

STATEMENT OF WORK
IRRIGATION SYSTEM, SURFACE AND SUBSURFACE (443)
Missouri

These deliverables 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. Practice purpose(s) as identified in the conservation plan
 - b. List of required permits to be obtained by the client
 - c. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06)
 - d. List of facilitating/component practices
 - e. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - i. System Capacity
 - Soils investigation of the site
 - Water supply – field verification with pressure and flow relationship.
 - ii. Delivery/application method
 1. For surface irrigation:
 - a. Furrow Irrigation
 - i. Locations, grades, dimensions, lengths, capacities, and water surface elevations for head ditches or pipelines and distribution ditches.
 - ii. NRCS computer program PHAUCET analysis or equivalent
 - iii. Surge valve settings when applicable
 - iv. Irrigation Water Management Plan
 - b. Border Irrigation
 - i. Locations, grades, dimensions, lengths, capacities, and water surface elevations for head ditches or pipelines and distribution ditches.
 - ii. Hydraulic analysis of water delivery
 - iii. Irrigation Water Management Plan
 - c. Rice Irrigation
 - Locations, grades, dimensions, lengths, capacities, and water surface elevations for head ditches or pipelines and distribution ditches.
 - Hydraulic analysis of water delivery
 - Irrigation Water Management Plan
 2. For subsurface irrigation:
 - Water table elevation range that will be maintained and locations, grades, dimensions, lengths, and capacities of feeder ditches or conduits.
 - iii. Depth of Application, Rate, Frequency, and Uniformity
 - iv. Erosion/seepage control
 - v. Tailwater control
2. Written plans 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.
3. Operation and Maintenance Plan
4. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.3).
5. Design modifications during installation as required.

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INSTALLATION

Deliverables

1. Pre Installation conference with client and contractor.
2. Verification that client has obtained required permits.
3. Staking and layout according to plans and specifications including applicable layout notes.
4. Installation inspection (according to inspection plan as appropriate).
 - a. Actual materials used (Part 512, Subpart D Quality Assurance Activities, 512.33)
 - b. Inspection records
5. Facilitate and implement required design modifications with client and original designer
6. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
7. 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
 - Locations, grades, dimensions, lengths for head ditches and distribution ditches.
 - Types, lengths, size, location, and grades of pipelines or conduits.
 - b. Drawings
 - c. Final quantities
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Subpart A, 505.3).
3. Progress reporting.

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Irrigation System, Surface and Subsurface, 443
- NRCS National Engineering Manual (NEM).
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook
- NRCS National Water and Climate Center – PHAUCET Computer Program