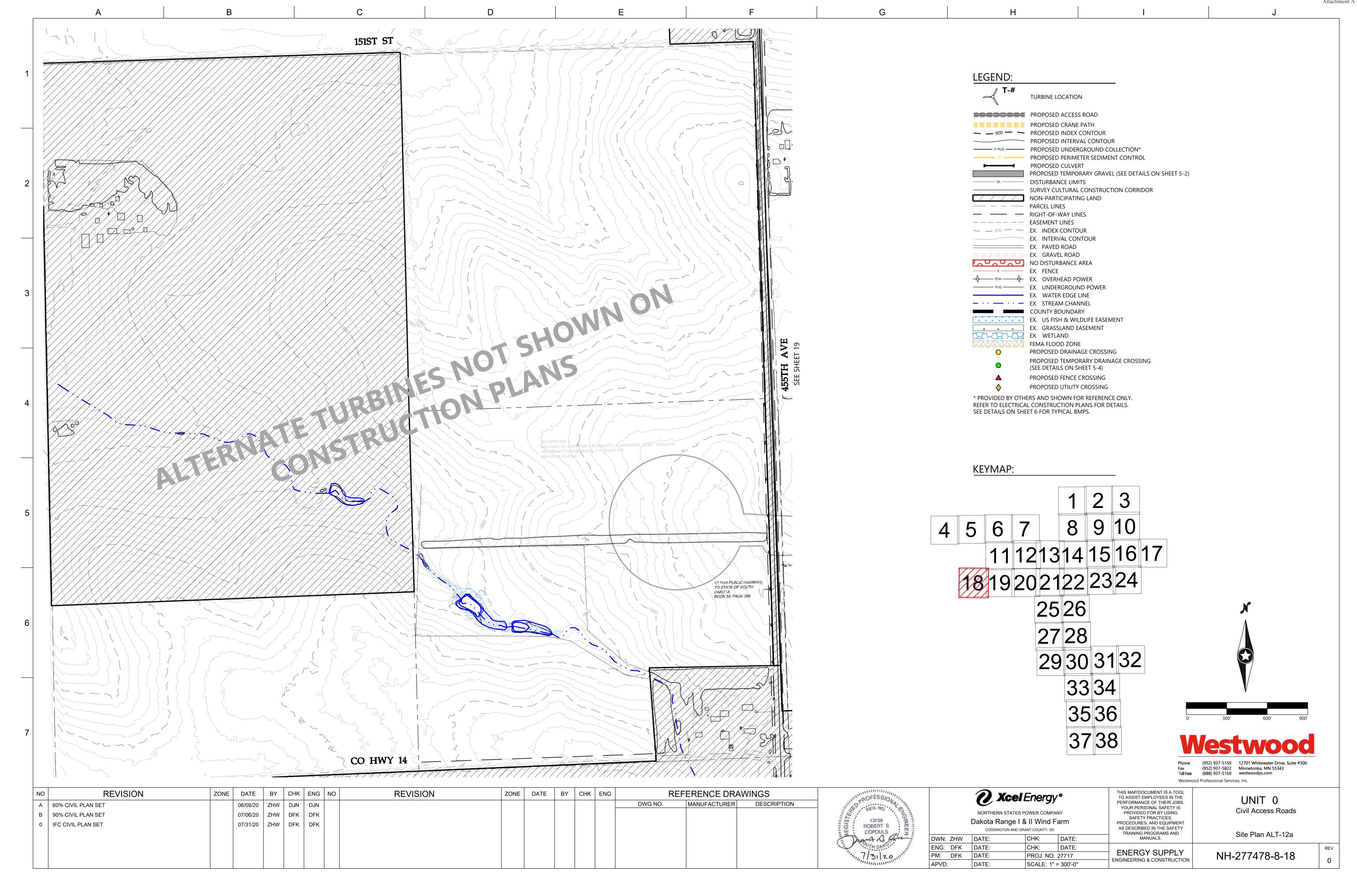


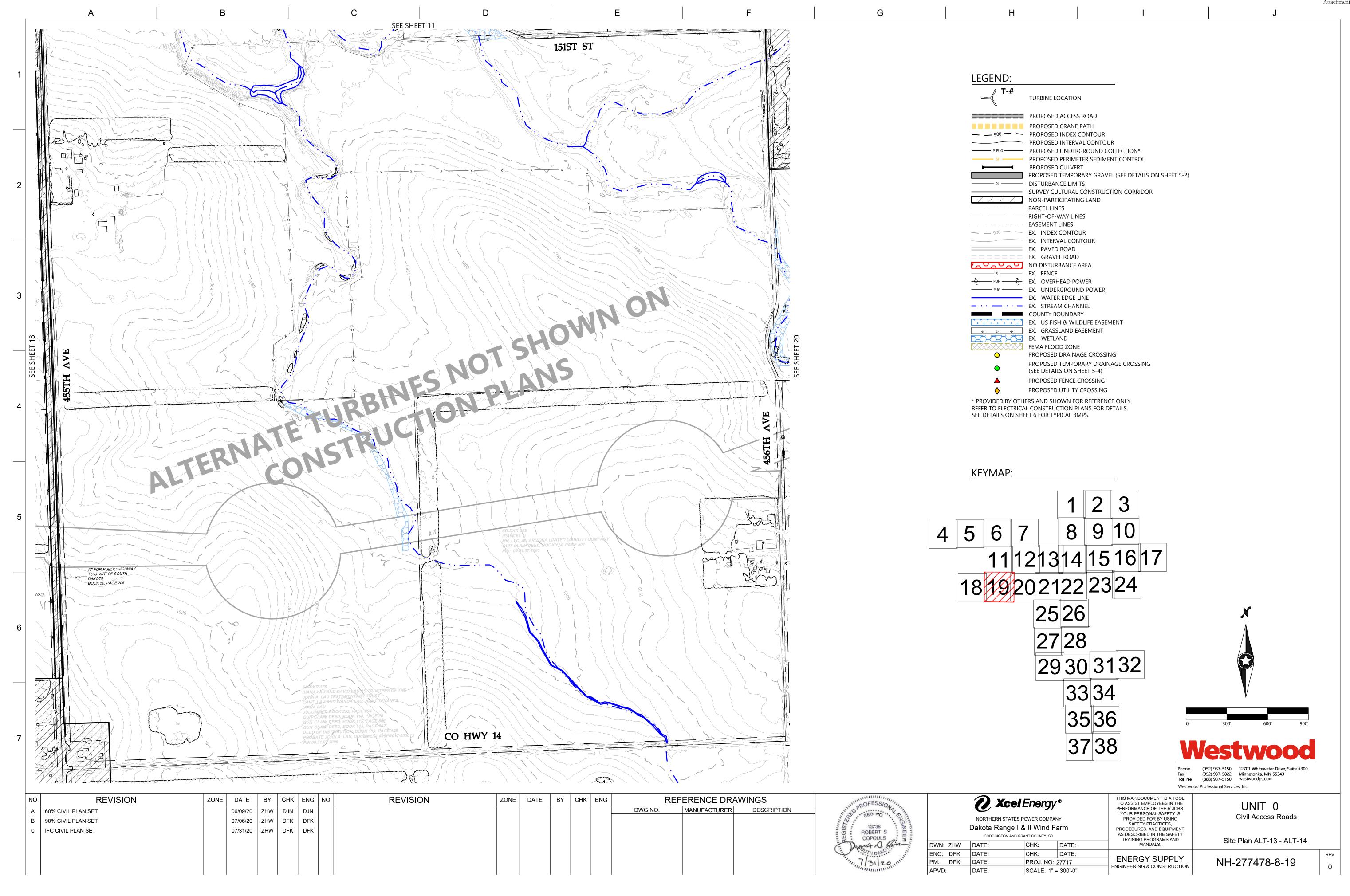


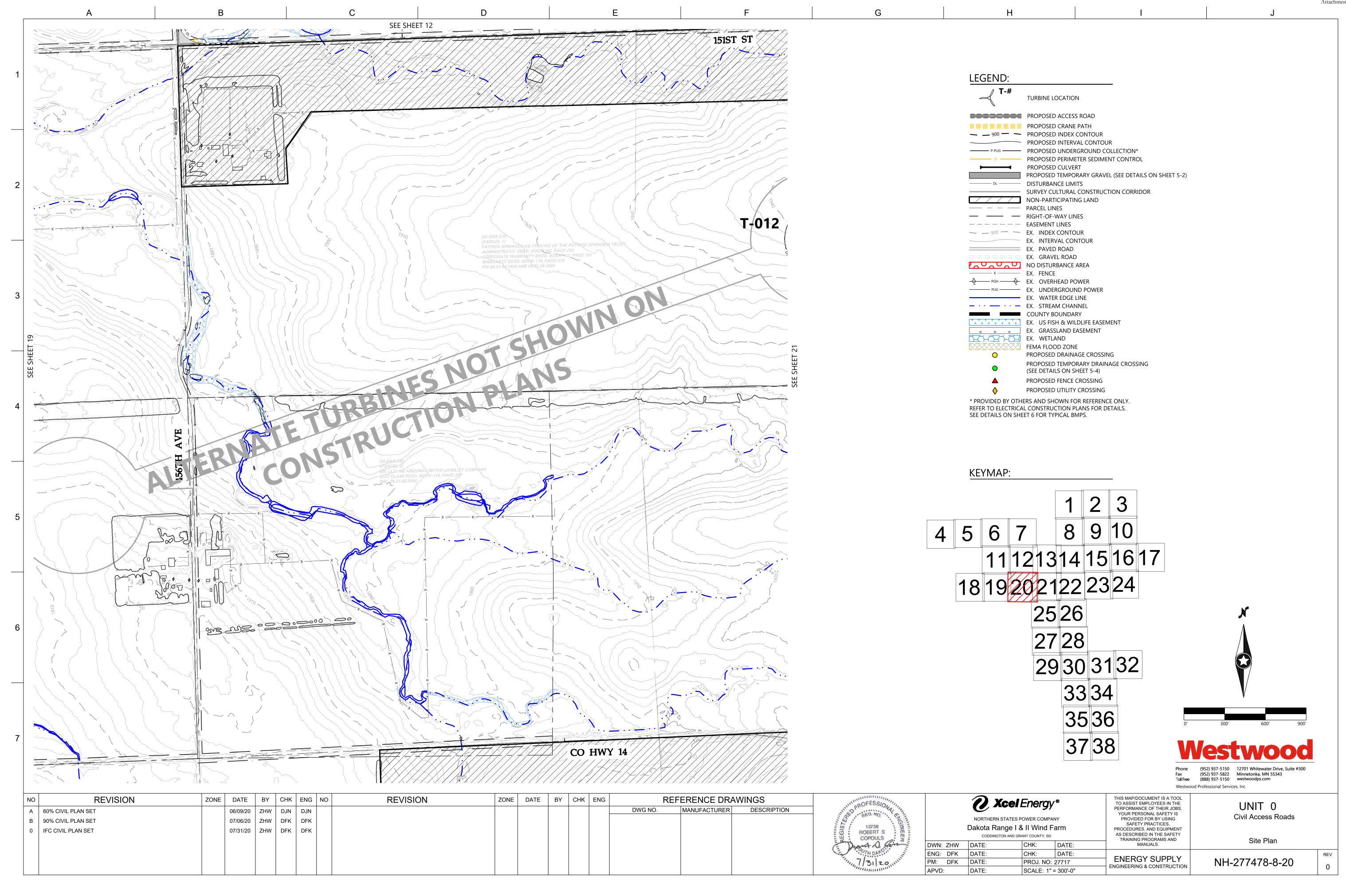


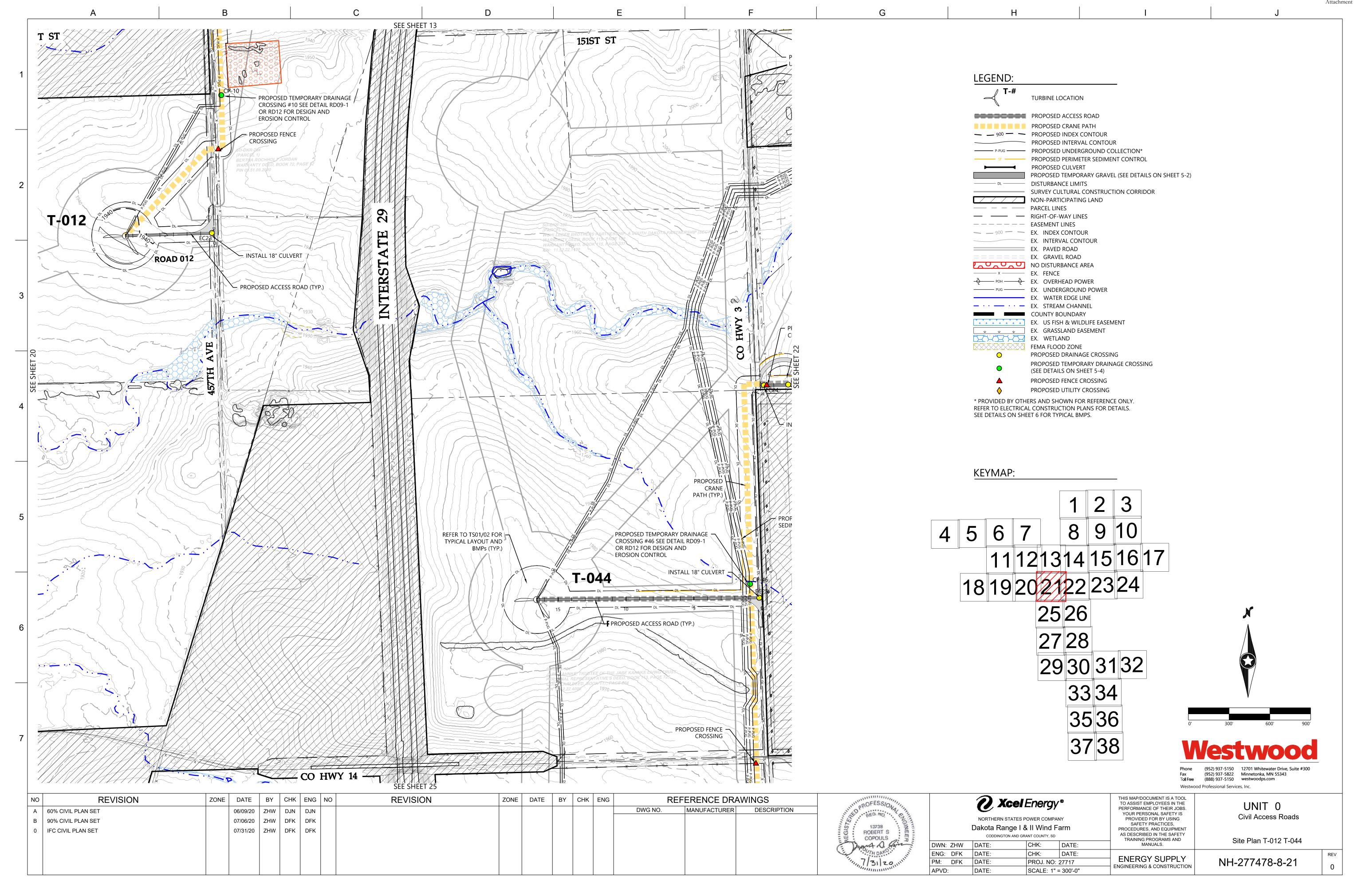


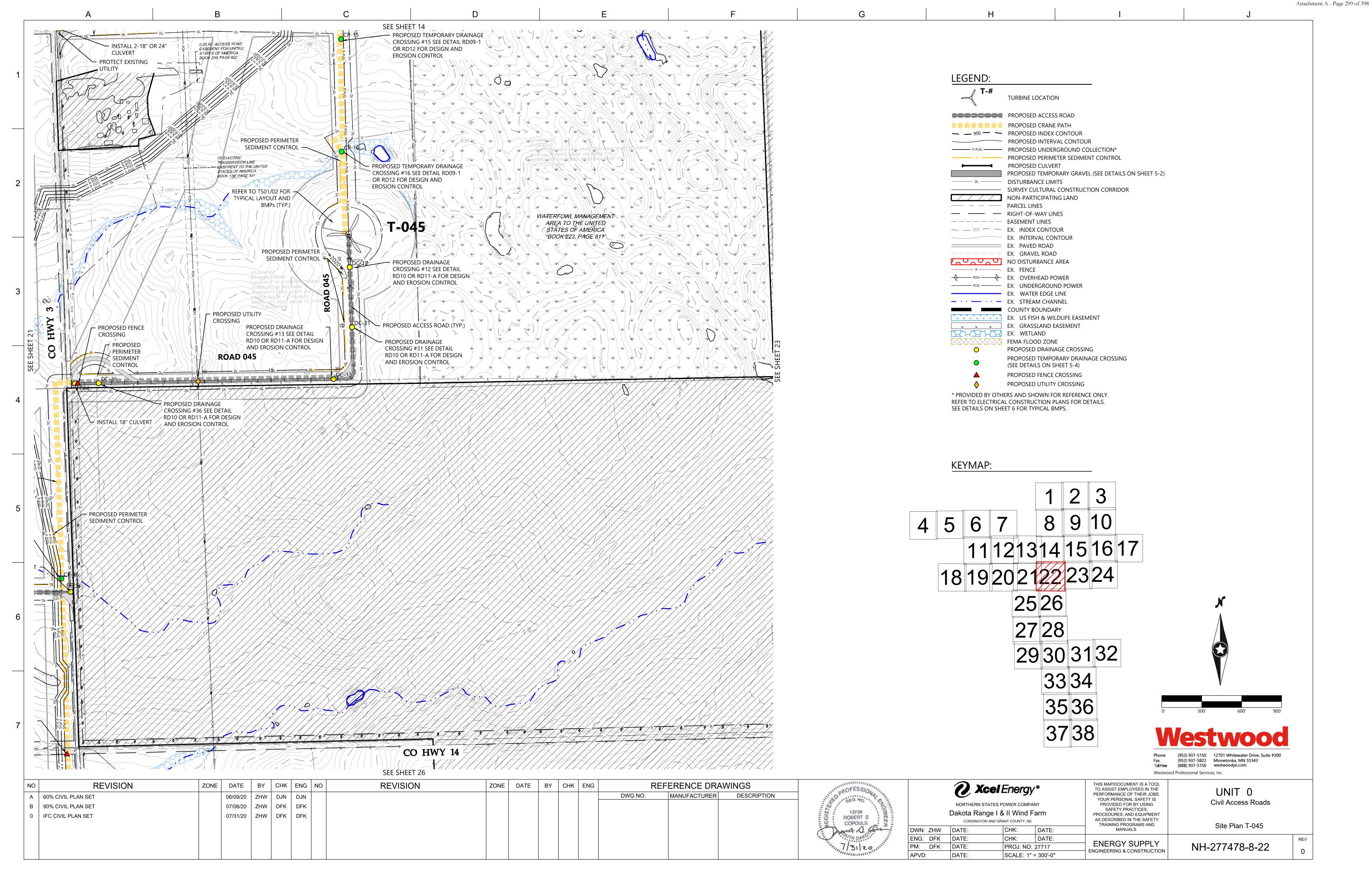


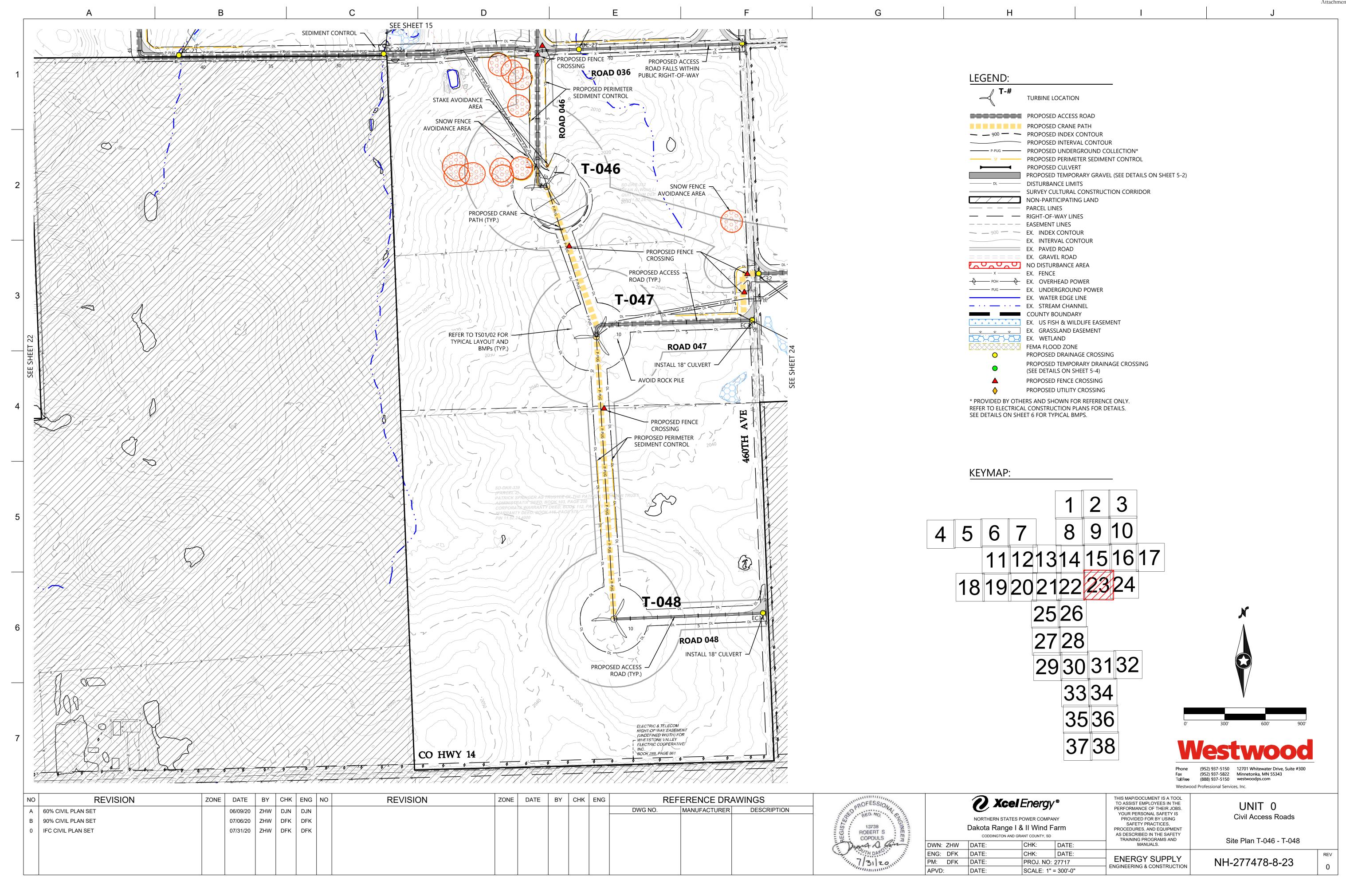


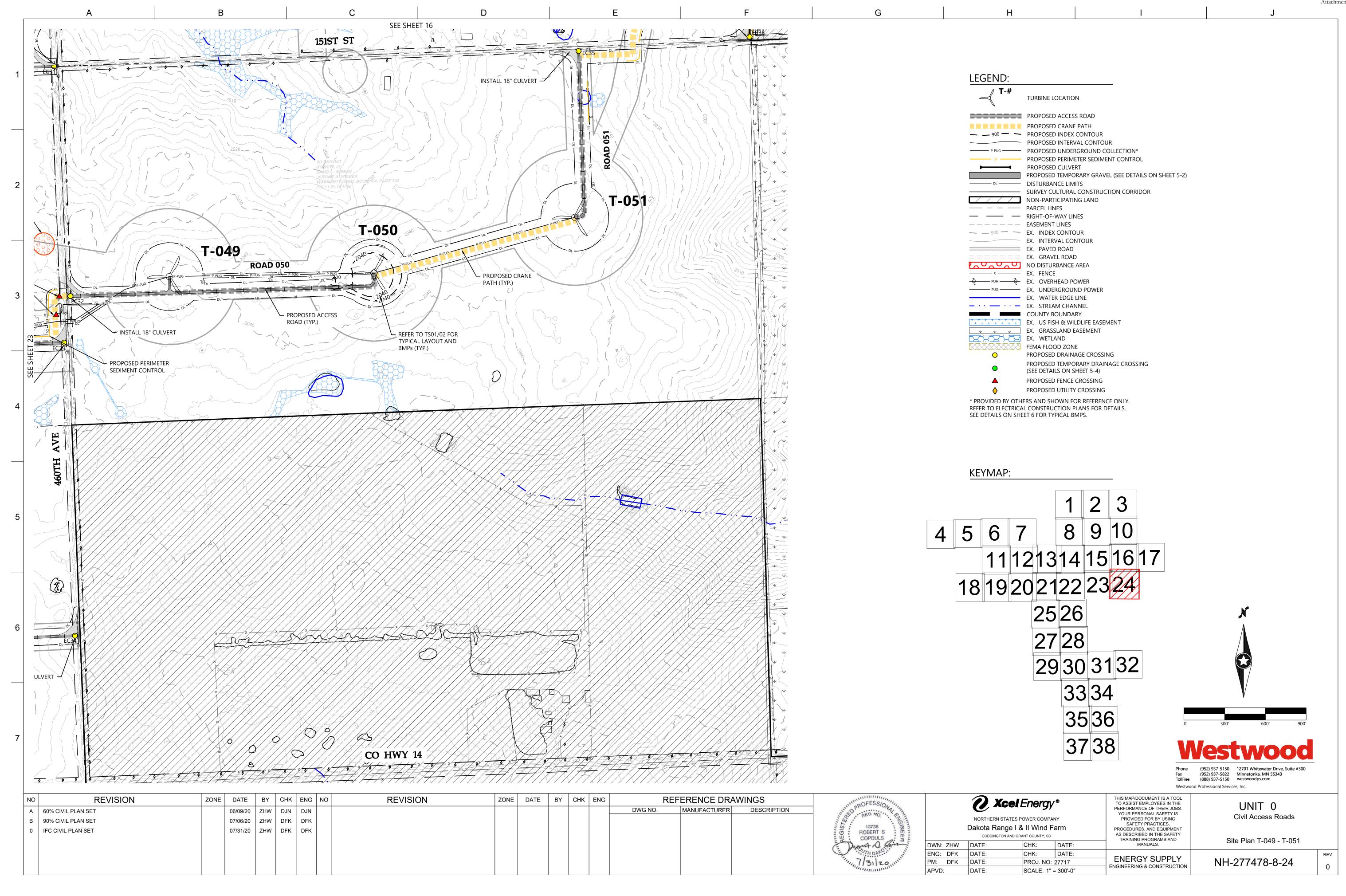


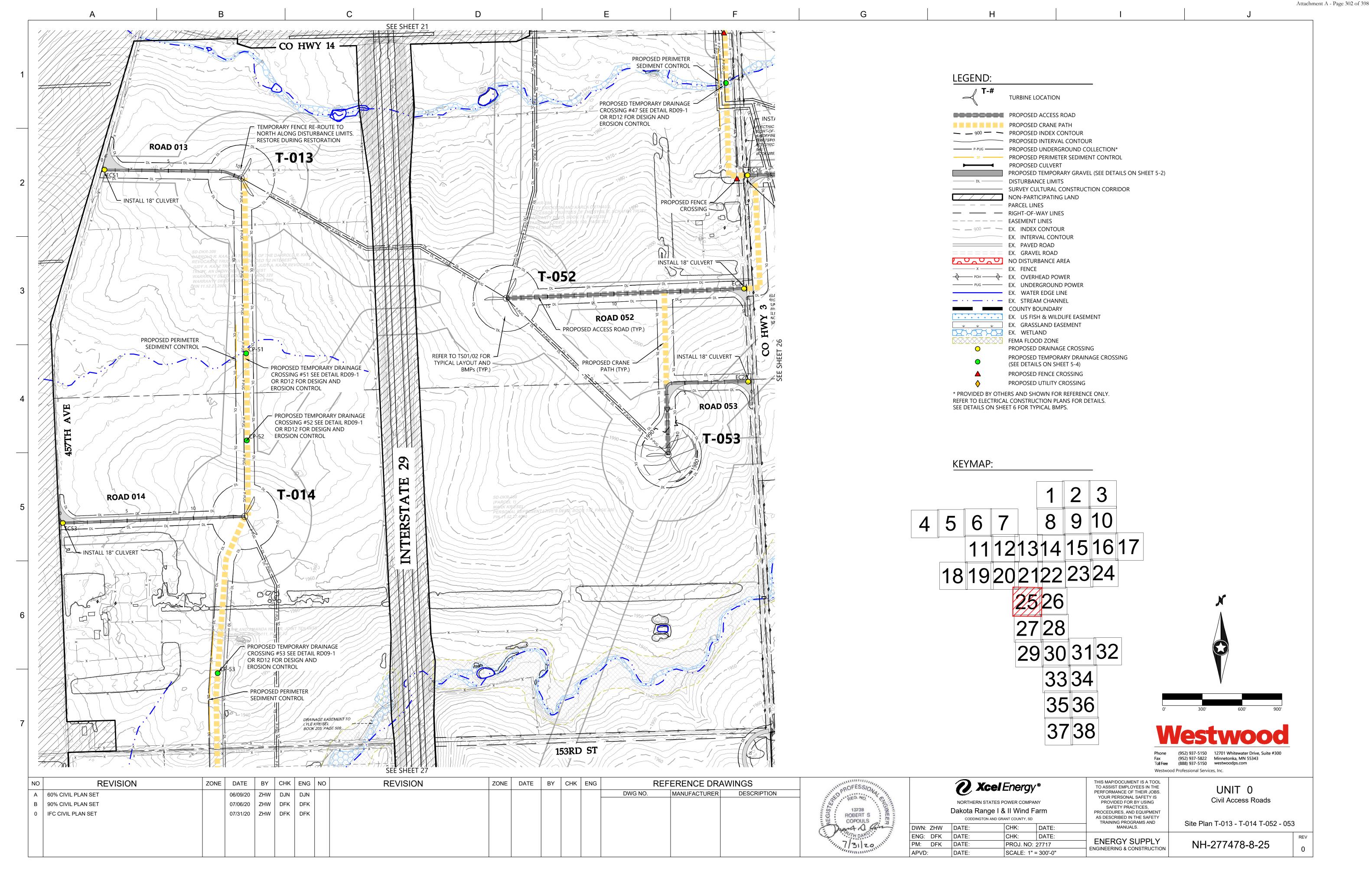


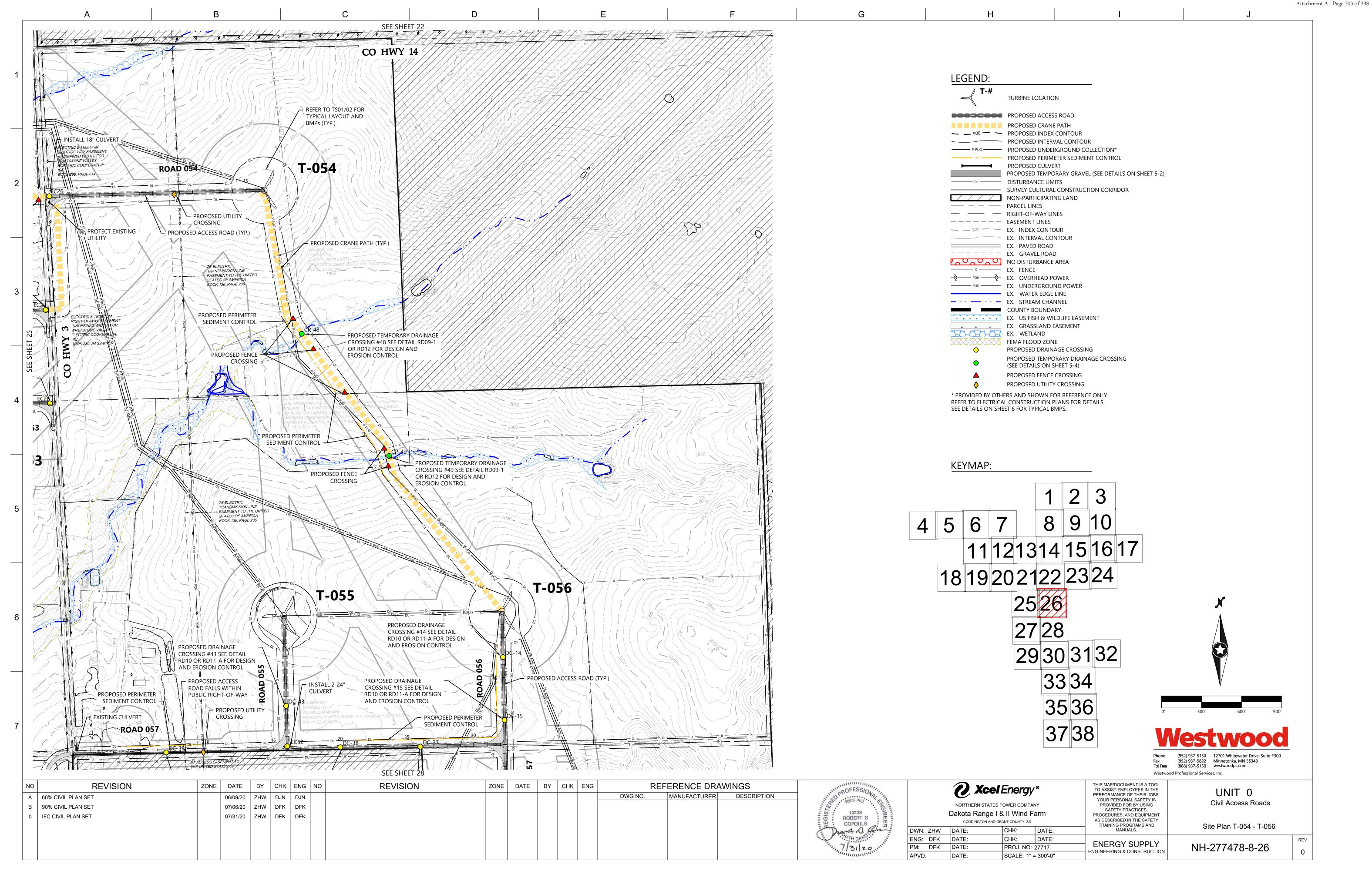


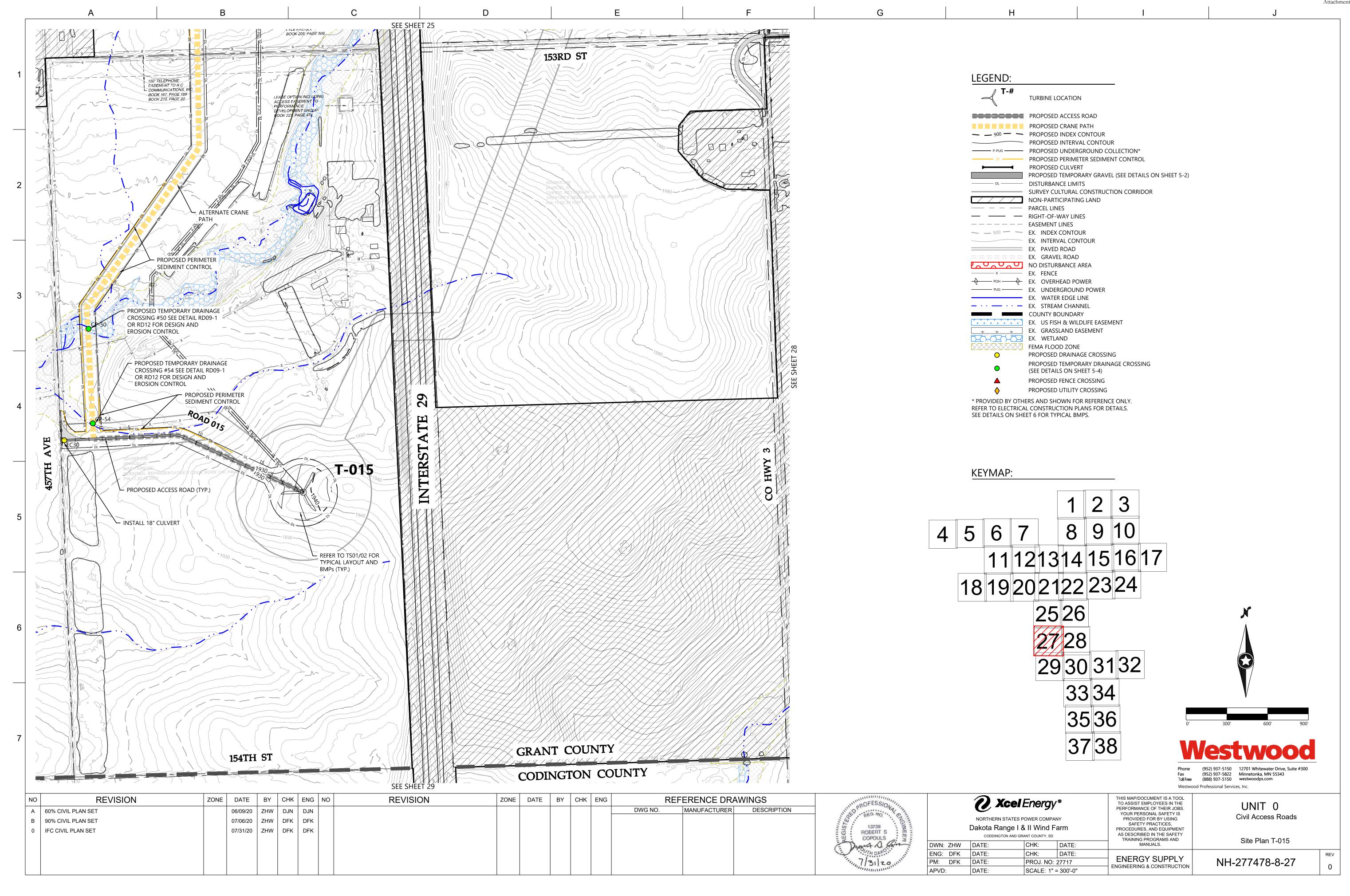


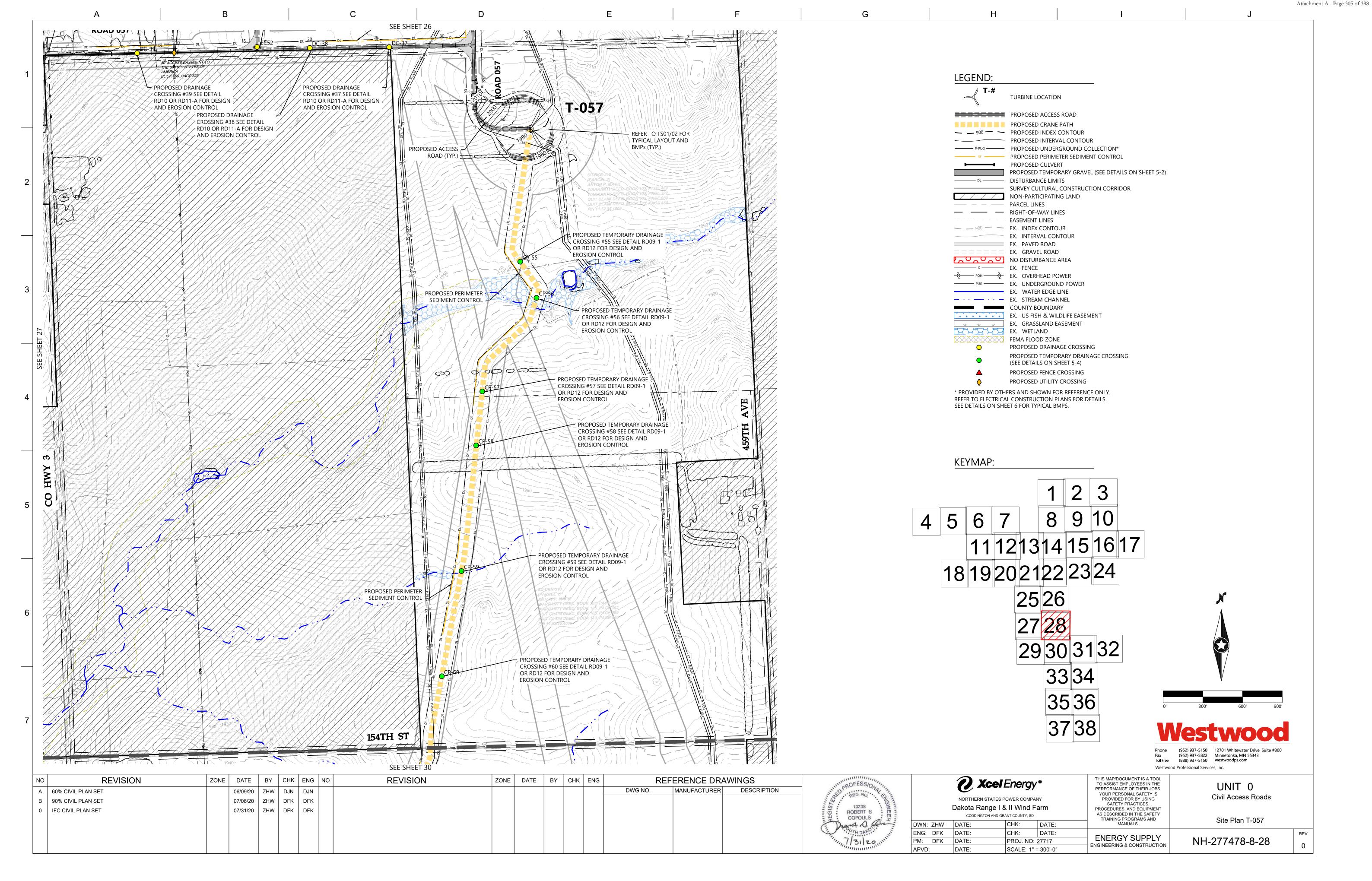


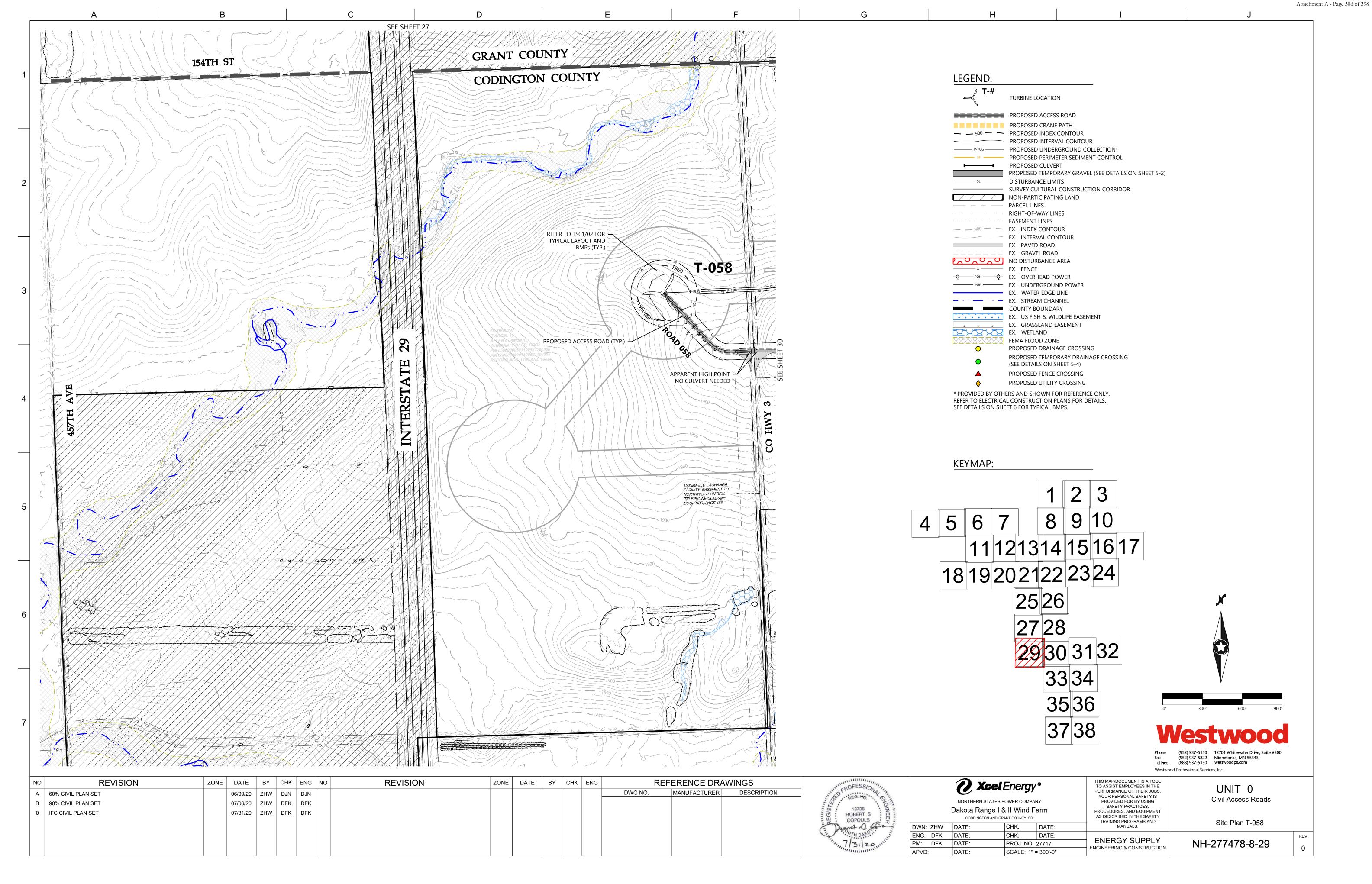


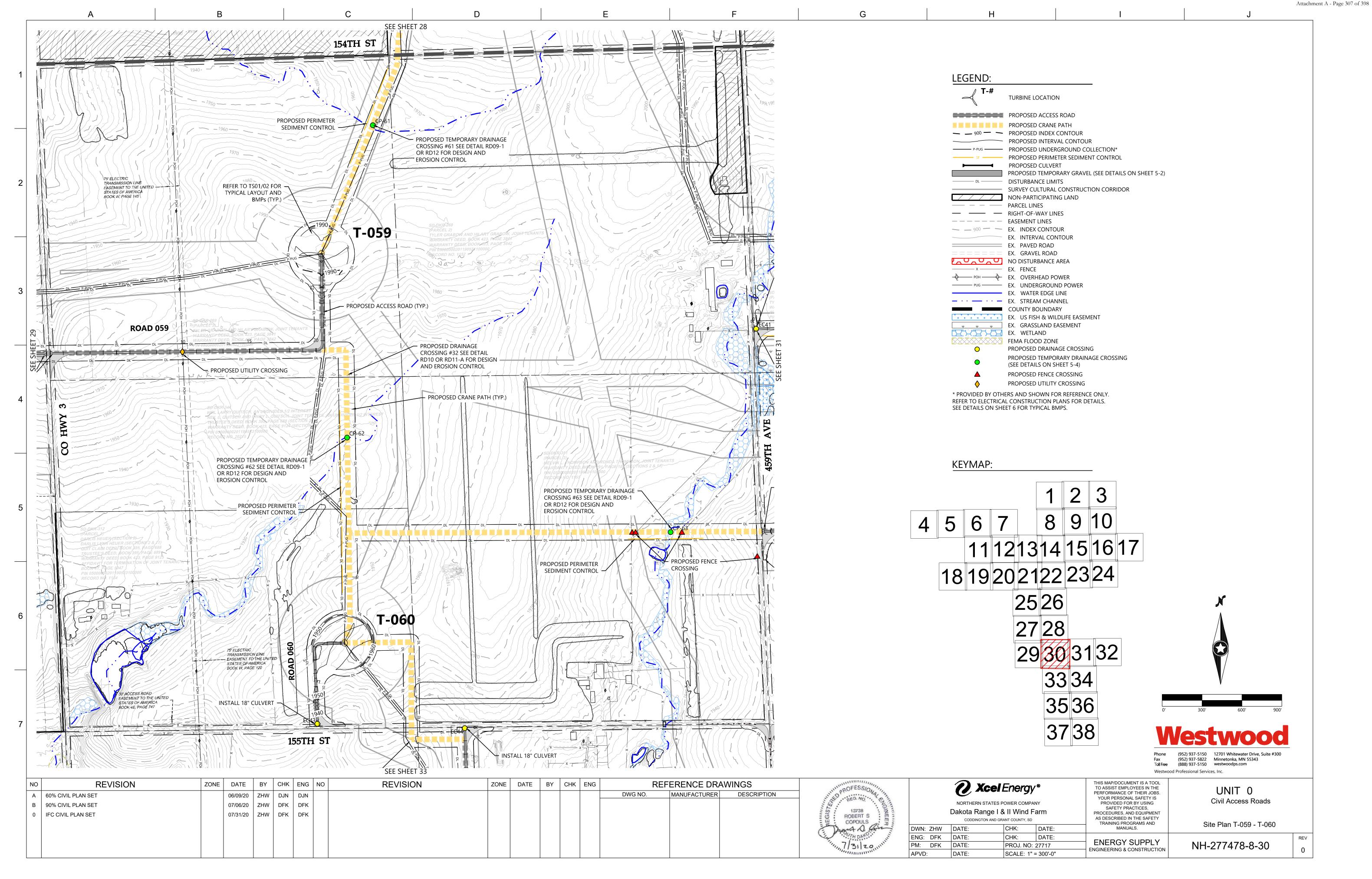


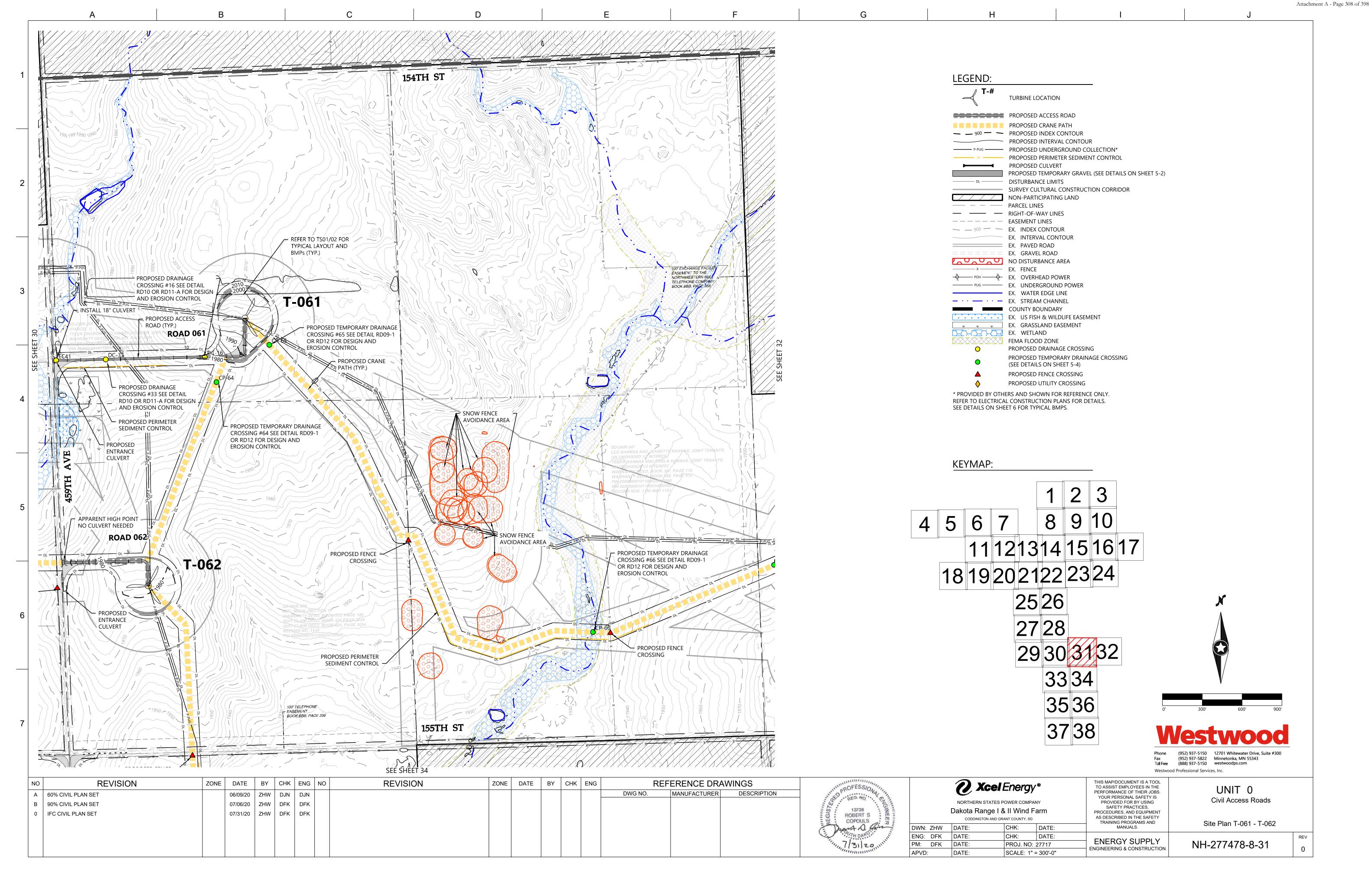


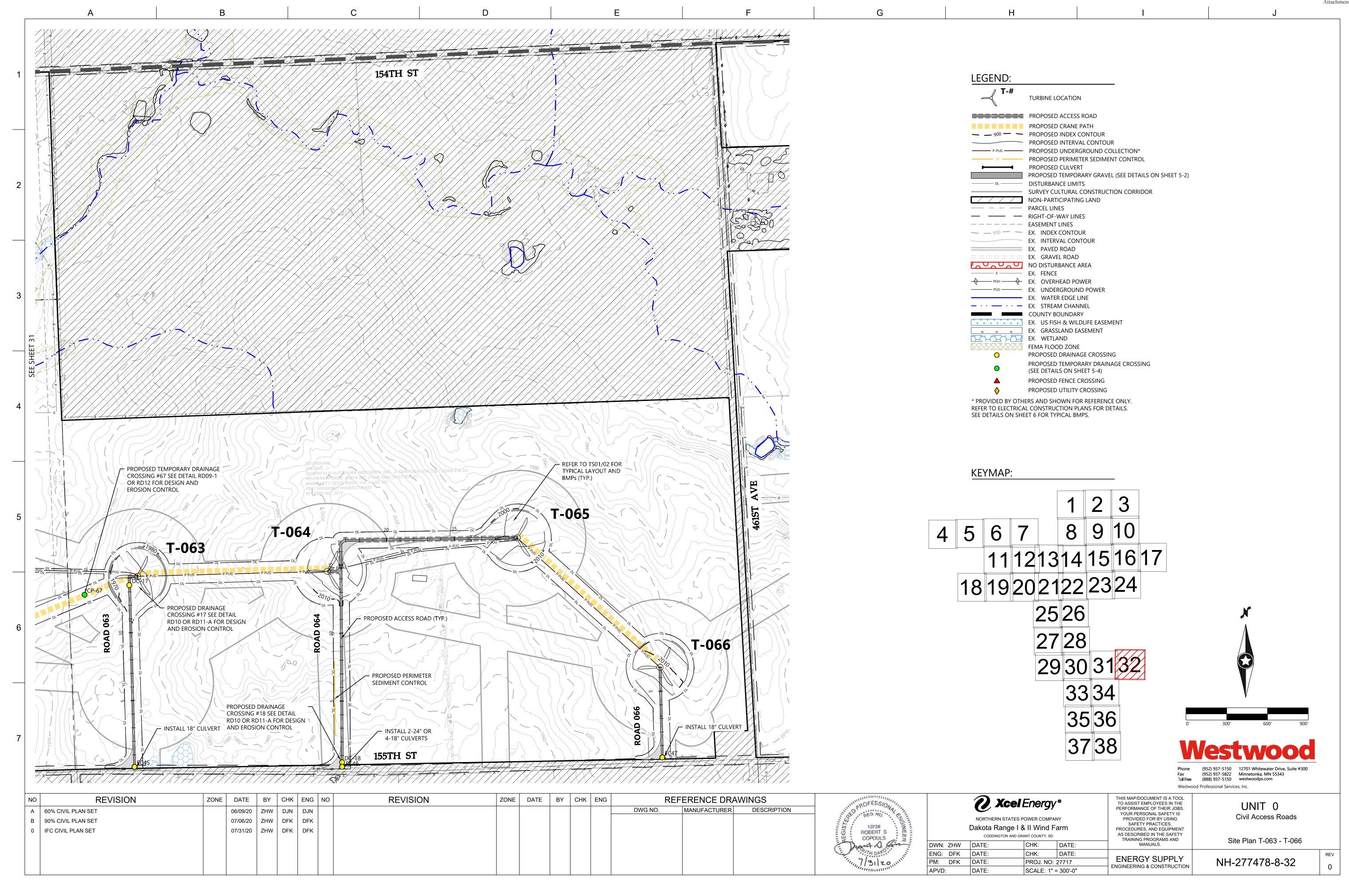


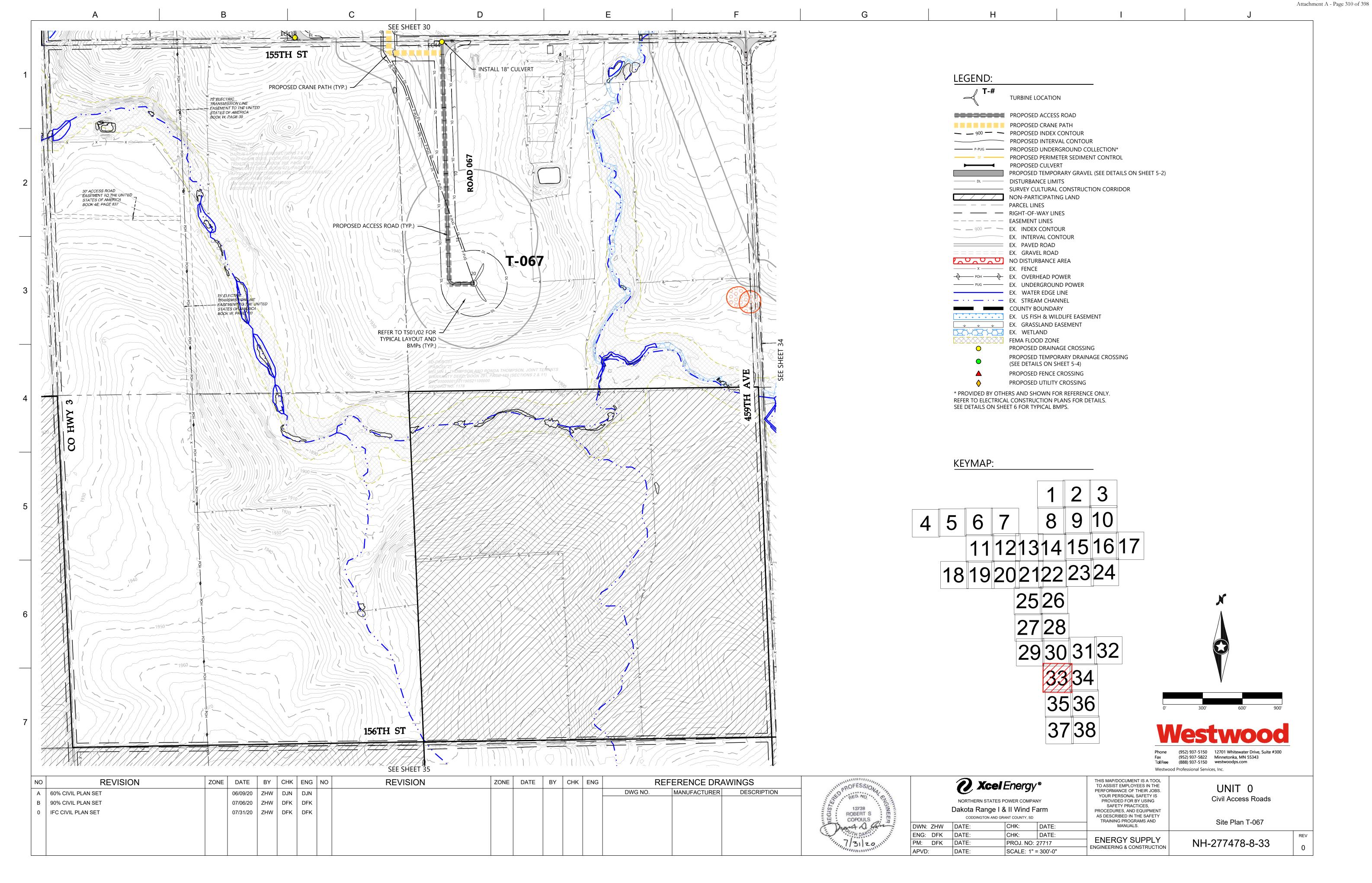


