

**ILLINOIS STATEMENT OF WORK  
IRRIGATION SYSTEM, MICROIRRIGATION (441)**

**These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.**

## **DESIGN**

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### **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 503.0 through 503.6)
  - 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
    - ii. Depth of Application, Rate, Frequency, Pressure and Uniformity
    - iii. Hydraulics
    - iv. Filters and chemical injection
2. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describe requirements to install the practice and obtain necessary permits, including but not limited to:
  - a. Location map with legal description.
  - b. Plan view drawing showing locations, key elevations, and stations of the practice to be constructed, and relevant benchmark elevations and descriptions.
  - c. Profile of original ground at irrigation system path showing elevations and grades.
  - d. Detail drawings and specifications for appurtenances.
  - e. Emitter type, design operating pressure, and flow rate.
  - f. Table of quantities, including appurtenances.
  - g. Construction and material specifications.
  - h. Construction notes as needed to clarify components and provide directions for installation.
  - i. Utility safety statement requiring notification of the Illinois One-Call System prior to construction.
  - j. Additional notes as necessary to identify avoidance and protection areas and boundaries associated with cultural resources, threatened or endangered species, or other resources needing temporary protection during installation.
  - k. Signature/initials and date for design and design check. Design check to be completed by an individual other than the designer.
3. Operation and Maintenance Plan developed in accordance with the requirements of IL NRCS Conservation Practice Standard 441, Irrigation System, Microirrigation.
4. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.3 (B) (2)).
5. Design modifications during installation as required.

## **INSTALLATION**

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### **Deliverables**

1. Preconstruction conference with client and contractor (NEM Part 512, Subpart B, IL 512.13(d)).
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

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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 meet design and permit requirements.

**CHECK OUT**

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**Deliverables**

1. As-Built documentation.
  - a. Extent of practice units applied
  - b. Documentation of materials installed (i.e. concrete tickets, seed tags, etc.)
  - c. As-built plan is required when a significant change in design occurs during construction or when the job is designated Class V or higher. Identify "As Built" on plan. Superimpose changes on the as-built plan using a different color or otherwise clearly differentiating the as-built dimensions.
  - d. For practices not requiring an as-built plan, survey notes or checkout sheets documenting critical dimensions, elevations, and materials are sufficient.
  - e. Final quantities
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Subpart A, 505.3 (c) (2)).
3. Progress reporting.

**REFERENCES**

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- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Irrigation System, Microirrigation, 441
- NRCS National Engineering Manual (NEM).
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook