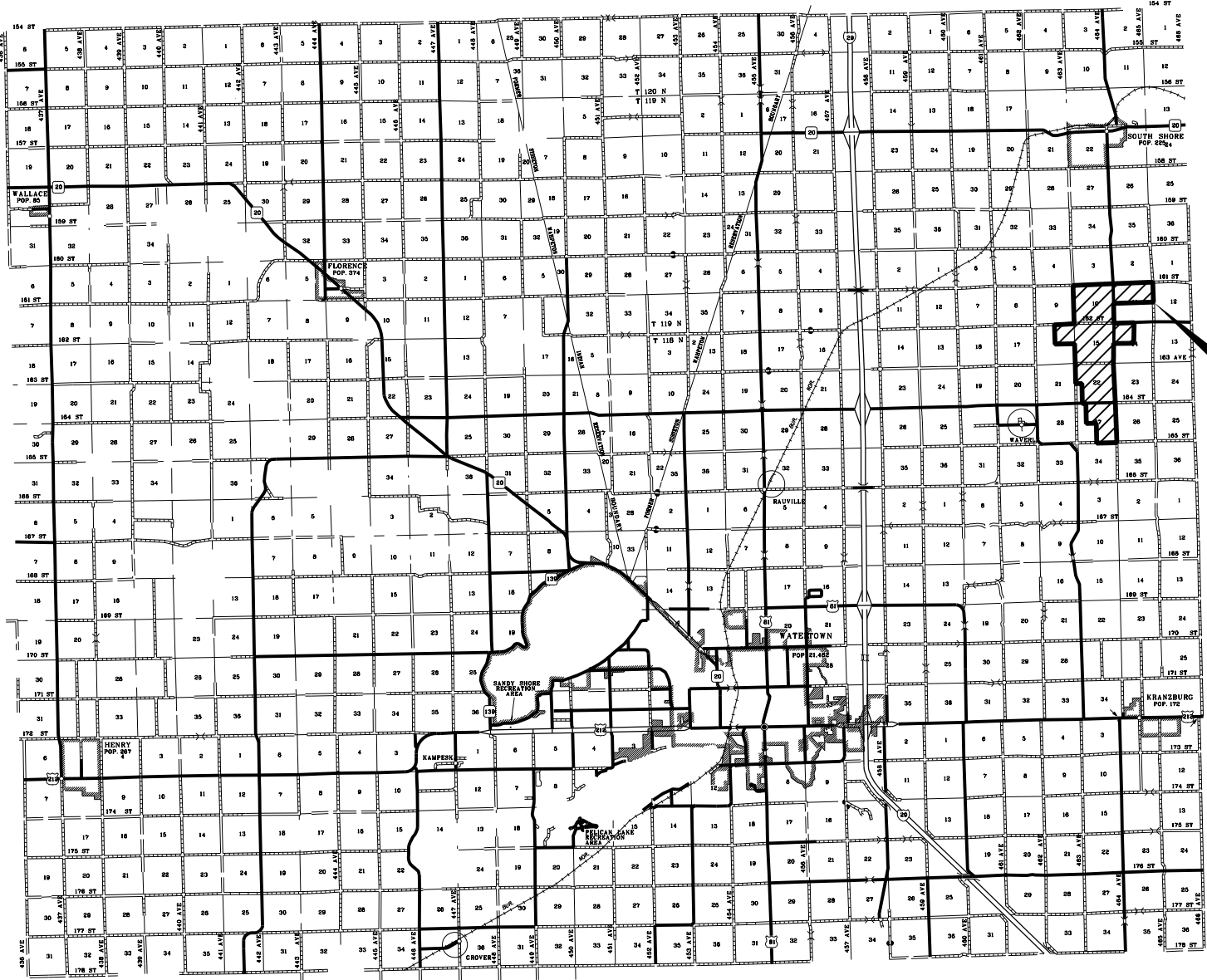
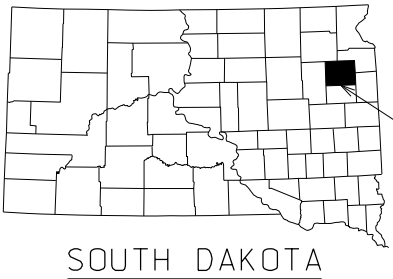


STORM WATER POLLUTION PREVENTION PLANS FOR CROWNED RIDGE II TRANSMISSION LINE CODINGTON COUNTY, SOUTH DAKOTA



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- 2 TRANSMISSION SITE PLAN
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NOT TO SCALE