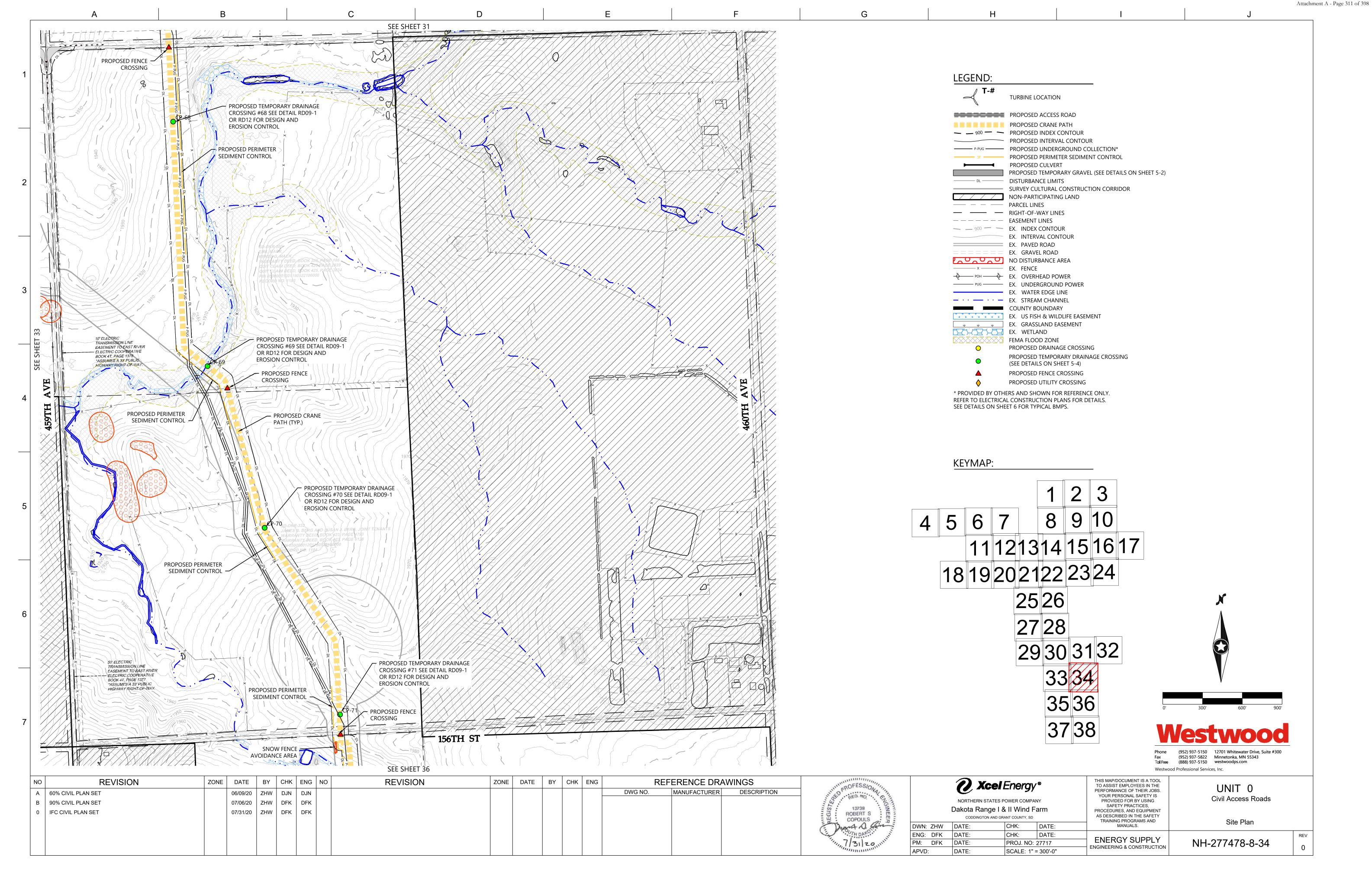


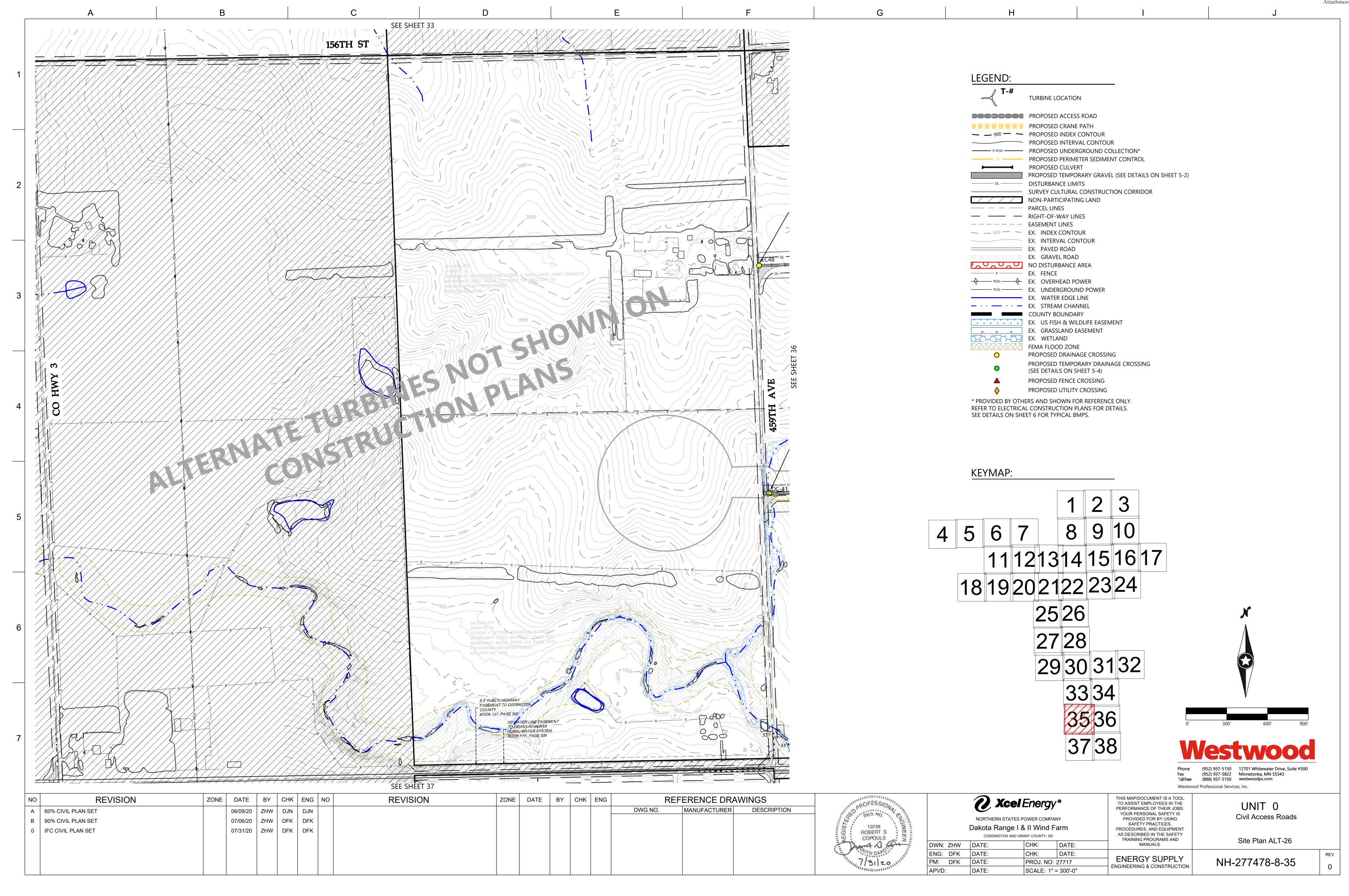


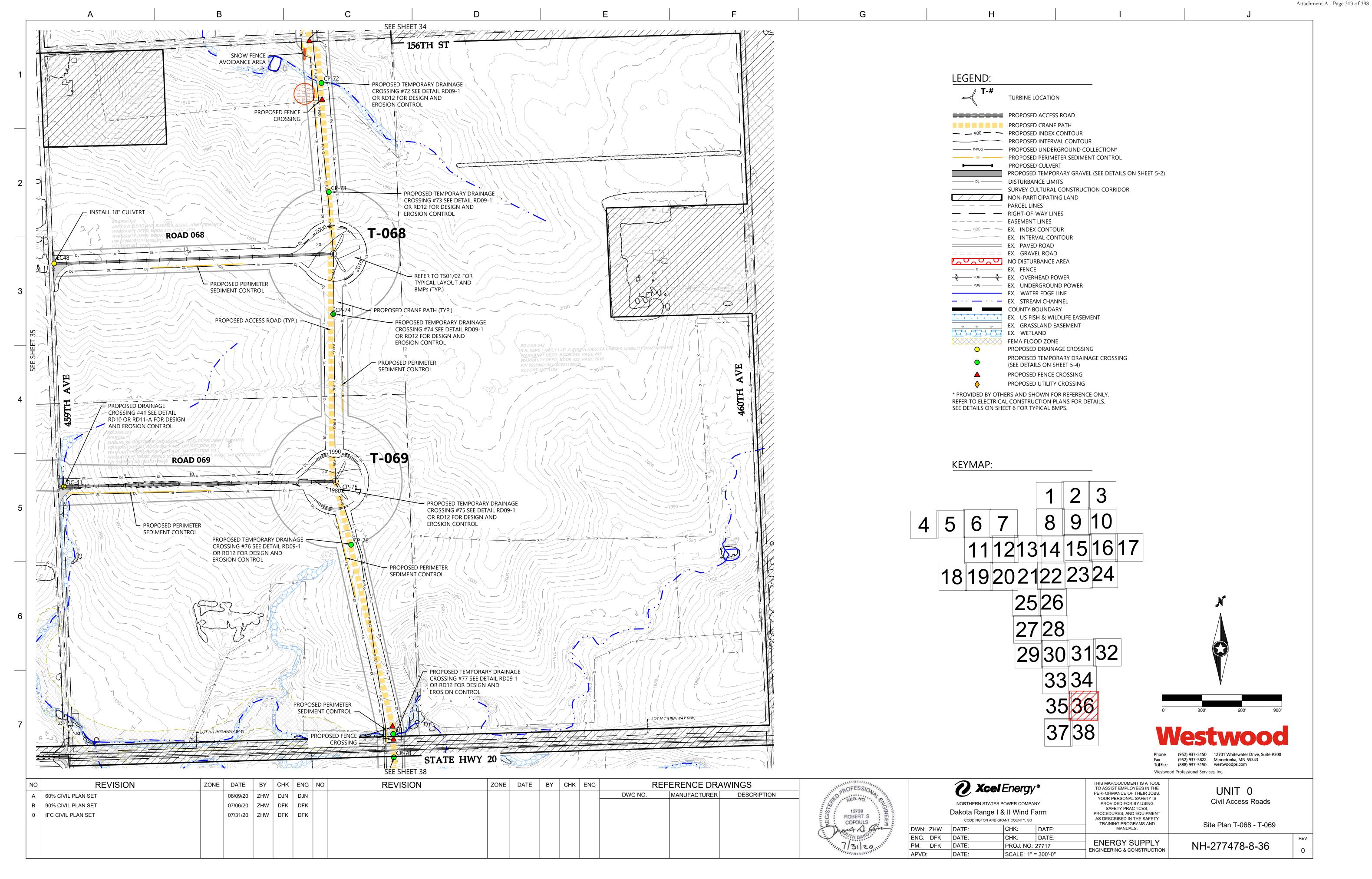


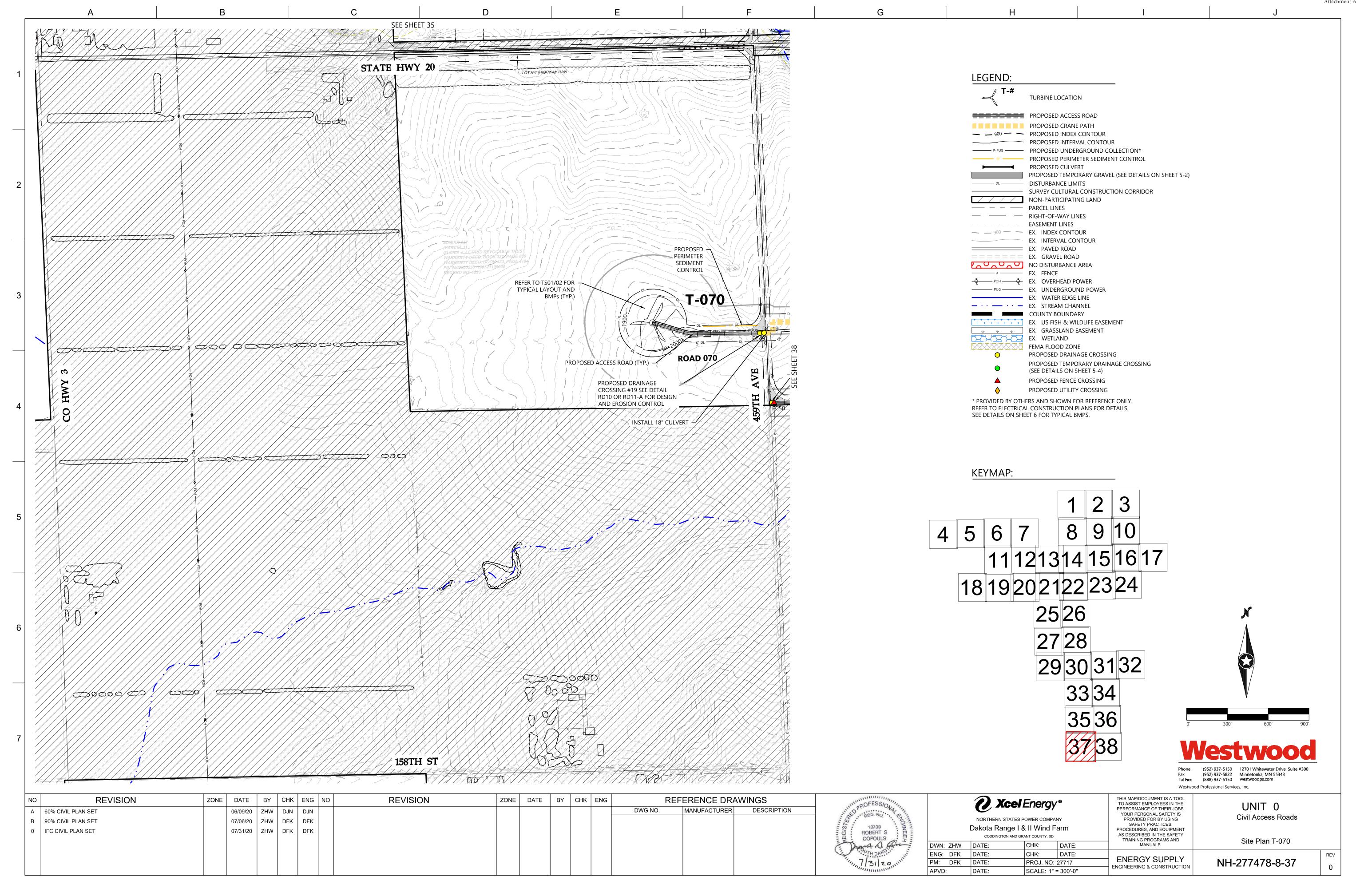


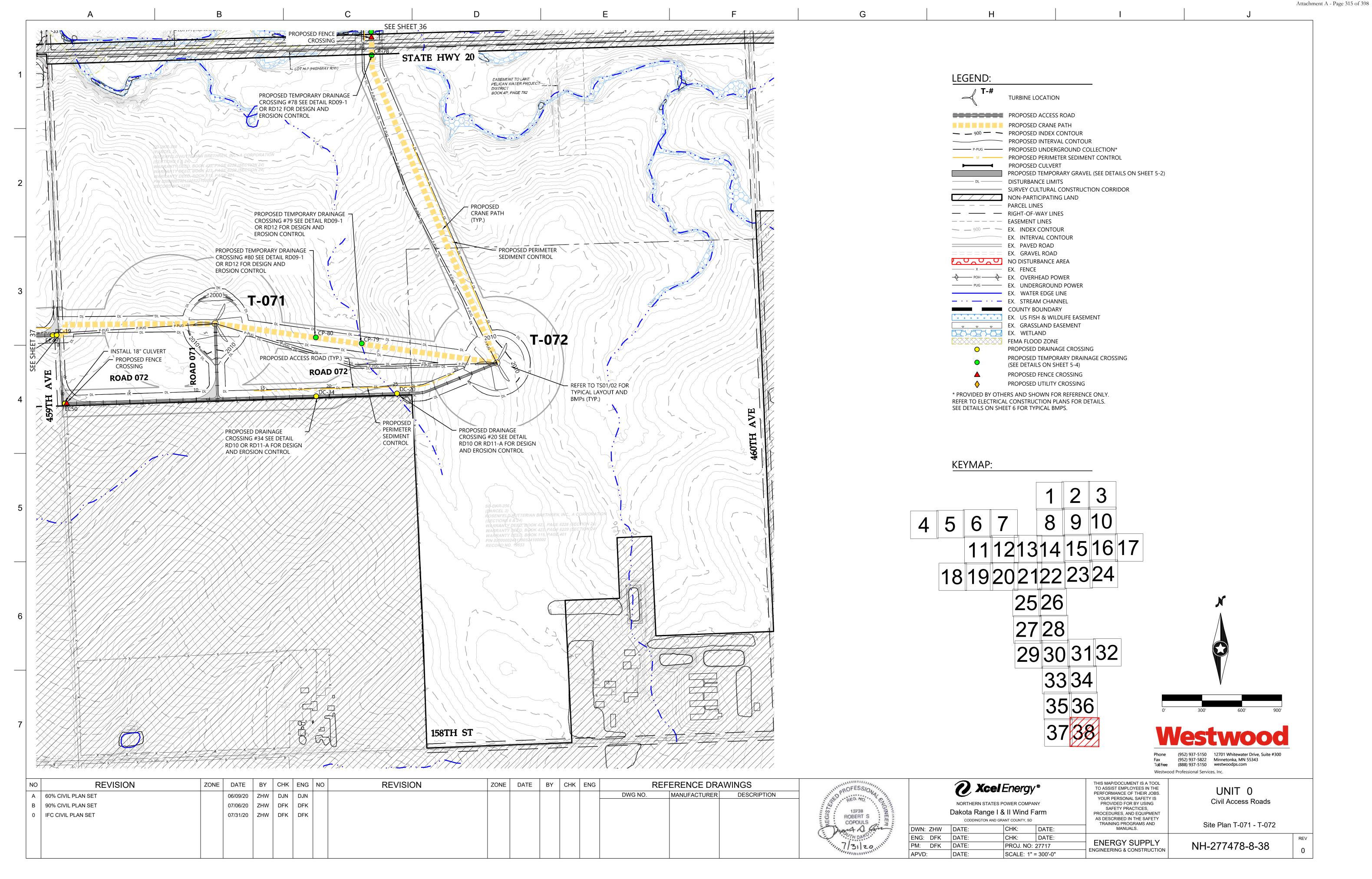


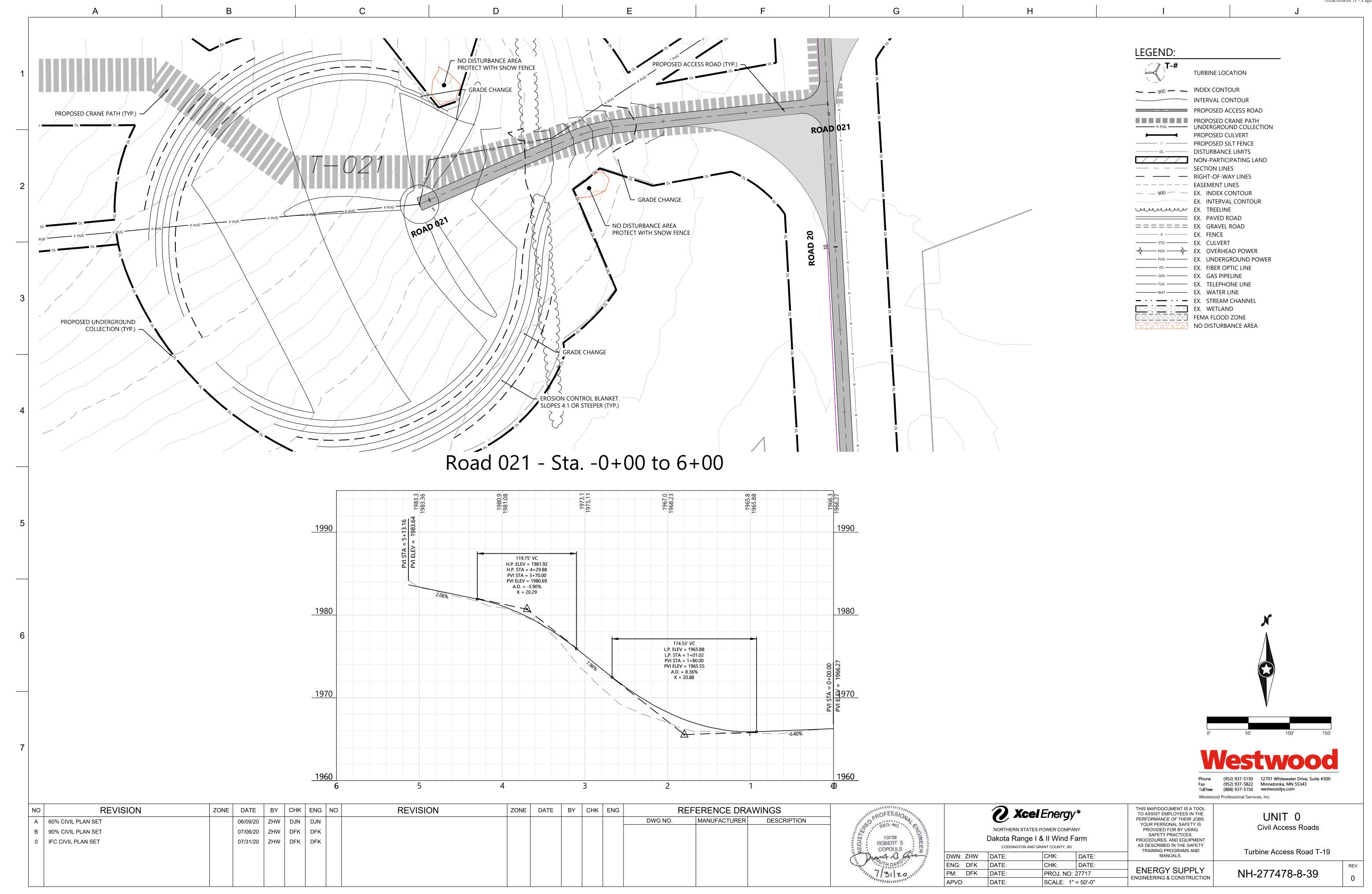


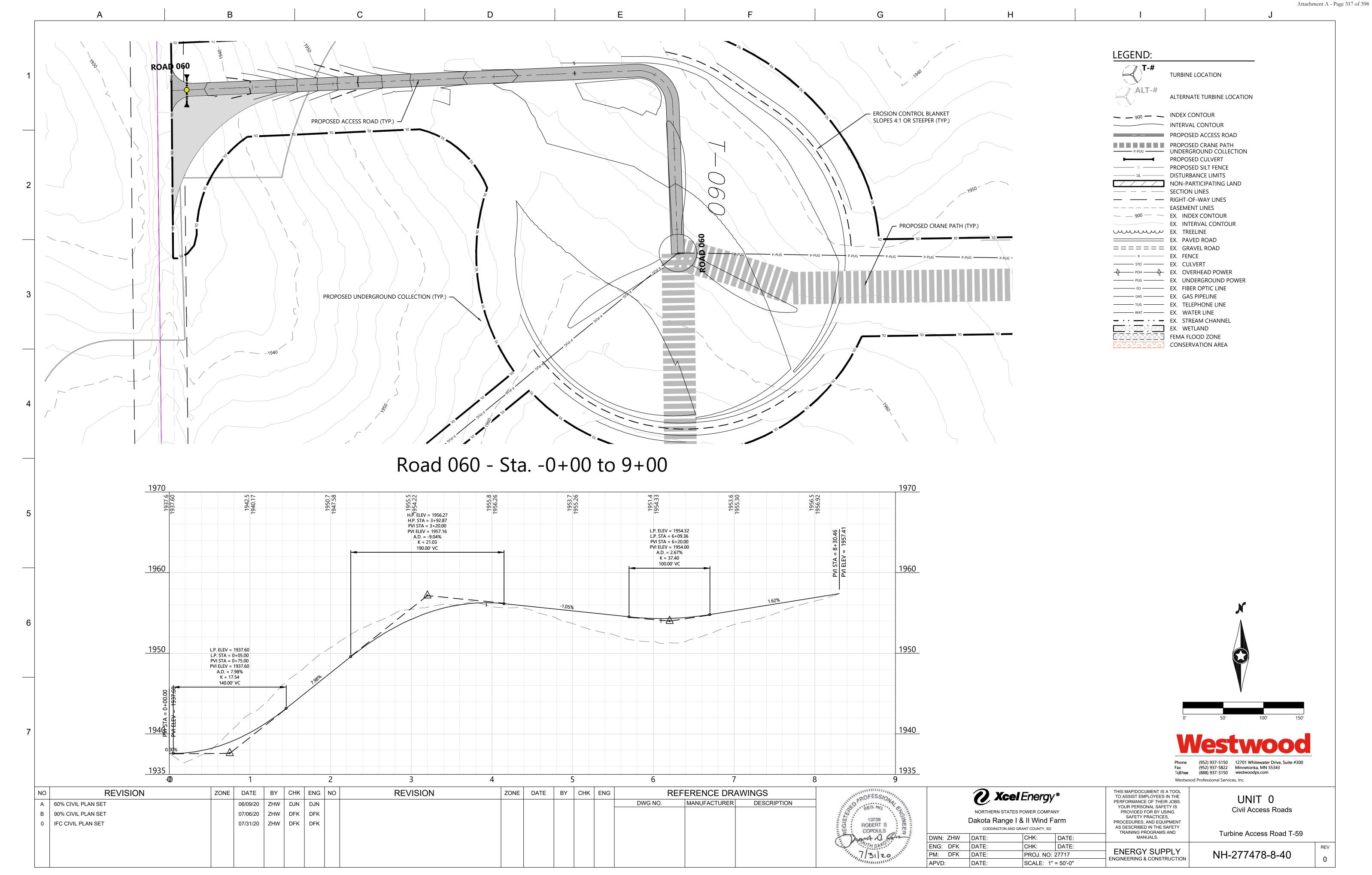


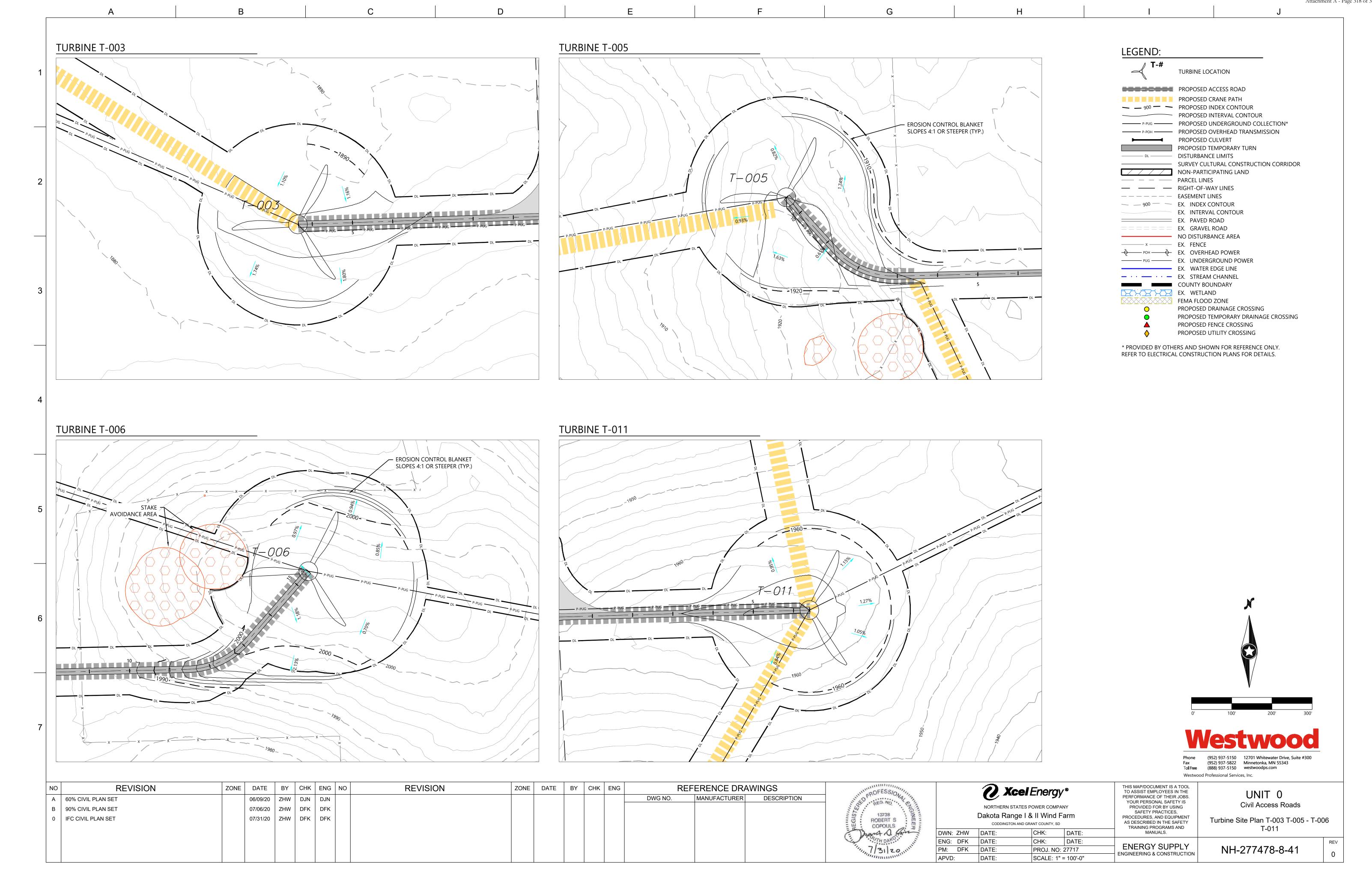


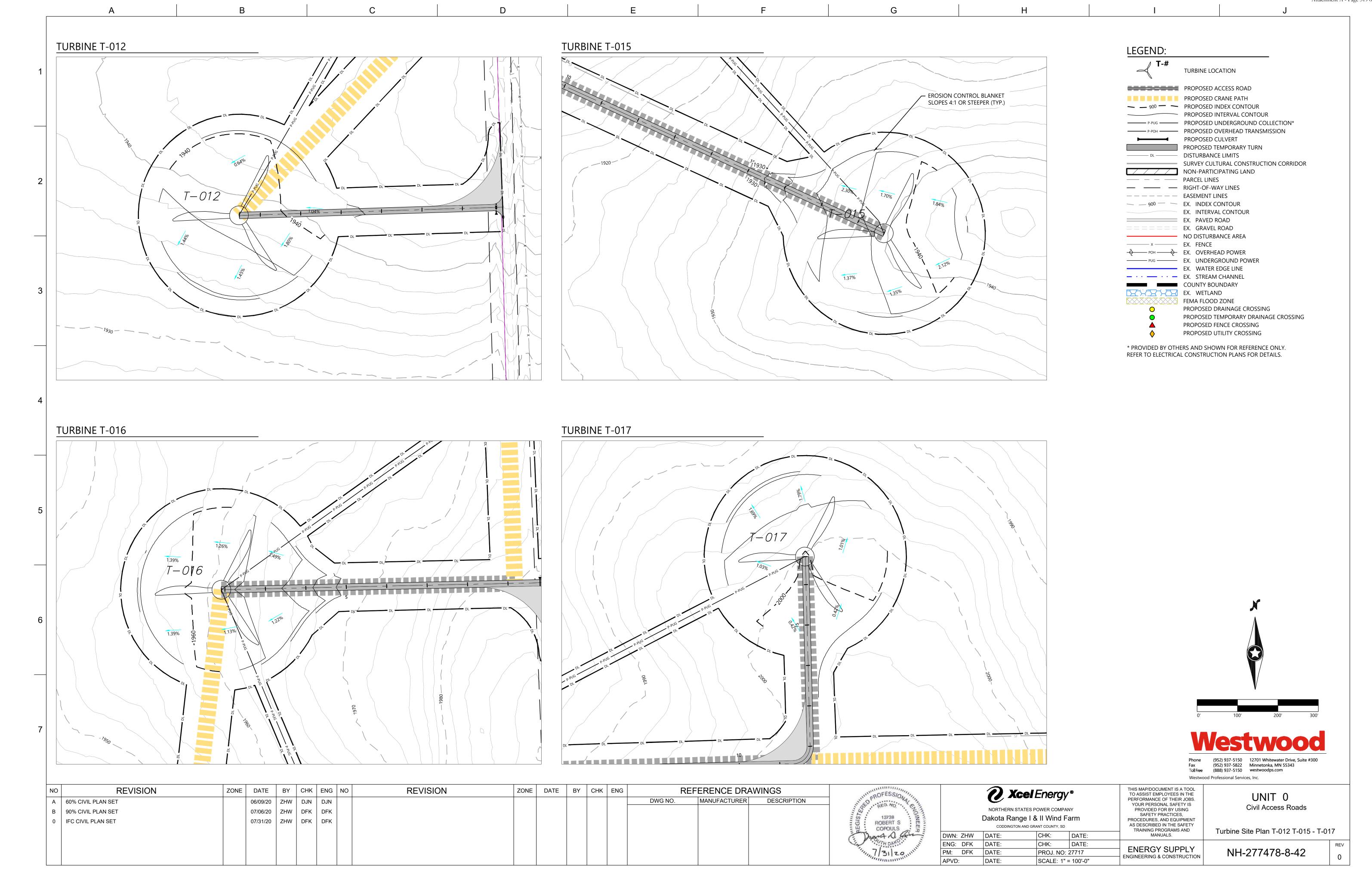


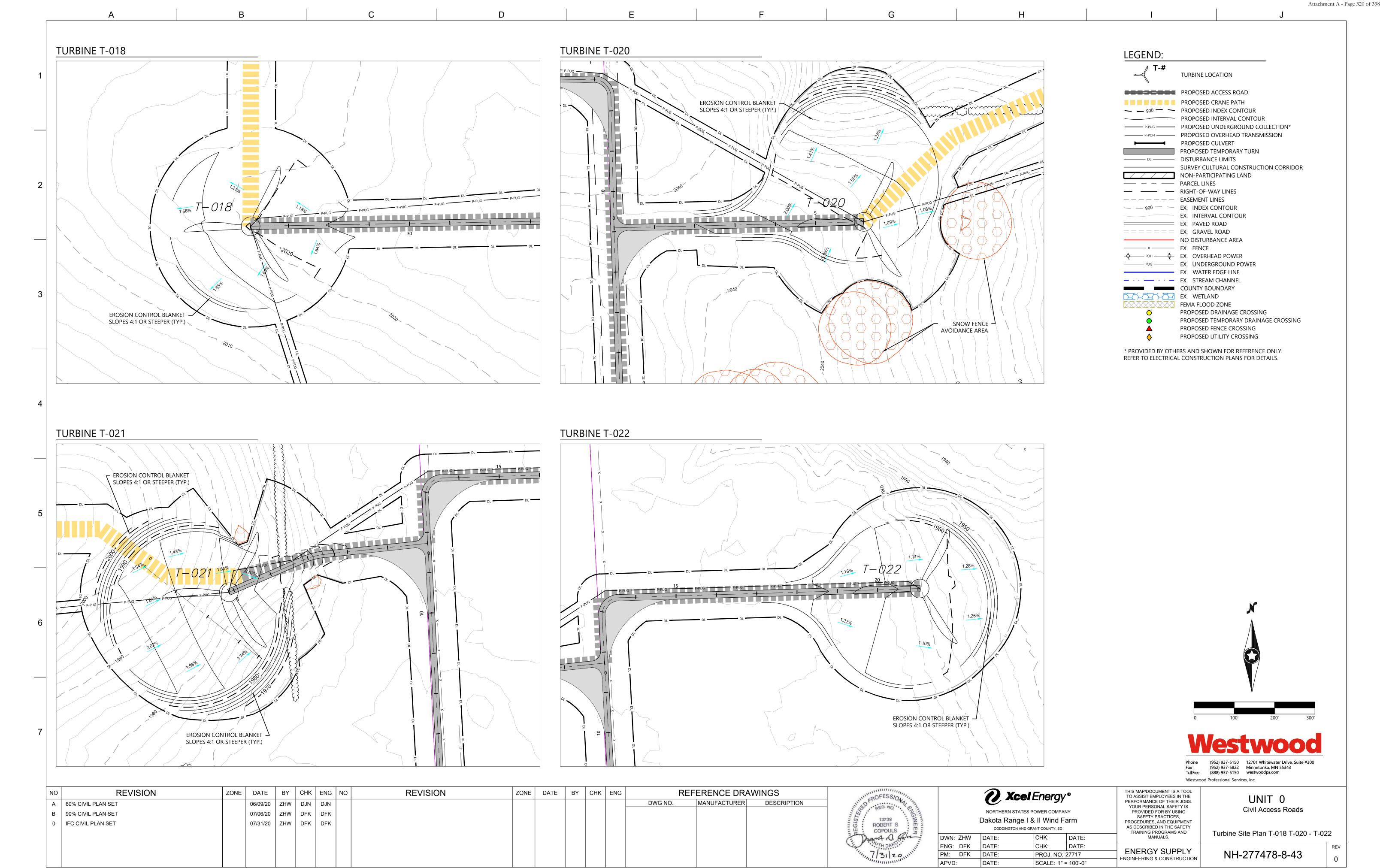


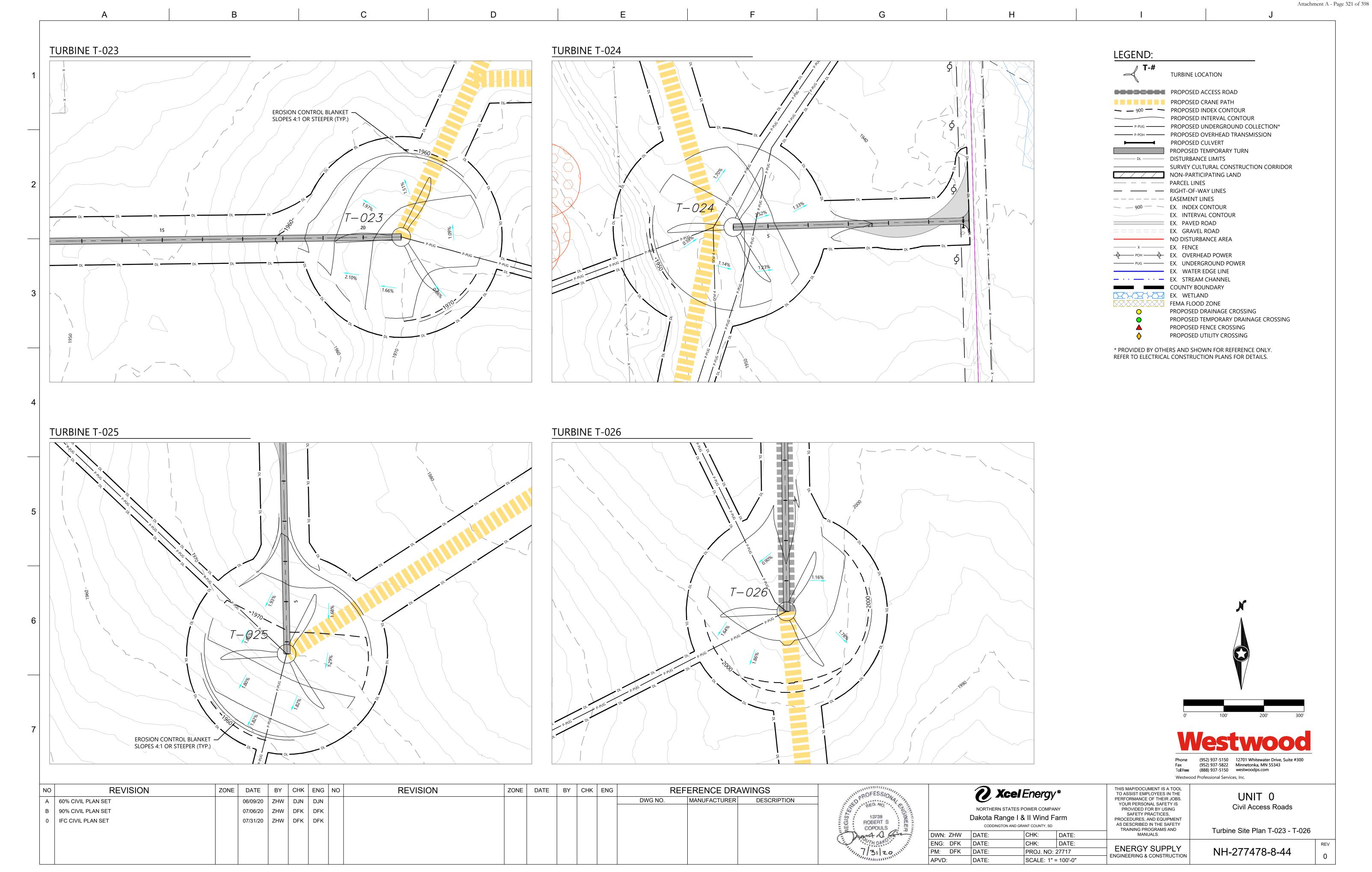


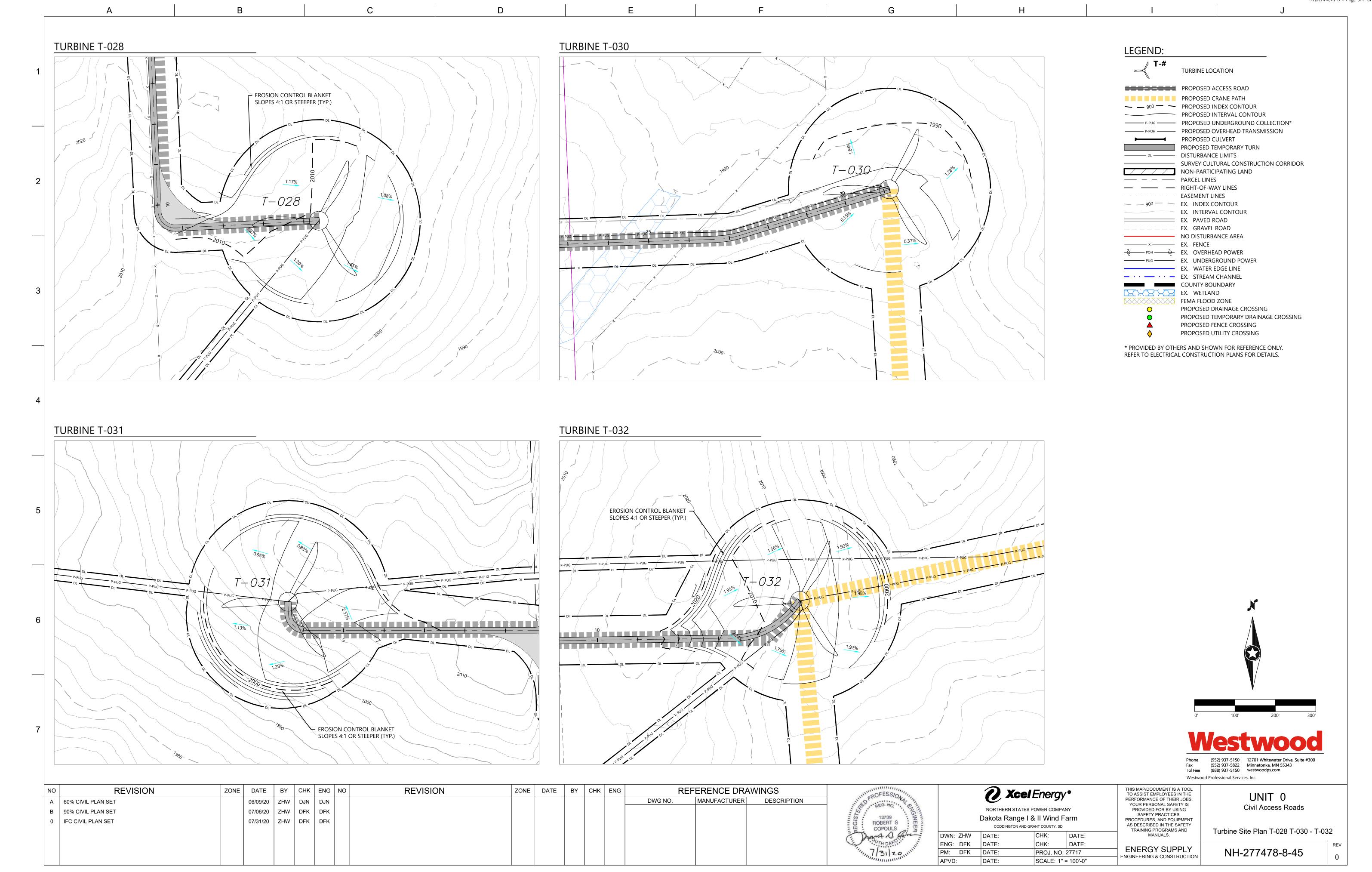


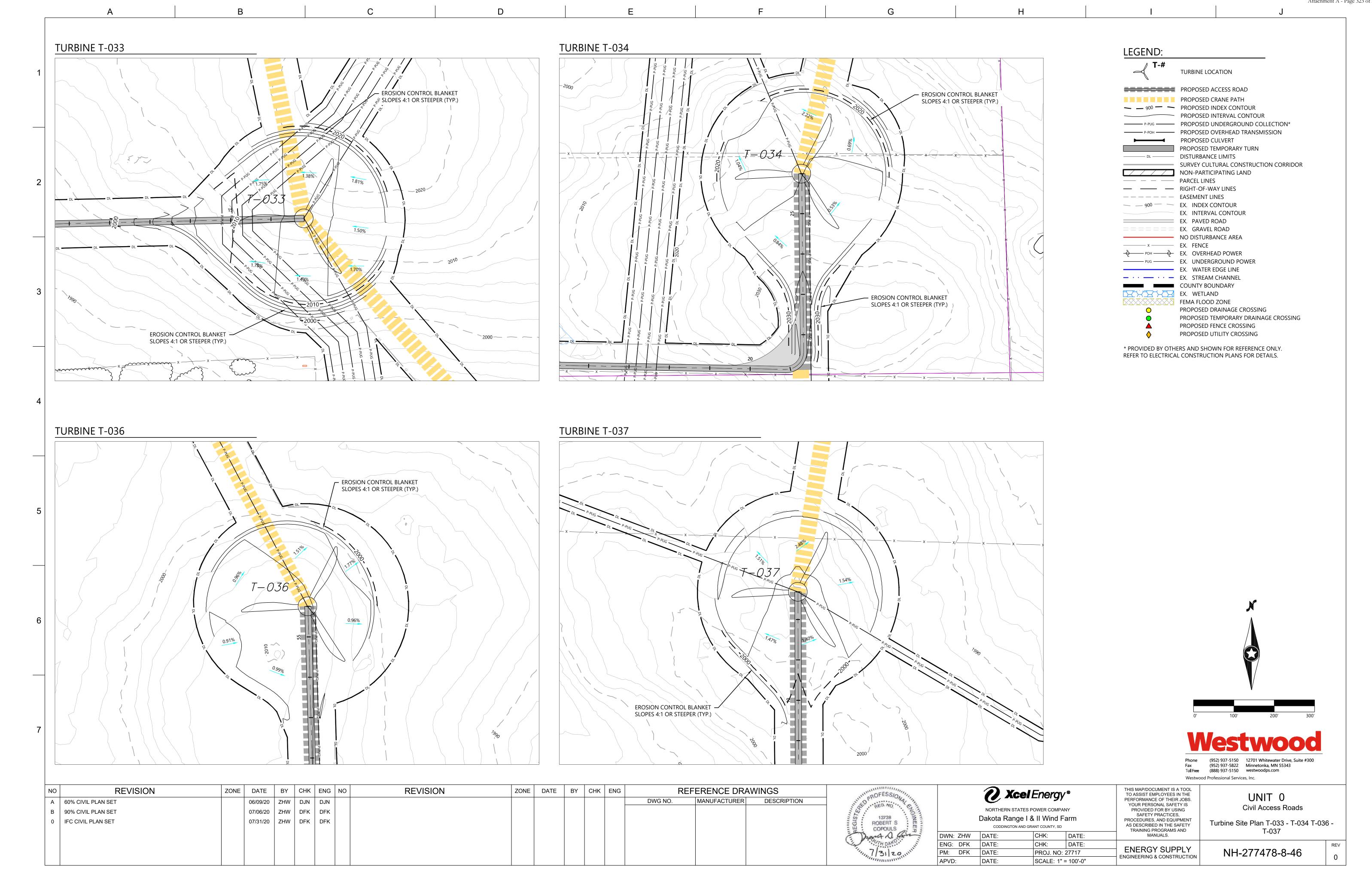


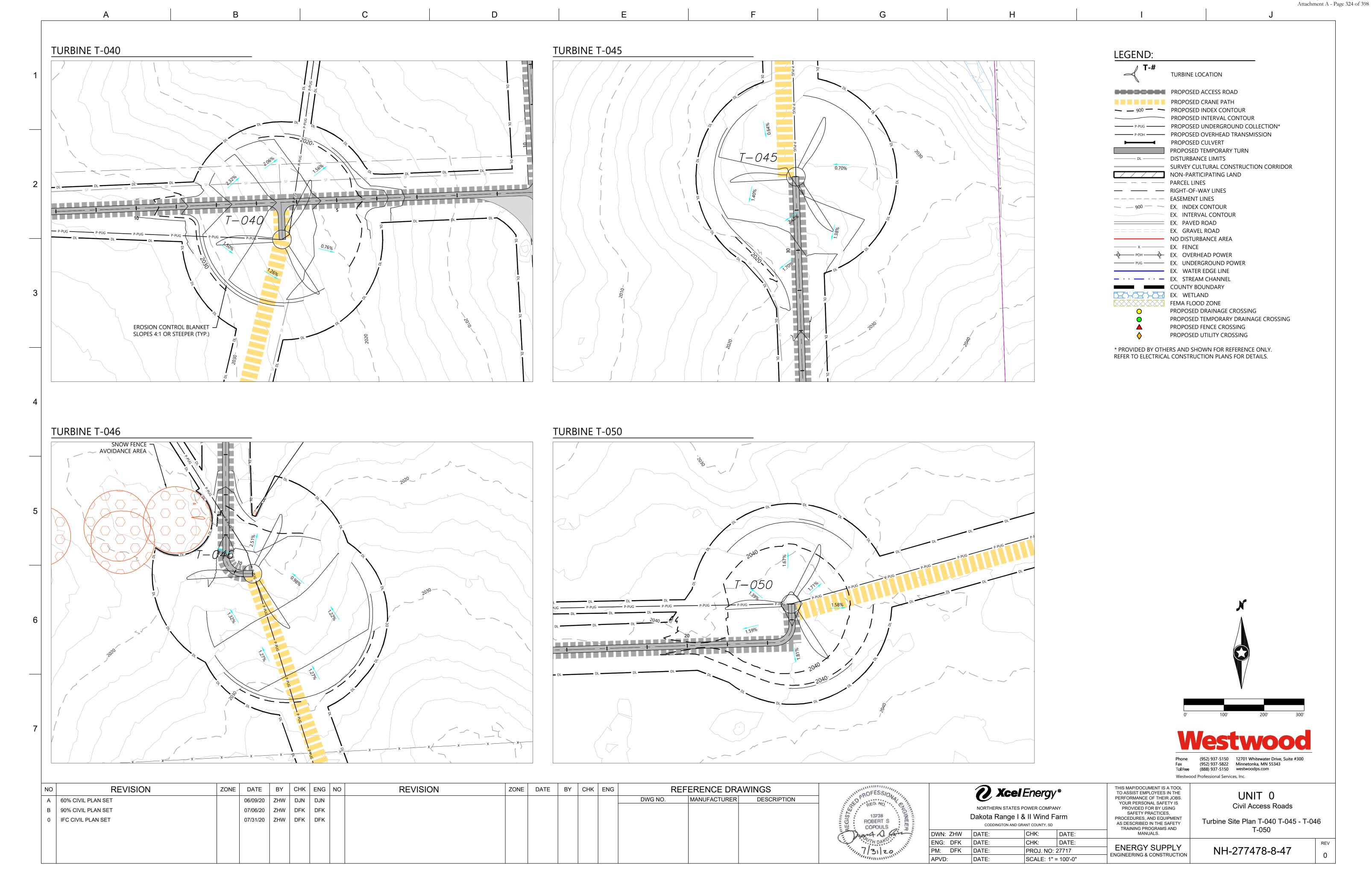


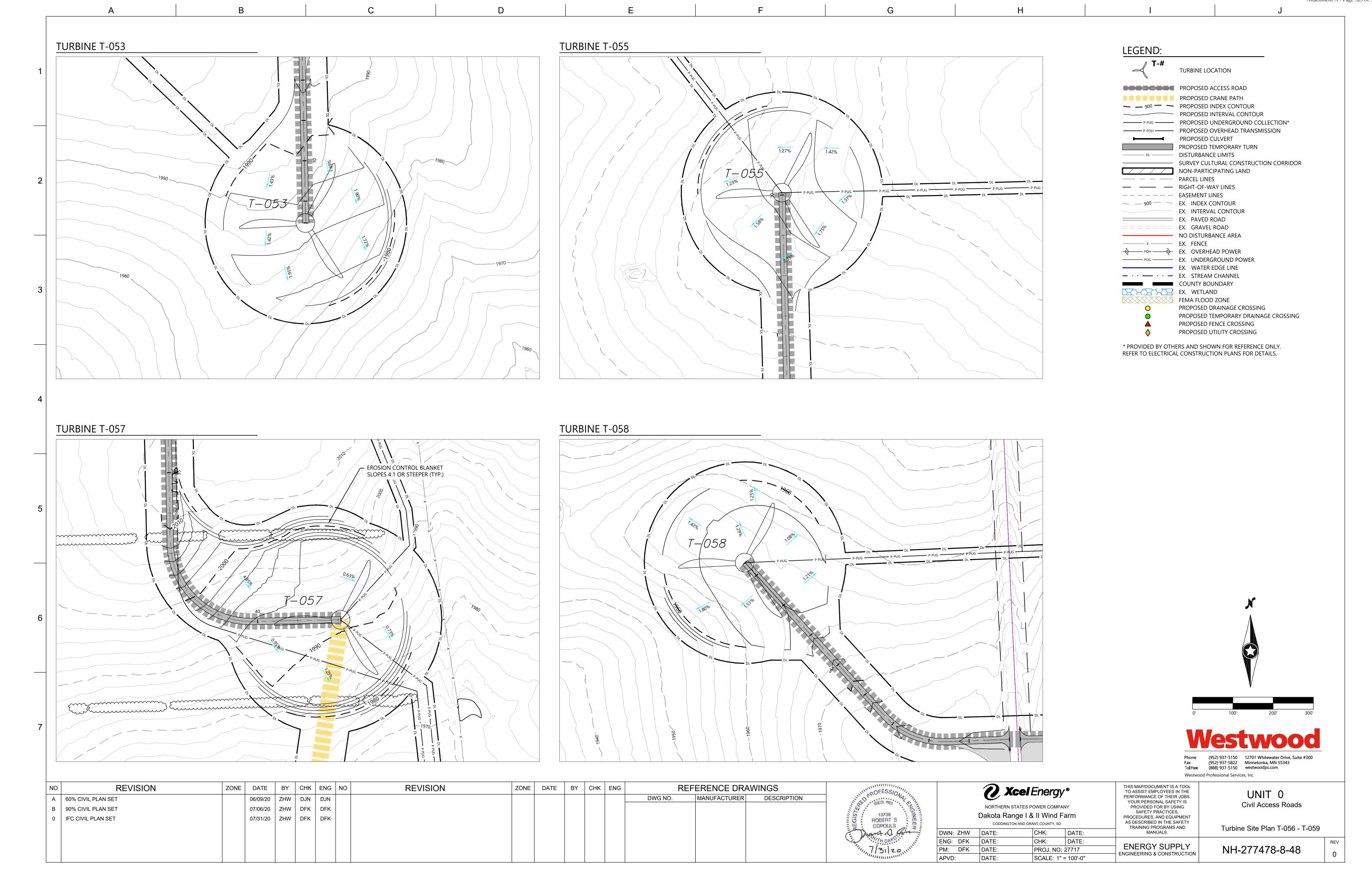


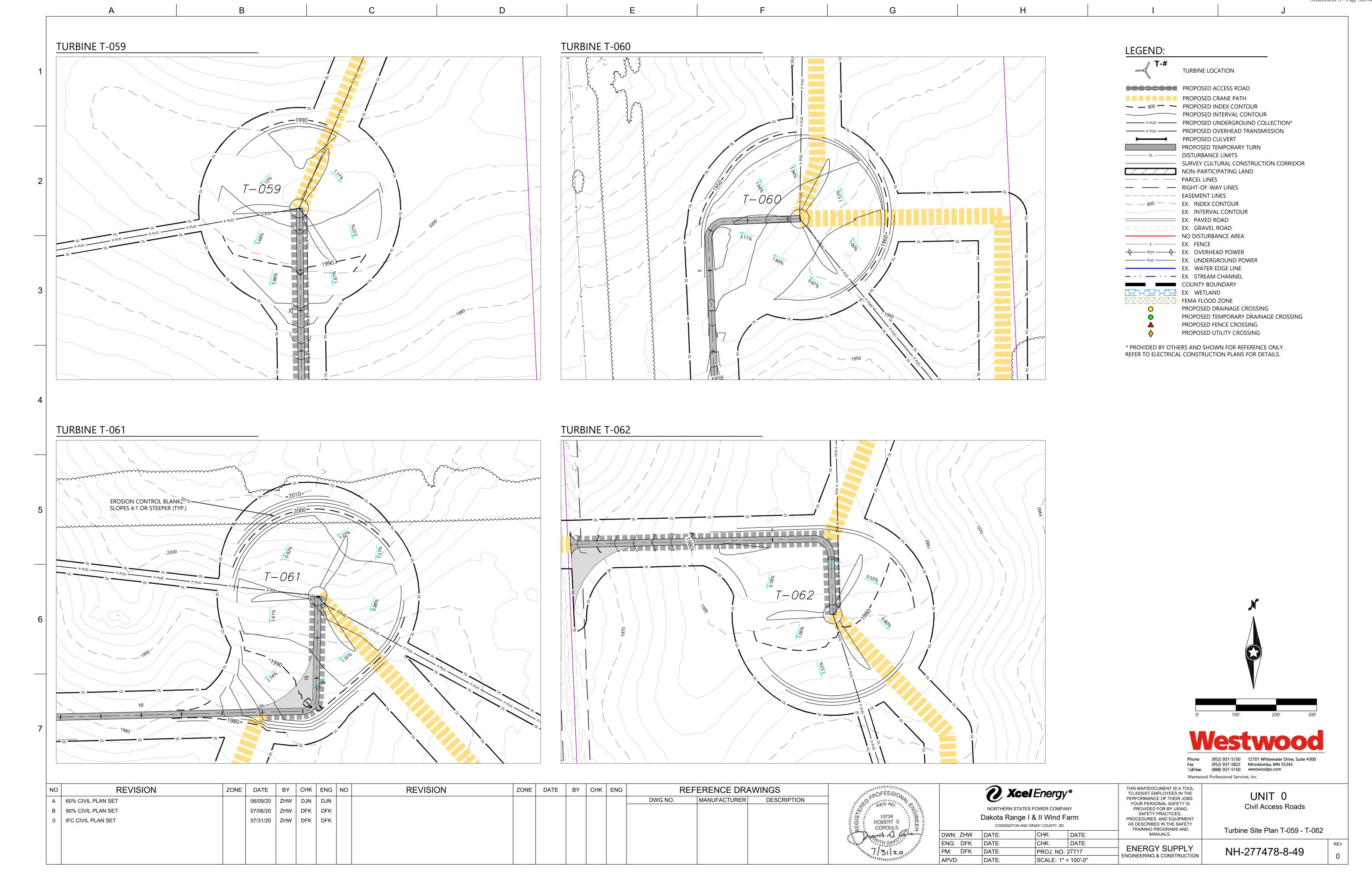


