

STATEMENT OF WORK
Surface Drain, Main or Lateral (608)
New York State

These deliverables are to be provided for the NRCS case file and apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

DESIGN

Deliverables:

1. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices.
 - a. Identification of client needs, documentation of discussion with client, and a recommended method of resolution. (Method of documentation: Con 6 notes, engineering consultation, and/or scope of work, etc.)
 - b. Practice purpose(s) as identified in the conservation plan.
 - c. Location of planned practice installation shown on a farm site plan map.
 - d. List of required permits to be obtained by the client.
 - e. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities). Which includes but is not limited to:
 - i. Ensure DIG SAFELY NY (formerly UFPO) is contacted at 1-800-962-7962 or 811 prior to any excavation taking place.
 - f. Practice standard criteria with related computations and analyses to develop plans and specifications including but not limited to: (Practice Specific Required Criteria)
 - i. Location/Alignment
 - ii. Hydrology/Drainage
 1. Soils maps, hydrology analysis and computation data, etc.
 - iii. Geology and Soil Mechanics Information (NEM Part 531, Subpart A (Policy)).
 1. Document that geologic conditions at the project site are sufficiently characterized to support proper conservation planning and sound engineering design, construction, and operation.
 - iv. Maximize Clean Water Diversion.
 1. Design criteria and calculations for associated practices/infrastructure such as subsurface drainage, solids separation, waste transfer,
 - v. Hydraulic Loading Rate.
 1. Estimated rainfall and overland flow
 2. Contributing drainage area hydrologic analysis
 3. Animal and/or process water design loading information
 - vi. Environmental Considerations (e.g. location, air and water quality).
 1. Map and locate Resource Concerns
 - vii. Vegetation.
 1. Selected seed mix or other vegetative cover
 - viii. Construction Operations
 1. Project Erosion and Sediment Control Plan Needs
 2. Proposed Project Phasing if necessary
2. Written plans, project documentation and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits.
 - a. Design Drawings Plans show and Detail:
 - i. Project location, including but not limited to a practice site location map.
 - ii. Owner name, contract number, BMP number, practice description
 - iii. Owner preconstruction design acceptance signature
 - iv. Design drawings and details indicating extent of work, details of the work and quantities shall be specific enough to support layout, and build the practice to meet the minimum practice standard design criteria.
 - v. List of designed material quantities and proposed project cost estimate
 - vi. Proposed Construction Sequence
 - vii. Proposed Erosion and Sediment Control Plan
 - viii. Drawings shall include required: UFPO Call before you dig statement, and a statement consistent with NYS Education Law Article 145 - 7209.2.
 - b. Construction Specifications Shall Detail:

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- i. All site specific work shall be described in applicable specifications.
 - ii. List of all permits necessary to perform the work.
3. Design Report and Inspection Plan as appropriate (NEM Part 511, Subpart B Documentation, 511.11 and Part 512, Subpart D Quality Assurance Activities, 512.30 through 512.32).
 - a. Complete Design Folder and design records for Category (VI, VII, VIII) (511.11)
512.32 QA Procedures States may develop QAP templates for engineering conservation practices with Engineering Job Approval Class I–V. These QAP templates must provide the minimum QA needed for proper installation. The responsible line officer and the responsible technical staff person must review the QAP template to determine the adequacy and availability of the technical resources required. This determination will be evaluated and established prior to practice layout. The line officer must assign this responsibility to the appropriate personnel and provide adequate time to ensure quality installation.
 - b. Project Construction Inspection Plan designating responsible personnel, inspection needs and documentation responsibilities
 - c. Plan shall include the signature of all quality assurance personnel responsible including landowner, project engineer, and designated construction inspection personnel.
 4. Landowner signed Operation and Maintenance Plan dated within 12 months of practice installation
 5. Certifications that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Part 505, Subpart A, 505.3 (B)).
 - a. Project engineer must certify on the drawings that “to the best of my professional knowledge, judgment, and belief, these plans meet applicable NRCS standards”
 6. Documented, justified and signed Design modifications during installation as required.

INSTALLATION

Deliverables

1. Documented Pre Construction conference with client, project certifier, project inspector, project engineer and contractor.
2. Verification that client has obtained required permits.
3. Verification Dig Safely has been notified. (Photos, call number, signed statement from caller)
4. Staking and layout according to plans and specifications including applicable layout notes.
5. Installation inspection (according to inspection plan and as appropriate).
 - a. Actual materials used and installed
 - i. Actual lengths, areas, and quantities installed.
 - b. Inspection records
 - i. Job Diary
 - ii. Photo Documentation
 - iii. Material verification/certifications – including but not limited to seed mix certification, pipe quality verification, compaction methods documented,
 - iv. Elevation, bury depth and grade documentation on all buried and exposed infrastructure.
 - v. Verification, design certification and documentation of all design changes.
6. Inspector shall facilitate, document and implement required design modifications with client, original designer and project funder.
7. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
8. Certification that the installation process and materials meets design and permit requirements.

CHECK OUT

Deliverables

1. As-Built documentation.
 - a. Extent of practice units applied documented on a farm map
 - b. As built “Redlined” Drawings
 - c. Final quantities Installed

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- d. Copies of all INSTALLATION Deliverables
- e. Copy of Signed Practice Operation and Maintenance Agreement
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Part 505, Subpart A, 505.3 (C)).
 - a. Engineer must certify on the as-built drawings that “to the best of my professional knowledge, judgment, and belief, this practice is installed in accordance with the plans and specifications and meets NRCS standards” and submit all deliverables, as required, to the local NRCS field office.
3. Progress reporting.

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard – Surface Drain, Main or Lateral – 608
- NRCS National Engineering Manual (NEM).
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook
- USDA NRCS National Engineering Handbook, Part 650, Engineering Field Handbook, Chapter 14, Water Management (Drainage).
- USDA NRCS National Engineering Handbook, Part 654, Stream Restoration Design, Chapter 10, Two-Stage Channel Design.