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MARK	REVISION	DATE	BY
Engineer: EAH	Checked By: BJJ	Scale: 1"=	
Technician: EAL	Date: 07-18-19	Field Bk:	Pg:
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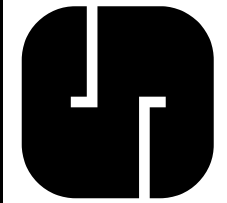
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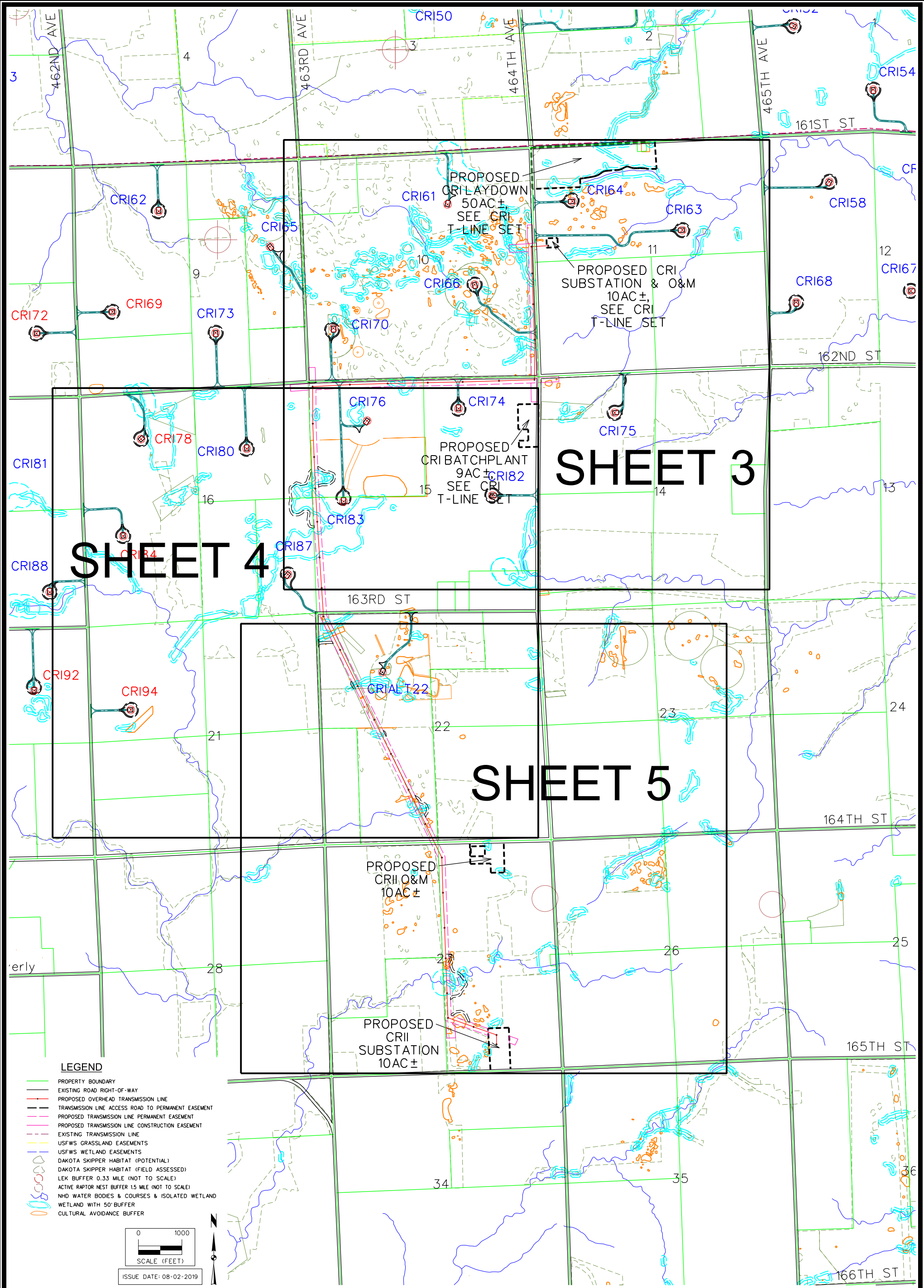
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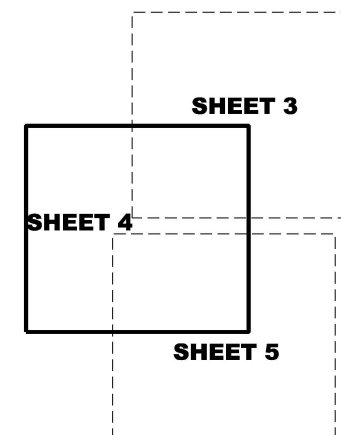
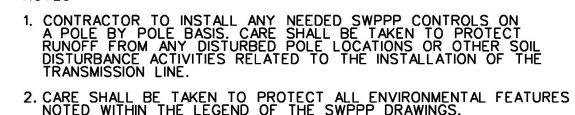
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SHEET INDEX



