ASAE EP463.2 NOV2009 (R2019)
Design, Construction, and Maintenance of Subsurface Drains in Arid and Semiarid Areas

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Developed by the ASAE Drainage of Irrigated Lands Committee; approved by the ASAE Soil and Water Division Standards Committee; adopted by ASAE February 1985; revised August 1995; revised editorially May 1997; reaffirmed January 2001, December 2001, February 2003, February 2008; revised editorially February 2008, revised November 2009; reaffirmed December 2014; November 2019.

Keywords: Arid areas, Drain installation, Drain maintenance, Drainage design, Irrigated agriculture, Subsurface drains

1 Purpose and Scope

This Engineering Practice is intended as a guide to engineers in the design and construction of subsurface drains in arid and semiarid regions where irrigation is often used to provide adequate water for crops. It is not designed to serve as a complete set of specifications or standards. This Engineering Practice is intended to complement ASABE Engineering Practices, ASAE EP480 Design of Subsurface Drains in Humid Areas and ASAE EP481 Construction of Subsurface Drains in Humid Areas.

2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this Engineering Practice. The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies unless noted. For undated references, the latest approved edition of the referenced document (including any amendments) applies.

ASAE EP480, *Design of Subsurface Drains in Humid Areas*

ASAE EP481, *Construction of Subsurface Drains in Humid Areas*

ASAE EP369, *Design of Agricultural Drainage Pumping Plants*

ASAE EP407, *Agricultural Drainage Outlets — Open Channels*

ASAE S526, *Soil and Water Terminology*

ASTM C14-07, *Standard Specification for Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe*

ASTM C118-05a, *Standard Specification for Concrete Pipe for Irrigation or Drainage*

ASTM C150-07, *Standard Specification for Portland Cement*

ASTM C412-05a, *Standard Specification for Concrete Drain Tile*

ASTM C443-05a, *Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets*

ASTM C444-03, *Specification for Perforated Concrete Pipe*

