General Notes

1. Installation and materials shall meet the Natural Resources Conservation Service (NRCS) conservation practice standards and specifications Irrigation System, Subirrigation Code 443 and Irrigation Pipeline Code 430. Any plan modification shall be clearly indicated on this drawing and shall be approved by the designer prior to installation.
2. The installer shall certify that his/her installation complies with the standards and specifications listed above and as specified on these plans. The certification shall identify the manufacturer and markings of the pipe used. The installer (if not the owner) shall furnish a written guarantee to the owner that protects the owner against defective workmanship and materials for lo less than one year. Copies shall be provided to the NRCS for records.
3. All permits needed to install and operate this system shall be the responsibility of the owner.
4. The irrigation system shall be operated in accordance with the irrigation water management plan.

Material Notes

1. Pipe Material - Mains and Submains

Norm. Pipe Size (in)	PIP or IPS	SDR No.	Material (PVC 1120, ETC.)	Pressure Rating (PSI)	Inside dia. (in)	Length (ft)

2. Appurtenances (Thrust Blocks, Valves, Etc.)

Norm. Pipe Size (in)	PIP or IPS	SDR No.	Material (PVC 1120, ETC.)

Construction Notes

1. See conservation practice standard Code 430 specifications for additional construction requirements.
2. Depth of Cover for Pipeline - Mains and Submains

Diameter (in.)							
Depth of Cover (in.)							

3. Pressure relief valves shall be set open at a pressure less than 5 PSI above the pressure rating of the pipe. Pressure relief valves shall be marked at the pressure they start to open. Adjustable valves shall be sealed or otherwise altered to prevent changing the pressure marked on the valve.
4. Plastic pipe exposed to direct sunlight shall be made of ultraviolet resistance materials or protected by coating or shielding.
5. Pipelines crossing roads, canals, etc., shall be protected and/or supported.
6. Air-release valves shall be installed on all summits which are not permanently and adequately vented to the atmosphere, all all summits encountered during construction although not shown on the drawings. Air-release valves at summits shown on the drawings may be eliminated when trench construction removes the summit.
7. Joints and connections shall be installed in conformance with conservation practice standard, irrigation pipeline, Code 430.
8. Pump, power unit, filter, chemical injectors, and other appurtenances shall be installed on a firm base and in proper alignment. Installation shall be in accordance with the manufacturer's recommendation and all pertinent safety codes.
9. The irrigation system shall be tested for design operating pressures, discharge rates, leakage, and proper functioning. During the initial startup the pipelines and laterals shall be flushed for sufficient time to remove and sediment or foreign material prior to the placement of end plugs or closure of flush valves.

Operation Notes

1. System design capacity shall be based on ____GPM/Acre

Field No.							
Acres							
GPM							

2. Adjust outlet valves so that water in all the furrows reaches the ends.
3. Remarks:_____
   Open all valves before starting the pump.

Construction Check

Date installed:_____ Contractor:_____

Final construction check by:_____ Date:_____

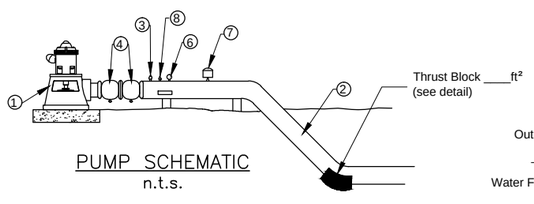
This practice meets NRCS Practice Standards and Specifications.

Certified by: _____ Date:_____
(Signature)

LEGEND

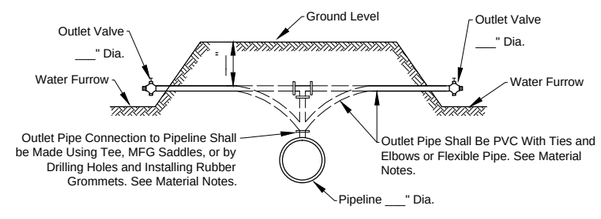
Pump----------
Pipeline, Main(M) &
Submain(SM)----------#M
Lateral(L)----------#L
Tree----------
Valves:
Shutoff----------
Flush----------
Air-Release----------
Thrust Block----------
Contour Line----------

85



PUMP SCHEMATIC
n.t.s.

① Pump and Motor ____gpm @ ____ft TDH
② Pump Discharge Pipe: Dia. ____in
③ Air-Release Valve: Type _____ Dia. ____in
④ Check Valve ⑤ Low Pressure Drain
⑥ Pressure Gage ⑦ Flow Meter
⑧ Pressure Release Valve: Dia. ____in
Pressure Set at ____psi
Source of Water:_____



TYPICAL VALVE DETAIL
n.t.s.

Note: Outlet valves installed at each water furrow. Water furrow may be on one or both sides of pipeline.

Subirrigation System Plan
Furrow Irrigation

Standard DWG. No. FL-443.dwg
Date | Sheet 1 of 1

Revisions

Date	Approved	Title

Date
Designed
Drawn
Checked
Approved

Subirrigation System Plan
Furrow Irrigation

United States Department of Agriculture
Natural Resources Conservation Service

File No.
FL-443.dwg

Drawing No.

Sheet 1 of 1