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Technician: EAL	Date: 07-18-19	Field Bk: Pg:				
Project No: 1140140			Sheet 4 of 8			

CROWNED RIDGE II TRANSMISSION LINE

STORM WATER POLLUTION PREVENTION PLAN

CODINGTON COUNTY, SOUTH DAKOTA

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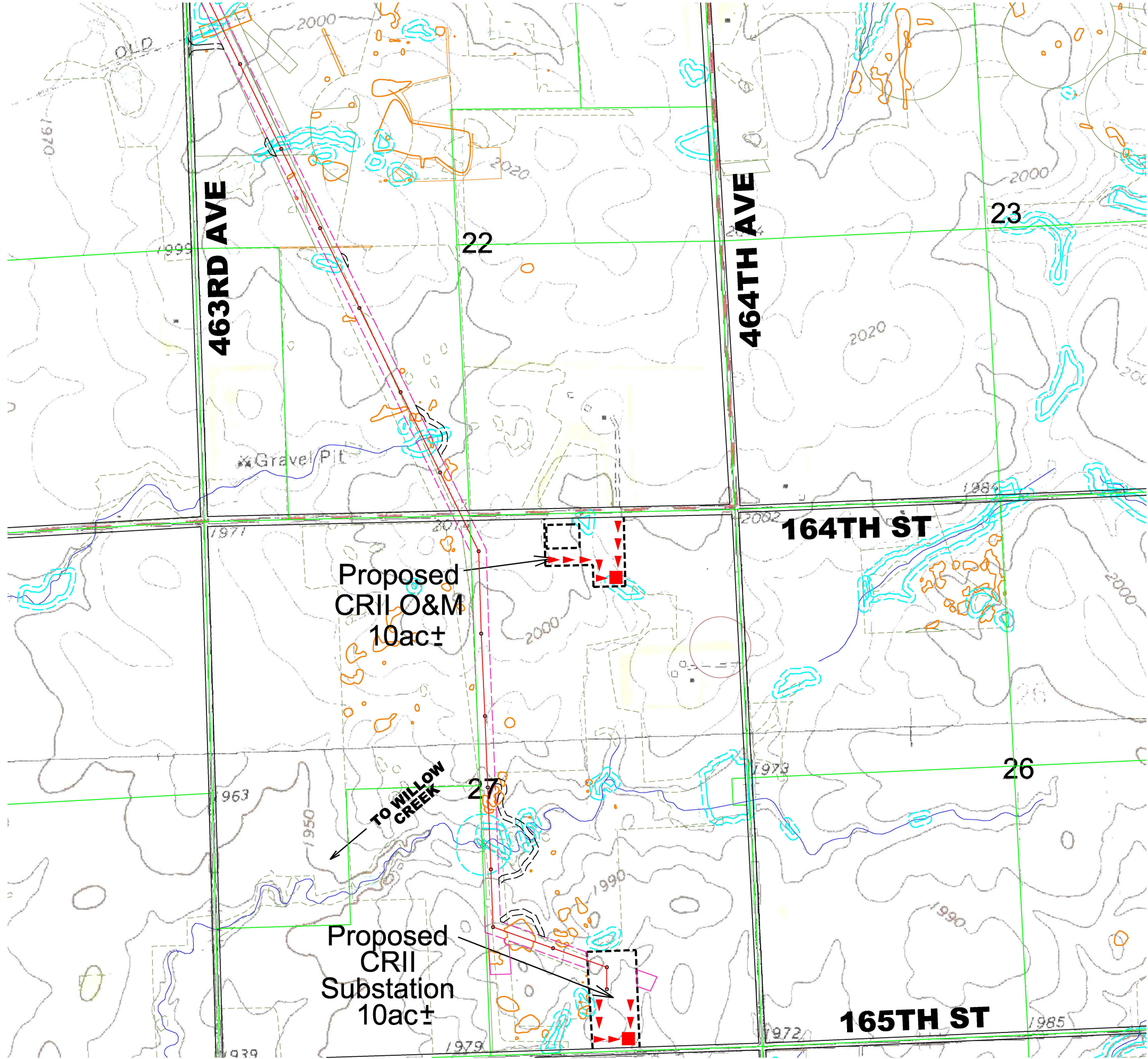
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LEGEND