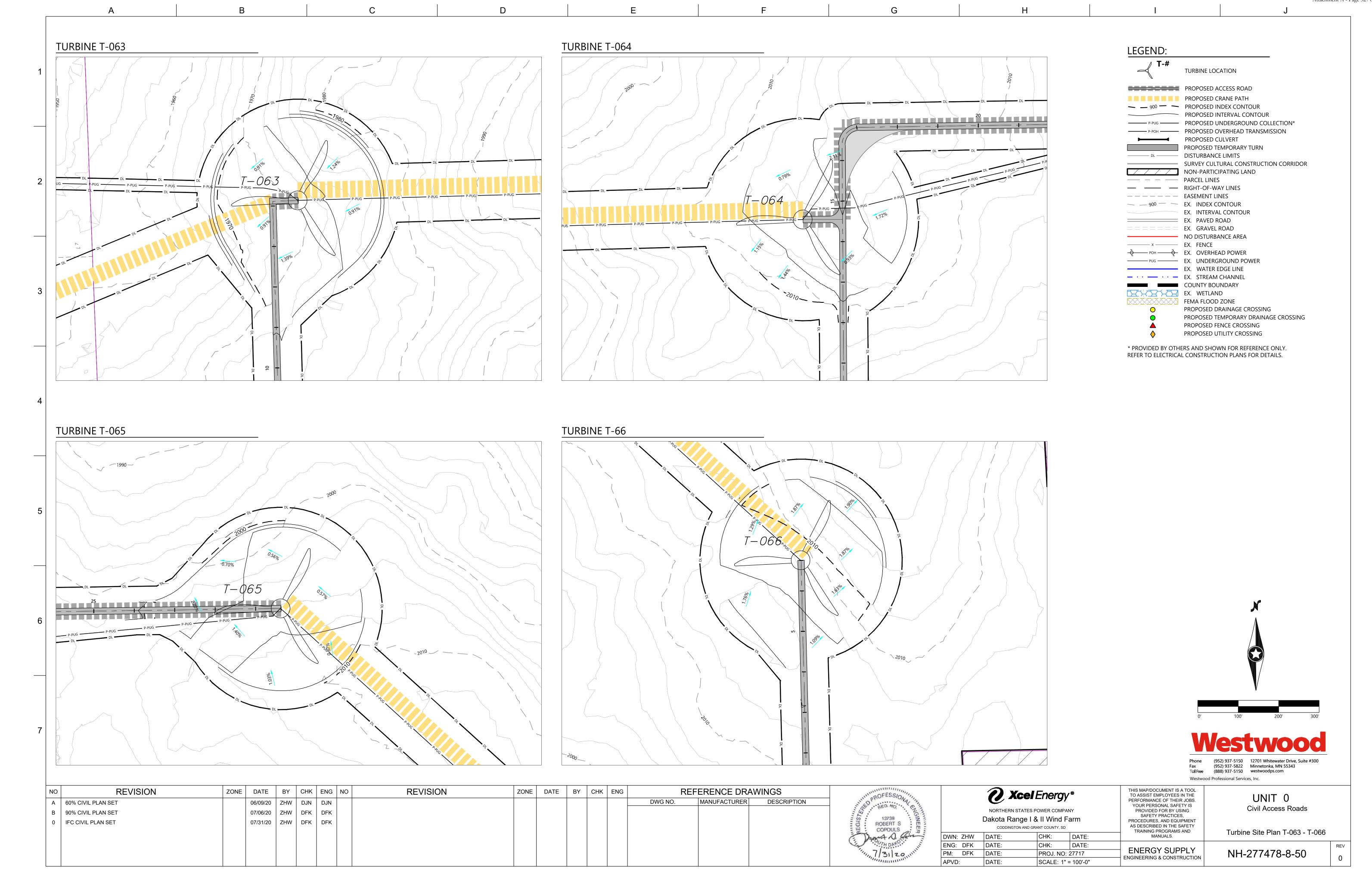


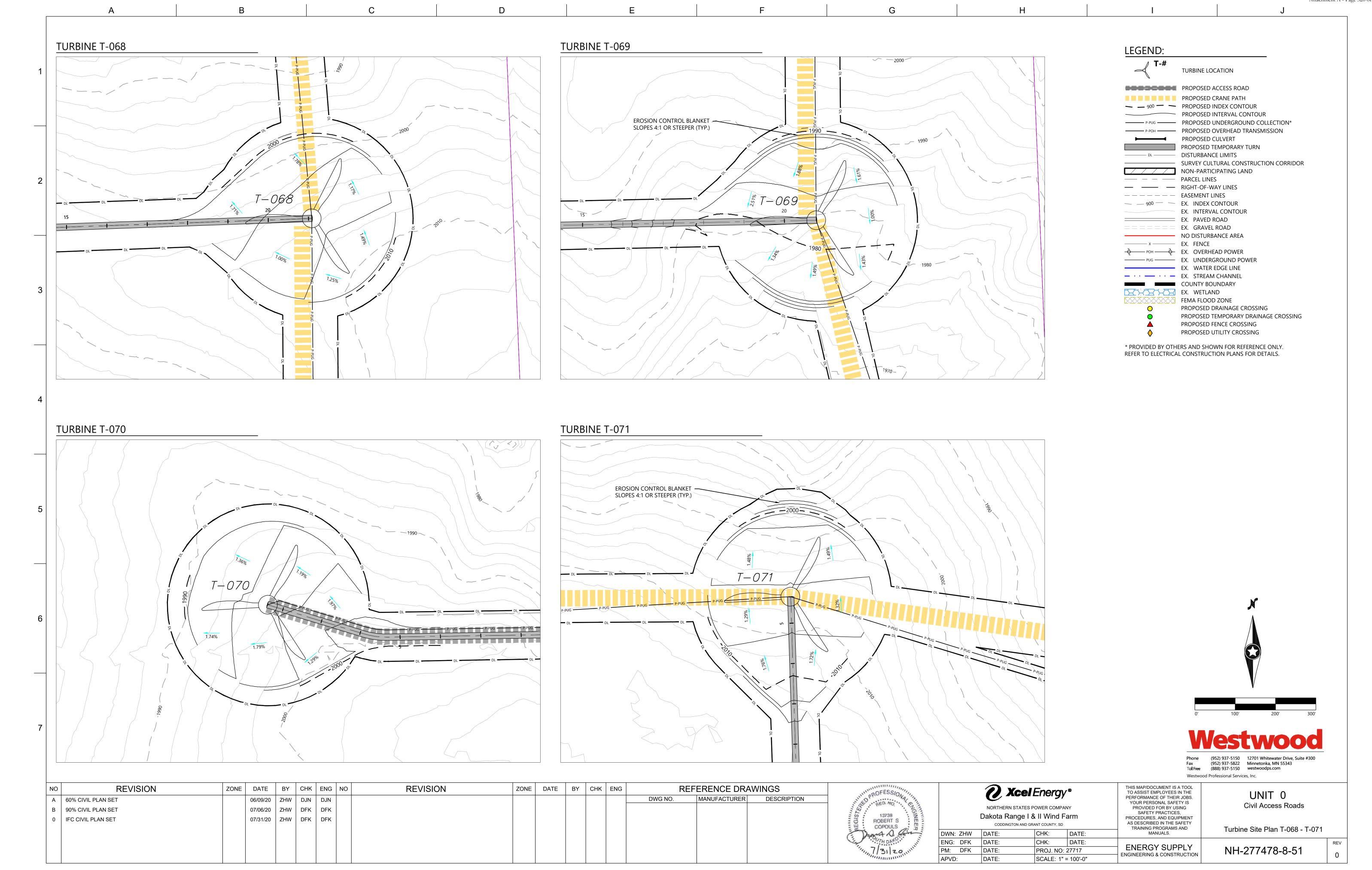


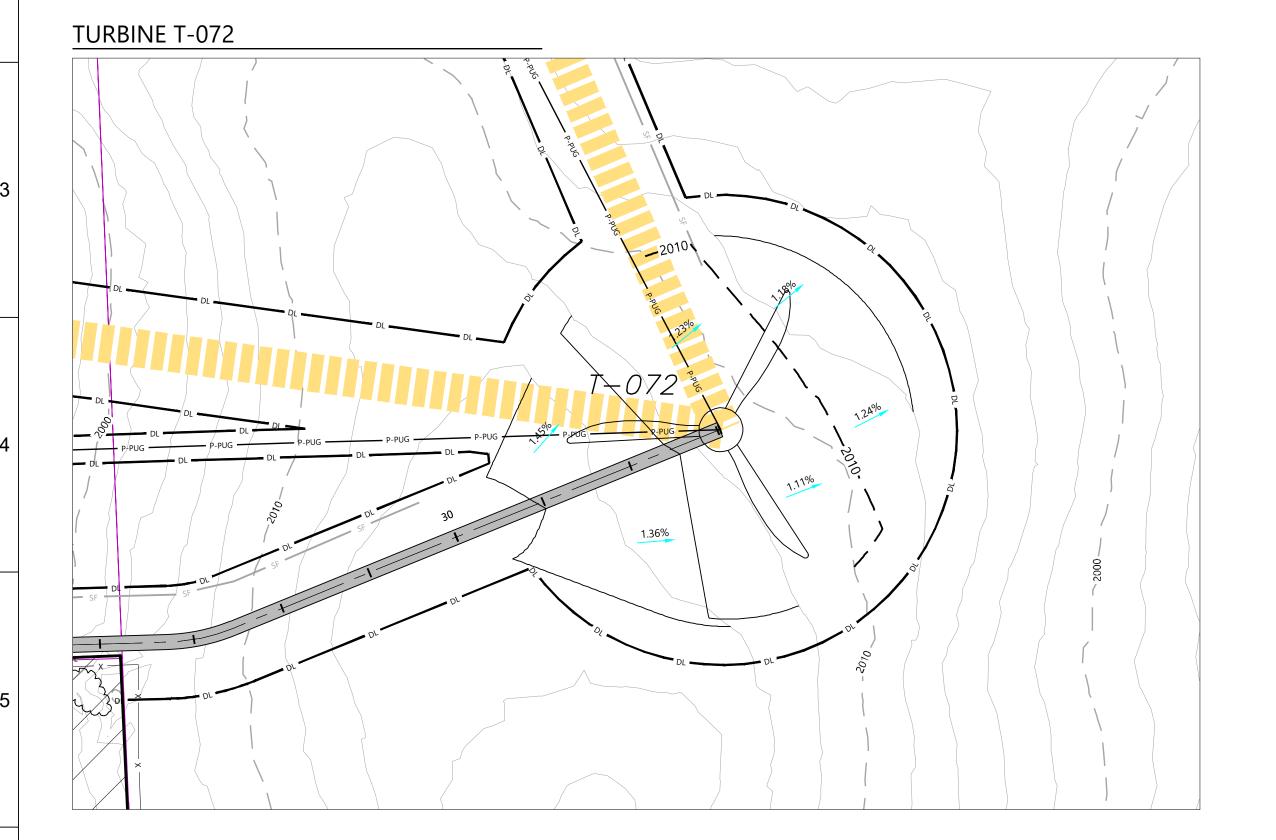












# **TURBINE T-055** 1.42% P-PUG — P-PUG — P-PUG — P-PUG — P-PUG

G

LEGEND: TURBINE LOCATION PROPOSED ACCESS ROAD PROPOSED CRANE PATH — 900 — — PROPOSED INDEX CONTOUR PROPOSED INTERVAL CONTOUR P-PUG — PROPOSED UNDERGROUND COLLECTION\* P-POH — PROPOSED OVERHEAD TRANSMISSION PROPOSED CULVERT PROPOSED TEMPORARY TURN — DISTURBANCE LIMITS SURVEY CULTURAL CONSTRUCTION CORRIDOR NON-PARTICIPATING LAND —— — — PARCEL LINES — — RIGHT-OF-WAY LINES ————— EASEMENT LINES — 900 — EX. INDEX CONTOUR EX. INTERVAL CONTOUR EX. PAVED