

PA441. IRRIGATION SYSTEM, MICROIRRIGATION

DESIGN AND CHECK DATA REQUIREMENTS

The following items must be addressed in the design folder for the Irrigation Systems, Microirrigation:

Planning Information

The following is a list of the minimum data and documentation to be recorded:

1. Description of the objectives of the practice, including the desired functions which the micro irrigation system is expected to provide.
2. Location and extent of the micro irrigation system. Also note the location and extent of the practice on the conservation map.
3. Soils information as appropriate for the proposed practice.
4. Topographic, profile, or cross section survey information as appropriate for the site conditions and the proposed design.

Design Data

The following is a list of minimum required design data:

1. Documented compliance with Pennsylvania One Call.
2. Calculations which establish the design consumptive use of the crops, the depth of application, the emitter discharge rate, the number, type, and spacings of the emitters, and the system capacity, pressures, and operation schedule.
3. Plan view map showing the source of water and location of all planned components of the irrigation system showing the layout of laterals,

emitters, relief and flush valves, manifolds, backflow devices, and other components.

4. Pump and water system requirements.
5. Flow meter and/or pressure gage.
6. Filter, flush, drain, and backflow requirements.
7. Chemigation requirements.
8. Minimum cover over buried items.
9. Quantity calculations and a cost estimate.
10. O&M Plan, including all items set forth in the standard.
11. E&S Plan

Construction Check Data/As Built Plans

1. Extent of completed work (as-built drawings with red line conformance and changes).
2. Location and dimensions of pipelines, and other appurtenances (valves, tanks, etc.).
3. Minimum cover and grade-lines for underground pipes and tubing.
4. Material certifications, including make, model, and performance data for all emitters, pumps, and other related appurtenances.
5. Record of site visits, including photos.
6. Contractor's certification of conformance.
7. Documented compliance with Pennsylvania One Call.