PROPERTY BOUNDARY

EXISTING ROAD RIGHT-OF-WAY

PROPOSED OVERHEAD TRANSMISSION LINE

TRANSMISSION LINE ACCESS ROAD TO PERMANENT EASEMENT

PROPOSED TRANSMISSION LINE PERMANENT EASEMENT

PROPOSED TRANSMISSION LINE CONSTRUCTION EASEMENT

EXISTING TRANSMISSION LINE

USFWS GRASSLAND EASEMENTS

USFWS WETLAND EASEMENTS

DAKOTA SKIPPER HABITAT (POTENTIAL)

DAKOTA SKIPPER HABITAT (FIELD ASSESSED)

LEK BUFFER 0.33 MILE (NOT TO SCALE)

ACTIVE RAPTOR NEST BUFFER 1.5 MILE (NOT TO SCALE)

NHD WATER BODIES & COURSES & ISOLATED WETLAND

WETLAND WITH 50' BUFFER

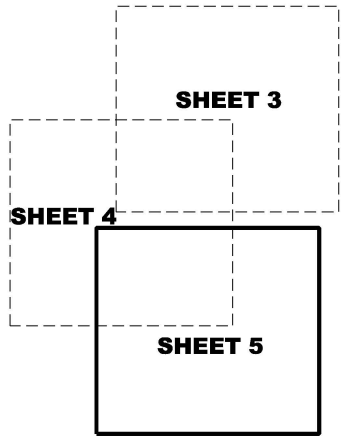
CULTURAL AVOIDANCE BUFFER

DIVERSION BERM

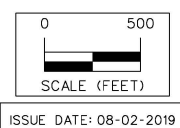
SEDIMENT TRAP

- NOTES:
1. CONTRACTOR TO INSTALL ANY NEEDED SWPPP CONTROLS ON A POLE BY POLE BASIS. CARE SHALL BE TAKEN TO PROTECT RUNOFF FROM ANY DISTURBED POLE LOCATIONS OR OTHER SOIL DISTURBANCE ACTIVITIES RELATED TO THE INSTALLATION OF THE TRANSMISSION LINE.

2. CARE SHALL BE TAKEN TO PROTECT ALL ENVIRONMENTAL FEATURES NOTED WITHIN THE LEGEND OF THE SWPPP DRAWINGS.



SHEET INDEX



CROWNED RIDGE II TRANSMISSION LINE

STORM WATER POLLUTION PREVENTION PLAN

SNYDER & ASSOCIATES, INC.

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Sheet 5 of 8

CODINGTON COUNTY, SOUTH DAKOTA

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REVISION

DATE

BY

Engineer: EAH

Checked By: BLJ

Scale: 1"= 500'

Technician: EAL

Date: 07-18-19

Field Bk: Pg.

Project No: 1140140

Sheet 5 of 8

STORM WATER DISCHARGE PERMIT

This project requires the obtaining of an NPDES General Permit No. SDR10 for Storm Water Discharges Associated with Construction Activity from the South Dakota Department of Environmental and Natural Resources (SDDENR). The permit has effective dates April 1, 2018 to March 31, 2023. The owner shall obtain a permit and is responsible for submitting a Notice of Intent (NOI) for a permit. The owner is also responsible for developing a Storm Water Pollution Prevention Plan (SWPPP).

NOTICE OF INTENT

The NOI must be submitted to the SDDENR 15 Calendar days prior to construction activities. Coverage must be obtained before land disturbing construction activities may start. Geotechnical drilling on the site does not count as a land disturbing activity. The SDDENR will send the applicant a letter stating permit coverage and assign the project a Permit Number. The Permit Number will be required for site postings, the Notice of Termination (NOT), and any correspondence with the SDDENR.

NOTICE OF TERMINATION

All parties that submitted an NOI shall submit a Notice of Termination (NOT) to the SDDENR within thirty days of final stabilization of the project. Final stabilization is defined as:
All soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and:
a. All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to preclude erosion;
b. All temporary synthetic, and structural erosion prevention and sediment control BMPs (such as silt fence) must be removed as part of the site final stabilization; and
c. The permittee(s) must clean out all sediment from conveyances and from temporary sedimentation basins that will be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin, conveyances or drainage ways discharging off-site; or to surface waters. The cleanout of permanent basins must be sufficient to return the basins to design capacity.

REPORTING SPILLS

Where a release containing a hazardous substance or oil in excess of a reportable quantity occurs during a 24 hour period, notify the National Response Center (NRC) at 1-800-424-8802 as soon as the permittee has knowledge of the discharge. Also, notify the State of South Dakota, Division of Emergency Management at 1-605-773-3231. In addition, a written submission to both the Department and the EPA shall be provided within 5 days of the time that the permittee became aware of the circumstances.

