***NATURAL RESOURCES CONSERVATION SERVICE***

***CONSTRUCTION SPECIFICTION***

***North Dakota***

**GENERAL REQUIREMENTS**

**(Code 100)**

1. SCOPE

Work shall consist of furnishing all equipment, materials and personnel necessary to successfully perform all construction activities associated with the project as defined within the construction drawings, specifications, construction details, and as staked in the field.

1. DEFINITIONS

Owner/Operator/Producer – The official spokesperson for the project who enters into all contractual agreements, obtains all permits and easements necessary for construction, ensures construction in accordance with the plan drawings and specifications, and is financially responsible for the project.

NRCS – A Natural Resources Conservation Service (NRCS) representative who is authorized to conduct quality assurance activities or approve material acceptance. The representative makes recommendations to the owner/operator/producer concerning changes and acceptance of the work.

Installer – Individual who has an agreement with the owner/operator/producer to construct or install the project.

1. SAFETY

Equipment and methods used in construction shall be in accordance with the United States Department of Labor, Occupational Safety and Health Administration (OSHA) regulations.

The installer shall comply with OSHA Parts 1910 and 1926, Construction Industry Standards and Interpretations. The installer shall ensure a safe working environment and operate under a construction safety program that is in compliance with Federal, State, and local laws and regulations.

When personnel must enter confined spaces, trenches, or other excavations, the installer shall comply with OSHA Safety and Health Standards; Part 1926 – Safety and Health Regulations for Construction; Subpart P – Excavations.

A potential hazard to life and property exists from the disturbance of utilities by construction.

Any individual(s) who performs the excavation work, soil borings, or similar construction activity is responsible for contacting North Dakota One Call (NDOC) at least two full business days before commencing with excavating activities to ensure that all publicly owned underground utilities are marked. The “Call Before You Dig” phone number for North Dakota is 811, or 1-800-795-0555. A utility locate request can also be made at the NDOC’s ITIC website which is available 24- hours a day:

<http://www.ndonecall.com/itic-imap/>

The excavator will be held responsible for damages to utilities and property if such notice is not provided. The locate ticket number shall be provided by the excavator to the NRCS prior to the start of construction inspection by the NRCS. If excavation has not occurred within 21 days of obtaining a One-Call excavation ticket number, the One-Call system shall be notified and the ticket be updated. The ticket number should be provided to the owner/operator/producer on projects where NRCS employees are not present during construction.

The owner/operator/producer is responsible for locating private underground utilities (e.g. propane and water lines) or any above ground utilities affected by the project. In addition to buried private utilities, there may be additional buried lines for such things as oil fields and the Air Force Missile Control System.

Known utilities are shown on the plan drawings. The NRCS makes no assurances or representation of the existence or non-existence of utilities.

The Utility Notification Center and the North Dakota NRCS have adopted the American Public Works Association Uniform Color Code:

APWA Uniform Color Code

White Proposed Excavation

Pink Temp. Survey Markings

Red Electric Power Lines, Cables, Conduit and Lighting Cables

Orange Communication, Alarm, or Signal Lines, Cables or Conduit

Blue Potable Water

Purple Reclaimed Water, Irrigation and Slurry Lines

Green Sewer and Drain Lines

1. PROJECT MODIFICATIONS

Project modifications to the plan drawings and specifications must be approved by the NRCS and the owner/operator/producer prior to implementation. Differing site conditions, weather, materials, workmanship, value engineering proposals, or other issues may justify project modifications and must be made known to the NRCS.

The quantities of work shown on the plans or drawings are estimated.

1. ENVIRONMENTAL CONSIDERATIONS

Construction shall be carried out in a manner which minimizes water, land, and air pollution in compliance with Federal, State, local, and tribal laws and regulations. The owner/operator/producer is responsible to secure all necessary permits prior to construction.

The installer is responsible for the identification of hazardous materials discovered during construction. The installer shall immediately notify the NRCS and owner/operator/producer of the presence of hazardous materials. The owner/operator/producer is responsible for the proper handling and disposal of these materials.

1. CULTURAL RESOURCES

NRCS field personnel have reviewed the project area for cultural resources (archaeological and historic). However, the possibility exists for accidental discoveries during construction. If cultural material (cut or burned bones, fire cracked rocks, projectile points, foundations, fire hearths, etc.) is discovered by the installer, owner/operator/producer or NRCS representative, the work must stop. The NRCS representative shall contact the NRCS Cultural Resource Specialist for further instructions and establish the actions necessary to assess the cultural resources.

Work shall not resume within 300 feet of the discovery until the owner/operator/producer receives written notification from the NRCS. The notification may contain special provisions for protecting the cultural resource.

1. POLLUTION CONROL

Scope

Measures taken or performed to control erosion and minimize the production of sediment and other pollutants to water and air during construction operation.

Materials

All materials furnished shall meet the requirements in the specifications and construction details.

Erosion and Sediment Control Measures and Works

Installer shall obtain a North Dakota Storm Water Discharge Permit (NPDES) from the North Dakota Department of Health when:

Land disturbance (clearing, grading or excavating) is greater than or equal to one acre and could potentially discharge to State Waters. A permit is required in cases where potential water and sediment discharge can:

1. occur across property boundaries
2. flow into public rights-of- way, or
3. enter channels with defined bank and streambank characteristics.

For any permit application the installer is required to develop a Storm Water Pollution Prevention Plan (SWPP) and be responsible for any application fee.