ROAD = = = = = EX. Gravel road NO DISTURBANCE AREA ----- x ----- EX. FENCE POH POH EX. OVERHEAD POWER PUG — EX. UNDERGROUND POWER EX. WATER EDGE LINE — · · · — EX. STREAM CHANNEL COUNTY BOUNDARY EX. WETLAND

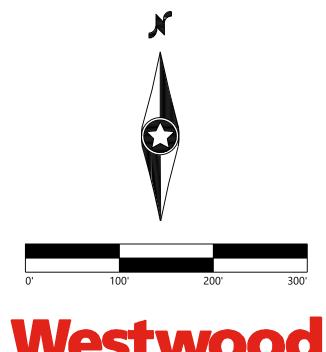
\* PROVIDED BY OTHERS AND SHOWN FOR REFERENCE ONLY. REFER TO ELECTRICAL CONSTRUCTION PLANS FOR DETAILS.

FEMA FLOOD ZONE

PROPOSED DRAINAGE CROSSING

PROPOSED FENCE CROSSING PROPOSED UTILITY CROSSING

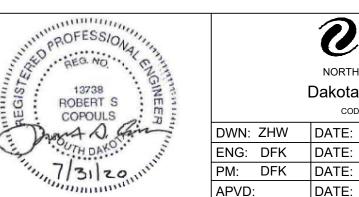
PROPOSED TEMPORARY DRAINAGE CROSSING



Phone (952) 937-5150 12701 Whitewater Drive, Suite #300 Fax (952) 937-5822 Minnetonka, MN 55343 westwoodps.com

Westwood Professional Services, Inc.