RECORDS LOCATION AND RETENTION OF RECORDS

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

STANDARD PERMIT CONDITIONS

The contractor shall view the listing of Standard Permit Conditions that apply to this general permit. The general permit can be viewed on-line at the SDDENR website - www.denr.sd.gov/des/sw/IPermits/ConstructionGeneralPermit2018.pdf. The contractor will be provided a copy of the general permit upon request.

STORMWATER POLLUTION PREVENTION PLAN

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

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

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

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

Corrective action reports shall also be recorded and retained and shall include: BMP corrected; date and time of corrective action; name of person performing corrective action; corrective actions taken. Inspection reports and corrective action reports shall be certified per Section 4.6 of the SDR 10-0000 permit.

The Storm Water Pollution Prevention Plan shall be updated to reflect actions taken after inspections.

Maintenance of all temporary and permanent erosion control measures is the responsibility of the contractor. Cleaning of silt sediment basins shall begin when they have lost 50% of their capacity. Silt fence, fiber rolls or similar devices must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/2 the height of the device.

POLLUTION PREVENTION PLAN 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."

Name _____ Title _____
Signature _____ Date _____
Contractor Information
Company _____ Phone # _____
Address _____

STORM WATER POLLUTION PREVENTION PLAN NOTES

SITE DESCRIPTION

1. This project, located in Codington County, South Dakota, involves minor grading for the installation of an overhead transmission line, substation and O&M area for the purpose of electrical power generation and supply.
2. The transmission line project area is located on approximately 2,903 acres. Minor site grading for foundation excavation and setting of transmission poles are the predominant land disturbing activities. The estimated disturbed area is 38 acres. The estimated start date for land disturbing activities is August 9, 2019 with an ending date of August 9, 2020.
3. Existing surface soils throughout the site are mainly Barnes-Buse-Svea loams, Buse-Barnes loams and Vienna-Brookings complex. Existing land use is mostly agricultural and rangelands. This site is generally rolling, with some flat areas and some rock outcroppings.
4. See the Stormwater Pollution Prevention Plan map for drainage patterns and slopes, locations of disturbed areas, location of structural controls and/or stabilization areas, and surface waters.
5. The project site generally drains from swales and road ditches to unnamed tributaries of the Willow Creek. See the site map for storm drainage outlet locations. None of the receiving surface water bodies are within areas note to be waters 303(d).
6. The laydown yard site will have a rock surface placed simultaneously with or immediately after completion of stripping topsoil. Strippings will be used to construct perimeter diversion berms on down gradient sides of sites. The sites may be stripped and rocked in phases. A Sediment trap will be constructed. At a minimum, existing vegetative buffer strips and silt fences will provide treatment of storm water discharges from the site.

EROSION AND SEDIMENT CONTROLS

A. STABILIZATION

1. Disturbed areas of the construction site must complete stabilization measures by the following
2. Minimize disturbed areas. Match existing land contours when possible. Minimize impervious surfaces. Protect natural vegetation outside of construction areas and disturb to a minimum inside construction areas.
3. The project will use staged construction to minimize the amount of land disturbed at any one time.
4. Buffer strips of existing vegetation will remain adjacent to construction zones. Buffer Strips shall be 1 foot width for every 5 feet of disturbed area which drains to the buffer.
5. Dust control on the site will be monitored. The contractor will sprinkle access roads with water if the owner determines that dust is a problem.
6. Seed disturbed areas within the county shall be right of way per county requirements. Seed non-crop disturbed areas on private property with a mix approved by the owner.
7. A 50 foot natural buffer or equivalent erosion and sediment controls must be provided when a project is within 50 feet of a surface water and stormwater flows to the surface water. If working within 100 feet of a surface water listed as impaired for sediment, suspended solids or turbidity, a 100 foot natural buffer or equivalent sediment and erosion controls must be provided.

B. STRUCTURAL CONTROLS

1. Silt Fence shall be placed downstream of disturbed areas as determined by the owner or contractor during construction. See the detail on the Stormwater Pollution Prevention Plan for correct installation of Silt Fence.
2. Temporary soil stockpiles draining toward surface waters or wetlands must have silt fence or other effective sediment controls, and cannot be placed in surface waters, including storm water conveyances such as curb and gutter systems or conduits and ditches.
3. Inlet and outlet protection including energy dissipation devices for culverts will be used such as rip-rap, or geotech fabric as determined by the owner or contractor during construction.
4. Existing drainage ways on the site will be protected from site run-off by the use of silt fence ditch checks, rip-rap, or geotech fabric as determined by the owner or contractor during construction.

