



PROCESS
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PRACTICES

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Civil

**PIP CVS02100
Site Preparation, Excavation,
and Backfill Specification**

PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular matters or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

This Practice is subject to revision at any time.

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PUBLISHING HISTORY

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1. Scope

This Practice describes the requirements for excavation, placement, inspection, and management of materials during the site preparation, excavation, and backfill phase of a construction project.

2. References

Applicable parts of the following Practices, industry codes and standards, and references shall be considered an integral part of this Practice. The edition in effect on the date of contract award shall be used, except as otherwise noted. Short titles are used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP CVS02350 - *Roadway and Area Paving Construction Specification*

2.2 Industry Codes and Standards

- ASTM International (ASTM)
 - ASTM C136/C136M - *Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates*
 - ASTM D698 - *Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))*
 - ASTM D1140 - *Standard Test Methods for Determining the Amount of Material Finer Than the 75- μ m (No.200) Sieve in Soils by Washing*
 - ASTM D1556/D1556M - *Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method*
 - ASTM D1557 - *Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2700 kN-m/m³))*
 - ASTM D2167 - *Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method*
 - ASTM D2937 - *Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method*
 - ASTM D3740 - *Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction*
 - ASTM D4253 - *Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table*
 - ASTM D4254 - *Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density*
 - ASTM D4318 - *Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils*
 - ASTM D5084 - *Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter*
 - ASTM D5268 - *Standard Specification for Topsoil Used for Landscaping Purposes*
 - ASTM D6938 - *Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)*