NO	REVISION	ZONE	DATE	BY	СНК	ENG NO	REVISION	ZONE	DATE	BY	СНК	ENG	REFERENCE DRAWINGS		
Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN							DWG NO.	MANUFACTURER	DESCRIPTION
В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK									
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK									
1															



Xcel Energy*								
NORTHERN STATES POWER COMPANY								
Dakota Range I & II Wind Farm								
CODDINGTON AND GRANT COUNTY, SD								
DWN: ZHW	DATE:	CHK:	DATE:					

CHK:

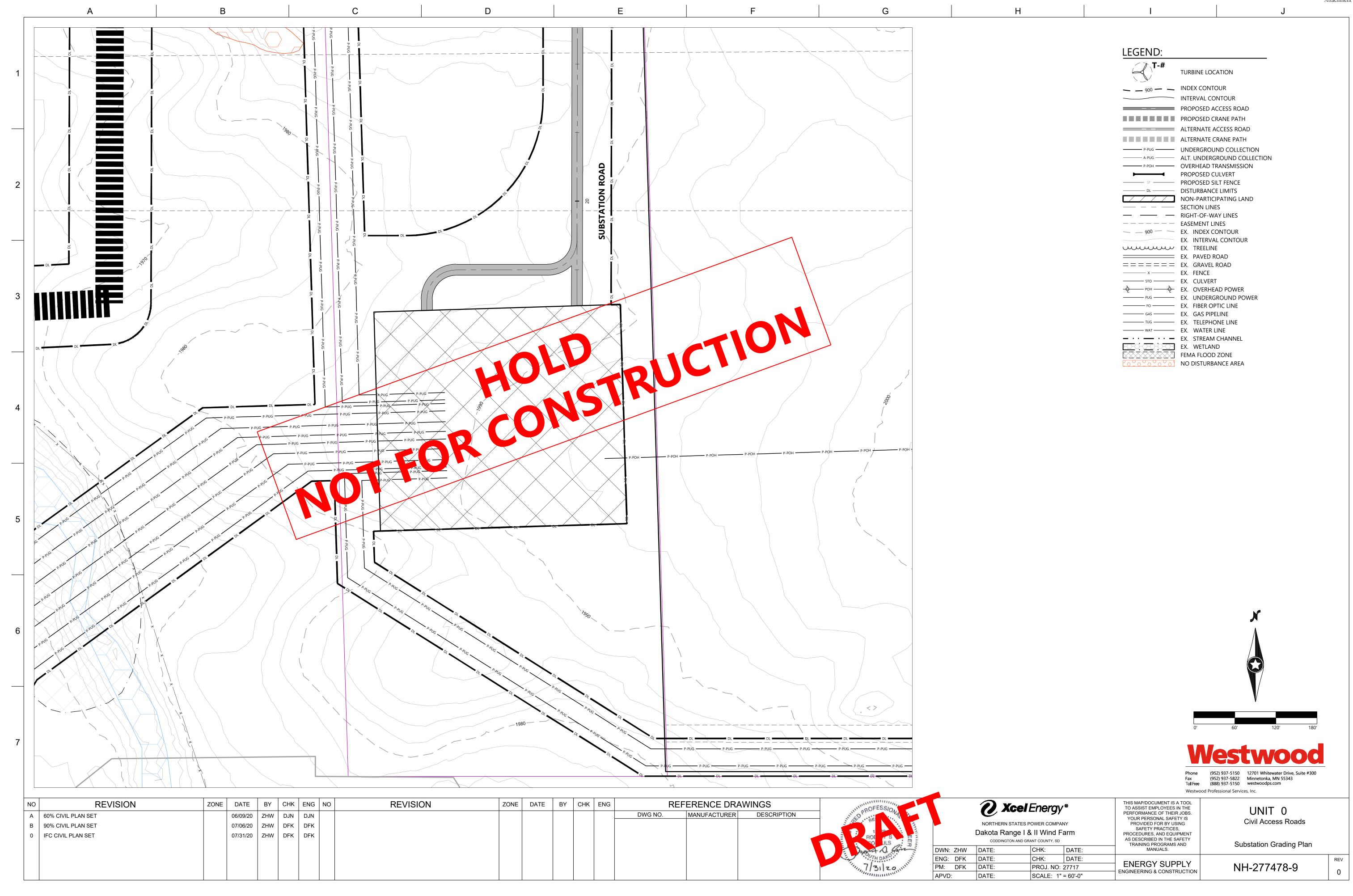
PROJ. NO: 27717

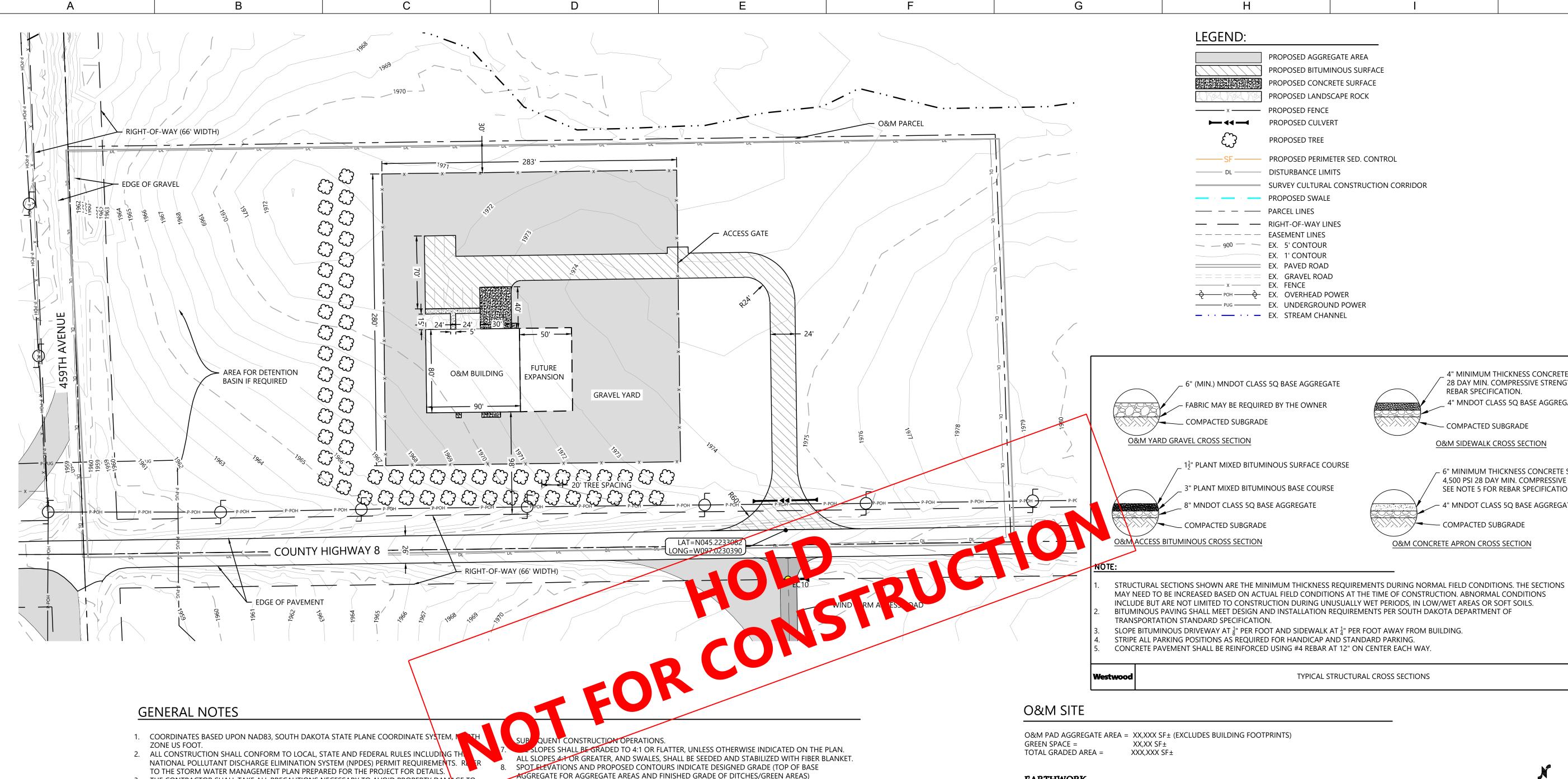
SCALE: 1" = 100'-0"

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ENERGY SUPPLY ENGINEERING & CONSTRUCTION

UNIT 0
Civil Access Roads

Turbine Site Plan T-055 T-072





AFTER THE SITE GRADING IS COMPLETED, IF EXCESS SOIL MATERIAL EXISTS, THE CONTRACTOR

10. TOPSOIL TO BE STOCKPILED WITHIN THE PARCEL AND RE-SPREAD IN A MANNER ACCEPTABLE TO

11. PROVIDE EROSION AND SEDIMENT CONTROL AT THE PERIMETER OF ALL TEMPORARY STOCKPILES.

12. EROSION CONTROL CM'S SHOWN SHALL BE USED AS NEEDED OR AS SPECIFIED IN THE PROJECT

SWMP. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN COMPLIANCE. ALL DISTURBED

AREAS NOT COVERED IN AGGREGATE SHALL BE STABILIZED AFTER COMPLETION OF GROUND

14. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT ALL CONDITIONAL USE PERMITS MEET THE

15. EXISTING TOPOGRAPHY USED FOR THE DESIGN IS FIELD TOPOGRAPHY. CONTRACTOR TO VERIFY

THE OWNER AFTER CONSTRUCTION IS COMPLETED WITHOUT ADVERSELY AFFECTING THE

LOCATIONS TO BE DETERMINED BY SEQUENCE OF GRADING OPERATIONS.

REGULATING AGENCIES INVOLVED.

DRAINAGE PATTERNS OF THE AREA.

REQUIREMENTS SET FORTH BY THE COUNTY.

EXISTING ELEVATIONS IN THE FIELD PRIOR TO CONSTRUCTION.

DISTURBING ACTIVITIES.

13. FENCING DESIGN BY OTHERS.

SHALL DISPOSE OF ALL EXCESS SOIL MATERIAL IN A MANNER ACCEPTABLE TO THE OWNER AND THE

# **EARTHWORK**

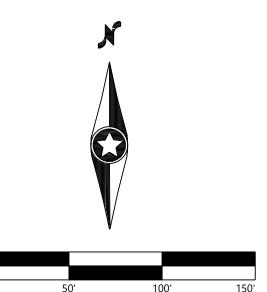
XX" TOPSOIL STRIPPING FOR GRADED AREA = X,XXX CY

FILL: STRIPPED TO DESIGNED GRADE (-) = X,XXX CY CUT: STRIPPED TO DESIGNED GRADE (+) = X,XXX CY X" AGGREGATE IMPORT (+) = X,XXX CY XX" TOPSOIL PLACED IN GREEN SPACE (+) = XXX CY ON-SITE BORROW (SWAP WITH TOPSOIL) (+) = X,XXX CY

TOTAL BALANCE = XX CY (SHORT - BORROW)

1. ALL VOLUMES ARE "IN-PLACE" (BANK OR COMPACTED CUBIC YARD) ESTIMATES.

2. NO SHRINK OR SWELL FACTORS ARE ASSUMED.



TS-05A

4" MINIMUM THICKNESS CONCRETE SLAB WITH 4,500 PSI

28 DAY MIN. COMPRESSIVE STRENGTH. SEE NOTE 5 FOR

REBAR SPECIFICATION.

- COMPACTED SUBGRADE

COMPACTED SUBGRADE

O&M SIDEWALK CROSS SECTION

4" MNDOT CLASS 5Q BASE AGGREGATE

- 6" MINIMUM THICKNESS CONCRETE SLAB WITH 4,500 PSI 28 DAY MIN. COMPRESSIVE STRENGTH.

SEE NOTE 5 FOR REBAR SPECIFICATION.

" MNDOT CLASS 5Q BASE AGGREGATE

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NO	REVISION ZONE	DATE	BY	СНК	ENG	NO	REVISION	ZONE	DATE	BY	СНК	ENG	REFERENCE DRAWINGS
Α	60% CIVIL PLAN SET	06/09/20	ZHW	DJN	DJN								DWG NO. MANUFACTURER DESCRIPTION
В	90% CIVIL PLAN SET	07/06/20	ZHW	DFK	DFK								
0	IFC CIVIL PLAN SET	07/31/20	ZHW	DFK	DFK								

3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO

4. THE CONTRACTOR SHALL COMPLETE THE SITE GRADING IN ACCORDANCE WITH THE

DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR

REQUIREMENTS OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR

THE SUBGRADE. PROOFROLLING SHALL BE ACCOMPLISHED BY MAKING MINIMUM OF 2 COMPLETE

PASSES WITH FULLY-LOADED TANDEM-AXEL DUMP TRUCK, OR APPROVED EQUAL, IN EACH OF 2

PERPENDICULAR DIRECTIONS WHILE UNDER SUPERVISION AND DIRECTION OF AN INDEPENDENT

TESTING LABORATORY. AREAS OF FAILURE SHALL BE EXCAVATED AND RECOMPACTED AS SPECIFIED

ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM LEVELS OR

SLOPES BETWEEN POINTS, WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS, AND

COORDINATING ALL REQUIRED TESTS AND INSPECTIONS WITH THE TESTING LABORATORY. THE

COSTS OF RETESTING (IN CASE OF TESTS NOT MEETING STANDARDS) SHALL BE BORN BY THE

5. PRIOR TO PLACEMENT OF ANY STRUCTURE OR PAVEMENT, A PROOFROLL WILL BE REQUIRED ON

6. THE CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING

EXISTING GRADES. AREAS THAT HAVE BEEN FINISH GRADED SHALL BE PROTECTED FROM

CONTRACTOR. REFER TO THE GEOTECHNICAL REPORT FOR PAD RECOMMENDATIONS.

WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING





Dakota Range I & II Wind Farm CODDINGTON AND GRANT COUNTY, SD

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SAFETY PRACTICES,
PROCEDURES, AND EQUIPM
AS DESCRIBED IN THE SAF
TRAINING PROGRAMS AN
MANUALS.

THIS MAP/DOCUMENT IS A TOOL

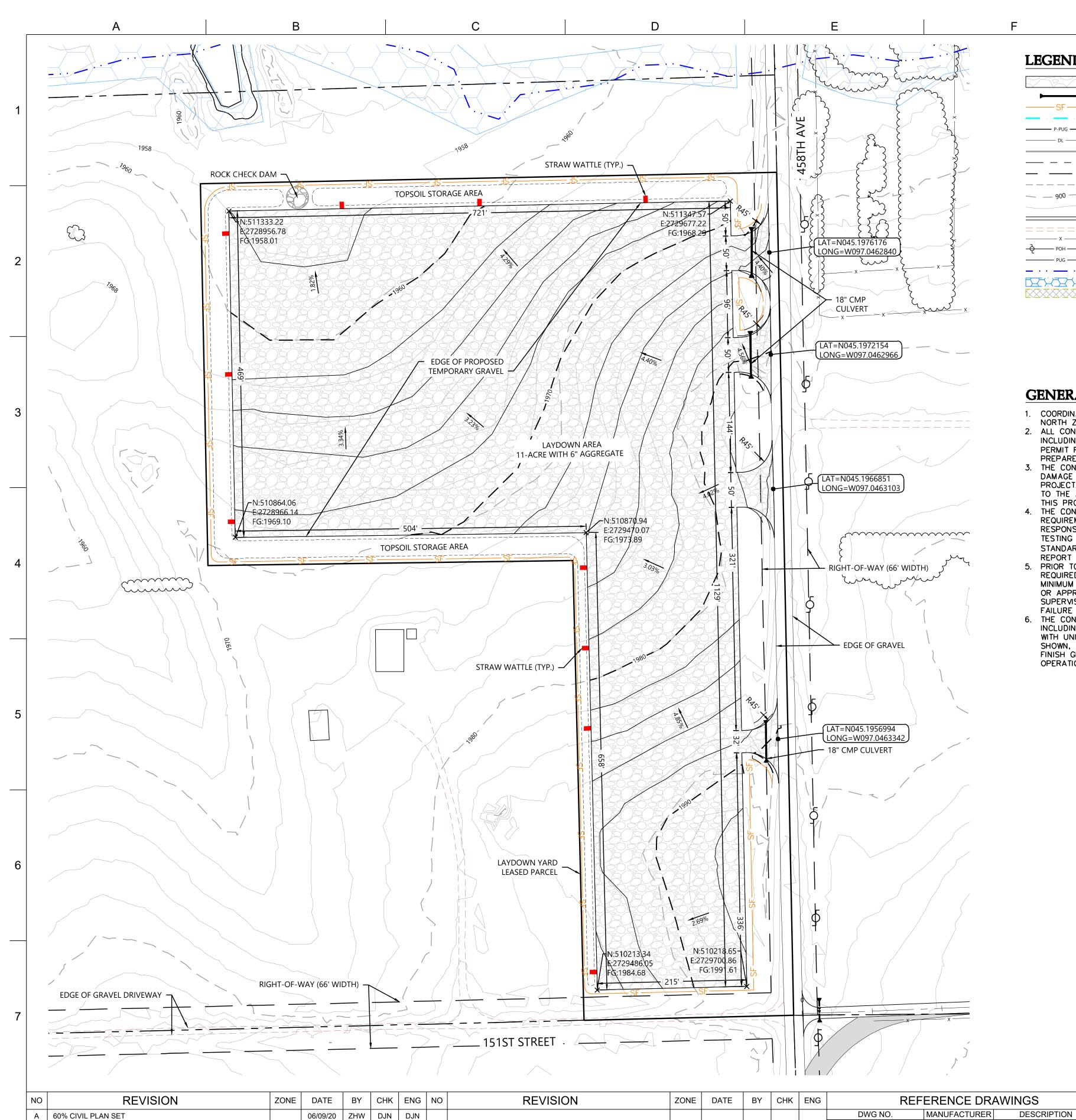
TO ASSIST EMPLOYEES IN THE PERFORMANCE OF THEIR JOBS.

UNIT 0	
Civil Access Roads	

1	DATE:	CHK:	DATE:	MANUALS.
	DATE:	CHK:	DATE:	ENERGY CURRLY
	DATE:	PROJ. NO: 2	27717	ENERGY SUPPLY
	DATE:	SCALE: 1"	= 50'-0"	ENGINEERING & CONSTRUCTION

NH-277478-10

Site Plan O&M



07/06/20 | ZHW | DFK | DFK

07/31/20 | ZHW | DFK | DFK

B 90% CIVIL PLAN SET

0 | IFC CIVIL PLAN SET

LEGEND:

PROPOSED AGGREGATE SURFACE PROPOSED CULVERT PROPOSED PERIMETER SED. CONTROL PROPOSED SWALE P-PUG — PROPOSED UNDERGROUND COLLECTION PROPOSED DISTURBANCE LIMITS SURVEY CULTURAL CONSTRUCTION CORRIDOR — PARCEL LINES — — RIGHT-OF-WAY LINES EX. 2' CONTOUR

G

————— EASEMENT LINES — \_\_ 900 — \_\_ EX. 10' CONTOUR EX. PAVED ROAD = = = = = EX. GRAVEL ROAD ——— x ——— EX. FENCE → POH → EX. OVERHEAD POWER

——— PUG ——— EX. UNDERGROUND POWER

— · · — · · — EX. STREAM CHANNEL EX. WETLAND FEMA FLOOD ZONE

# LAYDOWN YARD

AGGREGATE AREA 494,930 SF± GREEN SPACE 3,700 SF± TOTAL GRADED AREA = 498,630 SF±

# **EARTHWORK**

6" TOPSOIL STRIPPING FOR GRADED AREA = 9,235 CY \_\_\_\_\_\_

FILL: STRIPPED TO DESIGNED GRADE (-) = 11,605 CY CUT: STRIPPED TO DESIGNED GRADE (+) = 2,370 CY 6" AGGREGATE IMPORT (+) = 9,165 CY

6" TOPSOIL PLACED IN GREEN SPACE (+) = 70 CY \_\_\_\_\_\_ TOTAL BALANCE = 0 CY

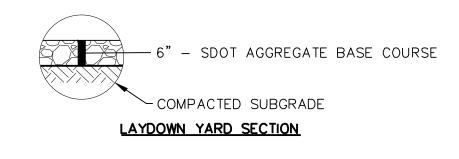
1. ALL VOLUMES ARE "IN-PLACE" (BANK OR COMPACTED CUBIC YARD) ESTIMATES.

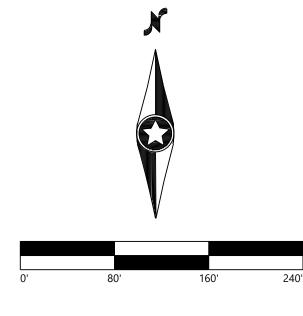
2. NO SHRINK OR SWELL FACTORS ARE ASSUMED.

# GENERAL NOTES

- 1. COORDINATES BASED NAD83, SOUTH DAKOTA STATE PLANE COORDINATE SYSTEM, NORTH ZONE US FOOT.
- 2. ALL CONSTRUCTION SHALL CONFORM TO LOCAL, STATE AND FEDERAL RULES INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS. REFER TO THE STORM WATER POLLUTION PREVENTION PLAN PREPARED FOR THE PROJECT FOR DETAILS.
- 3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF
- THIS PROJECT. 4. THE CONTRACTOR SHALL COMPLETE THE SITE GRADING IN ACCORDANCE WITH THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED TESTS AND INSPECTIONS WITH THE TESTING LABORATORY. THE COSTS OF RETESTING (IN CASE OF TESTS NOT MEETING STANDARDS) SHALL BE BORN BY THE CONTRACTOR. REFER TO THE GEOTECHNICAL REPORT FOR PAD RECOMMENDATIONS.
- PRIOR TO PLACEMENT OF ANY STRUCTURE OR PAVEMENT, A PROOFROLL WILL BE REQUIRED ON THE SUBGRADE. PROOFROLLING SHALL BE ACCOMPLISHED BY MAKING MINIMUM OF 2 COMPLETE PASSES WITH FULLY-LOADED TANDEM-AXEL DUMP TRUCK, OR APPROVED EQUAL. IN EACH OF 2 PERPENDICULAR DIRECTIONS WHILE UNDER SUPERVISION AND DIRECTION OF AN INDEPENDENT TESTING LABORATORY. AREAS OF FAILURE SHALL BE EXCAVATED AND RECOMPACTED AS SPECIFIED HEREIN.
- THE CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS, WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS, AND EXISTING GRADES. AREAS THAT HAVE BEEN FINISH GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS.

- 7. ALL SLOPES SHALL BE GRADED TO 4:1 OR FLATTER, UNLESS OTHERWISE INDICATED ON THE PLAN. ALL SLOPES 4:1 OR GREATER, AND SWALES, SHALL BE SEEDED AND STABILIZED WITH FIBER BLANKET.
- 8. SPOT ELEVATIONS AND PROPOSED CONTOURS INDICATE DESIGNED GRADE (TOP OF BASE AGGREGATE FOR AGGREGATE AREAS AND FINISHED GRADE OF DITCHES/GREEN
- 9. AFTER THE SITE GRADING IS COMPLETED, IF EXCESS SOIL MATERIAL EXISTS, THE CONTRACTOR SHALL DISPOSE OF ALL EXCESS SOIL MATERIAL IN A MANNER ACCEPTABLE TO THE OWNER AND THE REGULATING AGENCIES INVOLVED.
- 10. TOPSOIL TO BE STOCKPILED WITHIN THE PARCEL AND RE-SPREAD IN A MANNER ACCEPTABLE TO THE OWNER AFTER CONSTRUCTION IS COMPLETED WITHOUT
- ADVERSELY AFFECTING THE DRAINAGE PATTERNS OF THE AREA. 11. PROVIDE EROSION AND SEDIMENT CONTROL AT THE PERIMETER OF ALL TEMPORARY STOCKPILES. LOCATIONS TO BE DETERMINED BY SEQUENCE OF GRADING OPERATIONS.
- 12. EROSION CONTROL BMP'S SHOWN SHALL BE USED AS NEEDED OR AS SPECIFIED IN THE PROJECT SWPPP. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN COMPLIANCE. ALL DISTURBED AREAS NOT COVERED IN AGGREGATE SHALL BE
- STABILIZED AFTER COMPLETION OF GROUND DISTURBING ACTIVITIES. 13. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT ALL CONDITIONAL USE PERMITS
- MEET THE REQUIREMENTS SET FORTH BY THE COUNTY. 14. EXISTING TOPOGRAPHY USED FOR THE DESIGN IS FIELD TOPOGRAPHY. CONTRACTOR
- TO VERIFY EXISTING ELEVATIONS IN THE FIELD PRIOR TO CONSTRUCTION. 15. A TEMPORARY SEDIMENT BASIN IS REQUIRED PRIOR TO DISTURBANCE OF MORE THAN 10 AC DRAINING TO A SINGLE POINT. CONTRACTOR TO PHASE DISTURBANCE AND PLACE GRAVEL/STABILIZATION SO THAT LESS THAN 10 AC IS UNSTABILIZED AT ANY ONE TIME.





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UNIT 0 Civil Access Roads

Laydown Yard Grading Plan

REV

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		TRAINING PROGRAMS AND			
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APVD:	DATE:	SCALE: 1'	" = 80'-0"	ENGINEERING & CONSTRUCTION	<b>'</b>

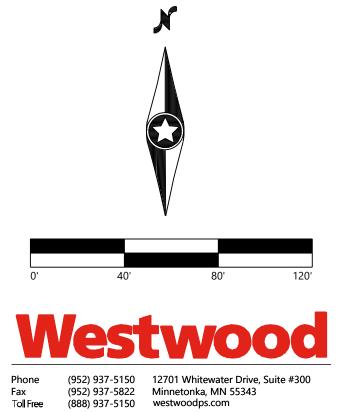
OBSTACLE FREE AREA (TYP.) CO HWY 8 PROPOSED TEMPORARY IMPROVEMENT #1 FOR TURBINE DELIVERY PER DETAIL RD08-A 35' OBSTACLE FREE AREA R205.0' 30.0

# LEGEND:

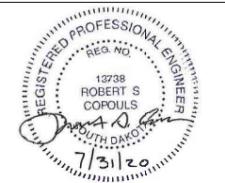
PROJECT BOUNDARY —— — — SECTION LINES - RIGHT-OF-WAY LINES ---- EASEMENT LINES — 900 — EX. INDEX CONTOUR EX. INTERVAL CONTOUR CALLED EX. TREELINE EX. PAVED ROAD = = = = = EX. GRAVEL ROAD ——— × ——— EX. FENCE ——— sto ——— EX. CULVERT → POH → → EX. OVERHEAD POWER ——— PUG ——— EX. UNDERGROUND POWER FO EX. FIBER OPTIC LINE ——— GAS ——— EX. GAS PIPELINE TUG EX. TELEPHONE LINE ——— WAT ——— EX. WATER LINE **−·· −** EX. STREAM CHANNEL EX. WETLAND FLOOD HAZARD AREA VEGETATION TO BE REMOVED DELIVERY ROUTE (INGRESS)

# GENERAL NOTES:

- 1. ALL CUT/FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
- 2. CULVERTS SHALL HAVE A MINIMUM OF 1' OF COVER OVER TOP
- 3. DISTURBED SOILS WITHIN DITCHES AND SIDE SLOPES SHALL BE STABILIZED WITH WOOD FIBER BLANKET.
- 4. CONFIRM CULVERT END TREATMENTS AND MATERIALS WITH APPROPRIATE JURISDICTION.
- 5. PROVIDE POSITIVE DRAINAGE IN ALL AREAS OF RIGHT-OF-WAY.
- 6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITY LOCATIONS, CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND ORDERING OF ANY
- 7. THE CONTRACTOR SHALL EMPLOY TEMPORARY EROSION CONTROL MEASURES DURING CONSTRUCTION OPERATIONS IN ACCORDANCE WITH PROJECT SWPPP.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL ORDINANCES AND FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO INITIATING CONSTRUCTION.



I	νо	REVISION	ZONE	DATE	BY	CHK	ENG	NO	REVISION	E !	DATE	BY	СНК	ENG	REFERENCE DRAWINGS
	Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN								DWG NO. MANUFACTURER DESCRIPTION
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	0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK								



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SCALE: 1" = 40'-0"

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MANUALS.

**ENERGY SUPPLY** 

**ENGINEERING & CONSTRUCTION** 

UNIT	0
Civil Acces	ss Road

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Temporary Improvement 1

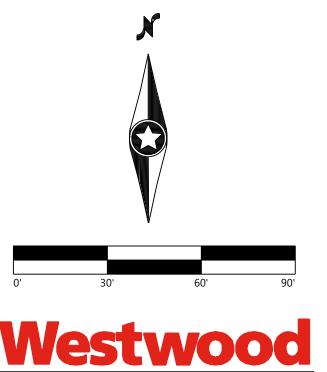
0 CO HWY 8 OBSTACLE FREE AREA (TYP.) PROPOSED FENCE CROSSING PROPOSED TEMPORARY IMPROVEMENT #2 FOR TURBINE DELIVERY PER DETAIL RD07

# LEGEND:

	PROJECT BOUNDARY
	SECTION LINES
	RIGHT-OF-WAY LINES
	EASEMENT LINES
900	EX. INDEX CONTOUR
	EX. INTERVAL CONTOUR
·······································	EX. TREELINE
	EX. PAVED ROAD
======	EX. GRAVEL ROAD
x	EX. FENCE
STO	EX. CULVERT
	EX. OVERHEAD POWER
PUG	EX. UNDERGROUND POWER
FO	EX. FIBER OPTIC LINE
——— GAS ———	EX. GAS PIPELINE
TUG	EX. TELEPHONE LINE
——— WAT ———	EX. WATER LINE
<u> </u>	EX. STREAM CHANNEL
	EX. WETLAND
	FLOOD HAZARD AREA
	VEGETATION TO BE REMOVED

# GENERAL NOTES:

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- 3. DISTURBED SOILS WITHIN DITCHES AND SIDE SLOPES SHALL BE STABILIZED WITH WOOD FIBER BLANKET.
- 4. CONFIRM CULVERT END TREATMENTS AND MATERIALS WITH APPROPRIATE JURISDICTION.
- 5. PROVIDE POSITIVE DRAINAGE IN ALL AREAS OF RIGHT-OF-WAY.
- 6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITY LOCATIONS, CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND ORDERING OF ANY MATERIALS.
- THE CONTRACTOR SHALL EMPLOY TEMPORARY EROSION CONTROL MEASURES DURING CONSTRUCTION OPERATIONS IN ACCORDANCE WITH PROJECT SWPPP.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL ORDINANCES AND FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO INITIATING CONSTRUCTION.



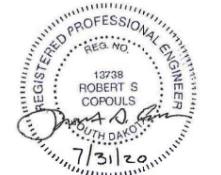
 Phone
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 12701 Whitewater Drive, Suite #300

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 Minnetonka, MN 55343

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Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN							DWG NO. MANUFACTURER DESC	RIPTION
В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK								
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK								
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DWN: ZHW DATE:

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PM: DFK DATE:

APVD:

CHK:

CHK:

DATE:

DATE:

PROJ. NO: 27717

SCALE: 1" = 30'-0"

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MANUALS.