OTHER PREVENTION MEASURES

1. Construction entrances adjacent to public/private roads shall be graveled/stabilized/compacted immediately to prevent vehicle tracking of on-site sediments.
2. Provide portable toilets for proper disposal of sanitary sewage. Wastes shall be collected and disposed in compliance with local, state, and federal regulations.
3. Monitor construction vehicle maintenance areas. Note that external washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on-site.
4. Install containment berm or other secondary containment devices around fuel storage, equipment maintenance areas, and chemical storage areas. Monitor storage areas for potential hazardous material spills. List any hazardous materials stored on site in the inspection report. Areas currently used for crop production need not be seeded, but will be finished after activities have permanently or temporarily ceased and will not resume in 14 days working day. Disturbed graded for next seasons crops. Seed non-crop disturbed areas

HAZARDOUS MATERIAL SPILL PREVENTING AND RESPONSE

1. The contractor is responsible for training all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or wastes will be allowed to come into contact with storm water discharges. If contact does occur, the storm water discharge will be contained on site until appropriate measures in compliance with all Federal, State, and local regulations are followed to dispose of the hazardous substance.
2. In addition to Good Housekeeping and material management practices, the following practices shall be done to minimize the potential for hazardous material spills and to reduce the risk of the spill coming in contact with storm water.
 - Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.
 - Materials and equipment necessary for spill control, containment and cleanup will be provided onsite in the material storage area. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, sorbent booms, and plastic and metal trash containers.
3. In the event of a spill, the following procedures will be followed:
 - All spills will be cleaned up immediately following discovery.
 - The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substance.
4. Material Management Practices- the following is a list of practices that will be used onsite to minimize the risk of spills or other accidental exposure of materials and substances to storm water runoff.
 - a. Good Housekeeping
 - An effort will be made to store onsite only enough products required to complete the job.
 - All materials stored onsite will be kept in a neat, orderly manner and in their appropriate containers. If possible, products shall be kept under a roof or other enclosure.
 - Materials will be kept in their original containers with the original manufacturer's label.
 - Whenever possible, all of a product will be used up before disposing of the container.
 - Manufacturer's recommendations for proper use and disposal will be followed.
 - The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.
 - b. Hazardous Products
 - Products will be kept in their original containers with the original manufacturer's label.
 - The original labels and material safety data will be kept for each of the materials as they contain important product information.
 - Disposal of any excess product will be done in a manner that follows all manufacturers', federal, local and state recommended methods for proper disposal.
 - 5. The following is a list of potential sources of pollution and specific practices to reduce pollutant discharges from the materials or sources expected to be present during construction.
 - a. Petroleum Storage Tanks
 - All onsite vehicles shall be inspected and monitored for leaks and receive preventative maintenance to reduce the chance of leakage.
 - Steps will be taken by the contractor to eliminate contaminants from storage tanks from entering ground soil. Any petroleum storage tanks kept onsite will be located with an impervious surface between the tank and the ground.
 - b. Fertilizers- shall be applied in minimal amounts as recommended by the manufacturer. It shall be worked into the soils to minimize the contact with storm water discharge.
 - c. Paints, paint solvents, and cleaning solvents- Excess paints and solvents shall not be discharged into the storm sewer system. The contractor shall refer to the manufacturer's instructions and federal regulations on the proper disposal from the site.
 - d. Concrete Wastes
 - Concrete trucks will be allowed to washout or discharge excess concrete only in specifically designed areas which have been prepared to minimize the concrete and storm water discharge from the site.
 - The hardened product from the concrete washout areas will be disposed of as other non-hazardous waste materials or may be broken up and used on the site for other appropriate uses.
 - e. Solid and construction wastes- All trash and construction debris shall be deposited into a dumpster that will be emptied as necessary. No construction waste materials will be buried on site. The dumpsters must be put in a location where the contact with the storm water discharge is minimized.

CONSTRUCTION ACTIVITIES & SCHEDULE

ACTIVITY	SCHEDULE
INSTALL ALL BMP'S NEEDED AS SHOWN ON SITE PLANS SUCH AS SILT FENCE AND OTHER STRUCTURAL CONTROLS.	PRIOR TO ANY STRIPPING OF EXISTING VEGETATION FOR CONSTRUCTION OF THE PROJECT
PROCEED WITH CONSTRUCTION AS SHOWN ON PLANS, BUT DISTURBING NO MORE AT ONE TIME THAN IS NECESSARY.	AFTER INSTALLING ALL BMP'S NEEDED AND SHOWN ON THE SITE PLANS.
BMP MAINTENANCE MULCHING, EROSION MAT PLACEMENT, ESTABLISHMENT OF TEMPORARY OR PERMANENT VEGETATION	ONGOING AFTER COMPLETION OF CONSTRUCTION OR WHEN WORK IS SCHEDULED TO CEASE FOR MORE THAN 14 DAYS IN ANY DISTURBED AREA.
REMOVAL OF BMP'S	BMP'S MAY NOT BE REMOVED UNTIL EACH IMPACTED DRAINAGE BASIN HAS BEEN FULLY STABILIZED.