Appropriate measures and works may include, but are not limited to, the following:

*Staging of Earthwork Activities*

The excavation and moving of soil materials shall be scheduled to minimize the size of areas disturbed and unprotected from erosion for the shortest reasonable time.

*Seeding and Temporary Cover Crop*

Seeding to protect disturbed areas shall occur as soon as reasonably possible following completion of that earthwork activity. This includes seeding of a temporary cover crop if desired permanent vegetation cannot be done due to seeding windows.

*Mulching*

Mulching to provide temporary protection of the soil surface from erosion until permanent vegetation is established.

*Diversions*

Diversions to divert water from work areas and to collect water from work areas for treatment and safe disposition.

They are temporary and shall be removed and the area restored to its near original condition when the diversions are no longer required or when permanent measures are installed.

*Stream Crossings*

Culverts or bridges where equipment must cross streams. They are temporary and shall be removed and the area restored to its near original condition when the crossings are no longer required or when permanent measures are installed.

*Sediment Basins*

Sediment basins shall be used to collect, settle, and eliminate sediment from eroding areas so that downstream properties and waterways are not impacted by the construction activity. Basins shall be removed and the area restored to near original condition when no longer required, or when permanent measures are installed.

*Sediment Filters*

Straw bales, wattles, coconut rolls or geotextile sediment fences shall be used to trap sediment from areas of limited runoff. Filters shall be sufficiently embedded and anchored to prevent erosion under or around them.

Filters shall be removed when no longer required and the area restored to its original condition.

Waterways

Waterways shall be used for the safe disposal of runoff from fields, diversions and other structures or measures. Impacted areas shall be restored to their original condition when no longer required.

Other

Additional protection measures as specified in the construction details or as required by Federal, State, or local government regulations.

Chemical Pollution

The installer will provide watertight tanks, barrels, or shall construct a sump sealed with plastic sheets to be used to dispose of chemical pollutants, such as drained lubricating or transmission fluids, greases, oils soaps, asphalt, etc. produced as a by-product of the project’s work.

Pollutants shall be disposed of without causing pollution and in accordance with appropriate State and Federal regulations.

Sanitary facilities such as pit toilets, chemical toilets, or septic tanks shall not be placed adjacent to live streams, wells, or springs.

They shall be located at a distance sufficient to prevent contamination of any water sources. Facility contents shall be disposed of without causing pollution.

Air Pollution

The burning of brush, slash, or the disposal of other materials shall adhere to State and local regulations.

Fire prevention measures shall be taken to prevent the start or spreading of fires which result from construction activities. Fire breaks, or guards, shall be constructed and maintained at locations shown on the project drawings, or as specified in the construction details.

All public access or haul roads used by the installer during construction of the project shall be sprinkled or otherwise treated to suppress dust as required.

Maintenance, Removal, and Restoration

All pollution control measures and works shall be adequately maintained in a functional condition as long as needed during the construction operation. All temporary measures shall be removed and the site restored to as nearly original conditions as practicable.

1. SURVEYS

The work to be done shall be staked out by the NRCS. The owner/operator/producer shall notify the NRCS at least 48 business hours in advance of any staking required in order that such work can be properly scheduled.

Initial staking will be provided by the NRCS and will provide the following:

* Centerline location, slope and/or offset for all excavation, earthwork and pipes.
* Grade hubs.
* Original and final surveys for determinations of adjusted quantities, if different from original design elevations and dimensions.
* All bench marks and survey stakes shall be preserved by the installer to the best of his ability. If the installer finds any errors or omissions in the layout as given by survey points or staking, he/she shall immediately inform the NRCS.

The installer is responsible for the construction staking and measurements from NRCS established base lines and bench marks indicated on the plan drawings.

1. ERRORS, OMISSIONS, INCONSISTENCIES

Neither the owner/operator/producer nor the installer shall be allowed to take advantage of an error, omission, or inconsistency.

It shall be the duty of the NRCS to correct any such items in accordance with the intent of the plans and specifications.

Any materials or construction details contained within the design package or drawings supersede those of the construction specification.

1. INSPECTION AND ACCEPTANCE

The NRCS, for its sole benefit, may perform such tests as necessary to ensure that the material and workmanship conform to the plans and specifications.

The owner/operator/producer is responsible for scheduling an NRCS representative for periodic or continuous inspection of materials, workmanship, and quantities that facilitate technical certification of the project as identified in the inspection plan. For example, concrete shall not be poured until an NRCS representative has inspected the subgrade, steel reinforcement, and form dimensions. If an NRCS representative is unavailable during underground work, the owner/operator/producer is responsible for having all or portions of underground work left exposed to facilitate inspection.

The owner/operator/producer shall ensure that any material or correction to any workmanship not conforming to the plans and specifications is repaired and corrected. These problems may be associated with differing site conditions, construction staking and measurements, conflicts between plan drawings and specifications, defective materials, or other issues.

1. REFERENCES

The following abbreviations will be used in the construction and material specifications to designate the organizations who publish the referenced "Standard Specifications":

ASTM American Society for Testing and Materials

AWWA American Water Works Association

AWS American Welding Society

ACI American Concrete Institute

ANSI American National Standard Institute (American Society of Mechanical Engineers)

AASHTO American Association of State Highway and Transportation Officials

The following abbreviations are used to designate technical or regulatory agencies:

NRCS Natural Resources Conservation Service (United States Department of Agriculture)

OSHA Occupational Safety and Health Administration (United States Department of Labor)

EPA Environmental Protection Agency

1. ITEMS OF CONSTRUCTION DETAIL