ENERGY SUPPLY ENGINEERING & CONSTRUCTION

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TY IS ING	Civil Access Roads
 S,	
PMENT	

Temporary Improvement 2	2

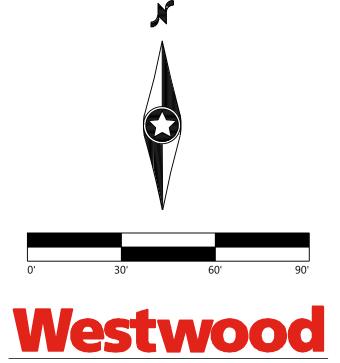
PROPOSED TEMPORARY IMPROVEMENT #3 FOR TURBINE DELIVERY PER DETAIL RD08-B PROPOSED FENCE CROSSING OBSTACLE FREE AREA (TYP.) PROTECT EXISTING UTILITY CO HWY 8 PROPOSED TEMPORARY 459TF IMPROVEMENT #4 FOR TURBINE DELIVERY PER DETAIL RD07 OBSTACLE FREE AREA PROTECT EXISTING UTILITY

# LEGEND:

	PROJECT BOUNDARY
	SECTION LINES
	RIGHT-OF-WAY LINES
	EASEMENT LINES
900	EX. INDEX CONTOUR
	EX. INTERVAL CONTOUR
mmmm	EX. TREELINE
	EX. PAVED ROAD
======	EX. GRAVEL ROAD
x	EX. FENCE
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	EX. OVERHEAD POWER
PUG	EX. UNDERGROUND POWER
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WAT	EX. WATER LINE
-··-	EX. STREAM CHANNEL
	EX. WETLAND
	FLOOD HAZARD AREA
	VEGETATION TO BE REMOVED

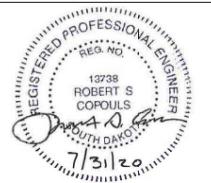
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Toll Free	(888) 937-5150	westwoodps.com
Westwood		

NO	REVISION	ZONE	DATE	BY	СНК	ENG NO	REVISION	ZONE	DATE	BY	СНК	ENG	R	EFERENCE DRAV	WINGS
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Xcel Energy®								
	NORTHERN STATES P	OWER COMPAN	NY					
	Dakota Range I & II Wind Farm							
	CODDINGTON AND GRANT COUNTY, SD							
DWN: ZHW	DATE: CHK: DATE:							

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**ENERGY SUPPLY** 

**ENGINEERING & CONSTRUCTION** 

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Civil A	cces	s Road

Temporary Improvement 3-4

NH-277478-12-3

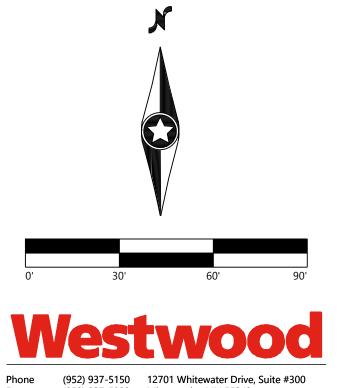
SEE SITE PLANS FOR ACCESS ROAD AND TYPICAL RADIUS DETAILS OBSTACLE FREE AREA (TYP.) PROTECT EXISTING UTILITY PROTECT EXISTING UTILITY CO HWY 8 460TH PROPOSED TEMPORARY IMPROVEMENT #5 FOR TURBINE DELIVERY PER DETAIL RD07 OBSTACLE FREE AREA ROAD SIGN IMPACT

# LEGEND:

	PROJECT BOUNDARY
	SECTION LINES
	3233
	RIGHT-OF-WAY LINES
	EASEMENT LINES
— <u> </u>	EX. INDEX CONTOUR
	EX. INTERVAL CONTOUR
······································	EX. TREELINE
	EX. PAVED ROAD
=======	EX. GRAVEL ROAD
x	EX. FENCE
STO	EX. CULVERT
- РОН	EX. OVERHEAD POWER
PUG	EX. UNDERGROUND POWER
FO	EX. FIBER OPTIC LINE
——— GAS ———	EX. GAS PIPELINE
TUG	EX. TELEPHONE LINE
WAT	EX. WATER LINE
-··-	EX. STREAM CHANNEL
	EX. WETLAND
	FLOOD HAZARD AREA
••••••	VEGETATION TO BE REMOVED

# GENERAL NOTES:

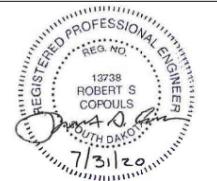
- ALL CUT/FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
- 2. CULVERTS SHALL HAVE A MINIMUM OF 1' OF COVER OVER TOP OF PIPE.
- 3. DISTURBED SOILS WITHIN DITCHES AND SIDE SLOPES SHALL BE STABILIZED WITH WOOD FIBER BLANKET.
- 4. CONFIRM CULVERT END TREATMENTS AND MATERIALS WITH APPROPRIATE JURISDICTION.
- 5. PROVIDE POSITIVE DRAINAGE IN ALL AREAS OF RIGHT-OF-WAY.
- 6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITY LOCATIONS, CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND ORDERING OF ANY MATERIALS.
- THE CONTRACTOR SHALL EMPLOY TEMPORARY EROSION CONTROL MEASURES DURING CONSTRUCTION OPERATIONS IN ACCORDANCE WITH PROJECT SWPPP.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL ORDINANCES AND FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO INITIATING CONSTRUCTION.



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ENERGY SUPPLY ENGINEERING & CONSTRUCTION

NO	REVISION	ZONE	DATE	BY	СНК	ENG	NO	REVISION	ZONE	DATE	BY	СНК	ENG	REFERENCE DRAV	WINGS
Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN								DWG NO. MANUFACTURER	DESCRIPTION
В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK									
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK									



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Acei Energy	
NORTHERN STATES POWER COMPANY	
Dakota Range I & II Wind Farm	
CODDINGTON AND GRANT COUNTY, SD	

CHK:

CHK:

DATE:

DATE:

PROJ. NO: 27717

SCALE: 1" = 30'-0"

DWN: ZHW DATE:

ENG: DFK DATE:

PM: DFK DATE:

APVD:

TO ASSIST EMPLOYEES IN THE
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PROVIDED FOR BY USING
SAFETY PRACTICES,
PROCEDURES, AND EQUIPMEN
AS DESCRIBED IN THE SAFETY
TRAINING PROGRAMS AND
MANUALS.

UNII 0
Civil Access Boods
Civil Access Roads

Temporary Improvement 5

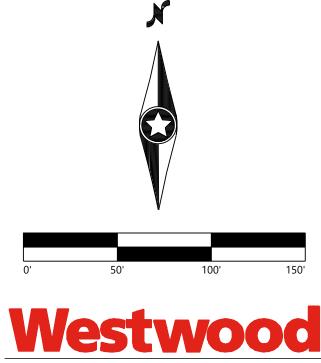
PROPOSED FENCE CROSSING PROPOSED TEMPORARY IMPROVEMENT #6 FOR TURBINE DELIVERY PER DETAIL RD08-A 35' OBSTACLE FREE AREA OBSTACLE FREE AREA (TYP.) PROPOSED FENCE CROSSING 151ST ST EXISTING -35' OBSTACLE FREE AREA FENCE LINE

# LEGEND:

	PRC	DJECT BOUNDARY
	SEC	TION LINES
	RIG	HT-OF-WAY LINES
	EAS	EMENT LINES
900	EX.	INDEX CONTOUR
	EX.	INTERVAL CONTOUR
·······································	EX.	TREELINE
	EX.	PAVED ROAD
======	EX.	GRAVEL ROAD
x	EX.	FENCE
STO	EX.	CULVERT
<del></del>	EX.	OVERHEAD POWER
PUG	EX.	UNDERGROUND POWER
FO	EX.	FIBER OPTIC LINE
——— GAS ———	EX.	GAS PIPELINE
TUG	EX.	TELEPHONE LINE
——— WAT ———	EX.	WATER LINE
_ : : _ : -	EX.	STREAM CHANNEL
	EX.	WETLAND
	FLO	OD HAZARD AREA
••••••	VEG	SETATION TO BE REMOVED

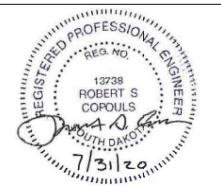
## GENERAL NOTES:

- ALL CUT/FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
- 2. CULVERTS SHALL HAVE A MINIMUM OF 1' OF COVER OVER TOP
- 3. DISTURBED SOILS WITHIN DITCHES AND SIDE SLOPES SHALL BE STABILIZED WITH WOOD FIBER BLANKET.
- 4. CONFIRM CULVERT END TREATMENTS AND MATERIALS WITH APPROPRIATE JURISDICTION.
- 5. PROVIDE POSITIVE DRAINAGE IN ALL AREAS OF RIGHT-OF-WAY.
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NO	REVISION	ZONE	DATE	BY	CHK	ENG	NO REVISION	ZONE	DATE	BY	СНК	ENG	RI	EFERENCE DRAV	VINGS
A 60%	6 CIVIL PLAN SET	0	06/09/20	ZHW	DJN	DJN							DWG NO.	MANUFACTURER	DESCRIPTION
В 90%	6 CIVIL PLAN SET	0.	07/06/20	ZHW	DFK	DFK									
0 IFC	CIVIL PLAN SET	0.	07/31/20	ZHW	DFK	DFK									



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DWN: ZHW DATE: ENG: DFK DATE:

PM: DFK DATE:

APVD:

CHK:

CHK:

DATE:

PROJ. NO: 27717

SCALE: 1" = 50'-0"

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PROCEDURES, AND EQUIPMEN
AS DESCRIBED IN THE SAFETY
TRAINING PROGRAMS AND
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ENERGY SUPPLY ENGINEERING & CONSTRUCTION

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Civil	Acces	ss Road

Temporary Improvement 6

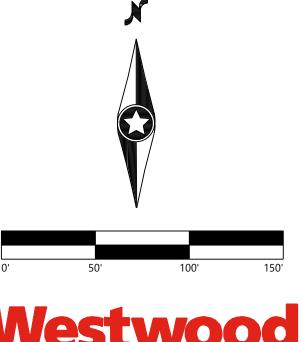
PROPOSED FENCE CROSSING PROPOSED TEMPORARY IMPROVEMENT #7 FOR TURBINE DELIVERY PER DETAIL RD07 & RD08-A PROPOSED FENCE CROSSING 35' OBSTACLE FREE AREA - 151ST ST -EXISTING RIGHT-OF-WAY OBSTACLE FREE AREA (TYP.)

# LEGEND:

	PRC	DJECT BOUNDARY
	SEC	TION LINES
	RIG	HT-OF-WAY LINES
	EAS	EMENT LINES
900	EX.	INDEX CONTOUR
	EX.	INTERVAL CONTOUR
wwwww	EX.	TREELINE
	EX.	PAVED ROAD
======	EX.	GRAVEL ROAD
x	EX.	FENCE
STO	EX.	CULVERT
	EX.	OVERHEAD POWER
PUG	EX.	UNDERGROUND POWER
FO	EX.	FIBER OPTIC LINE
——— GAS ———	EX.	GAS PIPELINE
TUG	EX.	TELEPHONE LINE
——— WAT ———	EX.	WATER LINE
<u> </u>	EX.	STREAM CHANNEL
	EX.	WETLAND
	FLO	OD HAZARD AREA
	VEG	SETATION TO BE REMOVED

# GENERAL NOTES:

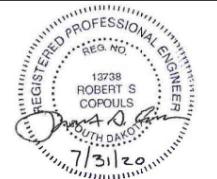
- ALL CUT/FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
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N	P REVISION ZONE	DATE	BY	CHK	ENG	NO REVISION	ZONE	DATE	BY	CHK ENG	G REFERENCE DRAWINGS	
A	60% CIVIL PLAN SET	06/09/20	ZHW	DJN	DJN						DWG NO. MANUFACTURER DESCRIPTION	
E	90% CIVIL PLAN SET	07/06/20	ZHW	DFK	DFK							
C	IFC CIVIL PLAN SET	07/31/20	ZHW	DFK	DFK							



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CODDINGTON AND GRANT COUNTY, SD						
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DATE:

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SCALE: 1" = 50'-0"

ENG: DFK DATE:

PM: DFK DATE:

APVD:

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Civil Acces	ss Roa

Temporary Improvement 7

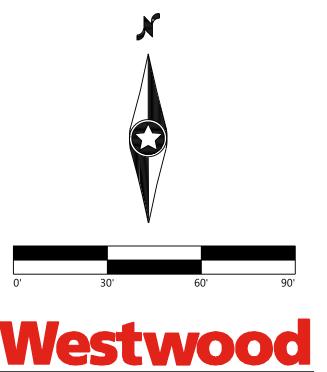
OBSTACLE FREE AREA (TYP.) 18" CULVERT EXTENSION PROPOSED TEMPORARY IMPROVEMENT #8 -FOR TURBINE DELIVERY PER DETAIL RD07 OBSTACLE FREE AREA PROPOSED FENCE CROSSING 460TH

# LEGEND:

	PRC	DJECT BOUNDARY
	SEC	TION LINES
	RIG	HT-OF-WAY LINES
	EAS	EMENT LINES
900	EX.	INDEX CONTOUR
	EX.	INTERVAL CONTOUR
······································	EX.	TREELINE
	EX.	PAVED ROAD
======	EX.	GRAVEL ROAD
x	EX.	FENCE
STO	EX.	CULVERT
<del></del>	EX.	OVERHEAD POWER
PUG	EX.	UNDERGROUND POWER
——— FO ———	EX.	FIBER OPTIC LINE
——— GAS ———	EX.	GAS PIPELINE
TUG	EX.	TELEPHONE LINE
——— WAT ———	EX.	WATER LINE
<u> </u>	EX.	STREAM CHANNEL
	EX.	WETLAND
	FLO	OD HAZARD AREA
	VEG	SETATION TO BE REMOVED

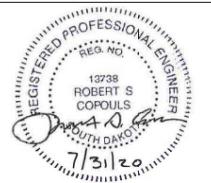
# GENERAL NOTES:

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NO	REVISION	ZONE	DATE	BY	СНК	ENG	NO	REVISION Z	ZONE	DATE	BY	CHK EN	G REFERENCE DRAWINGS
Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN							DWG NO. MANUFACTURER DESCRIPTION
В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK							
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK							



APVD:

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	NORTHERN STA	YOUR PERSONAL SAFETY IS PROVIDED FOR BY USING SAFETY PRACTICES, PROCEDURES, AND EQUIPMENT AS DESCRIBED IN THE SAFETY TRAINING PROGRAMS AND		
DWN: ZHW	DATE:	CHK:	DATE:	MANUALS.
ENG: DFK	DATE:	CHK:	DATE:	ENERGY GURRIY
PM: DFK	DATE:	PROJ. N	ENERGY SUPPLY ENGINEERING & CONSTRUCTION	
ADVD.	DATE.	ENGINEERING & CONSTRUCTION		

SCALE: 1" = 30'-0"

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Temporary Improvement 8

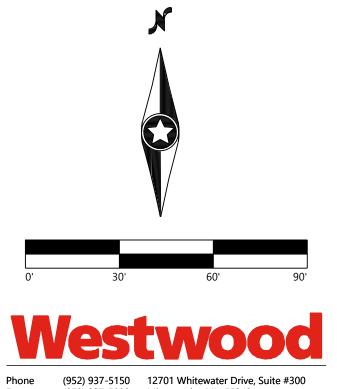
35' OBSTACLE FREE AREA PROPOSED TEMPORARY IMPROVEMENT #9 FOR TURBINE DELIVERY PER DETAIL RD07 PROPOSED PERIMETER SEDIMENT CONTROL 151ST ST 456TH OBSTACLE FREE AREA (TYP.)

# LEGEND:

	PROJECT BOUNDARY
	SECTION LINES
	RIGHT-OF-WAY LINES
	EASEMENT LINES
900	EX. INDEX CONTOUR
	EX. INTERVAL CONTOUR
mmmm	EX. TREELINE
	EX. PAVED ROAD
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X	EX. FENCE
STO	EX. CULVERT
<del></del>	EX. OVERHEAD POWER
PUG	EX. UNDERGROUND POWER
FO	EX. FIBER OPTIC LINE
——— GAS ———	EX. GAS PIPELINE
TUG	EX. TELEPHONE LINE
——— WAT ———	EX. WATER LINE
<b>- · · · -</b> · · -	EX. STREAM CHANNEL
	EX. WETLAND
	FLOOD HAZARD AREA
	VEGETATION TO BE REMOVED

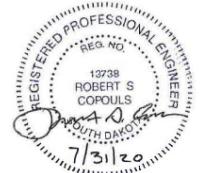
# **GENERAL NOTES:**

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<u> </u>	 	THIS MAP/DOCUMENT IS A T	OOL			

NO	REVISION	ZONE	DATE	BY	СНК	ENG	NO	REVISION	ZONE	DATE	BY	СНК	ENG	REFERENCE DRAWINGS	
Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN								DWG NO. MANUFACTURER DESCRIPTION	
В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK									
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK									



ENG: DFK DATE:

PM: DFK DATE:

APVD:

	( Xcel	Energy	<b>(6)</b>	TO ASSIST PERFORMA YOUR PE						
NORTHERN STATES POWER COMPANY  Dakota Range I & II Wind Farm  CODDINGTON AND GRANT COUNTY, SD										
DWN: ZHW	DATE:	CHK:	DATE:	TRAININ						

PROJ. NO: 27717

SCALE: 1" = 30'-0"

DATE:

CHK:

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TRAINING PROGRAMS AND
MANUALS.

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UNIT	0
Civil Acces	ss Roads

Temporary	Improvement 9

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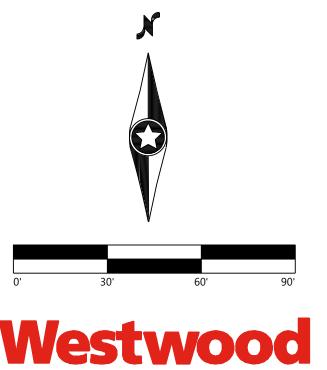
OBSTACLE FREE AREA (TYP.) PROPOSED TEMPORARY -IMPROVEMENT #10 FOR TURBINE DELIVERY PER DETAIL RD08-B OBSTACLE FREE AREA PROPOSED PERIMETER SEDIMENT CONTROL EXISTING FENCE LINE 151ST ST EXISTING WETLAND -

# LEGEND:

	PRC	DJECT BOUNDARY
	SEC	TION LINES
	RIG	HT-OF-WAY LINES
	EAS	EMENT LINES
900	EX.	INDEX CONTOUR
	EX.	INTERVAL CONTOUR
·······································	EX.	TREELINE
	EX.	PAVED ROAD
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x	EX.	FENCE
STO	EX.	CULVERT
<del></del>	EX.	OVERHEAD POWER
PUG	EX.	UNDERGROUND POWER
FO	EX.	FIBER OPTIC LINE
——— GAS ———	EX.	GAS PIPELINE
TUG	EX.	TELEPHONE LINE
——— WAT ———	EX.	WATER LINE
_ : : _ : -	EX.	STREAM CHANNEL
	EX.	WETLAND
	FLO	OD HAZARD AREA
••••••	VEG	SETATION TO BE REMOVED

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Free	(888) 937-5150	westwoodps.com
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NO	REVISION	ZONE	DATE	BY	СНК	ENG NO	REVISION	ZONE	DATE	BY	СНК	ENG	REFERENCE DRAWINGS		
Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN							DWG NO. MANUFACTURER DESCRIPTION		
В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK									
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK									

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NORTHERN STATES POWER COMPANY
Dakota Range I & II Wind Farm
CODDINGTON AND GRANT COUNTY, SD

CHK:

CHK:

DATE:

PROJ. NO: 27717

SCALE: 1" = 30'-0"

DWN: ZHW DATE:

ENG: DFK DATE:

PM: DFK DATE:

APVD:

PERFORMANCE OF THEIR JO
YOUR PERSONAL SAFETY
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TRAINING PROGRAMS AN
MANUALS.

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Temporary Improvement 10

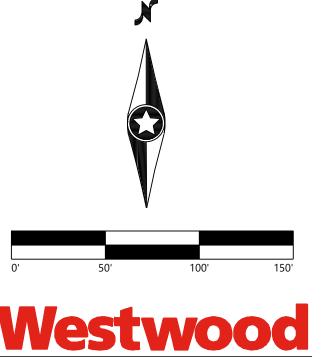
PROTECT EXISTING UTILITY OBSTACLE FREE AREA (TYP.) EXISTING FENCE LINE 35' OBSTACLE FREE AREA 35' OBSTACLE FREE AREA PROPOSED TEMPORARY IMPROVEMENT #11 FOR TURBINE DELIVERY PER DETAIL RD08-A & B PROPOSED FENCE CROSSING EXTEND 18" ENTRANCE CULVERT PROPOSED FENCE CROSSING 35' OBSTACLE FREE AREA 151TH ST. +

# LEGEND:

	PRC	DJECT BOUNDARY
	SEC	TION LINES
	RIG	HT-OF-WAY LINES
	EAS	EMENT LINES
900	EX.	INDEX CONTOUR
	EX.	INTERVAL CONTOUR
······································	EX.	TREELINE
	EX.	PAVED ROAD
======	EX.	GRAVEL ROAD
X	EX.	FENCE
STO	EX.	CULVERT
	EX.	OVERHEAD POWER
PUG	EX.	UNDERGROUND POWER
FO	EX.	FIBER OPTIC LINE
——— GAS ———	EX.	GAS PIPELINE
TUG	EX.	TELEPHONE LINE
——— WAT ———	EX.	WATER LINE
_ : : _ : : _	EX.	STREAM CHANNEL
	EX.	WETLAND
	FLO	OD HAZARD AREA
•••••	VEG	SETATION TO BE REMOVED

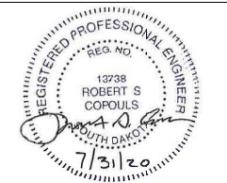
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Phone (952) 937-5150 12701 Whitewater Drive, Suite #300 Fax (952) 937-5822 Minnetonka, MN 55343 westwoodps.com Westwood Professional Services, Inc.

NO	REVISION	ZONE	DATE	BY	CHK	ENG	NO REVISION	ZONE	DATE	BY	CHK ENG	REFERENCE DRAWINGS		
Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN						DWG NO. MA	ANUFACTURER	DESCRIPTION
В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK								
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK								



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Dakota Range I & II Wind Farr

DWN: ZHW DATE:

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PM: DFK DATE:

APVD:

CODDINGTON AND GRANT COUNTY, SD

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PROJ. NO: 27717

SCALE: 1" = 50'-0"

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DATE:

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**ENERGY SUPPLY** 

**ENGINEERING & CONSTRUCTION** 

UNIT 0
Civil Access Roads

Temporary Improvement 11

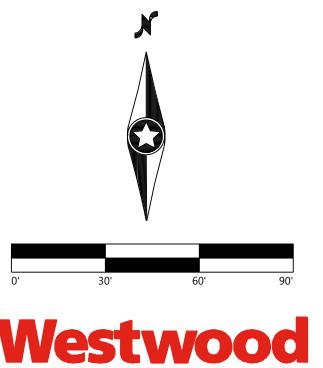
459TH 155TH ST. CROSSING 35' OBSTACLE FREE AREA PROPOSED TEMPORARY IMPROVEMENT #13 FOR TURBINE DELIVERY PER DETAIL RD07 35' OBSTACLE FREE AREA PROPOSED TEMPORARY IMPROVEMENT #12 FOR TURBINE DELIVERY PER DETAIL RD07 OBSTACLE FREE AREA OBSTACLE FREE AREA

# LEGEND:

	PRC	JECT BOUNDARY					
	SECTION LINES						
	RIGHT-OF-WAY LINES						
	EAS	EMENT LINES					
900	EX.	INDEX CONTOUR					
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	EX.	OVERHEAD POWER					
PUG	EX.	UNDERGROUND POWER					
FO	EX.	FIBER OPTIC LINE					
——— GAS ———	EX.	GAS PIPELINE					
TUG	EX.	TELEPHONE LINE					
——— WAT ———	EX.	WATER LINE					
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	EX.	WETLAND					
	FLO	OD HAZARD AREA					
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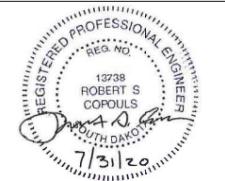
 Phone
 (952) 937-5150
 12701 Whitewater Drive, Suite #300

 Fax
 (952) 937-5822
 Minnetonka, MN 55343

 Toll Free
 (888) 937-5150
 westwoodps.com

 Westwood Professional Services, Inc.

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CODDINGTON AND GRANT COUNTY. SD	

DATE:

DATE:

PROJ. NO: 27717

SCALE: 1" = 30'-0"

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CHK:

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UNIT 0
Civil Access Roads
OIVII Access Roads

Temporary Improvement 12-13

ENERGY SUPPLY NH-277478-12-11

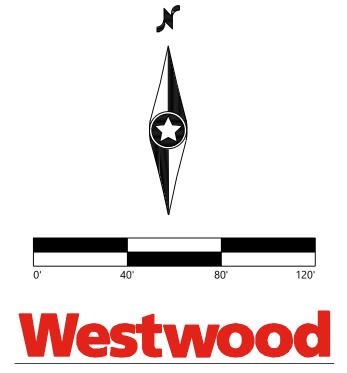
NO IMPACTS BEYOND PUBLIC RIGHT-OF-WAY PROPOSED TEMPORARY IMPROVEMENT #14 FOR TURBINE DELIVERY PER DETAIL RD08-A 35' OBSTACLE FREE AREA APPROXIMATE RIGHT-OF-WAY STATE HWY 20 HWY 35' OBSTACLE FREE AREA APPROXIMATE RIGHT-OF-WAY

# LEGEND:

	PRC	DJECT BOUNDARY
	SEC	TION LINES
	RIG	HT-OF-WAY LINES
	EAS	SEMENT LINES
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PUG	EX.	UNDERGROUND POWER
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TUG	EX.	TELEPHONE LINE
WAT	EX.	WATER LINE
<b>- · · · -</b> · · -	EX.	STREAM CHANNEL
	EX.	WETLAND
	FLO	OD HAZARD AREA
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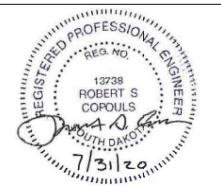
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NO	REVISION	ZONE	DATE	BY	СНК	ENG NO	REVISION	ZONE	DATE	BY	СНК	ENG	REFERENCE DRAWINGS
Α	60% CIVIL PLAN SET		06/09/20	ZHW	DJN	DJN							DWG NO. MANUFACTURER DESCRIPTION
В	90% CIVIL PLAN SET		07/06/20	ZHW	DFK	DFK							
0	IFC CIVIL PLAN SET		07/31/20	ZHW	DFK	DFK							



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CODDINGTON AND GRANT COUNTY, SD

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UNIT 0 Civil Access Roads

Temporary Improvement 14

ENERGY SUPPLY ENGINEERING & CONSTRUCTION NH-277478-12-12

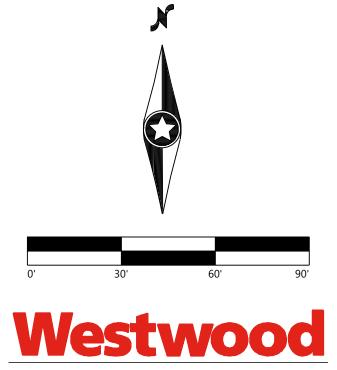
.59TH MPROVEMENT #15 FOR TURBINE DELIVERY PER DETAIL RD07 35' OBSTACLE FREE AREA EXISTING -FENCE LINE RIGHT-OF-WAY -STATE HWY 20 OBSTACLE FREE AREA PROPOSED TEMPORARY -IMPROVEMENT #16 FOR TURBINE DELIVERY PER DETAIL RD07 RIGHT-OF-WAY 35' OBSTACLE FREE AREA

# LEGEND:

	PRC	DJECT BOUNDARY				
	SEC	TION LINES				
	RIG	HT-OF-WAY LINES				
	EAS	EMENT LINES				
900	EX.	INDEX CONTOUR				
	EX.	INTERVAL CONTOUR				
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STO	EX.	CULVERT				
	EX.	OVERHEAD POWER				
PUG	EX.	UNDERGROUND POWER				
FO	EX.	FIBER OPTIC LINE				
——— GAS ———	EX.	GAS PIPELINE				
TUG	EX.	TELEPHONE LINE				
——— WAT ———	EX.	WATER LINE				
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	EX.	WETLAND				
	FLO	OD HAZARD AREA				
	VEGETATION TO BE REMOVED					

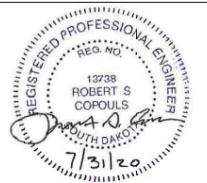
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UNIT 0
Civil Access Roads

Temporary Improvement 15-16

# **Attachment F**

# **Training Documentation**

# Stormwater Pollution Prevention Training Log

Proj	Project Name:									
Proj	Project Location:									
Inst	ructor's Name(s):									
Inst	ructor's Title(s):									
Cou	urse Location:									
Dat	e of Course:									
Cou	urse Length(hours):									
		_								
Stor	mwater Training Topic: (chec	:K as	<u>appropriate)</u>							
	Sediment and Erosion Controls		Emergency Procedures							
	Stabilization Controls		Inspections / Maintenance / Corrective Actions							
	Pollution Prevention Measures		Stormwater Runoff Sampling							
Spe	Specific Training Objective(s):									
Atte	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, Corrective Action Form (EPA), Contractor Certification Form (EPA)

Docket No. EL18-003 Pre-Construction Filing - Permit Condition 14 Attachment A - Page 349 of 398

# SUBCONTRACTOR CERTIFICATION STORMWATER POLLUTION PREVENTION PLAN

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer. Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

Name of Permitted Operator:		
Project Name and Location:		
Site-Specific NPDES Authorization Number:		
Subcontractor Company:		
Subcontractor Address:		
Subcontractor Telephone Number:		
Subcontractor construction services to be provided:		
Is the subcontractor familiar with the original NOI and also familiar with and will adhere to the SWPPP and the BMPs on file?	The NOI was submitted / filed by: The SWPPP is located:	<del></del>
	understand the terms and conditions of the SWPPP for the a hereby signed in reference to the above named project:	bove designated project and agree to follow the
Signature:	Title:	Date:

# STORMWATER CONSTRUCTION SITE INSPECTION REPORT

General In	NFORMATION				
Project Name:					
Location:					
Date of Inspection:	Start/End Time:				
Inspector's Name:					
Inspector's Title:					
Inspector's Contact Information:					
Describe present phase of construction:					
Type of Inspection:  □ Regular □ Pre-storm event □ During storm event □ Post-storm event					
Weather I.	NFORMATION				
Has there been a storm event since the last inspection? If yes, provide:	□Yes □No				
Storm Start Date & Time: Storm Duration (hrs):	Approximate Amount of Precipitation (in):				
Weather at time of this inspection?  □ Clear □ Cloudy □ Rain □ Sleet □ Fog □ Other: Temper	☐ Snowing ☐ High Winds rature:				
Have any discharges occurred since the last inspection? □Yes □No  If yes, describe:					
Are there any discharges at the time of inspection? □Yes □No If yes, describe:					
Certificatio	on Statement				

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

Signature of Inspector Printed Name and Title Date

# Overall Site Issues

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1. All inactive slopes and disturbed areas have been stabilized.	□Yes □No	□Yes □No	
2. Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	□Yes □No	□Yes □No	
3. Are all sanitary waste recepticles placed in secondary containment and free of leaks?	□Yes □No	□Yes □No	
4. Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	□Yes □No	□Yes □No	
5. Are discharge points and receiving waters free of any sediment deposits?	□Yes □No	□Yes □No	
6. Are storm drain inlets properly protected?	□Yes □No	□Yes □No	
7. Is the construction exit preventing sediment from being tracked into the street?	□Yes □No	□Yes □No	
8. Is trash/litter from work areas collected and placed in covered dumpsters?	□Yes □No	□Yes □No	
9. Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	□Yes □No	□Yes □No	
10. Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	□Yes □No	□Yes □No	
11. Are materials that are potential stormwater contaminants stored inside or under cover?	□Yes □No	□Yes □No	
12. Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	□Yes □No	□Yes □No	
13. (Other)	□Yes □No	□Yes □No	

# 2017 Construction General Permit Corrective Action Report Form – Field Version

## **Purpose**

This Corrective Action Report Form is to assist you in preparing corrective action reports for EPA's 2017 Construction General Permit (CGP). If you are covered under EPA's 2017 CGP, you can use this form to create a corrective action report that complies with the minimum reporting requirements of Part 5.4 of the permit.

You are only required to fill out this form if one of the conditions triggering corrective action in Part 5.1 or 5.3 occurs on your site. Routine maintenance is generally not considered to trigger corrective action. Corrective actions are triggered only for specific conditions that are identified below in the "Overview of Corrective Action Requirements."

If you are covered under a state CGP, this form may be helpful in developing a report that can be used for that permit; however, it will need to be modified to meet the specific requirements of the permit. If your permitting authority requires you to use a specific corrective action report form, you should not use this form.

## **Notes**

While EPA has made every effort to ensure the accuracy of all instructions contained in the Corrective Action Report Form, it is the permit, not the form, that determines the actual obligations of regulated construction stormwater discharges. In the event of a conflict between the Corrective Action Report Form and any corresponding provision of the 2017 CGP, you must abide by the requirements in the permit. EPA welcomes comments on the Corrective Action Report Form at any time and will consider those comments in any future revision of this document. You may contact EPA for CGP-related inquiries at <a href="mailto:cgp@epa.gov">cgp@epa.gov</a>.

## **Overview of Corrective Action Requirements**

Construction operators covered under the 2017 CGP are required to conduct corrective actions and report on progress made in correcting the problem condition(s) in accordance with the following requirements:

Conditions Triggering Corrective Action (Parts 5.1 and 5.3)

Corrective action is required whenever any of the following conditions occur at your site:

- A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); or
- A stormwater control necessary to comply with the requirements of this permit was never installed, or was
  installed incorrectly; or
- Discharges are causing an exceedance of applicable water quality standards; or
- A Part 1.3 prohibited discharge has occurred; or
- EPA requires corrective action as a result of permit violations found during an inspection carried out under Part 4.8.

Deadlines for Completing Corrective Actions (Part 5.2)

For any condition triggering corrective action:

- You must immediately take all reasonable steps to address the condition (e.g. cleaning up contaminated surfaces so the material(s) is not discharged in subsequent storm events);
- If the problem does not require a new or replacement control or significant repair, you must complete the corrective action by the close of the next business day
- If the problem does require a new or replacement control or significant repair, you must complete corrective action (e.g., installing and making operational any new or modified control, completing repairs) by no later than 7 calendar days from the time of discovery of the condition. If infeasible to complete the installation or repair within 7 calendar days, you must document why it is infeasible and document your schedule for completing the corrective action as soon as practicable. If any of these actions result in changes to the stormwater controls documented in your SWPPP, you must modify your SWPPP within 7 calendar days.

Deadlines for Documenting Corrective Actions in a Report (Part 5.4)

You are required to complete a corrective action report for each corrective action you take in accordance with the following deadlines.

- Within 24 hours of <u>identifying</u> the corrective action condition, you must document the following:
  - The condition identified at your site; and
  - The date and time you identified the condition
- Within 24 hours of completing the corrective action, you must document the following:
  - The actions you took to address the condition, and
  - Whether any SWPPP modifications are required.

## **Instructions for Using This Report Form**

This Field Version of the Corrective Action Report Form is intended to be used in the field and filled out by hand. If you will be filling out the Corrective Action Report Form electronically (i.e., you will be typing in your findings), please use the Electronic Version of the Corrective Action Report Form available at <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources</a>. The Electronic Version includes text fields with instructions for what to enter.