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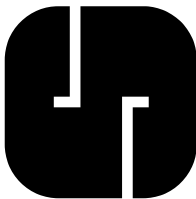
CROWNED RIDGE II TRANSMISSION LINE

STORMWATER POLLUTION PREVENTION PLAN NOTES

CODINGTON COUNTY, SOUTH DAKOTA

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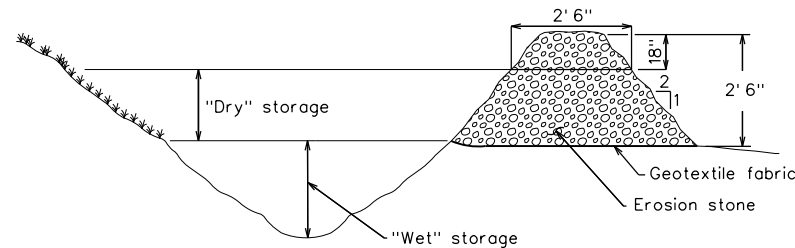
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Engineer: EAH
Technician: EAL

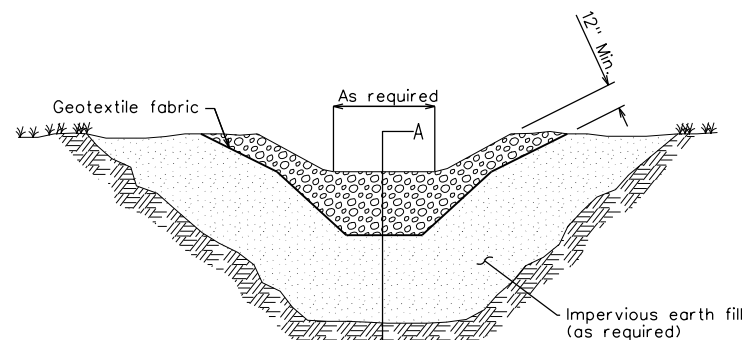
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SECTION A-A

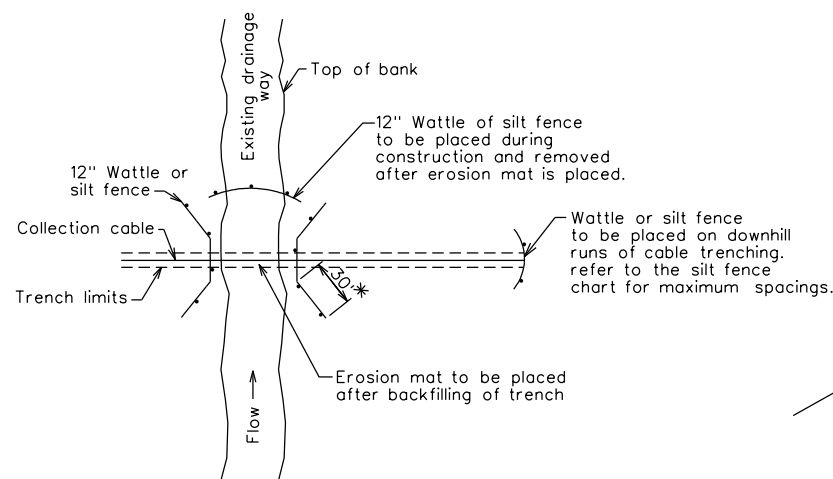


CROSS SECTION

NOTE:

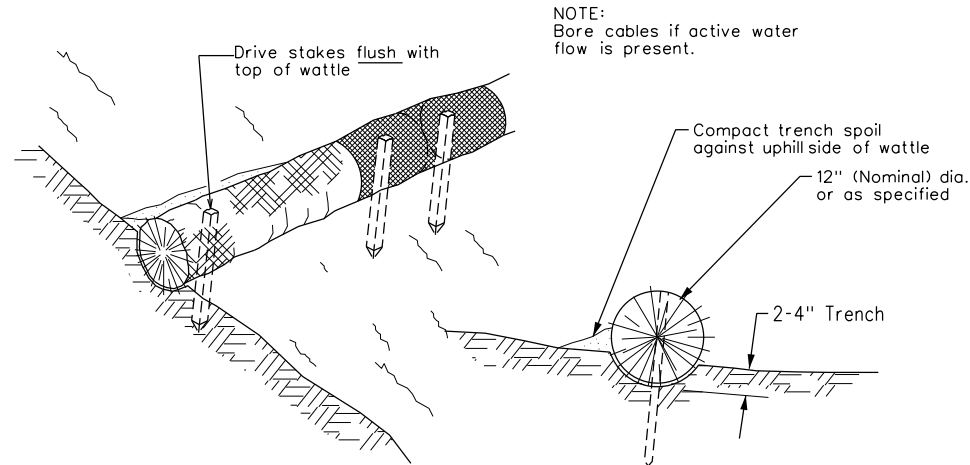
1. Remove accumulated sediment when level reaches one-half the height of the wet storage.
2. The contractor shall determine if sediment traps will be necessary based on site conditions.

SEDIMENT TRAP DETAIL
NOT TO SCALE



*Adjust length as required to intercept any possible soil loss from uphill trench erosion.

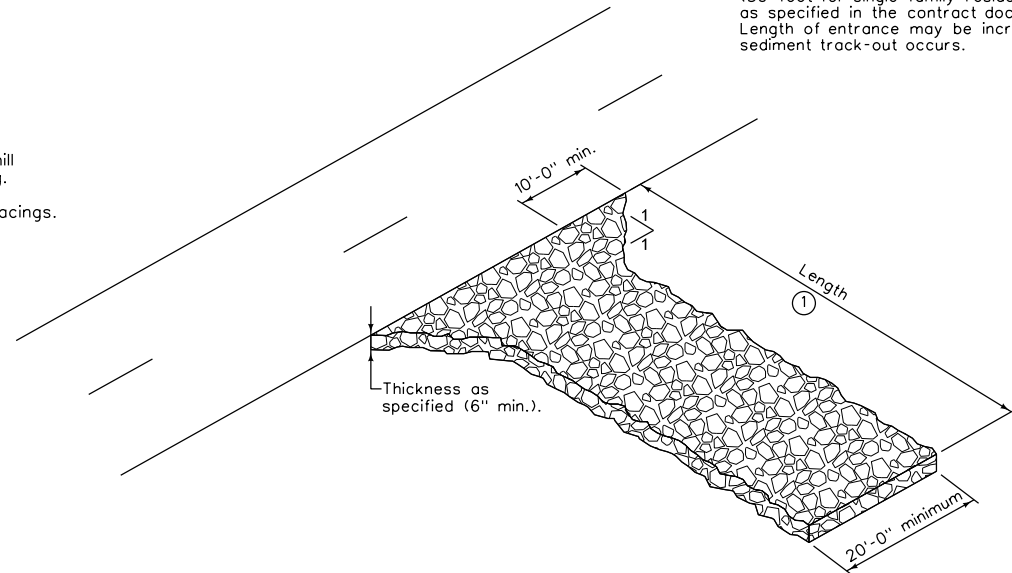
TRENCHED CABLE CROSSING PROTECTION DETAIL
NOT TO SCALE
SEE PLANS FOR LOCATIONS
CROSSING SHALL BE BORED IF WATER IS PRESENT.



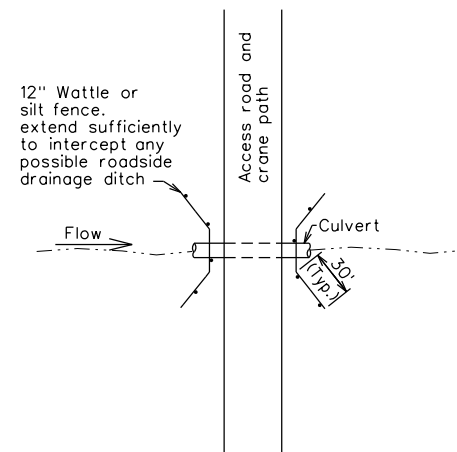
NOTES:

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

WATTLE DETAIL
NOT TO SCALE



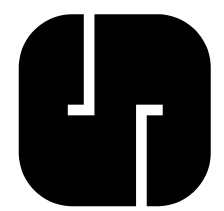
STABILIZED CONSTRUCTION AREA
NOT TO SCALE



CULVERT CROSSING PROTECTION DETAIL
NOT TO SCALE
SEE PLANS FOR LOCATIONS

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CROWNED RIDGE II TRANSMISSION LINE	CODINGTON COUNTY, SOUTH DAKOTA
STORM WATER POLLUTION PREVENTION DETAILS	
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