The following tips for using this form will help you ensure that the minimum permit requirements are met:

- **Review the corrective action requirements.** Before you fill out this corrective action report form, read the CGP's Part 5 corrective action requirements. This will ensure that you have a working understanding of the permit's underlying corrective action requirements.
- Complete a separate report for each condition that triggers corrective action. For each triggering condition on your site, you will need to fill out a separate corrective action report form.
- Complete all required text fields. Fill out <u>all</u> text fields. Only by filling out all fields will the form be compliant with the requirements of the permit. (Note: Where you do not need the number of rows provided in the corrective action report form, you may leave those rows blank. Or, if you need more space to document your findings, you may add an additional sheet.)
- **Sign and certify each corrective action report.** The operator or a duly authorized representative (see Appendix I, Part I.11.2) must sign and certify each corrective action report form for it to be considered complete. Where a contractor or subcontractor carries out your corrective actions, it is recommended that you also have that individual sign and certify the form, in addition to the signature and certification required of the permitted operator. The form includes a signature block for both parties.
- Include the corrective action report form with your SWPPP. Once your form is complete, make sure to include a copy of the corrective action report form in your SWPPP in accordance with Part 7.2.7.e of the CGP.
- Retain copies of all corrective action reports with your records. You must retain copies of your corrective action reports in your records in accordance with the requirements in Part 5.4.4 of the 2017 CGP. These reports must be retained for at least 3 years from the date your permit coverage expires or is terminated.

## **Section-by-Section Instructions**

You will find specific instructions corresponding to each section of the report form on the reverse side of each page. These instructions were written in order to provide you with more details in terms of what EPA expects to be documented in these reports

Section A – Initial Report (CGP Part 5.4.1) (Complete this section within 24 hours of identifying the condition that triggered corrective action)								
Name of Project			NPDES ID I			.990.00.0	Today's Date	
Date Problem First Di	iscovered			Time	Problem First Dis	covered		
Name and Contact Individual Completin								
What site conditions triggered the requirement to conduct corrective action (check the box that applies):  A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4)  A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly  A discharge is causing an exceedance of applicable water quality standards  A Part 1.3 prohibited discharge has occurred  EPA requires corrective action as a result of permit violations found during an EPA inspection carried out under Part 4.8								
Immediately the material Complete by significant re No later than significant re	Deadline for completing corrective action (check the box that applies):    Immediately take all reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events   Complete by close of the next business day when problem does not require a new or replacement control or significant repair   No later than 7 calendar days from the time of discovery for problems that require a new or replacement control or significant repair   Infeasible to complete the installation or repair within 7 calendar days. Explain why it is infeasible and document schedule for installing control:							
					pletion (CGP Per completing th			
Section B.1 – Why the	e Problem Occ	urred						
Cause(s) of Problem (Add an additional s		ıry)			ow You Determineterminetermined		ause and the Date	You
<ol> <li>2.</li> </ol>				2.				
Section B.2 – Stormw	rater Control Mo	odifications I	mplemented	to Corre	ct the Problem			
List of Stormwater Co Needed to Correct F (Add an additional s 1.	ontrol Modificat Problem	ion(s)	Date of Completion	SWPPP Necess Tyes If yes, p	Update sary?	Notes		
2.					□No orovide date modified:			

## Instructions for Filling Out the Initial Report (Section A)

You must complete Section A of the report form <u>within 24 hours</u> of discovering the condition that triggered corrective action

## Name of Project

Enter the name for the project.

#### NPDES ID No.

Enter the NPDES ID number that was assigned to your NOI for permit coverage.

## Today's Date

Enter the date you completed this form.

## **Date/Time Problem First Discovered**

Specify the date on which the triggering condition was first discovered. Also specify the time of the discovery.

## Name/Contact Information

Provide the individual's name, title, and contact information as directed in the form.

## **Site Condition That Triggered Corrective Action**

Under the CGP, corrective action is required when one of 4 triggering conditions occurs at your site or when EPA requires a corrective action as a result of a permit violation found during an EPA inspection. See CGP Parts 5.1 and 5.3. Check the box that corresponds to the condition that triggered this corrective action.

## **Description of the Site Condition**

Provide a summary description of the condition you found that triggered corrective action under CGP Part 5.1 and the specific location where it was found. Be as specific as possible about the location; it is recommended that you refer to a precise point on your site map. If you have already provided this explanation in an inspection report, you can refer to that report.

## **Deadline for Completing Corrective Action**

This deadline is fixed in CGP Part 5.2. For all projects, the deadlines are: (1) immediately take all reasonable steps; (2) by the close of the next business day when the problem does not require significant repair or replacement; (3) no more than 7 calendar days after the date you discovered the problem when the problem does require significant repair or replacement, or (4) if it is infeasible to complete work within the first 7 days, as soon as practicable following the 7th day. If your estimated date of completion falls after the 7-day deadline consistent with (3), above, explain (a) why you believe it is infeasible to complete work within 7 days, and (b) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe.

## Instructions for Filling Out the Corrective Action Completion Table (Section B)

You must complete Section B of the report form no later than 24 hours after completing the correction action.

### Section B.1 - Why the Problem Occurred

After you have had the opportunity to examine the problem more closely, provide details as to what you believe to be the cause of the problem, and specify the follow-up actions you took (along with the dates of such actions) to diagnose the problem. This is consistent with CGP Part 5.4.2.

## Section B.2 - Stormwater Control Modifications Implemented

Provide a list of modifications you made to your stormwater controls to correct the problem and the date you completed such work. Keep in mind that your work must be completed within the timeline specified in Section A for the completion of corrective action work.

Also, if a SWPPP modification is necessary consistent with Part 7.4.1.a in order to reflect changes implemented at your site, indicate the date you modified your SWPPP. Keep in mind that SWPPP changes must be made within 7 days of discovering the problem that triggered this corrective action.

Space is provided for you to include additional notes or observations regarding the change that you implemented at your site to correct the problem.

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# Section C –Signature and Certification (CGP Part 5.4.3) Section C.1 – Contractor or Subcontractor Signature and 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 have no personal knowledge that the information submitted is other than 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 of Contractor or Subcontractor: Date: Printed Name and Affiliation:

## Section C.2 – Operator Signature and 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 have no personal knowledge that the information submitted is other than 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 of Operator or "Duly Authorized Representative":	
Date:	
Printed Name and Affiliation:	

## Instructions for Signature and Certification (Section C)

Each corrective action report must be signed and certified to be considered complete.

### Section C.1 – Contractor or Subcontractor Signature and Certification

Where you rely on a contractor or subcontractor to complete this report and the associated corrective action, you should require the individual(s) to sign and certify each report. Note that this does not relieve you, the permitted operator, of the requirement to sign and certify the report as well.

## Section C.2 – Operator Signature and Certification

At a minimum, the corrective action report form must be signed by either (1) the person who signed the NOI, or (2) a duly authorized representative of that person. The following requirements apply to scenarios (1) and (2):

If the signatory will be the person who signed the NOI for permit coverage, as a reminder, that person must be one of the following types of individuals:

- For a corporation: A responsible corporate officer. For the purpose of this subsection, 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 which 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.
- For a partnership or sole proprietorship: A general partner or the proprietor, respectively.
- For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

If the signatory will be a duly authorized representative, the following requirements must be met:

- The authorization is made in writing by the person who signed the NOI (see above);
- 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 plant manager, operator of a well or a 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
- The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

# 2017 Construction General Permit Inspection Report Template – Field Version

## **Purpose**

This Inspection Report Template (or "template") is to assist you in preparing inspection reports for EPA's 2017 Construction General Permit (CGP). If you are covered under the 2017 CGP, you can use this template to create an inspection report form that is customized to the specific circumstances of your site and that complies with the minimum reporting requirements of Part 4.7 of the permit. Note that the use of this form is optional; you may use your own inspection report form provided it includes the minimum information required in Part 4.7 of the CGP.

If you are covered under a state CGP, this template may be helpful in developing a form that can be used for that permit; however, it will need to be modified to meet the specific requirements of that permit. If your permitting authority requires you to use a specific inspection report form, you should not use this form.

#### Notes:

While EPA has made every effort to ensure the accuracy of all instructions contained in the Inspection Report Template, it is the permit, not the template, that determines the actual obligations of regulated construction stormwater discharges. In the event of a conflict between the Inspection Report Template and any corresponding provision of the 2017 CGP, you must abide by the requirements in the permit. EPA welcomes comments on the Inspection Report Template at any time and will consider those comments in any future revision of this document. You may contact EPA for CGP-related inquiries at <a href="mailto:cgp@epa.gov">cgp@epa.gov</a>.

## Overview of Inspection Requirements (see CGP Part 4)

Construction operators covered under the 2017 CGP are subject to the following inspection requirements:

## Person(s) Responsible for Inspecting the Site (see Part 4.1)

The person(s) inspecting your site must be a "qualified person" who may be either on your staff or a third party you hire to conduct such inspections.

A "qualified person" is a person knowledgeable in the principles and practice of erosion and sediment controls
and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction
site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any
stormwater controls selected and installed to meet the requirements of this permit.

## Inspection Frequency (see Part 4.2)

You are required to conduct inspections either:

- Once every 7 calendar days; or
- Once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater or the occurrence of runoff from snowmelt sufficient to cause a discharge.

Your inspection frequency is increased if the site discharges to a sensitive water. See Part 4.3. Your inspection frequency may be decreased to account for stabilized areas, or for arid, semi-arid, or drought-stricken conditions, or for frozen conditions. See Part 4.4.

## Areas That Need to Be Inspected (see Part 4.5)

During each inspection, you must inspect the following areas of your site:

- Cleared, graded, or excavated areas of the site;
- Stormwater controls (e.g., perimeter controls, sediment basins, inlets, exit points etc.) and pollution prevention practices (e.g., pollution prevention practices for vehicle fueling/maintenance and washing, construction product storage, handling, and disposal, etc.) at the site;
- Material, waste, or borrow areas covered by the permit, and equipment storage and maintenance areas;
- Areas where stormwater flows within the site;
- Stormwater discharge points; and
- Areas where stabilization has been implemented.

## What to Check For During Your Inspection (see Part 4.6)

During your site inspection, you are required to check:

- Whether stormwater controls or pollution prevention practices are properly installed, require maintenance or corrective action, or whether new or modified controls are required;
- For the presence of conditions that could lead to spills, leaks, or other pollutant accumulations and discharges;
- For locations where new or modified stormwater controls are necessary to meet requirements of the permit;

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- Whether there are visible signs of erosion and sediment accumulation at points of discharge and to the channels and streambanks that are in the immediate vicinity of the discharge;
- If a stormwater discharge is occurring at the time of the inspection, whether there are obvious, visual signs of pollutant discharges; and
- If any permit violations have occurred on the site.

## <u>Inspection Reports</u> (see Part 4.7)

Within 24 hours of completing each inspection, you are required to complete an inspection report that includes:

- Date of inspection;
- Names and titles of person(s) conducting the inspection;
- Summary of inspection findings;
- Rain gauge or weather station readings if your inspection is triggered by the 0.25-inch storm threshold; and
- If you determine that a portion of your site is unsafe to access for the inspection, documentation of what conditions
  prevented the inspection and where these conditions occurred on the site

## Instructions for Using This Template

This Field Version of the Inspection Report Template is intended to be used in the field and filled out by hand. If you will be filling out the Inspection Report Template electronically (i.e., you will be typing in your findings), please use the Electronic Version of the Inspection Report Template available at <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources</a>. The Electronic Version includes text fields with instructions for what to enter.

Keep in mind that this document is a template and not an "off-the-shelf" inspection report that is ready to use without some modification. You must first customize this form to include the specifics of your project in order for it to be useable for your inspection reports. Once you have entered all of your site-specific information into these fields, you may print out this form for use in the field to complete inspection reports.

The following tips for using this template will help you ensure that the minimum permit requirements are met:

- **Review the inspection requirements.** Before you start developing your inspection report form, read the CGP's Part 4 inspection requirements. This will ensure that you have a working understanding of the permit's underlying inspection requirements.
- Complete all required text fields. Fill out <u>all</u> text fields. Only by filling out all fields will the template be compliant with the requirements of the permit. (Note: Where you do not need the number of rows provided in the template form for your inspection, you may leave those rows blank. Or, if you need more space to document your findings, you may add an additional sheet.)
- Use your site map to document inspection findings. In several places in the template, you are directed to specify the location of certain features of your site, including where stormwater controls are installed and where you will be stabilizing exposed soil. You are also asked to fill in location information for unsafe conditions and the locations of any discharges occurring during your inspections. Where you are asked for location information, EPA encourages you to reference the point on your SWPPP site map that corresponds to the requested location on the inspection form. Using the site map as a tool in this way will help you conduct efficient inspections, will assist you in evaluating problems found, and will ensure proper documentation.
- **Sign and certify each inspection report.** The operator or a duly authorized representative (see Appendix I, Part I.11.2) must sign and certify each inspection report for it to be considered complete. Where a contractor or subcontractor carries out your inspections, it is recommended that you also have the inspector sign and certify the form, in addition to the signature and certification required of the permitted operator. The template includes a signature block for both parties.
- **Include the inspection form with your SWPPP.** Once your form is complete, make sure to include a copy of the inspection form in your SWPPP in accordance with Part 7.2.7.e of the CGP.
- Retain copies of all inspection reports with your records. You must also retain in your records copies of all inspection reports in accordance with the requirements in Part 4.7.3 of the 2017 CGP. These reports must be retained for at least 3 years from the date your permit coverage expires or is terminated.

## **Section-by-Section Instructions**

You will find specific instructions corresponding to each section of the report form on the reverse side of each page. These instructions provide you with more details in terms of what EPA expects to be documented in these reports.

General Information (see reverse for instructions)									
Name of Project		NPDES ID No.	,	Inspection Date					
Weather conditions during inspection		Inspection start time		Inspection end time					
Inspector Name, Title Contact Information	2 &								
Present Phase of Cor	struction								
Inspection Location inspections are requi specify location whe inspection is being conducted)	red,								
Standard Frequency  Every 7 days		different inspection frequencies in differ		,,,					
Increased Frequency Every 7 days ar or Tier 3)		ain (for areas of sites discharging to	sediment or nutrient-impaired	waters or to waters	s designated as Tier 2, Tier 2.5,				
☐ Twice during firs☐ Once per mont	t month, no more than 14 ca t month, no more than 14 ca h and within 24 hours of a 0.2	lendar days apart; then once per lelendar days apart; then once more 15" rain (for arid, semi-arid, or droug e earth-disturbing activities are bein	e within 24 hours of a 0.25" rain ght-stricken areas during season	(for stabilized area:					
		ent?  Yes No  5" storm event has occurred?  ion representative of site. Specify v	veather station source:						
	ount that triggered the inspec	,		¬					
Was this inspection triggered by the occurrence of runoff from snowmelt sufficient to cause a discharge?									
- Location	n(s) where conditions were fo	und:							

#### Instructions for Filling Out "General Information" Section

#### Name of Project

Enter the name for the project.

#### NPDES ID No.

Enter the NPDES ID number that was assigned to your NOI for permit coverage.

#### Inspection Date

Enter the date you conducted the inspection.

#### **Weather Conditions During Inspection**

Enter the weather conditions occurring during the inspection, e.g., sunny, overcast, light rain, heavy rain, snowing, icy, windy.

#### Inspection start and end times

Enter the time you started and ended the inspection.

#### Inspector Name, Title & Contact Information

Provide the name of the person(s) (either a member of your company's staff or a contractor or subcontractor) that conducted this inspection. Provide the inspector's name, title, and contact information as directed in the form.

#### Present Phase of Construction

If this project is being completed in more than one phase, indicate which phase it is currently in.

#### **Inspection Location**

If your project has multiple locations where you conduct separate inspections, specify the location where this inspection is being conducted. If only one inspection is conducted for your entire project, enter "Entire Site." If necessary, complete additional inspection report forms for each separate inspection location.

#### Inspection Frequency

Check the box that describes the inspection frequency that applies to you. Note that you may be subject to different inspection frequencies in different areas of your site. If your project does not discharge to a "sensitive water" (i.e., a water impaired for sediment or nutrients, or listed as Tier 2, 2.5, or 3 by your state or tribe) and you are not affected by any of the circumstances described in CGP Part 4.4, then you can choose your frequency based on CGP Part 4.2 – either every 7 calendar days, or every 14 calendar days and within 24 hours of a 0.25-inch storm event. For any portion of your site that discharges to a sensitive water, your inspection frequency for that area is fixed under CGP Part 4.3 at every 7 calendar days and within 24 hours of a 0.25-inch storm event. If portions of your site are stabilized, are located in arid, semi-arid, or drought-stricken areas, or are subject to frozen conditions, consult CGP Part 4.4 for the applicable inspection frequency. Check all the inspection frequencies that apply to your project.

#### Was This Inspection Triggered by a 0.25 Inch Storm Event or the occurrence of runoff from snowmelt sufficient to cause a discharge?

If you were required to conduct this inspection because of a 0.25-inch (or greater) rain event, indicate whether you relied on an on-site rain gauge or a nearby weather station (and where the weather station is located). Also, specify the total amount of rainfall for this specific storm event. If you were required to conduct this inspection because of the occurrence of runoff from snowmelt, then check the appropriate box.

#### **Unsafe Conditions for Inspection**

Inspections are not required where a portion of the site or the entire site is subject to unsafe conditions. See CGP Part 4.5. These conditions should not regularly occur, and should not be consistently present on a site. Generally, unsafe conditions are those that render the site (or a portion of it) inaccessible or that would pose a significant probability of injury to applicable personnel. Examples could include severe storm or flood conditions, high winds, and downed electrical wires.

If your site, or a portion of it, is affected by unsafe conditions during the time of your inspection, provide a description of the conditions that prevented you from conducting the inspection and what parts of the site were affected. If the entire site was considered unsafe, specify the location as "Entire site"

Condition and Effectiveness of Erosion and Sediment (E&S) Controls (CGP Part 2.2) (see reverse for instructions)				
Type/Location of E&S Control [Add an additional sheet if necessary]	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	Notes
1.	□Yes □No	□Yes □No		
2.	□Yes □No	□Yes □No		
3.	□Yes □No	□Yes □No		
4.	□Yes □No	□Yes □No		
5.	□Yes □No	□Yes □No		
6.	□Yes □No	□Yes □No		
7.	□Yes □No	□Yes □No		
8.	□Yes □No	□Yes □No		
9.	□Yes □No	□Yes □No		
10.	□Yes □No	□Yes □No		

<sup>\*</sup>Note: The permit differentiates between conditions requiring routine maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition. Corrective actions are triggered only for specific conditions, which include: 1) A stormwater control needs repair or replacement (beyond routine maintenance) if it is not operating as intended; 2) A stormwater control necessary to comply with the permit was never installed or was installed incorrectly; 3) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 4) One of the prohibited discharges in Part 1.3 is occurring or has occurred; or 5) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.8. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources</a>. See Part 5 of the permit for more information.

#### Instructions for Filling Out the "Erosion and Sediment Control" Table

#### Type and Location of E&S Controls

Provide a list of all erosion and sediment (E&S) controls that your SWPPP indicates will be installed and implemented at your site. This list must include at a minimum all E&S controls required by CGP Part 2.2. Include also any natural buffers established under CGP Part 2.2.1. Buffer requirements apply if your project's earth-disturbing activities will occur within 50 feet of a water of the U.S. You may group your E&S controls on your form if you have several of the same type of controls (e.g., you may group "Inlet Protection Measures", "Perimeter Controls", and "Stockpile Controls" together on one line), but if there are any problems with a specific control, you must separately identify the location of the control, whether maintenance or corrective action is necessary, and in the notes section you must describe the specifics about the problem you observed.

#### Maintenance Needed?

Answer "yes" if the E&S control requires maintenance due to normal wear and tear in order for the control to continue operating effectively. At a minimum, maintenance is required in the following specific instances: (1) for perimeter controls, whenever sediment has accumulated to half or more the above-ground height of the control (CGP Part 2.2.3.a); (2) where sediment has been tracked-out onto the surface of off-site streets or other paved areas (CGP Part 2.2.4); (3) for inlet protection measures, when sediment accumulates, the filter becomes clogged, and/or performance is compromised (CGP Part 2.2.10); and (4) for sediment basins, as necessary to maintain at least half of the design capacity of the basin (CGP Part 2.2.12.f). Note: In many cases, "yes" answers are expected and indicate a project with an active operation and maintenance program. You should also answer "yes" if work to fix the problem is still ongoing from the previous inspection.

#### **Corrective Action Needed?**

Answer "yes" if during your inspection you found any of the following conditions to be present (CGP, Part 5.1): (1) a required E&S control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); (2) a require E&S control was never installed or was installed incorrectly; (3) you become aware that the inadequacy of the E&S control has led to an exceedance of an applicable water quality standard; (4) one of the prohibited discharges in Part 1.3 is occurring or has occurred; or (5) EPA requires corrective action for an E&S control as a result of a permit violation found during an inspection carried out under Part 4.8. If you answer "yes", you must take corrective action and complete a corrective action report, found at <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources</a>. Note: You should answer "yes" if work to fix the problem from a previous inspection is still ongoing.

#### Date on Which Maintenance or Corrective Action First Identified?

Provide the date on which the condition that triggered the need for maintenance or corrective action was first identified. If the condition was just discovered during this inspection, enter the inspection date. If the condition is a carryover from a previous inspection, enter the original date of the condition's discovery.

#### Notes

For each E&S control and the area immediately surrounding it, note whether the control is properly installed and whether it appears to be working to minimize sediment discharge. Describe any problem conditions you observed such as the following, and why you think they occurred as well as actions (e.g., maintenance or corrective action) you will take or have taken to fix the problem:

- 1. Failure to install or to properly install a required E&S control
- 2. Damage or destruction to an E&S control caused by vehicles, equipment, or personnel, a storm event, or other event
- 3. Mud or sediment deposits found downslope from E&S controls
- 4. Sediment tracked out onto paved areas by vehicles leaving construction site
- 5. Noticeable erosion at discharge outlets or at adjacent streambanks or channels
- 6. Erosion of the site's sloped areas (e.g., formation of rills or gullies)
- 7. E&S control is no longer working due to lack of maintenance

For buffer areas, make note of whether they are marked off as required, whether there are signs of construction disturbance within the buffer, which is prohibited under the CGP, and whether there are visible signs of erosion resulting from discharges through the area.

If maintenance or corrective action is required, briefly note the reason. If maintenance or corrective action have been completed, make a note of the date it was completed and what was done. If corrective action is required, note that you will need to complete a separate corrective action report describing the condition and your work to fix the problem.

Condition and Effectiveness of Pollution Prevention (P2) Practices (CGP Part 2.3) (see reverse for instructions)				
Type/Location of P2 Practices [Add an additional sheet if necessary]	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	Notes
1.	☐Yes ☐No	□Yes □No		
2.	☐Yes ☐No	□Yes □No		
3.	□Yes □No	□Yes □No		
4.	☐Yes ☐No	□Yes □No		
5.	□Yes □No	□Yes □No		
6.	☐Yes ☐No	□Yes □No		
7.	☐Yes ☐No	□Yes □No		
8.	☐Yes ☐No	□Yes □No		
9.	☐Yes ☐No	□Yes □No		
10.	□Yes □No	□Yes □No		

<sup>\*</sup> Note: The permit differentiates between conditions requiring routine maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition. Corrective actions are triggered only for specific conditions, which include: 1) A stormwater control needs repair or replacement (beyond routine maintenance) if it is not operating as intended; 2) A stormwater control necessary to comply with the permit was never installed or was installed incorrectly; 3) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 4) One of the prohibited discharges in Part 1.3 is occurring or has occurred; or 5) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.8. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources</a>. See Part 5 of the permit for more information.

#### Instructions for Filling Out the "Pollution Prevention (P2) Practice" Table

#### Type and Location of P2 Controls

Provide a list of all pollution prevention (P2) practices that are implemented at your site. This list must include all P2 practices required by Part 2.3, and those that are described in your SWPPP.

#### Maintenance Needed?

Answer "yes" if the P2 practice requires maintenance due to normal wear and tear in order for the control to continue operating effectively. Note: In many cases, "yes" answers are expected and indicate a project with an active operation and maintenance program.

#### **Corrective Action Needed?**

Answer "yes" if during your inspection you found any of the following conditions to be present (CGP, Part 5.1): (1) a required P2 practice needs repair or replacement (beyond routine maintenance required under Part 2.1.4); (2) a require P2 practice was never installed or was installed incorrectly; (3) you become aware that the inadequacy of the P2 practice has led to an exceedance of an applicable water quality standard; (4) one of the "prohibited discharges" listed in CGP Part 1.3 is occurring or has occurred, or (5) EPA requires corrective action for a P2 practice as a result of a permit violation found during an inspection carried out under Part 4.8. If you answer "yes", you must take corrective action and complete a corrective action report (see <a href="https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources">https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources</a>). Note: You should answer "yes" if work to fix the problem from a previous inspection is still ongoing.

#### Date on Which Maintenance or Corrective Action First Identified?

Provide the date on which the condition that triggered the need for maintenance or corrective action was first identified. If the condition was just discovered during this inspection, enter the inspection date. If the condition is a carryover from a previous inspection, enter the original date of the condition's discovery.

#### Notes

For each P2 control and the area immediately surrounding it, note whether the control is properly installed, whether it appears to be working to minimize or eliminate pollutant discharges, and whether maintenance or corrective action is required. Describe problem conditions you observed such as the following, and why you think they occurred, as well as actions you will take or have taken to fix the problem:

- 1. Failure to install or to properly install a required P2 control
- 2. Damage or destruction to a P2 control caused by vehicles, equipment, or personnel, or a storm event
- 3. Evidence of a spill, leak, or other type of pollutant discharge, or failure to have properly cleaned up a previous spill, leak, or other type of pollutant discharge
- 4. Spill response supplies are absent, insufficient, or not where they are supposed to be located
- 5. Improper storage, handling, or disposal of chemicals, building materials or products, fuels, or wastes
- 6. P2 practice is no longer working due to lack of maintenance

If maintenance or corrective action is required, briefly note the reason. If maintenance or corrective action have been completed, make a note of the date it was completed and what was done. If corrective action is required, note that you will need to complete a separate corrective action report describing the condition and your work to fix the problem.

Stabilization Area [Add an additional sheet if	Stabilization Method	Have You Initiated Stabilization?	Notes
necessary]		Sidbilization:	
1.		☐ YES ☐ NO If yes, provide date:	
2.		☐ YES ☐ NO If yes, provide date:	
3.		☐ YES ☐ NO If yes, provide date:	
4.		☐ YES ☐ NO If yes, provide date:	
5.		☐ YES ☐ NO If yes, provide date:	
		n of Discharges (CGP Part 4.6.6) ee reverse for instructions)	
Was a stormwater discharge or other di If "yes", provide the following inform	scharge occurring from any par	rt of your site at the time of the insp	ection? Yes No
Discharge Location [Add an additional sheet if necessary]	Observations		
1.	Describe the discharg	ge:	
			vaters of the U.S. in the immediate vicinity, are there any nat can be attributed to your discharge?   Yes No
		you see, specify the location(s) wh nance, or corrective action is need	ere these conditions were found, and indicate whether ded to resolve the issue:
2.	Describe the discharg	ge:	
			vaters of the U.S. in the immediate vicinity, are there any nat can be attributed to your discharge?   Yes No
		you see, specify the location(s) wh nance, or corrective action is need	ere these conditions were found, and indicate whether ded to resolve the issue:
	I		

Stabilization of Exposed Soil (CGP Part 2.2.14)

#### Instructions for Filling Out the "Stabilization of Exposed Soil" Table

#### Stabilization Area

List all areas where soil stabilization is required to begin because construction work in that area has permanently stopped or temporarily stopped (i.e., work will stop for 14 or more days), and all areas where stabilization has been implemented.

#### Stabilization Method

For each area, specify the method of stabilization (e.g., hydroseed, sod, planted vegetation, erosion control blanket, mulch, rock).

#### Have You Initiated Stabilization

For each area, indicate whether stabilization has been initiated.

#### Notes

For each area where stabilization has been initiated, describe the progress that has been made, and what additional actions are necessary to complete stabilization. Note the effectiveness of stabilization in preventing erosion. If stabilization has been initiated but not completed, make a note of the date it is to be completed. If stabilization has been completed, make a note of the date it was completed. If stabilization has not yet been initiated, make a note of the date it is to be initiated, and the date it is to be completed.

#### Instructions for Filling Out the "Description of Discharges" Table

You are only required to complete this section if a discharge is occurring at the time of the inspection.

#### Was a Stormwater Discharge Occurring From Any Part of Your Site At The Time of the Inspection?

During your inspection, examine all points of discharge from your site, and determine whether a discharge is occurring. If there is a discharge, answer "yes" and complete the questions below regarding the specific discharge. If there is not a discharge, answer "no" and skip to the next page.

#### **Discharge Location** (repeat as necessary if there are multiple points of discharge)

Location of discharge. Specify the location on your site where the discharge is occurring. The location may be an outlet from a stormwater control or constructed stormwater channel, a discharge into a storm sewer inlet, or a specific point on the site. Be as specific as possible; it is recommended that you refer to a precise point on your site map.

Describe the discharge. Include a specific description of any noteworthy characteristics of the discharge such as color; odor; floating, settled, or suspended solids; foam; oil sheen; and other obvious pollution indicators.

Are there visible signs of erosion or sediment accumulation? At each point of discharge and the channel and streambank in the immediate vicinity, visually assess whether there are any obvious signs of erosion and/or sediment accumulation that can be attributed to your discharge. If you answer "yes", include a description in the space provided of the erosion and sediment deposition that you have found, specify where on the site or in the water of the U.S. it is found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue.

Contractor or Subcontractor Signa (see reverse for instru	
"I certify under penalty of law that this document and all attachments were pressystem designed to assure that qualified personnel properly gathered and evaluperson or persons who manage the system, or those persons directly responsible best of my knowledge and belief, true, accurate, and complete. I have no personaccurate, and complete. I am aware that there are significant penalties for subrimprisonment for knowing violations."	ated the information submitted. Based on my inquiry of the for gathering the information, the information submitted is, to the anal knowledge that the information submitted is other than true,
Signature of Contractor or Subcontractor:	Date:
Printed Name and Affiliation:	-
Operator Signature and (see reverse for instru	
"I certify under penalty of law that this document and all attachments were prepaystem designed to assure that qualified personnel properly gathered and evaluperson or persons who manage the system, or those persons directly responsible best of my knowledge and belief, true, accurate, and complete. I have no personaccurate, and complete. I am aware that there are significant penalties for subrimprisonment for knowing violations."	ated the information submitted. Based on my inquiry of the for gathering the information, the information submitted is, to the anal knowledge that the information submitted is other than true,
Signature of Operator or "Duly Authorized Representative":	Date:
Printed Name and Affiliation:	-

#### Instructions for Signature/Certification

Each inspection report must be signed and certified to be considered complete.

#### Contractor or Subcontractor Signature and Certification

Where you rely on a contractor or subcontractor to carry out the inspection and complete the inspection report, you should require the inspector to sign and certify each report. Note that this does not relieve you, the permitted operator, of the requirement to sign and certify the inspection report as well.

#### **Operator Signature and Certification**

At a minimum, the inspection report must be signed by either (1) the person who signed the NOI, or (2) a duly authorized representative of that person. The following requirements apply to scenarios (1) and (2):

If the signatory will be the person who signed the NOI for permit coverage, as a reminder, that person must be one of the following types of individuals:

- For a corporation: A responsible corporate officer. For the purpose of this subsection, 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 which 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.
- For a partnership or sole proprietorship: A general partner or the proprietor, respectively.
- For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal aeographic unit of the agency (e.g., Regional Administrator of EPA).

If the signatory will be a duly authorized representative, the following requirements must be met:

- The authorization is made in writing by the person who signed the NOI (see above);
- 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 plant manager, operator of a well or a 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
- The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

# **Attachment H**

**Endangered Species, Cultural Resource** (Information, Correspondence)

# **Threatened and Endangered Species Habitat Assessment**

# Dakota Range Wind Farm Grant and Codington Counties, South Dakota



Prepared for:



October 2018



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# **Appendices**

# **Appendix A: Figures**

Figure 1: Site Vicinity

Figure 2: Land Cover

Figure 3: Whooping Crane Migration Corridor

Figure 4: Designated Critical Habitat

**Appendix B: Photographic Documentation of the Study Area** 

# 1.0 Introduction

Xcel Energy is proposing to construct and operate the Dakota Range Wind Farm (Project) in Grant and Codington Counties, South Dakota. The proposed Project site is located approximately 12 miles north of Watertown, South Dakota (Appendix A; Figure 1). According to the South Dakota Public Utilities Commission permit application, the Project is anticipated to up to 302.4 megawatt (MW) in size and will include up to 72 wind turbine generators. The Project footprint includes a 1-kilometer buffer surrounding the 72 proposed turbine locations and 25 alternate locations and is approximately 28,873 acres.

Xcel Energy is committed to environmental due diligence and has tasked Tetra Tech Inc. (Tetra Tech) with conducting a federally threatened and endangered wildlife species assessment of the Project footprint and a 1-mile buffer (defined as the "Study Area") to assess for potential impacts to wildlife following the recommendations of the United States Fish and Wildlife Service's (USFWS) Land-Based Wind Energy Guidelines (WEGs) (USFWS 2013). The WEGs describe information typically needed to identify, assess, and monitor the potential adverse impacts of wind energy projects on wildlife and their habitat, especially migratory birds and bats. The information presented in the WEGs is intended as a guide to the wind industry to make the best possible choices on the location, design, and operation of projects and to avoid or minimize the risks to wildlife and their habitats (USFWS 2013).

The WEGs provide a tiered approach to assist in providing the appropriate types and amount of baseline information required for adequate review of a project and to ensure the amount of investigation is in proportion to the anticipated level of risk to wildlife and their habitats (USFWS 2013). Risk is defined in the WEGs as the likelihood that adverse impacts will occur to individuals or populations of species as a result of wind energy development and operation (USFWS 2013).

The federal Endangered Species Act (ESA) directs the USFWS to identify and protect endangered and threatened species and their critical habitat, and to provide a means to conserve their ecosystems. Among its other provisions, the ESA requires the USFWS to assess civil and criminal penalties for violations of the ESA or its regulations. Section 9 of the ESA prohibits take of federally listed species. Take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct" 16 USC 1532. The term "harm" includes significant habitat alteration that kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering, 50 CFR 17.3. Projects involving Federal lands, funding or authorizations will require consultation between the Federal agency and the USFWS, pursuant to Section 7 of the ESA. Projects without a Federal nexus should work directly with USFWS to avoid adversely impacting listed species and their critical habitats.

# 2.0 Methods

At each tier of the WEGs, potential issues associated with developing or operating a project are identified and questions are formulated to guide the decision process. Tetra Tech carried out its threatened and

endangered species habitat assessment of the Project by thoroughly addressing the following questions presented in the WEGs:

- 1. Are known species of concern present on the proposed site, or is habitat (including designated critical habitat) present for these species?
- 2. Are there known critical areas of congregation of species of concern, including, but not limited to: maternity roosts, hibernacula, staging areas, winter ranges, nesting sites, migration stopovers or corridors, leks, or other areas of seasonal importance?
- 3. Is there a potential for significant adverse impacts to species of concern based on the answers to the questions above, and considering the design of the proposed project?

Questions suggested for the habitat assessment were addressed using credible, publicly available information including published studies, technical reports, databases, and information from agencies, local conservation organizations, and/or local experts. In addition, a qualified Tetra Tech biologist conducted a reconnaissance level site visit of the Study Area on June 27 and 28, 2018 to evaluate current vegetation/habitat coverage and land management/use. The biologist made observations from the public rights-of-way and did not access private lands.

In order to assess impacts the Project might have on federally threatened and endangered species, Tetra Tech evaluated a Study Area which included the Project footprint plus a 1-mile buffer.

# 3.0 Results of Threatened and Endangered Species Habitat Assessment

# 3.1 Land Use/Available Habitat

The Study Area is approximately 61,305 acres in size and is in the Northern Glaciated Plains ecoregion (USGS 2013). Soil and weather conditions in the ecoregion promote a transition zone between short and tallgrass prairie species. Although historically the ecoregion was dominated by native grasslands, they have been primarily converted to farmland. The Northern Glaciated Plains ecoregion features temporary and seasonal wetlands but because of the productive soil and level topography, this ecoregion is almost entirely cultivated, with many wetlands drained or simply tilled and planted (USGS 2013).

According to National Land Cover Dataset (NLCD), the Study Area is dominated by grassland/herbaceous and cultivated crops (Appendix A; Figure 2). Developed, open space, emergent herbaceous wetlands, and open water represent smaller proportions of the total Study Area (Table 1) (Homer et al. 2015).

Table 1. Land Cover of the Study Area

NLCD Class	Acres	Percentage
Grassland/Herbaceous	32,121	52.40%
Cultivated Crops	24,461	39.90%
Developed, Open Space	2,108	3.44%
Emergent Herbaceous Wetlands	923	1.51%
Open Water	573	0.93%
Hay/Pasture	472	0.77%
Developed, Low Intensity	314	0.51%
Deciduous Forest	241	0.39%
Developed, Medium Intensity	81	0.13%
Barren Land	9	0.01%
Shrub/Scrub	1	0.00%
TOTAL	61,305	100%

The land cover observed during the site visit was consistent with the land cover described by the NLCD and for the ecoregion and consisted primarily of grasslands, agricultural lands (used for grain crops), developed land (farmsteads), and wetlands. A mix of deciduous trees planted for windbreaks surround most farmsteads within the Study Area. The topography in the Project vicinity is generally flat and the vegetation cover is uniformly low. Representative photographs of the Study Area are included as Appendix B.

### 3.2 Federal Listed Species

Federally listed species known to occur within Grant and Codington counties include: whooping crane (*Grus americana*) (endangered), *rufa* red knot (*Calidris canutus rufa*) (threatened), northern long-eared bat (*Myotis septentrionalis*) (threatened), topeka shiner (*Notropis topeka*) (endangered), Dakota skipper (*Hesperia dacotae*) (threatened), and Poweshiek skipperling (*Oarisma poweshiek*) (endangered, USFWS. 2018a). A habitat survey was conducted for Dakota skipper and Poweshiek skipperling in June 2017 by Western EcoSystems Technology, Inc. (WEST), and was again analyzed by Tetra Tech in this assessment (WEST 2017).

## **Whooping Crane**

The whooping crane, a federally endangered species, is a regular spring and fall migrant through South Dakota (Niemuth et al 2018). Due to intensive management, the wild migratory population (referred to as the Aransas-Wood Buffalo population) has increased from 15 birds in 1941 to 329 birds as of spring breeding population surveys in May 2016 (WCCA 2016). There are several factors which threaten the whooping crane including human settlement and development, habitat loss, shooting, disturbance, disease, and predation. Threats to the whooping crane that are related to wind power development

include collision with power lines, fences, and other structures, and loss and degradation of stopover and wintering habitat (CWS and USFWS 2007; USFWS 2009).

Areas characterized by diverse wetland mosaics, and upland foraging within the migration corridor linking breeding and wintering grounds appear to provide the most suitable migration stopover habitat for whooping cranes (CWS and USFWS 2007, Niemuth et al 2018). Palustrine wetlands (freshwater wetlands characterized by emergent vegetation) and riverine wetlands (wetlands along a river) are most often used as roosting sites, but individuals have also been found roosting at lacustrine wetlands (wetlands around a lake) (Howe 1989; Austin and Richert 2001). The size of wetlands used by whooping cranes for roosting habitat during spring and fall range greatly in size, from less than 0.4 hectare (ha) to over 500 ha (1 to 1,200 acres) (Howe 1989; Austin and Richert 2001; CWS and USFWS 2007). Whooping cranes generally restrict their usage of wetlands to areas where the water depth is less than 2 feet regardless of overall depth of the wetland (Austin and Richert 2001).

Roosting sites are usually near suitable feeding sites (Johns et al.1997; USFWS 2009), and foraging sites most commonly occur on non-wetland (upland sites) (Austin and Richert 2001). Whooping cranes have been most frequently observed foraging on row-crop stubble (corn, soybean, sunflower, and millet) in spring and green crops (alfalfa, green rye, winter wheat, barley, and spring wheat), small-grain stubble (oat, barley, wheat, and rye), and row-crop stubble in fall (Austin and Richert 2001). Wetlands are overall less commonly used for foraging sites; however, they may be more commonly used for foraging sites by families (CWS and USFWS 2007). Palustrine wetlands are used most often when whooping cranes forage in wetlands, but lacustrine and riverine wetlands have also been used as feeding sites.

In South Dakota, whooping cranes have the potential to occur anywhere suitable feeding and roosting habitat is found; however, 94 percent of all documented whooping crane occurrences have been within a 260-mile corridor adjacent to the Missouri River (CWS and USFWS 2007, Niemuth et al 2018)<sup>1</sup>. The Study Area is located outside of this whooping crane migration corridor (Appendix A; Figure 3). According to the Whooping Crane Tracking Project Database, there have been no records of whooping crane sightings within the Study Area through the fall of 2017, when the most recent data was available (USFWS 2017a). Users of the Database are urged, however, to consider that absence of documented whooping crane use of a given area in the Central Flyway does not mean that whooping cranes do not use that area (CWCTP 2010). Based on the observations made during the site visit, suitable whooping crane foraging habitat is present within the Study Area, but suitable roosting habitat is limited. Therefore, the likelihood of occurrence of whooping cranes within the Study Area is low (Table 2).

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<sup>&</sup>lt;sup>1</sup> This document includes Whooping Crane migration use data from the Central Flyway stretching from Canada to Texas, collected, managed and owned by the U.S. Fish and Wildlife Service. Data were provided to Tetra Tech as a courtesy for their use. The U.S. Fish and Wildlife Service has not directed, reviewed, or endorsed any aspect of the use of these data. Any and all data analyses, interpretations, and conclusions from these data are solely those of Tetra Tech

# Rufa Red Knot

The *rufa* red knot, is federally threatened, and is a small, long distance migrating member of the shorebird family. *Rufa* red knots breed in the tundra of the central Canadian Arctic, while migrating long distances between nesting areas in mid- and high arctic latitudes and southern nonbreeding habitats as far north as the coastal United States and southward to southern South America (Nature Serve 2017). Populations migrate in large flocks northward through the contiguous United States mainly in March-early June and southward in July-August. *Rufa* red knots can complete non-stop flights of 1,500 miles or more, converging on vital stopover areas to rest and refuel along the way (USFWS 2015).

Rufa red knots feed on invertebrates, especially small clams, mussels, and snails, but also crustaceans, marine worms, and horseshoe crab eggs (USFWS 2015). On the breeding grounds, insects are the primary food source. Overharvest and population declines of horseshoe crabs (the eggs of which are a critical food source) are contributing factors for the rufa red knot decline (Nature Serve 2017). Based on the observations made during the site visit, suitable migration and foraging habitat is not likely to be present within the Study Area as mudflats and primary prey items are absent within the Study Area. Therefore, the likelihood of occurrence of rufa red knot within the Study Area is low during migration (Table 2).

# **Northern Long-Eared Bat**

The northern long-eared bat, a federally threatened species, is considered uncommon in South Dakota (SDGFP 2004) although the Study Area is within the species range (USFWS 2017b). The species prefers large, contiguous tracks of upland forested habitat during the summer residency period. Natural roosting habitats in the Study Area are limited to individual trees, wind breaks, and woodlots. Northern long-eared bats do not undertake long-distance seasonal migrations between summer and winter ranges but do undertake shorter distance movements between summer roosts and winter hibernacula. These seasonal movements are generally between 35 miles and 55 miles, but may be substantially longer in some areas, perhaps as great as 168 miles (USFWS 2017b). Information on habitat use during migration is limited, but individuals in transit are likely to use foraging habitats at least part of the time. Northern long-eared bats spend winter hibernating in caves and mines. However, no known wintering hibernacula are located within the Study Area (USFWS 2017b).

Occurrence of the northern long-eared bat in the Study Area during the summer residency period (approximately May 15 to August 15) has low likelihood because of lack of large contiguous woodlots within the Study Area. The species has been detected in Grant and Codington Counties (USFWS 2017b) and could occur in the Study Area during seasonal movements to and from hibernacula; however, no hibernacula are known to occur in the Study Area. Therefore, likelihood of occurrence of the northern long-eared bat within the Study Area is low (Table 2).

## **Topeka Shiner**

The Topeka shiner, a federally endangered species, is a small minnow that lives in small to mid-size prairie streams in the central United States where it is usually found in pool and run areas (USFWS 2018b). Suitable streams tend to have good water quality and cool to moderate temperatures. Many of these

streams have year-round flow, although some may become dry during summer or periods of prolonged drought (USFWS 2018b). The Topeka shiner was once a common fish throughout its range, but its presence has declined by about 70 percent at known collection sites during the last 40 to 50 years (USFWS 2018b). Habitat destruction, sedimentation, and changes in water quality are thought to have caused the population decline. Also, the creation of impoundments on small prairie streams that were stocked with predaceous fish like the largemouth bass (*Micropterus salmoides*) have reduced Topeka shiner numbers (USFWS 2018b).

In South Dakota, Topeka shiner are found in tributaries to the James, Vermillion, and Big Sioux River basins (SDGFP 2018a). The Study Area is located within the range of the Topeka shiner and this species has been recorded in Grant and Codington Counties. Based on the lack of suitable stream habitat observed during the site visit, Topeka shiner are unlikely to be found within the Study Area. Therefore, likelihood of the Topeka shiner within the Study Area is low (Table 2).

# **Dakota Skipper**

The Dakota skipper, a federally threatened species, is a small butterfly that lives in high-quality mixed and tallgrass prairie. It has been extirpated from much of its range and now occurs in Minnesota, the Dakotas, and southern Canada (USFWS 2018c). Dakota skipper populations declined historically because of widespread conversion of native prairie to farms, ranches and other land uses.

In South Dakota, the Dakota skipper has been documented in both Grant and Codington Counties. In 2016 and 2017, WEST conducted Dakota skipper habitat surveys to identify areas warranting avoidance during the development and construction of the Dakota Range Wind Farm Project. These surveys identified 4.6 acres of potential Dakota skipper habitat within the assessed Project boundary. This potential habitat falls within the current Study Area.

Tetra Tech has identified critical Dakota skipper habitat within a portion of the current Project footprint and Study Area. This critical habitat was designated in 2015 and is now owned by the U.S. Fish and Wildlife Service (IpaC 2018). It is located approximately a quarter mile from the nearest proposed turbine and therefore potential environmental implications to the species is expected to be low (Table 2, Appendix A; Figure 4).

# **Poweshiek Skipperling**

The Poweshiek skipperling, a federally endangered species, is a small butterfly most often found in remnants of native prairie in Iowa, Minnesota, Wisconsin, Michigan, and the Dakotas. The Poweshiek skipperling may have been extirpated from the Dakotas, Minnesota and Iowa within the last 10 years — an area that, until recently, contained the vast majority of the surviving populations. It is now known only in Wisconsin, Michigan and Manitoba. In 2014 the U.S. Fish and Wildlife Service announced that the species could be found only at a few sites in a single Michigan county, in very limited numbers at one site in Wisconsin, and in Canada at the single Manitoba site (USFWS 2018d).

In South Dakota, Grant County is listed by the U.S. Fish and Wildlife Service as containing critical habitat for the Poweshiek skipperling. In 2016 and 2017, WEST conducted Poweshiek skipperling habitat surveys to identify areas warranting avoidance during the development and construction of the Dakota Range Wind Farm Project. These surveys determined there was no suitable Poweshiek skipperling habitat within the proposed Project boundary (WEST 2017).

Tetra Tech has identified critical Poweshiek skipper habitat within a portion of the current Project Footprint and Study Area. This critical habitat was designated in 2015 and is now owned by the U.S. Fish and Wildlife Service (IpaC 2018). It is located approximately a quarter mile from the nearest proposed turbine and therefore potential environmental implications to the species is expected to be low (Table 2, Appendix A; Figure 4).

Table 2: Federally Threatened and Endangered species known to occur within Grant and Codington Counties, South Dakota.

Common Name	Federal Status	Available Habitat	Likelihood of Occurrence Within the Study Area
Whooping Crane	Endangered	<ul> <li>Suitable foraging habitat is present within the Study Area, but suitable roosting habitat is limited.</li> </ul>	Low
Rufa red knot	Threatened	Suitable migration and foraging habitat is not likely to be present within the Study Area as mudflats and primary prey items are absent within Study Area.	Low
Northern long- eared bat	Threatened	Lack of large contiguous woodlots within Study Area.	Low
Topeka shiner	Endangered	Lack of suitable stream habitat observed during the Study Area site visit.	Low
Dakota skipper	Threatened	<ul> <li>Critical remnant prairie habitat is present within a small portion of the Study Area.</li> </ul>	Low
Poweshiek skipperling	Endangered	Critical remnant prairie habitat is present within a small portion of the Study Area.	Low

# 4.0 Habitat Assessment Decision Points

Using credible, publicly available information as well as information gathered during a reconnaissance level site visit, Tetra Tech was able to answer the suggested WEGs questions and conclude that the proposed Project poses a low risk to federally endangered and threatened species and no field surveys are warranted. Table 3 highlights items of concern raised by these questions.

Table 3: Items of concern within the Study Area as revealed by Threatened and Endangered Species Assessment

Item of Concern	Results of Habitat Assessment	Details
Are known species of concern present on the proposed site, or is habitat (including designated critical habitat) present for these species?	Yes	<ul> <li>Whooping crane stopover habitat may be present within the Study Area, although the Study Area is outside of the whooping crane migration corridor (see Section 3.2.1.1).</li> <li>Rufa red knot are not likely to occur within the Study Area due to lack of quality stopover habitat (see Section 3.2.1.2).</li> <li>Northern long-eared bats are not likely to occur within the Study Area due to lack of large contiguous woodlots (see Section 3.2.1.3).</li> <li>Topeka shiner are not likely to occur within the Study Area due to lack of quality habitat (see Sections 3.2.1.4).</li> <li>Dakota skipper and Poshiek skipperling critical habitat is present within the Study Area (see Section 3.2.1.5 and 3.2.1.6).</li> </ul>
Are there known critical areas of congregation of species of concern, including, but not limited to: maternity roosts, hibernacula, staging areas, winter ranges, nesting sites, migration stopovers or corridors, leks, or other areas of seasonal importance?	No	<ul> <li>Whooping crane stopover habitat may be present within the Study Area, although the Study Area is outside of the whooping crane migration corridor (see Section 3.2.1.1,).</li> </ul>

Item of Concern	Results of Habitat Assessment	Details
Is there a potential for significant adverse impacts to species of concern based on the answers to the questions above, and considering the design of the proposed project?	No	No significant adverse impacts to federally listed species are anticipated within the Study Area.

No documented species occurrence or suitable habitat was found for *rufa* red knot, northern long-eared bat or Topeka shiner in the Study Area. Dakota skipper and Poweshiek skipperling critical habitat was identified within a small portion of the Study Area and is located a quarter-mile from the nearest proposed turbine location. While whooping crane stopover habitat may be present within the Study Area, the eastern edge of the whooping crane migration corridor lies 25 miles to the west of the Project footprint. Therefore, no adverse impacts to threatened or endangered species are anticipated for the Project and no field studies are recommended.

# 5.0 Literature Cited

- Austin, J.E., and A.L. Richert. 2001. A comprehensive review of the observational and site evaluation data of migrant whooping cranes in the United States, 1943-99. U.S. Geological Survey, Northern Prairie Wildlife Research Center, Jamestown, North Dakota, and State Museum, University of Nebraska, Lincoln, Nebraska. 157 pp.
- Canadian Wildlife Service (CWS) and United States Fish and Wildlife Service (USFWS). 2007.

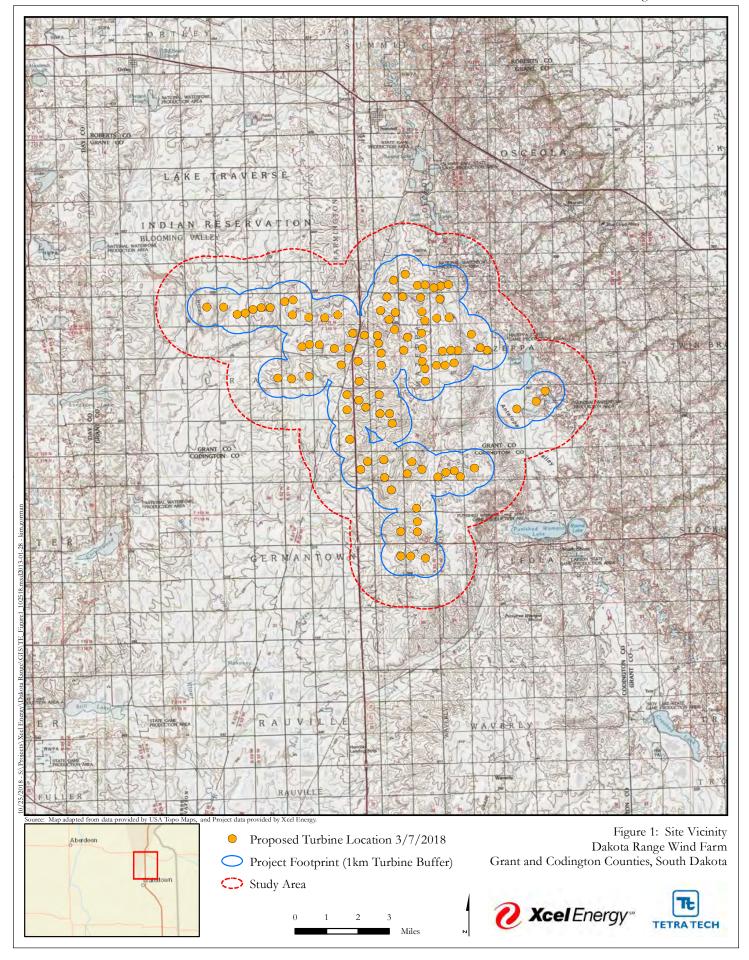
  International recovery plan for the whooping crane. Ottawa: Recover of the Nationally Endangered Wildlife (RENEW), and U.S. Fish and Wildlife Service, Albuquerque, NM.
- Cooperative Whooping Crane Tracking Project (CWCTP). 2010. Required reading for users of the Whooping Crane Tracking Project Database.
- Homer, C.G., J. A. Dewitz, L. Yang, S. Jin, P. Danielson, G. Xian, J. Coulston, N. D. Herold, J. D. Wickham, and K. Megown, K. 2015. Completion of the 2011 National Land Cover Database for the conterminous United States-Representing a decade of land cover change information.

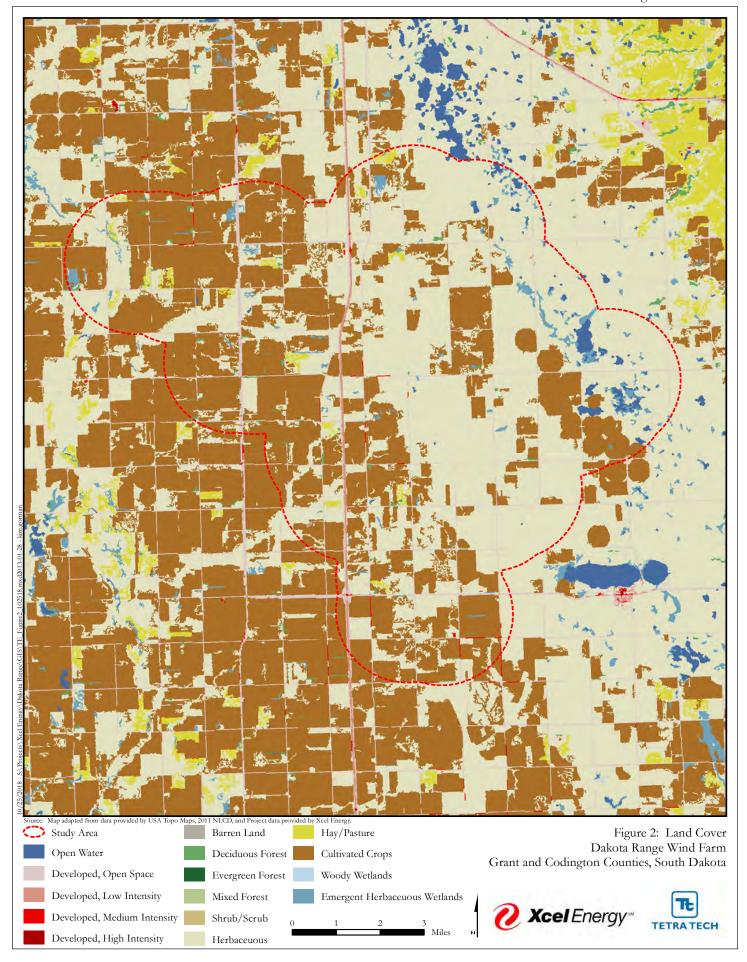
  Photogrammetric Engineering and Remote Sensing, v. 81, no. 5, p. 345-354.
- Howe, M. A. 1989. Migration of Radio-marked whooping cranes from the Aransas-Wood Buffalo Population: Patterns of Habitat Use, Behavior, and Survival. Fish and Wildlife Technical Report 21.
- Johns, B. W., E. J. Woodsworth, and E. A. Driver. 1997. Proc North Am Crane Workshop. 7:123-131.
- Nature Serve. 2017. Species Profiles. Available online at http://www.natureserve.org/.
- Neimuth, N. D., A. J. Ryba, A. T. Pearse, S. M. Kvas, D. A. Brandt, B. Wangler, J. E. Austin, M. J. Carlisle. 2018. Opportunitically collected data reveal habitat selection by migrating Whooping Cranes in the U.S. Northern Plains. The Condor Ornithological Applications 120:343-356. DOI: 10.1650/Condor-17-80.1
- South Dakota Game, Fish, and Parks (SDGFP). 2004 South Dakota Bat Management Plan. South Dakota Bat Working Group Wildlife Division Report 2004-08. July 13, 2004 Accessed at: https://gfp.sd.gov/UserDocs/nav/bat-managment-plan.pdf

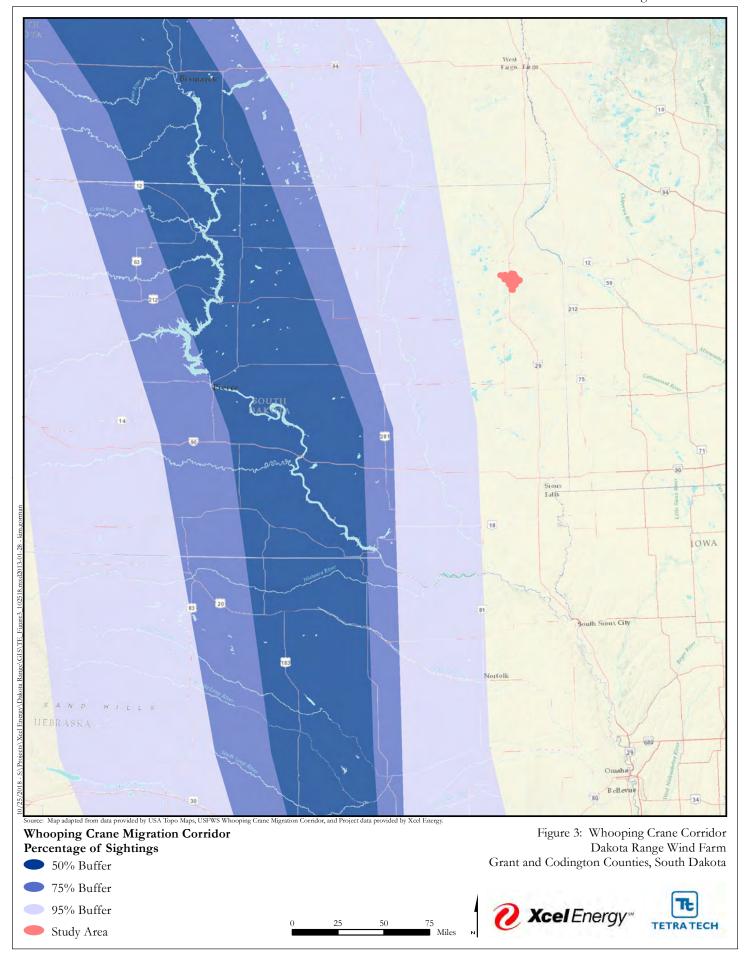
- SDGFP. 2018a. South Dakota Wildlife Viewer. Available online at http://apps.sd.gov/gf43wap/Default.aspx.
- United States Fish and Wildlife Service (USFWS). 2009. Whooping cranes and wind development. An issues paper. USFWS Regions 2 and 6. Available online at https://www.fws.gov/southwest/es/oklahoma/documents/te\_species/wind%20power/whoopin g%20crane%20and%20wind%20development%20fws%20issue%20paper%20-%20final%20%20april%202009.pdf.
- USFWS. 2013. Land-Based Wind Energy Guidelines, Version 2. Available online at https://www.fws.gov/ecological-services/es-library/pdfs/WEG\_final.pdf.
- USFWS. 2015. Environmental Conservation Online System: Red Knot. Available online at http://ecos.fws.gov/tess\_public/profile/speciesProfile?spcode=B0DM.
- USFWS. 2017a. USFWS Nebraska Ecological Services File Office database of whooping crane sightings through fall 2016. Unpublished data.
- USFWS. 2017b. Species Profile: Northern Long-Eared Bat. Available online at https://www.fws.gov/Midwest/endangered/mammals/nleb/index.html.
- USFWS. 2018a. Information for Planning and Consultation (IPAC). Available at https://ecos.fws.gov/ipac/. Accessed August 2018.
- USFWS. 2018b. Species Profile: Topeka Shiner. Available online at https://www.fws.gov/midwest/endangered/fishes/topekashiner/tosh-gas.html.
- USFWS. 2018c. Dakota Skipper (Hesperia dacotae). Available online at https://www.fws.gov/midwest/endangered/insects/dask/index.html
- USFWS. 2018d. Poweshiek skipperling. Available online at https://www.fws.gov/midwest/endangered/insects/posk/PoweshiekSkipperlingFactSheet.html
- United States Geological Survey (USGS). 2013. Ecoregions of North Dakota and South Dakota. Available online at ftp://newftp.epa.gov/EPADataCommons/ORD/Ecoregions/sd/ndsd\_front.pdf.
- Western EcoSystems Technology (WEST). 2017. Dakota Range Wind Project Dakota Skipper/Poweshiek Skipperling Habitat Survey Memo. Available online at http://puc.sd.gov/commission/dockets/electric/2018/EL18-003/appendixc.pdf
- Whooping Crane Conservation Association (WCCA). 2016. Fall 2016 Newsletter. Available online at http://whoopingcrane.com/wp-content/uploads/2017/07/Fall-2016-WCCA-Newsletter.pdf.

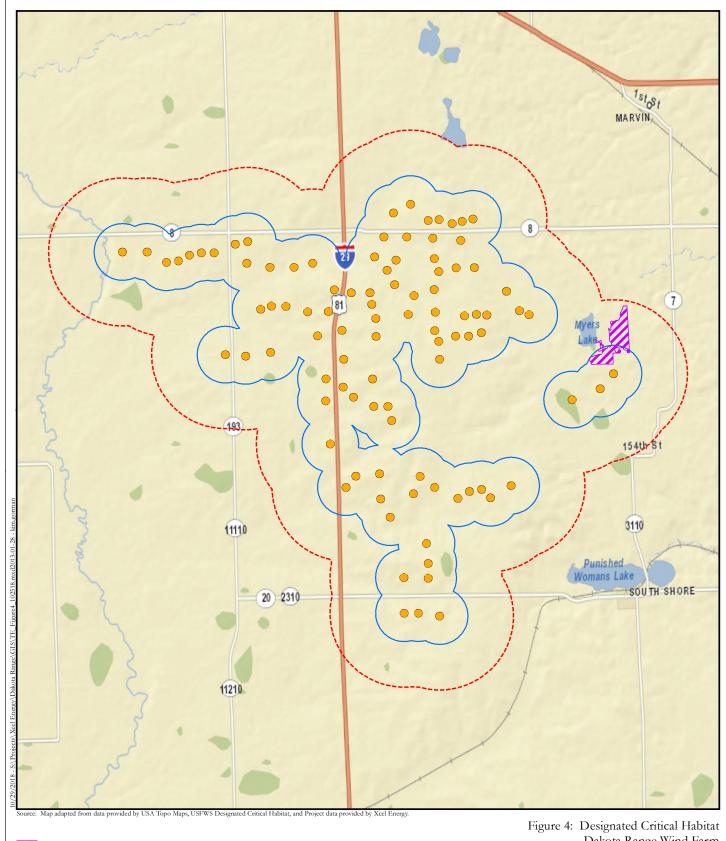
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**Appendix A: Figures** 







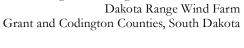


Dakota Skipper and Poweshiek Skipperling Designated Critical Habitat
Proposed Turbine Location 3/7/2018

O Project Footprint (1km Turbine Buffer)

Study Area







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**Appendix B: Photographic Documentation of the Study Area** 



Photograph 1 (Northeast): A view of agricultural land (corn field) located within the 1-mile buffer of the Project footprint along 159<sup>th</sup> Street.



Photograph 2 (West): A view of an isolated wood strip surrounded by agricultural land within the 1-mile buffer of the Project footprint along 459<sup>th</sup> Street.



Photograph 3 (Northeast): A view of a grassland area located within the Project footprint along 458<sup>th</sup> Avenue.



Photograph 4 (West): A view of an isolated wood strip surrounded by agricultural land within the Project footprint along 458<sup>th</sup> Avenue.



Photograph 5 (West): A view of a small pond/wetland located within the 1-mile buffer of the Project footprint along 155<sup>th</sup> Street.



Photograph 6 (North): A view of pasture/grassland located within Project footprint along 152<sup>nd</sup> Street.



Photograph 7 (South): A view of a wetland located within the Project footprint from 152<sup>nd</sup> Street.



Photograph 8 (East): A view of a large pond/wetland located within the Project footprint along 463rd Avenue.



Photograph 9 (North): A view of a waterfowl production area (WPA) located within the Project footprint along  $152^{\rm nd}$  Street.



Photograph 10 (North): A view of Myers Lake located within the 1-mile buffer of the Project footprint along  $152^{nd}$  Street.



Photograph 11 (East): A view of a South Dakota game production area (GPA) within the Project footprint along 462<sup>nd</sup> Avenue.



Photograph 12 (West): A view of a stream/wetland area running through agricultural land located within the Project footprint along 150<sup>th</sup> Street.



Photograph 13 (Northeast): A view of a wetland located near a farmstead within the 1-mile buffer of the Project footprint along 454<sup>th</sup> Avenue.



Photograph 14 (South): A view of grassland/pasture located within the 1-mile buffer of the Project footprint along  $150^{\rm th}$  Street.



Photograph 15 (North): A view of a wetland located within the 1-mile buffer of the Project footprint along 151<sup>st</sup> Street.



Photograph 16 (West): A view of agricultural land (alfalfa field) located within the 1-mile buffer of the Project footprint along 452<sup>nd</sup> Avenue.



Photograph 17 (Northeast): A view of agricultural land (wheat field) located within the Project footprint along 452<sup>nd</sup> Avenue.



Photograph 18 (East): A view of grassland/pasture located within the Project footprint along 459<sup>th</sup> Avenue.